APPENDIX D18

Acoustical Assessment

Acoustical Assessment
The District at Jurupa Valley Specific Plan
City of Jurupa Valley, California

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LIST OF ABBREVIATED TERMS

ADT	average daily traffic
dBA	A-weighted sound level
DDA	Disposition and Development Agreement
CEQA	California Environmental Quality Act
CNEL	community noise equivalent level
L_{dn}	day-night noise level
dB	decibel
L_{eq}	equivalent noise level
FHWA	Federal Highway Administration
FTA	Federal Transit Administration
HVAC	heating ventilation and air conditioning
Hz	hertz
in/sec	inches per second
L_{max}	maximum noise level
µPa	micropascals
L_{min}	minimum noise level
PPV	peak particle velocity
PA	Planning Area
RMS	root mean square
UPR	Union Pacific Railroad
VdB	vibration velocity level

1 INTRODUCTION

This report documents the results of an Acoustical Assessment completed for District at Jurupa Valley Specific Plan project (Project). The purpose of this Acoustical Assessment is to evaluate the potential construction and operational noise and vibration levels associated with the Project and determine the level of impact the Project would have on the environment.

1.1 Project Location

The Project site is approximately 50 miles east of downtown Los Angeles and 2.5 miles south of the jurisdictional boundaries of the County of Riverside and the County of San Bernardino; see Exhibit 1: Regional Vicinity Map. The proposed Project is approximately 248.3 acres of predominately undeveloped land, located at the eastern portion of the City of Jurupa Valley, near the Santa Ana River, in the County of Riverside; see Exhibit 2: Site Vicinity Map. The Project site is bordered by State Route (SR) 60 to the north, the Santa Ana River to the east, 34th Street to the south, and Rubidoux Boulevard to the west. The Project area is within the Rubidoux neighborhood of Jurupa Valley, which is mostly developed with suburban land uses, especially along 34th Street. Existing land uses include single-family residences, the New Century Baptist Church, and multi-family residences (Rubidoux Village Townhomes) along 34th Street.

1.2 Project Description

The proposed Project consists of a new specific plan (The District at Jurupa Valley Specific Plan) that would replace the Emerald Meadows Ranch Specific Plan (SP-337) that was adopted by Riverside County in 2005, prior to the City's incorporation. The District at Jurupa Valley Specific Plan contains approximately 248.3 acres; see Exhibit 3: Site Plan. The development plan allows for a variety of residential and non-residential uses that incorporate strong employment opportunities through the warehouse/industrial and commercial land uses that would generate demand for retail services and businesses. In addition to economic development, the residential land uses will support the General Plan's Housing Element by providing new housing opportunities to meet the City's Regional Housing Needs Assessment.

The District at Jurupa Valley Specific Plan would permit development of up to 1,196 residential units (4 existing + 1,192 proposed); approximately 3 million square feet of commercial and industrial land uses that includes warehouse and logistic uses as permitted by the Agua Mansa Warehouse and Distribution Overlay on the proposed Industrial Logistics use, and retail with light manufacturing, assembly, warehouse and distribution into a single location as permitted by Integrated Use Overlay on a portion of the Commercial Retail use; a hotel with conference and hospitality area; and 11.1 acres of open space. The proposed Specific Plan land use components are shown in Table 1: Specific Plan Land Use Summary.

The residential area of the specific plan would include up to 1,192 multi-family unit types and assumed 4 existing residential properties, for a total of 1,196 residential units. There are 4 existing residential properties considered not a part (NAP) of the Tentative Tract Map but included in the Specific Plan. Upon adoption of the new Specific Plan, these uses are considered existing non-conforming uses. Future redevelopment of the NAP properties will need to demonstrate compliance with the new Specific Plan. The balance of residential uses would be clustered in the southern portion of the Project site, adjacent to existing residential uses, and away from SR-60. The Specific Plan would include requirements for community amenities (i.e., pools, children play areas, social gathering spots, etc.) for the residents, and

traffic calming devices designed to divert truck traffic away from the proposed residential neighborhoods, as well as existing residential neighborhoods in the vicinity of the Project site.

Table 1: Specific Plan Land Use Summary

Land Use	Gross Acreage	Non-Residential Square Feet	Hotel Rooms	Dwelling Unit
Commercial				
Neighborhood	20.4	160,000	---	---
Retail	70.3	1,200,000	---	---
Existing Non-Conforming	1.1		---	---
Tourist	5.9	112,500	160	---
Commercial Sub-Total	**97.7**	**1,472,500**	**160**	**--**
Residential				
High Density Residential Up to 30 du/acre[1]	42.0	---	---	1,196
Residential Sub-Total	**42.0**	**--**	**--**	**1,196**
Business Park				
Business Park	6.8	30,000	---	---
Existing Non-Conforming	1.0		---	---
Business Park Sub-Total	**7.8**	**30,000**	**--**	**--**
Industrial/Logistics				
Industrial	67.3	1,500,000	---	---
Industrial Sub-total	**67.3**	**1,500,000**	**--**	**--**
Open Space				
Open Space	11.1	---	---	---
Open Space Sub-total	**11.1**	**--**	**--**	**--**
Public Improvements				
Public Streets	15.8	---	---	---
Public Parkway	-	---	---	---
Public Facility	6.6	---	---	---
Public Improvements Sub-Total	**22.4**	**--**	**--**	**--**
TOTALS	**248.3 AC**	**3,002,500 SF**	**160 Rooms**	**1,196 DU**

Notes:
1. The residential area of the specific plan would include up to 1,192 multi-family unit types and assumed 4 existing units, for a total of 1,196 residential units.

The commercial area of the specific plan would include a neighborhood shopping center to serve the local area including a grocery store, restaurants, retail stores, and community services. There would also be an area designated for larger big-box retailers to serve regional consumers that may include furniture and product showrooms with on-site assembly and inventory storage. A tourist commercial component would include a hotel, electric vehicle (EV) charging facility, a conference facility, and tourist facility.

The industrial area would have a maximum of 1.5 million square feet of building area with supporting parking for employees, trucks, and trailers on approximately 67.3 acres. Additionally, the business park area would include approximately 30,000 square feet of building area on approximately 7.8 acres. There would be a buffer between the industrial/logistics and business park uses and the residential uses to the

south. Truck traffic into and out of this area would be prohibited from traveling into the proposed and existing residential areas.

The Project would provide approximately 11.1 acres of both active and passive open space, as well as approximately 22.4 acres of public improvements. The Project would have paseos and walking trails that would link the open space to the various neighborhoods including a possible off-site link to the Santa Ana River. Project street improvements would include both on-site and off-site roadways as well as the vacation of certain existing roads or portions of street rights-of-way within the Project site boundaries. The Project would be required to install sewer, water, storm drain and dry utilities throughout the site in size and capacity to meet the requirements of the development. The Project would be developed over several phases subject to market factors.

Requested entitlements include a new Specific Plan, General Plan Amendment to change the underlying land use designations to accommodate the proposed multi-use Project; establish the Agua Mansa Warehouse and Distribution Center Overlay on the Industrial Logistics use, establish an Integrated Use Overly on a portion of the Commercial Retail use, Change of Zone to modify the existing Specific Plan Zone from the Emerald Meadows Ranch Specific Plan to the District at Jurupa Valley Specific Plan, a Development Agreement, Tentative Tract Map 38318 (including reserving the right to file Multiple Final Maps), site development permits, and conditional use permits as required by the Specific Plan.

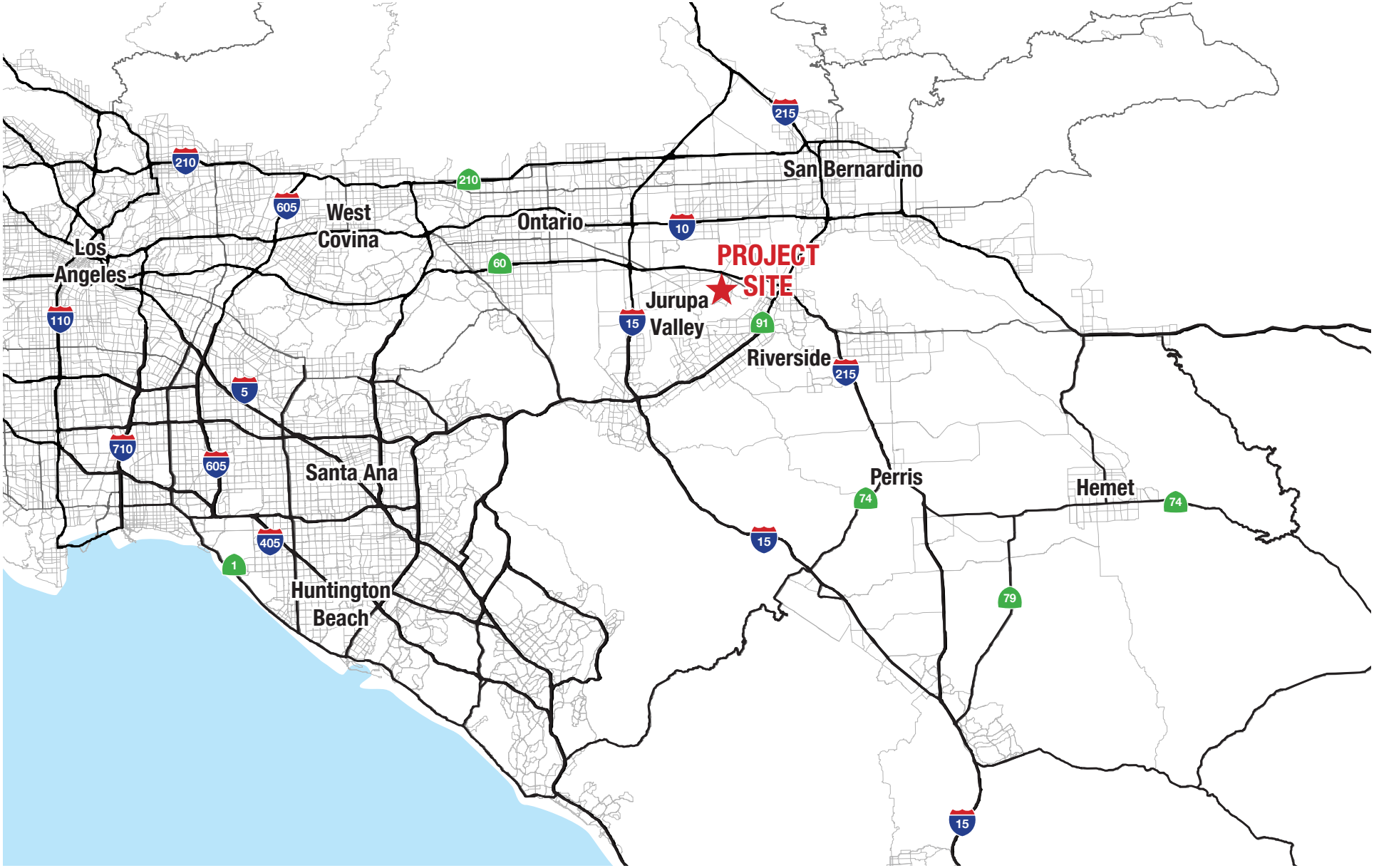

EXHIBIT 1: Regional Vicinity Map
Districts at Rubidoux Project
City of Jurupa Valley

Not to Scale

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Expect More. Experience Better.

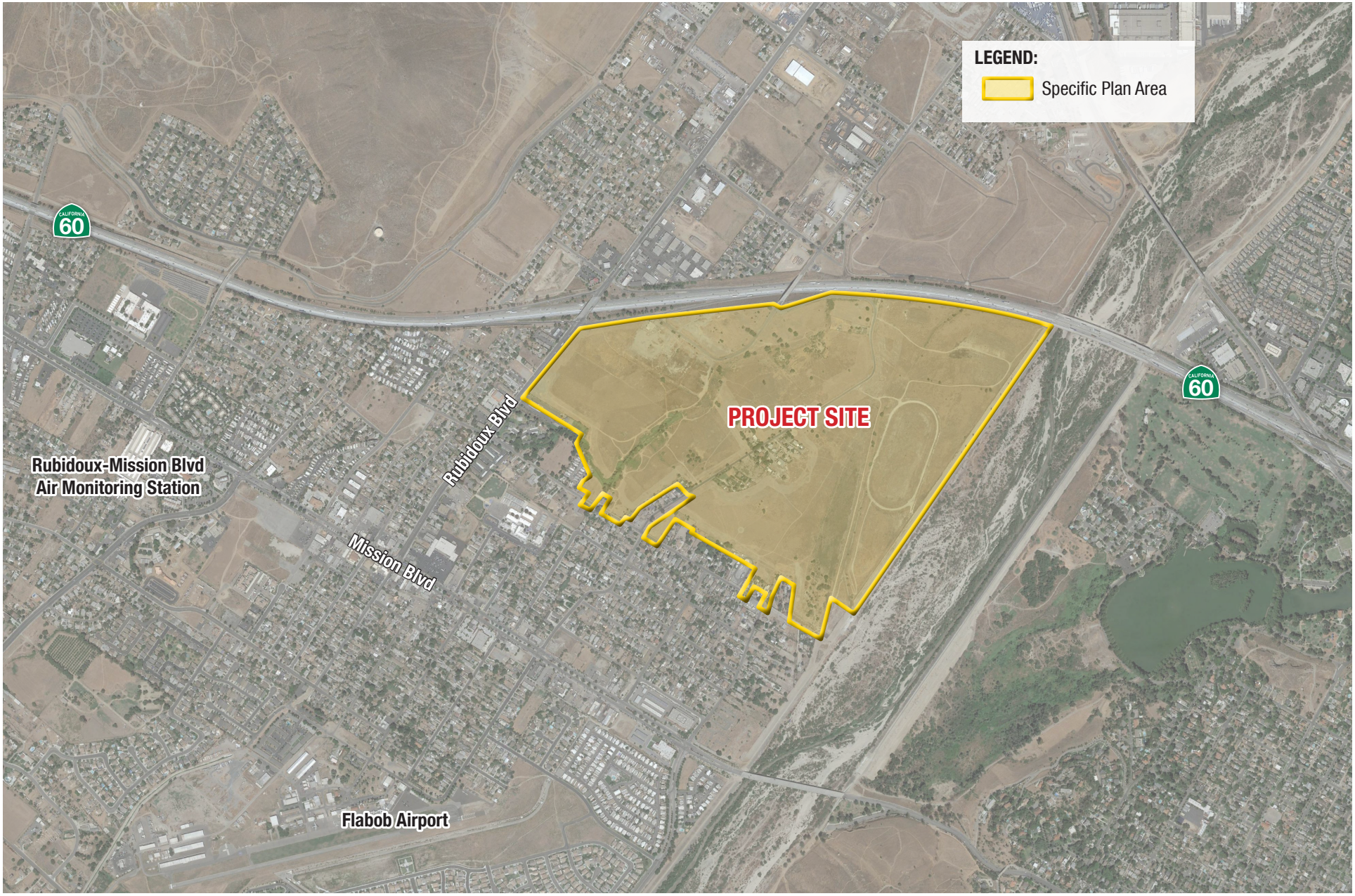

EXHIBIT 2: Site Vicinity Map
Districts at Rubidoux Project
City of Jurupa Valley

Not to Scale

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EXHIBIT 3: Site Plan
Districts at Rubidoux Project
City of Jurupa Valley

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2 ACOUSTIC FUNDAMENTALS

2.1 Sound and Environmental Noise

Acoustics is the science of sound. Sound can be described as the mechanical energy of a vibrating object transmitted by pressure waves through a medium (e.g. air) to human (or animal) ear. If the pressure variations occur frequently enough (at least 20 times per second), they can be heard and are called sound. The number of pressure variations per second is called the frequency of sound and is expressed as cycles per second, or hertz (Hz).

Noise is defined as loud, unexpected, or annoying sound. In acoustics, the fundamental model consists of a noise source, a receptor, and the propagation path between the two. The loudness of the noise source, obstructions, or atmospheric factors affecting the propagation path, determine the perceived sound level and noise characteristics at the receptor. Acoustics deal primarily with the propagation and control of sound. A typical noise environment consists of a base of steady background noise that is the sum of many distant and indistinguishable noise sources. Superimposed on this background noise is the sound from individual local sources. These sources can vary from an occasional aircraft or train passing by to continuous noise from traffic on a major highway. Perceptions of sound and noise are highly subjective from person to person.

Measuring sound directly in terms of pressure would require a large range of numbers. To avoid this, the decibel (dB) scale was devised. The dB scale uses the hearing threshold of 20 micropascals (µPa) as a point of reference, defined as 0 dB. Other sound pressures are then compared to this reference pressure, and the logarithm is taken to keep the numbers in a practical range. The dB scale allows a million-fold increase in pressure to be expressed as 120 dB, and changes in levels correspond closely to human perception of relative loudness. Table 2: Typical Noise Levels provides typical noise levels.

Table 2: Typical Noise Levels

Common Outdoor Activities	Noise Level (dBA)	Common Indoor Activities
	– 110 –	Rock Band
Jet fly-over at 1,000 feet		
	– 100 –	
Gas lawnmower at 3 feet		
	– 90 –	
Diesel truck at 50 feet at 50 miles per hour		Food blender at 3 feet
	– 80 –	Garbage disposal at 3 feet
Noisy urban area, daytime		
Gas lawnmower, 100 feet	**– 70 –**	Vacuum cleaner at 10 feet
Commercial area		Normal Speech at 3 feet
Heavy traffic at 300 feet	**– 60 –**	
		Large business office
Quiet urban daytime	**– 50 –**	Dishwasher in next room
Quiet urban nighttime	**– 40 –**	Theater, large conference room (background)
Quiet suburban nighttime		
	– 30 –	Library
Quiet rural nighttime		Bedroom at night, concert hall (background)
	– 20 –	
		Broadcast/recording studio
	– 10 –	
Lowest threshold of human hearing	**– 0 –**	Lowest threshold of human hearing

Source: California Department of Transportation, *Technical Noise Supplement to the Traffic Noise Analysis Protocol*, September 2013.

Noise Descriptors

The dB scale alone does not adequately characterize how humans perceive noise. The dominant frequencies of a sound have a substantial effect on the human response to that sound. Several rating scales have been developed to analyze the adverse effect of community noise on people. Because environmental noise fluctuates over time, these scales consider that the effect of noise on people is largely dependent on the total acoustical energy content of the noise, as well as the time of day when the noise occurs. The equivalent noise level (L_{eq}) represents the continuous sound pressure level over the measurement period, while the day-night noise level (L_{dn}) and Community Noise Equivalent Level (CNEL) are measures of energy average during a 24-hour period, with dB weighted sound levels from 7:00 p.m. to 7:00 a.m. Most commonly, environmental sounds are described in terms of L_{eq}, which has the same acoustical energy as the summation of all the time-varying events. Each is applicable to this analysis and defined in Table 3: Definitions of Acoustical Terms.

Table 3: Definitions of Acoustical Terms

Term	Definitions
Decibel (dB)	A unit describing the amplitude of sound, equal to 20 times the logarithm to the base 10 of the ratio of the pressure of the sound measured to the reference pressure. The reference pressure for air is 20.
Sound Pressure Level	Sound pressure is the sound force per unit area, usually expressed in µPa (or 20 micronewtons per square meter), where 1 pascal is the pressure resulting from a force of 1 newton exerted over an area of 1 square meter. The sound pressure level is expressed in dB as 20 times the logarithm to the base 10 of the ratio between the pressures exerted by the sound to a reference sound pressure (e.g. 20 µPa). Sound pressure level is the quantity that is directly measured by a sound level meter.
Frequency (Hz)	The number of complete pressure fluctuations per second above and below atmospheric pressure. Normal human hearing is between 20 Hz and 20,000 Hz. Infrasonic sounds are below 20 Hz and ultrasonic sounds are above 20,000 Hz.
A-Weighted Sound Level (dBA)	The sound pressure level in dB as measured on a sound level meter using the A-weighting filter network. The A-weighting filter de-emphasizes the very low and very high frequency components of the sound in a manner similar to the frequency response of the human ear and correlates well with subjective reactions to noise.
Equivalent Noise Level (L_{eq})	The average acoustic energy content of noise for a stated period of time. Thus, the L_{eq} of a time-varying noise and that of a steady noise are the same if they deliver the same acoustic energy to the ear during exposure. For evaluating community impacts, this rating scale does not vary, regardless of whether the noise occurs during the day or the night.
Maximum Noise Level (L_{max}) Minimum Noise Level (L_{min})	The maximum and minimum dBA during the measurement period.
Exceeded Noise Levels (L_{01}, L_{10}, L_{50}, L_{90})	The dBA values that are exceeded 1%, 10%, 50%, and 90% of the time during the measurement period.
Day-Night Noise Level (L_{dn})	A 24-hour average L_{eq} with a 10 dBA weighting added to noise during the hours of 10:00 p.m. to 7:00 a.m. to account for noise sensitivity at nighttime. The logarithmic effect of these additions is that a 60 dBA 24-hour L_{eq} would result in a measurement of 66.4 dBA L_{dn}.
Community Noise Equivalent Level (CNEL)	A 24-hour average L_{eq} with a 5 dBA weighting during the hours of 7:00 a.m. to 10:00 a.m. and a 10 dBA weighting added to noise during the hours of 10:00 p.m. to 7:00 a.m. to account for noise sensitivity in the evening and nighttime, respectively. The logarithmic effect of these additions is that a 60 dBA 24-hour L_{eq} would result in a measurement of 66.7 dBA CNEL.
Ambient Noise Level	The composite of noise from all sources near and far. The normal or existing level of environmental noise at a given location.
Intrusive	That noise which intrudes over and above the existing ambient noise at a given location. The relative intrusiveness of a sound depends on its amplitude, duration, frequency, and time of occurrence and tonal or informational content as well as the prevailing ambient noise level.

The A-weighted decibel (dBA) sound level scale gives greater weight to the frequencies of sound to which the human ear is most sensitive. Because sound levels can vary markedly over a short period of time, a method for describing either the average character of the sound or the statistical behavior of the variations must be utilized. Most commonly, environmental sounds are described in terms of an average level that has the same acoustical energy as the summation of all the time-varying events.

The scientific instrument used to measure noise is the sound level meter. Sound level meters can accurately measure environmental noise levels to within about plus or minus 1 dBA. Various computer models are used to predict environmental noise levels from sources, such as roadways and airports.

A-Weighted Decibels

The perceived loudness of sounds is dependent on many factors, including sound pressure level and frequency content. However, within the usual range of environmental noise levels, perception of loudness is relatively predictable and can be approximated by dBA values. There is a strong correlation between dBA and the way the human ear perceives sound. For this reason, the dBA has become the standard tool of environmental noise assessment. All noise levels reported in this document are in terms of dBA, but are expressed as dB, unless otherwise noted.

Addition of Decibels

The dB scale is logarithmic, not linear, and therefore sound levels cannot be added or subtracted through ordinary arithmetic. Two sound levels 10 dB apart differ in acoustic energy by a factor of 10. When the standard logarithmic dB is A-weighted, an increase of 10 dBA is generally perceived as a doubling in loudness. For example, a 70-dBA sound is half as loud as an 80-dBA sound and twice as loud as a 60-dBA sound.[1] When two identical sources are each producing sound of the same loudness, the resulting sound level at a given distance would be 3 dBA higher than one source under the same conditions.[2] Under the dB scale, three sources of equal loudness together would produce an increase of approximately 5 dBA.

Sound Propagation and Attenuation

Sound spreads (propagates) uniformly outward in a spherical pattern, and the sound level decreases (attenuates) at a rate of approximately 6 dB for each doubling of distance from a stationary or point source. Sound from a line source, such as a highway, propagates outward in a cylindrical pattern. Sound levels attenuate at a rate of approximately 3 dB for each doubling of distance from a line source, such as a roadway, depending on ground surface characteristics.[3] No excess attenuation is assumed for hard surfaces like a parking lot or a body of water. Soft surfaces, such as soft dirt or grass, can absorb sound, so an excess ground-attenuation value of 1.5 dB per doubling of distance is normally assumed.

Noise levels may also be reduced by intervening structures; generally, a single row of buildings between the receptor and the noise source reduces the noise level by about 5 dBA, while a solid wall or berm

[1] *Noise Sources and Their Effects*. Available at: https://www.chem.purdue.edu/chemsafety/Training/PPETrain/dblevels.htm
[2] FHWA, *Noise Fundamentals,* 2017. Available at: https://www.fhwa.dot.gov/environMent/noise/regulations_and_guidance/polguide/polguide02.cfm
[3] California Department of Transportation, *Technical Noise Supplement to the Traffic Noise Analysis Protocol*, Page 2-29, September 2013.

reduces noise levels by 5 to 10 dBA.[4,5] The way older homes in California were constructed generally provides a reduction of exterior-to-interior noise levels of about 20 to 25 dBA with closed windows. The exterior-to-interior reduction of newer residential units is generally 30 dBA or more.

Human Response to Noise

The human response to environmental noise is subjective and varies considerably from individual to individual. Noise in the community has often been cited as a health problem, not in terms of actual physiological damage, such as hearing impairment, but in terms of inhibiting general well-being and contributing to undue stress and annoyance. The health effects of noise in the community arise from interference with human activities, including sleep, speech, recreation, and tasks that demand concentration or coordination. Hearing loss can occur at the highest noise intensity levels.

Noise environments and consequences of human activities are usually well represented by weighted average noise levels during the day or night or over a 24-hour period. Environmental noise levels are generally considered low when the CNEL is below 60 dBA, moderate in the 60 to 70 dBA range, and high above 70 dBA. Examples of low daytime levels are isolated, natural settings with noise levels as low as 20 dBA and quiet, suburban, residential streets with noise levels around 40 dBA.[6] Noise levels above 45 dBA at night can disrupt sleep. Examples of moderate-level noise environments are urban residential or semi-commercial areas (typically 55 to 60 dBA) and commercial locations (typically 60 dBA). People may consider louder environments adverse, but most will accept the higher levels associated with noisier urban residential or residential-commercial areas (60 to 75 dBA) or dense urban or industrial areas (65 to 80 dBA). Regarding increases in dBA, the following relationships should be noted[7]:

- Except in carefully controlled laboratory experiments, a 1-dBA change cannot be perceived by humans.
- Outside of the laboratory, a 3-dBA change is considered a just-perceivable difference.
- A minimum 5-dBA change is required before any noticeable change in community response would be expected. A 5-dBA increase is typically considered substantial.
- A 10-dBA change is subjectively heard as an approximate doubling in loudness and would almost certainly cause an adverse change in community response.

Effects of Noise on People

Hearing Loss. While physical damage to the ear from an intense noise impulse is rare, a degradation of auditory acuity can occur even within a community noise environment. Hearing loss occurs mainly due to chronic exposure to excessive noise but may be due to a single event such as an explosion. Natural hearing loss associated with aging may also be accelerated from chronic exposure to loud noise. The Occupational Safety and Health Administration has a noise exposure standard that is set at the noise threshold where

[4] James P. Cowan, *Handbook of Environmental Acoustics,* 1994.
[5] According to the *Caltrans Technical Noise Supplement* (2013), attenuation from the first tier of buildings is 5 dB only when at least 60 percent of the field of view is blocked; when the blockage is between 30 and 60 percent, the attenuation is 3 dB.
[6] Compiled from James P. Cowan, *Handbook of Environmental Acoustics,* 1994 and Cyril M. Harris, Handbook of Noise Control, 1979.
[7] Compiled from California Department of Transportation, *Technical Noise Supplement to the Traffic Noise Analysis Protocol*, September 2013, and FHWA, *Noise Fundamentals,* 2017.

hearing loss may occur from long-term exposures. The maximum allowable level is 90 dBA averaged over 8 hours. If the noise is above 90 dBA, the allowable exposure time is correspondingly shorter.

Annoyance. Attitude surveys are used for measuring the annoyance felt in a community for noises intruding into homes or affecting outdoor activity areas. In these surveys, it was determined that causes for annoyance include interference with speech, radio and television, house vibrations, and interference with sleep and rest. The L_{dn} as a measure of noise has been found to provide a valid correlation of noise level and the percentage of people annoyed. People have been asked to judge the annoyance caused by aircraft noise and ground transportation noise. There continues to be disagreement about the relative annoyance of these different sources. A noise level of about 55 dBA L_{dn} is the threshold at which a substantial percentage of people begin to report annoyance[8].

2.2 Ground-borne Vibration

Sources of ground-borne vibrations include natural phenomena (earthquakes, volcanic eruptions, sea waves, landslides, etc.) or man-made causes (explosions, machinery, traffic, trains, construction equipment, etc.). Vibration sources may be continuous (e.g. factory machinery) or transient (e.g. explosions or heavy equipment use during construction). Ground vibration consists of rapidly fluctuating motions or waves with an average motion of zero. Several different methods are typically used to quantify vibration amplitude. One is the peak particle velocity (PPV); another is the root mean square (RMS) velocity. The PPV is defined as the maximum instantaneous positive or negative peak of the vibration wave. The RMS velocity is defined as the average of the squared amplitude of the signal. The PPV and RMS vibration velocity amplitudes are used to evaluate human response to vibration.

Table 4: Human Reaction and Damage to Buildings for Continuous or Frequent Intermittent Vibrations, displays the reactions of people and the effects on buildings produced by continuous vibration levels. The annoyance levels shown in the table should be interpreted with care since vibration may be found to be annoying at much lower levels than those listed, depending on the level of activity or the sensitivity of the individual. To sensitive individuals, vibrations approaching the threshold of perception can be annoying. Low-level vibrations frequently cause irritating secondary vibration, such as a slight rattling of windows, doors, or stacked dishes. The rattling sound can give rise to exaggerated vibration complaints, even though there is very little risk of actual structural damage. In high noise environments, which are more prevalent where ground-borne vibration approaches perceptible levels, this rattling phenomenon may also be produced by loud airborne environmental noise causing induced vibration in exterior doors and windows.

Ground vibration can be a concern in instances where buildings shake, and substantial rumblings occur. However, it is unusual for vibration from typical urban sources such as buses and heavy trucks to be perceptible. Common sources for ground-borne vibration are planes, trains, and construction activities such as earth-moving which requires the use of heavy-duty earth moving equipment. For the purposes of this analysis, a PPV descriptor with units of inches per second (in/sec) is used to evaluate construction-generated vibration for building damage and human complaints.

[8] Federal Interagency Committee on Noise, *Federal Agency Review of Selected Airport Noise Analysis Issues*, August 1992.

Table 4: Human Reaction and Damage to Buildings for Continuous or Frequent Intermittent Vibrations

Maximum PPV (in/sec)	Vibration Annoyance Potential Criteria	Vibration Damage Potential Threshold Criteria	FTA Vibration Damage Criteria
0.008	--	Extremely fragile historic buildings, ruins, ancient monuments	--
0.01	Barely Perceptible	--	--
0.04	Distinctly Perceptible	--	--
0.1	Strongly Perceptible	Fragile buildings	--
0.12	--	--	Buildings extremely susceptible to vibration damage
0.2	--	--	Non-engineered timber and masonry buildings
0.25	--	Historic and some old buildings	--
0.3	--	Older residential structures	Engineered concrete and masonry (no plaster)
0.4	Severe	--	--
0.5	--	New residential structures, Modern industrial/commercial buildings	Reinforced-concrete, steel or timber (no plaster)

PPV = peak particle velocity; in/sec = inches per second; FTA = Federal Transit Administration

Source: California Department of Transportation, *Transportation and Construction Vibration Guidance Manual*, 2020 and Federal Transit administration, Transit Noise and Vibration Assessment Manual, 2018.

3 REGULATORY SETTING

To limit population exposure to physically or psychologically damaging as well as intrusive noise levels, the Federal government, the State of California, various county governments, and most municipalities in the state have established standards and ordinances to control noise.

3.1 Federal

Federal Transit Administration Noise and Vibration Guidance

The Federal Transit Administration (FTA) has published the Transit Noise and Vibration Impact Assessment Manual to provide guidance on procedures for assessing impacts at different stages of transit project development. The report covers both construction and operational noise impacts and describes a range of measures for controlling excessive noise and vibration. In general, the primary concern regarding vibration relates to potential damage from construction. The guidance document establishes criteria for evaluating the potential for damage for various structural categories from vibration.

3.2 State of California

California Government Code

California Government Code Section 65302(f) mandates that the legislative body of each county and city adopt a noise element as part of its comprehensive general plan. The local noise element must recognize the land use compatibility guidelines established by the State Department of Health Services. The guidelines rank noise land use compatibility in terms of "normally acceptable", "conditionally acceptable", "normally unacceptable", and "clearly unacceptable" noise levels for various land use types. Single-family homes are "normally acceptable" in exterior noise environments up to 60 CNEL and "conditionally acceptable" up to 70 CNEL. Multiple-family residential uses are "normally acceptable" up to 65 CNEL and "conditionally acceptable" up to 70 CNEL. Schools, libraries, and churches are "normally acceptable" up to 70 CNEL, as are office buildings and business, commercial, and professional uses.

Title 24 – Building Code

The State's noise insulation standards are codified in the California Code of Regulations, Title 24: Part 1, Building Standards Administrative Code, and Part 2, California Building Code. These noise standards are applied to new construction in California for interior noise compatibility from exterior noise sources. The regulations specify that acoustical studies must be prepared when noise-sensitive structures, such as residential buildings, schools, hotel rooms, or hospitals, are located near major transportation noise sources, and where such noise sources create an exterior noise level of 65 dBA CNEL or higher. Acoustical studies that accompany building plans must demonstrate that the structure has been designed to limit interior noise in habitable rooms to acceptable noise levels. For new multi-family residential buildings and habitable rooms (including hotels), the acceptable interior noise limit for new construction is 45 dBA CNEL.

3.3 Local

City of Jurupa Valley General Plan

Adopted in September 2017, the *City of Jurupa Valley General Plan* (Jurupa Valley General Plan) identifies interior and exterior noise standards that are used as guidelines to evaluate noise level impacts.

Noise/Land Use Compatibility

The noise criteria identified in the Jurupa Valley Noise Element are guidelines to evaluate noise/land use compatibility. The compatibility criteria, shown in Table 5: Jurupa Valley Community Noise Compatibility Matrix, provides the City with a planning tool to gauge the compatibility of land uses relative to existing and future exterior noise levels. The Community Noise Compatibility Matrix describes categories of compatibility and not specific noise standards.

Table 5: Jurupa Valley Community Noise Compatibility Matrix

Land Use	CNEL (dB)						
	<55	55-60	60-65	65-70	70-75	75-80	>80
Residential- Low Density Single Family, Duplex, Mobile Homes							
Residential- Multiple Family							
Transient Lodging: Hotels and Motels							
Schools, Libraries, Churches, Hospitals, Nursing Homes							
Auditoriums, Concert Halls, Amphitheaters							
Sports Arena, Outdoor Spectator Sports							
Playground, Neighborhood Parks							

Table 5: Jurupa Valley Community Noise Compatibility Matrix

Land Use	CNEL (dB)						
	<55	55-60	60-65	65-70	70-75	75-80	>80
Golf Courses, Riding Stables, Water Recreation, Cemeteries							
Office Buildings, Business, Commercial and Professional							
Industrial, Manufacturing, Utilities, Agricultural							

Notes:

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

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

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

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

Source: City of Jurupa Valley, Jurupa Valley General Plan, 2017. Table 7-3.

The City of Jurupa Valley General Plan contains the following goals and policies that address noise:

Jurupa Valley General Plan, Noise Element

NE 1.1 **Land Use/Noise Compatibility.** Utilize the Land Use/Noise Compatibility Matrix to determine the compatibility of proposed development, including General Plan amendments, specific plan amendments, town center plans, and re-zonings, with existing land uses and/or noise exposure due to transportation sources.

NE 1.2 **New Development and Stationary Noise Sources.** New development of noise-sensitive land uses near existing stationary noise sources may be permitted only where their location or design allows the development to meet the standards.

NE 1.3 **New or Modified Stationary Noise Sources**. Noise created by new stationary noise sources, or by existing stationary noise sources that undergo modifications that may increase noise levels, shall be mitigated so as not exceed the noise level standards of the Compatibility Matrix. This policy does not apply to noise levels associated with agricultural operations existing in 2017.

NE 1.4 **Acoustical Assessment.** Require an acoustical assessment for proposed General Plan amendments and rezones that exceed the "Normally Acceptable" thresholds of the Land Use/Noise Compatibility Matrix.

NE 1.5 **Noise -Sensitive Uses.** Consider the following uses noise-sensitive and discourage these uses in areas in excess of 65 CNEL: schools, hospitals, assisted living facilities, mental care facilities, residential uses, libraries, passive recreational uses, and places of worship.

NE 1.6 **Protection of Noise-Sensitive Uses.** Protect noise sensitive land uses from high levels of noise by restricting noise producing land uses from these areas. If the noise producing land uses cannot be relocated, then measures such as building techniques, setbacks, landscaping , and noise walls should be considered.

NE 1.7 **Noise-Tolerant Uses.** Guide new or relocated noise-tolerant land uses into areas irrevocably committed to land uses that are noise producing, such as along major transportation corridors or within the projected noise contours of area airports.

NE 1.8 **Airport Noise Compatibility.** Ensure that new land use development within Airport Influence Areas complies with airport land use noise compatibility criteria contained in the applicable Airport Land Use Compatibility (ALUC) plan for the area.

NE 1.9 **Acoustic Site Planning and Design**. Incorporate acoustic site planning into the design and placement of new development, particularly large scale, mixed -use, or master -planned development, including building orientation, berming, special noise-resistant walls, window and door assemblies, and other appropriate measures.

NE 1.10 **Mixed Uses.** Require that mixed commercial and residential development minimizes the transfer or transmission of noise from the commercial land use to the residential land use.

NE 3.2 **Truck Loading, Shipping, and Parking.** Require that the loading, shipping or parking facilities of commercial and industrial land uses that abut or are within 200 feet of residential parcels, be located and designed to minimize potential noise impacts upon residents. Overnight commercial truck parking areas shall be regulated in the Zoning Ordinance as a commercial use.

NE 3.3 **Noise Buffers.** Require major stationary noise-generating sources to install noise buffering or reduction mechanisms within their facilities to reduce noise generation levels to the lowest level practical as a condition of the approval or renewal of project entitlements.

NE 3.4 **Construction Equipment.** Require that all construction equipment utilize noise reduction features (i.e., mufflers and engine shrouds) that are at least as effective as those originally installed by the equipment's manufacturer.

NE 3.5 **Construction Noise.** Limit commercial construction activities adjacent to or within 200 feet of residential uses to weekdays, between 7:00 a.m. and 6:00 p.m., and limit high-noise-generating construction activities (e.g., grading, demolition, pile driving) near sensitive receptors to weekdays between 9:00 a.m. and 3:00 p.m.

NE 3.6 **Commercial Truck Idling.** Restrict truck idling near noise sensitive receptors.

NE 3.7 **Automobile-Oriented Uses.** Require that parking structures, terminals, drive-through restaurants, automobile sales and repair, fueling stations, mini-marts, car washes, and similar automobile-oriented uses be sited and designed to minimize potential noise impacts on adjacent land uses.

NE 3.8 **Entertainment Uses.** Minimize the generation of excessive noise from entertainment and restaurant/bar establishments into adjacent residential or noise-sensitive uses.

City of Jurupa Valley Municipal Code

Chapter 11.05. - Noise Regulations of the Jurupa Valley Municipal Code establishes the following noise provisions relative to the Project.

Sec. 11.05.010. - Intent.

At certain levels, sound becomes noise and may jeopardize the health, safety or general welfare of City of Jurupa Valley residents and degrade their quality of life. Pursuant to its police power, the City Council declares that noise shall be regulated in the manner described in this chapter. This chapter is intended to establish city-wide standards regulating noise. This chapter is not intended to establish thresholds of significance for the purpose of any analysis required by the California Environmental Quality Act (Pub. Resources Code Section 21000 et seq.) and no such thresholds are established.

Sec. 11.05.020. – Exemptions

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

(8) Private construction projects located one-quarter (¼) of a mile or more from an inhabited dwelling

(9) Private construction projects located within one-quarter (¼) of a mile from an inhabited dwelling, provided that:

(a) Construction does not occur between the hours of six (6:00) p.m. and six (6:00) a.m. during the months of June through September; and

(b) Construction does not occur between the hours of six (6:00) p.m. and seven (7:00) a.m. during the months of October through May.

(10) Property maintenance, including, but not limited to, the operation of lawnmowers, leaf blowers, etc., provided such maintenance occurs between the hours of seven (7:00) a.m. and eight (8:00) p.m.

Sec. 11.05.040. – General sound level standards.

No person shall create any sound, or allow the creation of any sound, on any property that causes the exterior sound level on any other occupied property to exceed the sound level standards set forth in Table 6: General Sound Level Standards or that violates the special sound source standards set forth in Section 11.05.060 of the Jurupa Valley Municipal Code.

Table 6: General Sound Level Standards					
General Plan Foundation Component	**General Plan Land Use Designation**	**General Plan Land Use Designation Name**	**Density**	**Maximum Decibel Level**	
				7 a.m.-10 p.m.	**7 a.m.-10 p.m.**
Community Development	EDR	Estate density residential	2 AC	55	45
	VLDR	Very low density residential	1 AC	55	45
	LDR	Low density residential	1/2 AC	55	45
	MDR	Medium density residential	2—5	55	45
	MHDR	Medium high density residential	5—8	55	45
	HDR	High density residential	8—14	55	45
	VHDR	Very high density residential	14—20	55	45
	HTDR	Highest density residential	20+	55	45
	CR	Retail commercial		65	55
	CO	Office commercial		65	55
	CT	Tourist commercial		65	55
	CC	Community center		65	55
	I	Light industrial		75	55
	HI	Heavy industrial		75	75
	BP	Business park		65	45
	PF	Public facility		65	45
	SP	Specific plan—Residential		55	45
		Specific plan—Commercial		65	55
		Specific plan—Light Industrial		75	55
		Specific plan—Heavy Industrial		75	75
Rural Community	EDR	Estate density residential	2 AC	55	45
	VLDR	Very low density residential	AC	55	45
	LDR	Low density residential	1/2 AC	55	45
Rural	RR	Rural residential	5 AC	45	45
	RM	Rural mountainous	10 AC	45	45
	RD	Rural desert	0 AC	45	45
Agriculture	AG	Agriculture	10 AC	45	45
Open Space	C	Conservation		45	45
	CH	Conservation habitat		45	45
	REC	Recreation		45	45
	RUR	Rural	20 AC	45	45
	W	Watershed		45	45
	MR	Mineral resources		75	45

Sec. 11.05.060. – Special sound sources standards.

The general sound level standards set forth in Section 11.05.040 apply to sound emanating from all sources, including the following special sound sources, and the person creating, or allowing the creation of, the sound is subject to the requirements of that section. The following special sound sources are also subject to the following additional standards, the failure to comply with which constitute separate violations of this chapter:

(1) *Motor vehicles*.

(a) *Off-highway vehicles*.

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

(ii) No person shall operate an off-highway vehicle unless the noise emitted by the vehicle is not more than ninety-six (96) dBA if the vehicle was manufactured on or after January 1, 1986, or is not more than one hundred and one (101) dBA if the vehicle was manufactured before January 1, 1986. For purposes of this subsection, emitted noise shall be measured a distance of twenty (20) inches from the vehicle tailpipe using test procedures established by the Society of Automotive Engineers under Standard J-1287.

(b) *Sound systems*. No person shall operate a motor vehicle sound system, whether affixed to the vehicle or not, between the hours of ten (10:00) p.m. and eight (8:00) a.m., such that the sound system is audible to the human ear inside any inhabited dwelling. No person shall operate a motor vehicle sound system, whether affixed to the vehicle or not, at any other time such that the sound system is audible to the human ear at a distance greater than one hundred (100) feet from the vehicle. Sound level measurements may be used, but are not required to establish a violation of this subsection.

(2) *Power tools and equipment.* No person shall operate any power tools or equipment between the hours of ten (10:00) p.m. and eight (8:00) a.m. such that the power tools or equipment are audible to the human ear inside an inhabited dwelling other than a dwelling in which the power tools or equipment may be located. No person shall operate any power tools or equipment at any other time such that the power tools or equipment are audible to the human ear at a distance greater than one hundred (100) feet from the power tools or equipment. Sound level measurements may be used, but are not required to establish a violation of this subsection.

(3) *Audio equipment.* No person shall operate any audio equipment, whether portable or not, such that the equipment is audible to the human ear at a distance greater than one hundred (100) feet from the equipment. Sound level measurements may be used, but are not required to establish a violation of this subsection.

(4) *Sound-amplifying equipment and live music.* No person shall install, use or operate sound-amplifying equipment, or perform, or allow to be performed, live music if the sound emanating from sound-amplifying equipment or live music is audible to the human ear at a distance greater than one hundred (100) feet from the equipment or music. To the extent that these requirements conflict with any conditions of approval attached to an underlying land use permit, these requirements shall control. Sound level measurements may be used, but are not required to establish a violation of this subsection.

Sec. 11.05.070. - Exceptions.

Exceptions may be requested from the standards set forth in Section 11.10.040 of this chapter and may be characterized as construction-related or continuous-events exceptions.

(1) *Application and processing*

(a) *Construction-related exceptions.* An application for a construction-related exception shall be made to and considered by the Building Official of the city on forms provided by the Building and Safety Division and shall be accompanied by the appropriate filing fee. No public hearing is required.

(b) *Continuous events exceptions.* An application for a continuous events exception shall be made to the Community Development Director on forms provided by the Planning Department and shall be accompanied by the appropriate filing fee. Upon receipt of an application for a continuous events exception, the Community Development Director shall set the matter for

public hearing before the Planning Commission, notice of which shall be given as provided in Section 9.240.250 of this Code. Notwithstanding the above, an application for a continuous events exception that is associated with an application for a land use permit shall be processed concurrently with the land use permit in the same manner that the land use permit is required to be processed.

4 EXISTING CONDITIONS

4.1 Existing Noise Sources

The City of Jurupa Valley is characterized as a predominately urban environment. Much of the City has been developed with residential, commercial, and industrial land uses. Transportation related noise is the primary noise source in the City. Other noise sources include noise generated from commercial, residential and recreational activities.

Mobile Sources

Existing roadway noise levels were calculated for the roadway segments in the Project vicinity. This task was accomplished using the Federal Highway Administration (FHWA) Highway Traffic Noise Prediction Model (FHWA-RD-77-108) and existing traffic volumes from the *Traffic Impact Analysis for The District at Jurupa Valley* (Traffic Impact Analysis) prepared by Kimley-Horn (May 2022) and *Traffic Analysis Memorandum for the proposed District at Jurupa Valley* (Traffic Memo) prepared by Kimley-Horn (2023), with the analysis based on the Traffic Memo. The noise prediction model calculates the average noise level at specific locations based on traffic volumes, average speeds, roadway geometry, and site environmental conditions. The average vehicle noise rates (also referred to as energy rates) used in the FHWA model have been modified to reflect average vehicle noise rates identified for California by the California Department of Transportation (Caltrans). Caltrans data indicates that California automobile noise is 0.8 to 1.0 dBA higher than national levels and that medium and heavy truck noise is 0.3 to 3.0 dBA lower than national levels. The average daily noise levels along roadway segments in proximity to the Project site are included in Table 7: Existing Traffic Noise Levels.

Table 7: Existing Traffic Noise Levels

Roadway Segment		ADT	dBA CNEL 100 Feet from Roadway Centerline
Cedar Avenue	Slover Avenue to Santa Ave	19,130	63.1
	Santa Ana Ave to Jurupa Ave	17,300	63.9
	Jurupa Ave to El Rivino Rd	18,180	65.2
	El Rivino Rd to 20th St/Market St	19,060	65.4
Rubidoux Blvd	20th St/Market St to 24th St	16,370	64.7
	24th St to 26th St	16,010	64.5
	26th St to 28th St	16,070	64.6
	28th St to 30 St/SR-60 WB Off-Ramp	17,850	62.8
	30th St/SR-60 WB Off-Ramp to SR-60 WB On-Ramp	25,990	64.4
	SR-60 WB On-Ramp to SR-60 EB-Off Ramp/Frontage Rd	19,790	63.2
	SR-60 EB Off-Ramp/Frontage Rd to 34th St	20,280	64.5
	34th St to Mission Blvd	17,240	62.6
Market St	Rubidoux Blvd to Agua Mansa Rd	16,910	63.8
	Agua Mansa Rd to Hall Ave	13,140	62.5
	Hall Ave to 24th St/Via Cerro	13,160	62.5
	24th St/Via Cerro to Rivera St	18,660	64.0
	Rivera St to SR-60 WB Ramps	21,930	65.1
	SR-60 WB Ramps to SR-60 EB Ramps	16,870	63.9
Hall Avenue	Market St to 24th St	920	49.7
	24th St to 26th St	2,630	54.3
	26th St to 28th St	2,670	54.3
Mission Blvd	Valley Way to Golden W Ave	19,170	63.2

Table 7: Existing Traffic Noise Levels			
Roadway Segment		**ADT**	**dBA CNEL 100 Feet from Roadway Centerline**
	Golden W Ave to Opal St	20,420	63.5
	Opal St to Pacific Ave	21,120	63.6
	Pacific Ave to La Rue St	19,220	63.2
	La Rue St at Riverview Dr	19,570	63.3
	Riverview Dr to Rubidoux Blvd	24,390	64.4
	Rubidoux Blvd to Wallace St	24,780	64.4
	Wallace St to Crestmore Rd	23,110	64.1
Riverview Dr/Limonite Avenue	Mission Blvd to 42nd St	12,950	62.6
	42nd St to Pacific Ave	14,830	63.2
	Pacific Ave to Ave Juan Bautista	19,220	65.6
	Ave Juan Bautista to Camino Real	20,460	66.0
24th Street	Rubidoux Blvd to Hall Ave	2,470	50.1
	Hall Ave to Market St	3,430	51.5
26th Street	Rubidoux Blvd to Hall Ave	670	44.4
28th Street	Rubidoux Blvd to Hall Ave	2,090	49.4
Frontage Road	Rubidoux Blvd to 30th St	7,970	55.2
Wallace Street	34th St to 36th St	1,800	52.6
	36th St to Mission Blvd	2,180	53.5
Crestmore Road	34th St to 36th St	2,410	50.0
	36th St to Mission Blvd	2,690	50.5
34th Street	Rubidoux Blvd to Wallace St	4,190	52.4
	Wallace St to Crestmore Rd	3,020	51.0
36th Street	Wallace St to Crestmore Rd	290	40.8
ADT = average daily trips; dBA = A-weighted decibels; CNEL = community noise equivalent level			
1. Traffic noise levels are at 100 feet from the roadway centerline. The actual sound level at any receptor location is dependent upon such factors as the source-to-receptor distance and the presence of intervening structures, barriers, and topography.			
Source: Based on traffic data within the *Traffic Analysis Memorandum for the proposed District at Jurupa Valley*, prepared by Kimley-Horn, 2023 Refer to Appendix B for traffic noise modeling assumptions and results. Refer to Appendix C for ADT Traffic Data.			

As depicted in Table 7, the existing traffic-generated noise level on Project-vicinity roadways currently ranges from 40.8 dBA CNEL to 66.0 dBA CNEL 100 feet from the centerline. As previously described, CNEL is 24-hour average noise level with a 5 dBA "weighting" during the hours of 7:00 p.m. to 10:00 p.m. and a 10 dBA "weighting" added to noise during the hours of 10:00 p.m. to 7:00 a.m. to account for noise sensitivity in the evening and nighttime, respectively.

Stationary Sources

The nearest source of stationary noise in the Project vicinity would come from existing single-family residential and commercial properties to the north, west, and southwest. Noise sources from residential commercial uses typically include mechanical equipment such as HVAC, automobile related noise such as cars starting and doors slamming, and landscaping equipment. The noise associated with these sources may represent a single-event noise occurrence or short-term noise.

4.2 Noise Measurements

The Project area is mostly vacant with interspersed residential uses. To quantify existing ambient noise levels in the Project area, Kimley-Horn conducted six short-term noise measurements on April 26, 2022; see Appendix A: Existing Ambient Noise Measurements. The noise measurement sites were representative of typical existing noise exposure within and immediately adjacent to the Project site. The

10-minute measurements were taken between 10:41 a.m. and 11:58 a.m. on a Tuesday. Measurements of L_{eq} are considered representative of the noise levels throughout the day. The average noise levels and sources of noise measured at each location are listed in Table 8: Existing Noise Measurements and shown on Exhibit 4: Noise Measurement Locations.

Table 8: Existing Noise Measurements

Site	Location	Measurement Period	Duration	L_{eq} (dBA)
ST-1	2862 Razor Way, Jurupa Valley	10:41 – 10:51 a.m.	10 Minutes	68.3
ST-2	100 feet north of 2861 Wallace Street, Jurupa Valley	11:00 – 11:10 a.m.	10 Minutes	65.0
ST-3	4725 Circle Lazy J Road, Jurupa Valley	12:08 – 12:18 p.m.	10 Minutes	51.8
ST-4	5160 24th Street, Jurupa Valley	12:18 – 12:28 p.m.	10 Minutes	60.9
ST-5	5364-5400 34th Street, Jurupa Valley	11:33 – 11:43 a.m.	10 Minutes	59.5
ST-6	3259 Rubidoux Boulevard, Jurupa Valley	11:48 – 11:58 a.m.	10 Minutes	68.5

Source: Noise measurements taken by Kimley-Horn, April 26, 2022. See Appendix A for noise measurement results.

4.3 Sensitive Receptors

Noise exposure goals for various types of land uses reflect the varying noise sensitivities associated with those uses. Noise sensitive uses typically include residences, hospitals, schools, childcare facilities, and places of assembly. Vibration sensitive receivers are generally similar to noise sensitive receivers but may also include businesses, such as research facilities and laboratories that use vibration-sensitive equipment. The Project site is mainly surrounded by residential and commercial land uses to the north, west, and south and SR-60 to the north. Sensitive land uses nearest to the Project are listed in Table 9: Sensitive Receptors and shown in Exhibit 5: Sensitive Receptors.

Table 9: Sensitive Receptors

ID	Receptor Description	Distance and Direction from the Project[1,2]
1	Single-family Residential: NAP 1	Adjacent to the Project site
2	Single-family Residential: NAP 2	Adjacent to the Project site
3	Single-family Residential	Adjacent to the south and southwest
4	Single-family Residential	Approximately 110 feet to the west
5	Multi-family Residential	Approximately 110 feet to the west
6	Multi-family Residential	Approximately 200 feet to the south
7	Live Church of God in Christ	Adjacent to the south
8	New Century Baptist Church	Adjacent to the southeast
9	Mt. Calvary Missionary Baptist Church	Approximately 60 feet to the south
10	Life Church of God in Christ	Approximately 200 feet to the southwest
11	Ina Arbuckle Elementary School	Approximately 470 feet to the southwest
12	Fairmount Park	Approximately 2,300 feet to the east

1. Distance calculated from Project site property line to sensitive receptor property line.
2. Refer to Exhibit 5: Sensitive Receptors, for the sensitive receptor location.

Source: Google Earth



EXHIBIT 4: Noise Measurement Locations
Districts at Rubidoux Project
City of Jurupa Valley

Not to Scale

Kimley»Horn
Expect More. Experience Better.

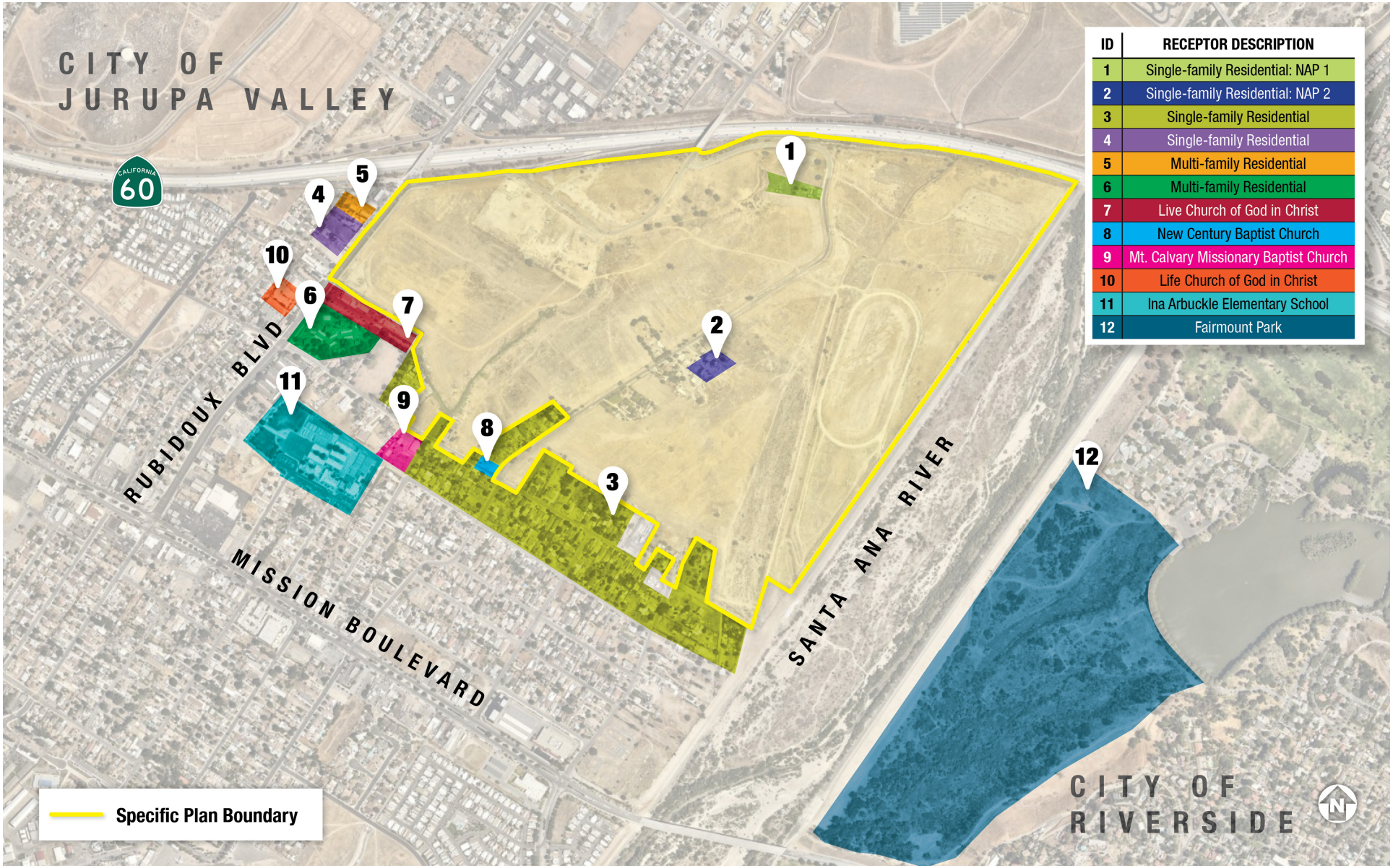

EXHIBIT 5: Sensitive Receptors
Districts at Rubidoux Project
City of Jurupa Valley

Kimley»Horn
Expect More. Experience Better.

5 SIGNIFICANCE CRITERIA AND METHODOLOGY

5.1 CEQA Thresholds

Appendix G of the California Environmental Quality Act (CEQA) Guidelines contains analysis guidelines related to noise impacts. These guidelines have been used by the City to develop thresholds of significance for this analysis. A project would create a significant environmental impact if it would:

- Generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies;
- Generate excessive ground-borne vibration or ground-borne noise levels; and
- For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, expose people residing or working in the Project area to excessive noise levels.

Thresholds

The City's noise significance thresholds for construction, operations, and off-site noise levels are summarized in Table 10: City of Jurupa Valley Noise Significance Thresholds.

Table 10: City of Jurupa Valley Noise Significance Thresholds

Analysis	Receiving Land Use	Condition(s)	Significance Criteria	
			Daytime	Nighttime
Off-Site Traffic	Noise-Sensitive	If ambient is < 65 dBA CNEL[1]	Project plus ambient > 65 dBA CNEL and a ≥ 3 dBA CNEL Project increase	
	Non-Noise-Sensitive	If ambient is < 70 dBA CNEL[1]	Project plus ambient > 70 dBA CNEL and a ≥ 3 dBA CNEL Project increase	
Operational	Noise-Sensitive	Exterior Noise Level Standards[1]	65 dBA L_{eq}	45 dBA L_{eq}
		If ambient is > 65 dBA L_{eq}[1]	≥ 3 dBA L_{eq} Project increase	
		Vibration Level Threshold[2]	0.2 in/sec PPV	
Construction	Noise-Sensitive	Limit construction activities adjacent to or within 200 feet of residential uses to weekdays between 7:00 a.m. and 6:00 p.m., and limit high-noise-generating construction activities (e.g., grading, demolition, and pile driving) [3]		
		Noise Level Threshold[2]	80 dBA L_{eq}	70 dBA L_{eq}
		Vibration Level Threshold[2]	0.2 in/sec PPV	

Notes: "Daytime" = 7:00 a.m. to 10:00 p.m.; "Nighttime" = 10:00 p.m. to 7:00 a.m.; "PPV" = Peak Particle Velocity

Sources:
[1] City of Jurupa Valley General Plan Noise Element Policy NE 1.5 and Figure 7-3 *normally acceptable* noise exposure.
[2] Federal Transit Administration, Transit Noise and Vibration Impact Assessment Manual (FTA, 2018).
[3] City of Jurupa Valley General Plan Noise Element Policy NE 3.5.

Construction Noise

The City of Jurupa Valley has established daytime (80 dBA L_{eq}) and nighttime (70 dBA L_{eq}) construction noise thresholds for noise-sensitive receptors.[9] Additionally, General Plan Policy NE 3.5 limits construction activities adjacent to or within 200 feet of residential uses to weekdays, between 7:00 a.m. and 6:00 p.m., and limit high-noise-generating construction activities (e.g., grading, demolition, pile driving); refer to Table 10.

Operational Noise

Operational noise is evaluated based on the standards within Table 10. The City has identified daytime (65 dBA L_{eq}) and nighttime (45 dBA L_{eq}) operational noise standards for noise-sensitive receptors. Additionally, Table 10 shows a Project-generated 3 dBA increase in ambient noise levels as the significance criteria for operational noise levels at noise-sensitive receptors.

The City's noise and land use compatibility standards are relied upon for traffic noise; refer to Table 10. A potentially significant impact would occur if the Project would cause ambient noise levels to increase by 3 dBA CNEL or more and the resulting noise falls on a noise-sensitive land use that exceeds the normally acceptable noise and land use compatibility standards (i.e., 65 dBA CNEL). Therefore, the proposed Project would result in a significant increase in existing traffic noise levels if Project traffic would increase the noise level by 3 dBA CNEL to over 65 dBA CNEL at an outdoor use area of a noise-sensitive receptor. Note that noise level changes less than 3 dBA are not detectable by the human ear. The environmental baseline is the Without Project condition.

Vibration

As shown in Table 10, the City has established 0.2 in/sec PPV as the vibration threshold. Therefore, the proposed Project would result in a significant increase in vibration levels if Project-generated vibration would exceed 0.2 in/sec PPV.

5.2 Methodology

Construction

Construction noise levels were based on typical noise levels generated by construction equipment published by the Federal Transit Administration (FTA) and the Federal Highway Administration (FHWA). Construction noise is assessed in dBA L_{eq}. This unit is appropriate because L_{eq} can be used to describe noise level from operation of each piece of equipment separately, and levels can be combined to represent the noise level from all equipment operating during a given period.

Construction noise modeling was conducting using the FHWA Roadway Construction Noise Model (RCNM). Reference noise levels are used to estimate operational noise levels at nearby sensitive receptors based on a standard noise attenuation rate of 6 dB per doubling of distance (line-of-sight method of sound attenuation for point sources of noise). Noise level estimates do not account for the presence of intervening structures or topography, which may reduce noise levels at receptor locations. Therefore, the noise levels presented herein represent a conservative, reasonable worst-case estimate of actual

[9] Federal Transit Administration, *Transit Noise and Vibration Impact Assessment Manual*, 2018.

temporary construction noise. The City of Jurupa Valley has established daytime (80 dBA L_{eq}) and nighttime (70 dBA L_{eq}) construction noise thresholds for noise-sensitive receptors.

Operations

The analysis of the Without Project and With Project noise environments is based on noise prediction modeling and empirical observations. Reference noise level data are used to estimate the Project operational noise impacts from stationary sources. Noise levels are collected from field noise measurements and other published sources from similar types of activities are used to estimate noise levels expected with the Project's stationary sources. The reference noise levels are used to represent a worst-case noise environment as noise level from stationary sources can vary throughout the day. Operational noise is evaluated based on the standards within Table 10.

An analysis was conducted of the Project's effect on traffic noise conditions at offsite land uses. Without Project traffic noise levels were compared to With Project traffic noise levels. The environmental baseline is the Without Project condition. The Without Project and With Project traffic noise levels in the Project vicinity were calculated using the FHWA Highway Noise Prediction Model (FHWA-RD-77-108). The actual sound level at any receptor location is dependent upon such factors as the source-to-receptor distance and the presence of intervening structures (walls and buildings), barriers, and topography. The noise attenuating effects of changes in elevation, topography, and intervening structures were not included in the model. Therefore, the modeling effort is considered a worst-case representation of the roadway noise. In general, a 3-dBA increase in traffic noise is barely perceptible to people, while a 5-dBA increase is readily noticeable. The Project traffic noise level ("Opening Year With Project") would cause a significant impact if a 3.0 dBA increase over "Opening Year Without Project" condition occurs and the resulting noise level exceeds 65 dBA CNEL at a noise-sensitive use and 70 dBA CNEL at a non-noise-sensitive use; refer to Table 10.

Vibration

Ground-borne vibration levels associated with construction-related activities for the Project were evaluated utilizing typical ground-borne vibration levels associated with construction equipment, obtained from FTA published data for construction equipment. Potential ground-borne vibration impacts related to building/structure damage and interference with sensitive existing operations were evaluated, considering the distance from construction activities to nearby land uses. As shown in Table 10, the City has established 0.2 in/sec PPV as the vibration threshold.

6 POTENTIAL IMPACTS AND MITIGATION

6.1 Acoustical Impacts

Threshold 6.1 Would the Project generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

Construction

Individual projects within the Specific Plan area would generate temporary construction noise that could exceed existing ambient noise levels in the Specific Plan area. However, construction noise would be short-term in duration and would cease with the completion of individual development projects. Noise impacts associated with construction activity are a function of the noise generated by construction equipment, the location and sensitivity of nearby land uses, and the timing and duration of the noise-generating activities.

Construction noise typically occurs intermittently and varies depending on the nature or phase of construction (e.g., land clearing, grading, excavation, paving). Activities would include site preparation, grading, building construction, paving, and architectural coating applications. Such activities would require graders, scrapers, and tractors during site preparation; graders, dozers, and tractors during grading; cranes, forklifts, generators, tractors, and welders during building construction; pavers, rollers, mixers, tractors, and paving equipment during paving; and air compressors during architectural coating. According to the project civil engineer, no pile-driving would occur during construction activities. Typical operating cycles for these types of construction equipment may involve 1 or 2 minutes of full power operation followed by 3 to 4 minutes at lower power settings. Other primary sources of acoustical disturbance would be random incidents, which would last less than one minute (such as dropping large pieces of equipment or the hydraulic movement of machinery lifts). Noise generated by construction equipment, including earth movers, material handlers, and portable generators, can reach high levels.

Because construction of the Project would occur in phases over an extended period of time, construction equipment would not operate at an individual site or location for an extended period of time. Additionally, each construction sub-phase (e.g., grading, paving, building, etc.) would have different noise profiles and would occur at various locations throughout the Project site as the construction progresses. Grading and excavation phases of project construction tend to be the shortest in duration and create the highest construction noise levels due to the operation of heavy equipment required to complete these activities. It should be noted that only a limited amount of equipment can operate near a given location at a particular time.

The City and FTA have identified daytime (80 dBA L_{eq}) and nighttime (70 dBA L_{eq}) construction noise thresholds for noise-sensitive receptors. Further, General Plan Policy NE 3.5 limits construction activities adjacent to or within 200 feet of residential uses to weekdays, between 7:00 a.m. and 6:00 p.m., and limit high-noise-generating construction activities (e.g., grading, demolition, pile driving) near sensitive receptors to weekdays between 9:00 a.m. and 3:00 p.m.

The noise levels calculated in Table 11: Project Construction Noise Levels, show estimated exterior construction noise for Phase 1 and Phase 2, as well as Phase 2 construction noise level on Phase 1 future

on-site residential uses, without accounting for attenuation from existing physical barriers. Although construction may occur across the Specific Plan Area, the distance from the center of the nearest Project construction area to various sensitive receptors, best represents the potential average construction-related noise levels.

Table 11: Unmitigated Project Construction Noise Levels

Receptor[1]	Construction Phase	Modeled Exterior Construction Level at Property Line of Nearest Sensitive Receptor dBA L_{eq}	City and FTA Noise Threshold (dBA L_{eq})	Exceed Threshold?
Phase 1				
Off-Site Receptors 1 and 2 (NAP 1 and NAP 2)	Demolition	75.3	80	No
	Site Preparation	76.5	80	No
	Grading	77.1	80	No
	Building Construction	83.8	80	**Yes**
	Paving	70.5	80	No
	Architectural Coating	62.6	80	No
Off-Site Receptor 3 (residential uses to the south)	Demolition	72.5	80	No
	Site Preparation	73.7	80	No
	Grading	74.2	80	No
	Building Construction	81.0	80	**Yes**
	Paving	67.6	80	No
	Architectural Coating	59.7	80	No
Phase 2				
Off-Site Receptors 1 and 2 (NAP 1 and NAP 2)	Grading	77.1	80	No
	Building Construction	83.8	80	**Yes**
	Paving	70.5	80	No
	Architectural Coating	62.6	80	No
Off-Site Receptor 3 (residential uses to the south)	Grading	74.2	80	No
	Building Construction	81.0	80	**Yes**
	Paving	67.6	80	No
	Architectural Coating	59.7	80	No
Future On-Site Receptors (residential uses located adjacent to proposed Phase 2 construction activities)	Grading	77.1	80	No
	Construction	83.8	80	**Yes**
	Paving	70.5	80	No
	Architectural Coating	62.6	80	No

Notes:
1. Refer to Exhibit 5 for the location of off-site sensitive receptors and Exhibit 3 for the location of future on-site sensitive receptors (i.e., residential uses).
Source: Refer to Appendix B: Noise Modeling Data for construction noise modeling assumptions and results.

The nearest off-site sensitive receptors are residences located adjacent to the south of the Project site (Receptor 3), as well as NAP 1 and NAP 2 (Receptors 1 and 2); refer to Exhibit 5. The nearest on-site sensitive receptors are residential uses located adjacent to proposed Phase 2 construction activities; refer

to Exhibit 3. Distances were measured from the center of the nearest Project construction area to the property line. The center of the nearest Project construction area is used because the L_{eq} metric is an average and equipment would move around the site; therefore, a center distance represents the average.

As shown in Table 11: Unmitigated Project Construction Noise Levels, Phase 1 and Phase 2 construction activities have the potential to exceed the 80 dBA L_{eq} daytime threshold for sensitive receptors (construction would not occur during nighttime hours). Therefore, **MM NOI-1** would be implemented to reduce construction noise levels at the nearest sensitive receptors. **MM NOI-1** would require best management noise reduction techniques and practices to ensure that construction noise would not exceed the City's construction noise threshold of 80 dBA L_{eq}. Specifically, **MM NOI-1** would require temporary noise barriers within 50 feet of sensitive receptors and acoustical shrouds for pile driving activities occurring within 285 feet of sensitive receptors. As shown in Table 12: Mitigated Project Construction Noise Levels, Phase 1 and Phase 2 construction activities would not exceed the 80 dBA L_{eq} daytime threshold for sensitive receptors with implementation of **MM NOI-1**. Therefore, construction-related noise impacts would be less than significant with implementation of **MM NOI-1**.

Table 12: Mitigated Project Construction Noise Levels

Receptor[1]	Construction Phase	Modeled Exterior Construction Level at Property Line of Nearest Sensitive Receptor dBA L_{eq}	City and FTA Noise Threshold (dBA L_{eq})	Exceed Threshold?
Phase 1				
Off-Site Receptors 1 and 2 (NAP 1 and NAP 2)	Demolition	71.5	80	No
	Site Preparation	72.6	80	No
	Grading	73.2	80	No
	Building Construction	79.9	80	No
	Paving	66.6	80	No
	Architectural Coating	58.7	80	No
Off-Site Receptor 3 (residential uses to the south)	Demolition	71.5	80	No
	Site Preparation	72.6	80	No
	Grading	73.2	80	No
	Building Construction	79.9	80	No
	Paving	66.6	80	No
	Architectural Coating	58.7	80	No
Phase 2				
Off-Site Receptors 1 and 2 (NAP 1 and NAP 2)	Grading	73.2	80	No
	Building Construction	79.9	80	No
	Paving	66.6	80	No
	Architectural Coating	58.7	80	No
Off-Site Receptor 3 (residential uses to the south)	Grading	73.2	80	No
	Building Construction	79.9	80	No
	Paving	66.6	80	No
	Architectural Coating	58.7	80	No
Future On-Site	Grading	73.2	80	No

Table 12: Mitigated Project Construction Noise Levels

Receptor[1]	Construction Phase	Modeled Exterior Construction Level at Property Line of Nearest Sensitive Receptor dBA L_{eq}	City and FTA Noise Threshold (dBA L_{eq})	Exceed Threshold?
Receptors (residential uses located adjacent to proposed Phase 2 construction activities)	Construction	79.9	80	No
	Paving	66.6	80	No
	Architectural Coating	58.7	80	No

Notes:
1. Refer to Exhibit 5 for the location of off-site sensitive receptors and Exhibit 3 for the location of future on-site sensitive receptors (i.e., residential uses).
Source: Refer to Appendix B: Noise Modeling Data for construction noise modeling assumptions and results.

It should be noted that the phasing and construction details for each future development would be evaluated on a case-by-case basis as the Specific Plan does not propose site-specific development at this time.

Operations

Implementation of the proposed Project would create new sources of noise in the Project vicinity. The major noise sources associated with the Project would include stationary noise equipment such as mechanical equipment (i.e. trash compactors, air conditioners, etc.); truck and loading docks (i.e. slow moving truck on the site, maneuvering and idling trucks, equipment noise); landscaping equipment; parking areas (i.e. car door slamming, car radios, engine start-up, and car pass-by); and off-site traffic noise.

Off-Site Traffic Noise

Implementation of the Project would generate increased traffic volumes along nearby roadway segments. Based on the Traffic Impact Analysis and Traffic Memo, implementation of the proposed Project would result in approximately 39,402 daily trips.

The "2025 Opening Year Without Project" and "2025 Opening Year With Project" scenarios are compared in Table 13: Opening Year 2025 Traffic Noise Levels. As shown in Table 13, roadway noise levels without the Project would range from 41.1 dBA CNEL to 66.9 dBA CNEL and with the Project between 41.1 dBA CNEL and 68.2 dBA CNEL. Project-generated traffic would result in a maximum increase of 3.8 dBA for the Frontage Road between Rubidoux Boulevard and 30th Street, however there are no sensitive receptors close to this segment. The next noise level increase of 3.4 dBA is related to Hall Avenue between Market Street and 24th Street, but because the With Project noise level at this roadway segment remains below 65 dBA CNEL for noise-sensitive uses, it would not result in a significant impact. As shown in Table 13, the Project would not result in any significant impacts.

Table 13: Opening Year 2025 Traffic Noise Levels

Roadway Segment		2025 Opening Year Without Project		2025 Opening Year With Project		Change	Noise Threshold[2]	Significant Impact
		ADT	dBA CNEL[1]	ADT	dBA CNEL[1]			
Cedar Avenue	Slover Avenue to Santa Ave	22,327	63.8	23,507	64.1	0.3	65	No
	Santa Ana Ave to Jurupa Ave	20,356	64.6	21,936	65.0	0.5	65	No
	Jurupa Ave to El Rivino Rd	21,309	65.9	23,289	66.4	0.5	65	No
	El Rivino Rd to 20th St/Market St	22,061	66.0	24,041	66.5	0.5	65	No
Rubidoux Blvd	20th St/Market St to 24th St	20,789	65.7	23,539	66.5	0.7	65	No
	24th St to 26th St	20,450	65.6	23,200	66.4	0.7	65	No
	26th St to 28th St	21,845	65.9	24,595	66.6	0.7	65	No
	28th St to 30 St/SR-60 WB Off-Ramp	27,161	64.6	30,021	65.2	0.7	65	No
	30th St/SR-60 WB Off-Ramp to SR-60 WB On-Ramp	39,912	66.3	46,712	67.3	1.0	65	No
	SR-60 WB On-Ramp to SR-60 EB-Off Ramp/Frontage Rd	31,011	65.2	39,681	66.7	1.6	N/A[3]	No
	SR-60 EB Off-Ramp/Frontage Rd to 34th St	33,232	66.7	42,632	68.2	1.5	65	No
	34th St to Mission Blvd	29,371	64.9	33,101	65.7	0.8	65	No
Market St	Rubidoux Blvd to Agua Mansa Rd	21,314	64.8	21,704	64.9	0.1	65	No
	Agua Mansa Rd to Hall Ave	16,493	63.5	16,693	63.5	0.1	65	No
	Hall Ave to 24th St/Via Cerro	17,135	63.6	17,705	63.8	0.2	65	No
	24th St/Via Cerro to Rivera St	24,828	65.2	25,478	65.4	0.2	65	No
	Rivera St to SR-60 WB Ramps	27,978	66.1	28,898	66.3	0.2	65	No
	SR-60 WB Ramps to SR-60 EB Ramps	22,431	65.1	23,451	65.4	0.3	65	No
Hall Avenue	Market St to 24th St	996	50.1	1,766	53.5	3.4	65	No
	24th St to 26th St	2,847	54.6	3,697	56.3	1.7	65	No
	26th St to 28th St	2,890	54.7	3,740	56.3	1.6	65	No
Mission Blvd	Valley Way to Golden W Ave	25,210	64.4	26,110	65.4	1.0	65	No
	Golden W Ave to Opal St	27,223	64.7	28,333	65.9	1.1	65	No
	Opal St to Pacific Ave	27,981	64.9	29,241	66.1	1.2	65	No
	Pacific Ave to La Rue St	26,914	64.7	28,554	66.3	1.6	65	No
	La Rue St at Riverview Dr	27,553	64.8	29,193	66.3	1.6	65	No
	Riverview Dr to Rubidoux Blvd	32,541	65.6	35,931	68.1	2.4	65	No
	Rubidoux Blvd to Wallace St	29,563	65.2	29,563	65.2	0.0	65	No
	Wallace St to Crestmore Rd	27,275	64.8	27,765	65.3	0.5	65	No
Riverview Dr/Limonite Avenue	Mission Blvd to 42nd St	17,077	63.8	18,827	64.4	0.6	65	No
	42nd St to Pacific Ave	19,112	64.3	20,672	64.8	0.5	65	No
	Pacific Ave to Ave Juan Bautista	23,864	66.6	25,424	66.9	0.4	65	No
	Ave Juan Bautista to Camino Real	25,207	66.9	26,247	67.2	0.2	65	No
24th Street	Rubidoux Blvd to Hall Ave	2,674	50.4	2,674	50.4	0.0	65	No
	Hall Ave to Market St	3,713	51.9	3,793	52.1	0.2	65	No
26th Street	Rubidoux Blvd to Hall Ave	725	44.8	725	44.8	0.0	65	No
28th Street	Rubidoux Blvd to Hall Ave	2,262	49.7	2,522	50.7	1.0	65	No
Frontage Road	Rubidoux Blvd to 30th St	12,237	57.0	19,797	60.8	3.8	N/A[3]	No
Wallace Street	34th St to 36th St	1,948	53.0	2,438	53.6	0.6	65	No
	36th St to Mission Blvd	3,160	55.1	3,650	55.5	0.4	65	No
Crestmore Road	34th St to 36th St	2,609	50.3	3,209	50.7	0.4	65	No
	36th St to Mission Blvd	2,912	50.8	3,512	51.1	0.3	65	No
34th Street	Rubidoux Blvd to Wallace St	4,535	52.7	4,535	52.7	0.0	65	No
	Wallace St to Crestmore Rd	3,269	51.3	3,269	51.3	0.0	65	No
36th Street	Wallace St to Crestmore Rd	314	41.1	314	41.1	0.0	65	No

ADT = average daily traffic; dBA = A-weighted decibels; CNEL = community noise equivalent level.

1. Traffic noise levels are at 100 feet from the roadway centerline. The actual sound level at any receptor location is dependent upon such factors as the source-to-receptor distance and the presence of intervening structures, barriers, and topography.
2. Potential impacts occur when the Project change exceeds 65 dBA CNEL and a 3 dBA increase (i.e., both must occur) at the receiving noise-sensitive land use (e.g., residences, hospitals, schools, childcare facilities, and places of assembly).
3. This roadway segment is not surrounded by land uses identified in the Jurupa Valley Community Noise Compatibility Matrix. Therefore, no land use threshold is applicable.

Source: Based on traffic data within the *Traffic Analysis Memorandum for the proposed District at Jurupa Valley*, prepared by Kimley-Horn, 2023.
Refer to Appendix B for traffic noise modeling assumptions and results. Refer to Appendix C for ADT Traffic Data.

The "2028 Opening Year Without Project" and "2028 Opening Year With Project" scenarios are compared in Table 14: Opening Year 2028 Traffic Noise Levels. As shown in Table 14, roadway noise levels without the Project would range from 41.4 dBA CNEL to 67.1 dBA CNEL and with the Project between 41.4 dBA CNEL and 68.3 dBA CNEL. Project-generated traffic would result in a maximum increase of 3.7 dBA for the Frontage Road between Rubidoux Boulevard and 30th Street, however there are no sensitive receptors close to this segment. The next noise level increase of 3.3 dBA is related to Hall Avenue between Market Street and 24th Street, but because the With Project noise level at this roadway segment remains below 65 dBA CNEL for noise-sensitive uses, it would not result in a significant impact. As shown in Table 14, the Project would not result in any significant impacts.

Table 14: Opening Year 2028 Traffic Noise Levels

Roadway Segment		2028 Opening Year Without Project		2028 Opening Year With Project		Change	Noise Threshold[2]	Significant Impact
		ADT	dBA CNEL[1]	ADT	dBA CNEL[1]			
Cedar Avenue	Slover Avenue to Santa Ave	23,594	64.0	24,774	64.3	0.3	65	No
	Santa Ana Ave to Jurupa Ave	21,502	64.8	23,082	65.3	0.4	65	No
	Jurupa Ave to El Rivino Rd	22,513	66.1	24,493	66.6	0.5	65	No
	El Rivino Rd to 20th St/Market St	23,324	66.2	25,304	66.7	0.5	65	No
Rubidoux Blvd	20th St/Market St to 24th St	21,874	66.0	24,624	66.7	0.7	65	No
	24th St to 26th St	21,510	65.8	24,260	66.5	0.7	65	No
	26th St to 28th St	22,909	66.1	25,659	66.8	0.7	65	No
	28th St to 30 St/SR-60 WB Off-Ramp	28,344	64.8	31,204	65.4	0.6	65	No
	30th St/SR-60 WB Off-Ramp to SR-60 WB On-Ramp	41,634	66.4	48,434	67.4	1.0	65	No
	SR-60 WB On-Ramp to SR-60 EB-Off Ramp/Frontage Rd	32,322	65.3	40,992	66.9	1.5	N/A[3]	No
	SR-60 EB Off-Ramp/Frontage Rd to 34th St	34,575	66.9	43,975	68.3	1.5	65	No
	34th St to Mission Blvd	30,513	65.1	34,243	65.8	0.8	65	No
Market St	Rubidoux Blvd to Agua Mansa Rd	22,434	65.0	22,824	65.2	0.1	65	No
	Agua Mansa Rd to Hall Ave	17,364	63.7	17,564	63.8	0.1	65	No
	Hall Ave to 24th St/Via Cerro	18,007	63.8	18,577	64.0	0.2	65	No
	24th St/Via Cerro to Rivera St	26,064	65.4	26,714	65.6	0.2	65	No
	Rivera St to SR-60 WB Ramps	29,431	66.3	30,351	66.5	0.2	65	No
	SR-60 WB Ramps to SR-60 EB Ramps	23,548	65.3	24,568	65.6	0.3	65	No
Hall Avenue	Market St to 24th St	1,057	50.3	1,827	53.6	3.3	65	No
	24th St to 26th St	3,021	54.9	3,871	56.4	1.6	65	No
	26th St to 28th St	3,067	54.9	3,917	56.5	1.6	65	No
Mission Blvd	Valley Way to Golden W Ave	26,480	64.6	27,380	65.5	1.0	65	No
	Golden W Ave to Opal St	28,576	64.9	29,686	66.0	1.1	65	No
	Opal St to Pacific Ave	29,380	65.1	30,640	66.2	1.2	65	No
	Pacific Ave to La Rue St	28,188	64.9	29,828	66.4	1.5	65	No
	La Rue St at Riverview Dr	28,850	65.0	30,490	66.5	1.5	65	No
	Riverview Dr to Rubidoux Blvd	34,156	65.8	37,546	68.2	2.4	65	No
	Rubidoux Blvd to Wallace St	31,204	65.4	31,204	65.4	0.0	65	No
	Wallace St to Crestmore Rd	28,806	65.0	29,296	65.5	0.5	65	No
Riverview Dr/Limonite Avenue	Mission Blvd to 42nd St	17,935	64.0	19,685	64.6	0.6	65	No
	42nd St to Pacific Ave	20,095	64.5	21,655	65.0	0.5	65	No
	Pacific Ave to Ave Juan Bautista	25,138	66.8	26,698	67.2	0.4	65	No
	Ave Juan Bautista to Camino Real	26,562	67.1	27,602	67.4	0.2	65	No
24th Street	Rubidoux Blvd to Hall Ave	2,837	50.7	2,837	50.7	0.0	65	No
	Hall Ave to Market St	3,940	52.1	4,020	52.3	0.2	65	No
26th Street	Rubidoux Blvd to Hall Ave	770	45.0	770	45.0	0.0	65	No
28th Street	Rubidoux Blvd to Hall Ave	2,401	50.0	2,661	50.9	1.0	65	No
Frontage Road	Rubidoux Blvd to 30th St	12,765	57.2	20,325	60.9	3.7	N/A[3]	No
Wallace Street	34th St to 36th St	2,068	53.2	2,558	53.8	0.6	65	No
	36th St to Mission Blvd	3,304	55.3	3,794	55.6	0.4	65	No
Crestmore	34th St to 36th St	2,768	50.6	3,368	50.9	0.3	65	No

Table 14: Opening Year 2028 Traffic Noise Levels

Roadway Segment		2028 Opening Year Without Project		2028 Opening Year With Project		Change	Noise Threshold[2]	Significant Impact
		ADT	dBA CNEL[1]	ADT	dBA CNEL[1]			
Road	36th St to Mission Blvd	3,090	51.1	3,690	51.4	0.3	65	No
34th Street	Rubidoux Blvd to Wallace St	4,813	53.0	4,813	53.0	0.0	65	No
	Wallace St to Crestmore Rd	3,469	51.6	3,469	51.6	0.0	65	No
36th Street	Wallace St to Crestmore Rd	333	41.4	333	41.4	0.0	65	No

ADT = average daily traffic; dBA = A-weighted decibels; CNEL = community noise equivalent level.

1. Traffic noise levels are at 100 feet from the roadway centerline. The actual sound level at any receptor location is dependent upon such factors as the source-to-receptor distance and the presence of intervening structures, barriers, and topography.
2. Potential impacts occur when the Project change exceeds 65 dBA CNEL and a 3 dBA increase (i.e., both must occur) at the receiving noise-sensitive land use (e.g., residences, hospitals, schools, childcare facilities, and places of assembly).
3. This roadway segment is not surrounded by land uses identified in the Jurupa Valley Community Noise Compatibility Matrix. Therefore, no land use threshold is applicable.

Source: Based on traffic data within the *Traffic Analysis Memorandum for the proposed District at Jurupa Valley*, prepared by Kimley-Horn, 2023.
Refer to Appendix B for traffic noise modeling assumptions and results. Refer to Appendix C for ADT Traffic Data.

Mechanical Equipment

Rooftop-mounted heating, ventilation, and air conditioning (HVAC) equipment serving new development in the Specific Plan area could be located close to existing residences. Noise levels from HVAC systems typically result in noise levels that average 52 dBA at 50 feet from the source.[10] Although detailed site plans for future development within the Specific Plan area have not yet been developed, HVAC equipment would typically be roof mounted. At the time of this analysis, identification of specific mechanical equipment and detailed site plans have not been developed. However, the Specific Plan has identified a minimum building setback of 10 feet. Therefore, the nearest off- and on-site sensitive receptors could be located 10 feet from potential HAVC units on the Project site. At this distance, HVAC noise levels would be approximately 66.0 dBA, which would exceed the City's exterior noise standard (i.e., 65 dBA CNEL). Therefore, **MM NOI-2** shall be implemented to ensure noise-generating stationary source equipment would not exceed noise regulations established by the City of Jurupa Valley. Thus, noise levels generated from mechanical equipment on the Project site would result in a less than significant impact with implementation of **MM NOI-2**.

Truck and Loading Dock Noise

The predominant noise source during on-site operations would be from on-site truck movements and idling. Truck loading and unloading areas may be included at the proposed industrial and commercial uses. Truck and loading dock noise (i.e., noise from truck movements to the loading docks, backup alarms, idling, and loading/unloading activities) is typically 64.4 dBA at 50 feet.[11] Truck loading and unloading activities may occur during daytime and nighttime hours as the operational schedule of the proposed industrial and commercial uses is not known at the time of this analysis. The closest sensitive receptors to the proposed industrial and commercial uses are the proposed on-site residential uses, NAP 1 and NAP 2 (Receptors 1 and 2), and a church (Receptor 7); refer to Exhibit 5. Assuming slow-moving trucks could operate up to the commercial and industrial boundary lines, sensitive receptors may experience noise levels associated with slow-moving trucks at a distance of 30 feet for on-site and off-site sensitive

[10] Elliott H. Berger, Rick Neitzel, and Cynthia A. Kladden, Noise Navigator Sound Level Database with Over 1700 Measurement Values, July 6, 2010.

[11] Loading dock reference noise level measurements conducted by Kimley-Horn on December 18, 2018 at the La Palma Neighborhood Walmart, approximately 50 feet from the Walmart loading dock area. Loading dock activities included trucks arriving at the docks, backing up, and loading/unloading using palette jacks.

receptors. At this distance, noise levels would be approximately 69 dBA. Therefore, truck and loading dock noise levels have the potential to exceed the City's daytime (65 dBA) and nighttime (45 dBA) exterior noise standards at the closest sensitive receptors (i.e., off- and on-site residences and a church). **MM NOI-2** would be implemented to ensure sensitive receptors are not exposed to noise levels above the City's exterior noise thresholds. Noise levels generated from trucks and loading docks on the Project site would result in a less than significant impact with implementation of **MM NOI-2**.

Landscape Maintenance Activities

Development and operation of the proposed Project would introduce new landscaping requiring periodic maintenance. Noise generated by a gasoline-powered lawnmower is estimated to be approximately 70 dBA at a distance of five feet. However, **MM AQ-5** in the Project's Air Quality Assessment requires all landscaping equipment used onsite to be 100 percent electrically powered which would result in significantly lower noise levels. Additionally, landscape maintenance activities would operate during daytime hours for brief periods of time and would not permanently increase ambient noise levels in the Project vicinity. Further, noise emanating from landscaping equipment is exempt from the noise standard pursuant to Municipal Code Section 11.05.020. Therefore, impacts associated with landscape maintenance would be less than significant.

Parking

Parking activities have the potential to be an annoyance to adjacent sensitive receptors. The instantaneous maximum sound levels generated by a car door slamming, engine starting up, and car pass-bys range from 53 to 61 dBA at 50 feet from the source.[12] Conversations in parking areas may also be an annoyance to adjacent sensitive receptors. Sound levels of speech typically range from 33 dBA at 50 feet for normal speech to 50 dBA at 50 feet for very loud speech.[13] These activities are expected to occur intermittently throughout the day, as residents, visitors, and employees arrive and leave the parking areas. As such, noise associated with parking lots is typically not of sufficient volume to exceed community noise standards, which are based on a time-averaged scale such as the CNEL scale.

At the time of this analysis, the proposed Project's parking areas have not been identified. As the proposed Project's parking areas have not been identified, this analysis conservatively assumes the parking lots would be located along the Project boundary closest to off- and on-site sensitive receptors. The nearest sensitive receptors to potential parking areas on the Project site would be the on-site residential uses located adjacent to the proposed Commercial Tourist land use and the off-site residences (Receptors 1, 2, and 3); refer to Exhibit 5. Therefore, parking noise levels have the potential to exceed the City's daytime (65 dBA) and nighttime (45 dBA) exterior noise standards at the closest sensitive receptors (i.e., off- and on-site residences and a church). **MM NOI-2** would be implemented to ensure sensitive receptors are not exposed to noise levels above the City's exterior noise thresholds.

Mitigation Measures:

MM NOI-1 Prior to issuance of grading and/or building permits, a note shall be provided on grading and building plans indicating that, during grading and construction, the property owner/developer

[12] Kariel, H. G., *Noise in Rural Recreational Environments*, Canadian Acoustics 19(5), 3-10, 1991.
[13] Elliott H. Berger, Rick Neitzel, and Cynthia A. Kladden, *Noise Navigator Sound Level Database with Over 1700 Measurement Values*, July 6, 2010.

shall be responsible for requiring contractors to implement the following measures to limit construction-related noise:

- The construction contractor shall limit commercial construction activities adjacent to or within 200 feet of residential uses to weekdays, between 7:00 a.m. and 6:00 p.m., and limit high-noise-generating construction activities (e.g., grading, demolition, pile driving) near sensitive receptors to weekdays, between 9:00 a.m. and 3:00 p.m.
- The construction contractor shall ensure that all internal combustion engine-driven equipment is equipped with mufflers that are in good condition and appropriate for the equipment.
- The construction contractor shall locate stationary noise-generating equipment as far as possible from sensitive receptors when sensitive receptors adjoin or are near a construction project area. In addition, the project contractor shall place such stationary construction equipment so that emitted noise is directed away from sensitive receptors nearest the project site.
- The construction contractor shall prohibit unnecessary idling (no more than 5 minutes) of internal combustion engines.
- The construction contractor shall, to the maximum extent practical, locate on-site equipment staging areas to maximize the distance between construction-related noise sources and noise-sensitive receptors nearest the project site during all project construction.
- For construction activity within 50 feet of any noise-sensitive receptors, a temporary noise barrier shall be installed by the applicant/developer. This temporary noise barrier shall be installed prior to the onset of construction activities that would require the use of heavy construction equipment. The barrier shall be located between the construction zone and all adjacent sensitive receptor land uses. The temporary sound barrier shall provide a reduction in noise that shall meet the City's construction noise threshold of 80 dBA L_{eq} as measured at the façade of the sensitive receptor land uses. The noise barrier shall be a minimum height of 8 feet and be free of gaps and holes and must achieve a Sound Transmission Class (STC) of 25 or greater. The barrier can be either (a) a 0.75-inch-thick plywood wall or (b) a hanging blanket/curtain with a surface density or at least 2 pounds per square foot. For either configuration, the construction side of the barrier shall have an exterior lining of sound absorption material with a Noise Reduction Coefficient (NRC) rating of 0.7 or higher. Temporary barriers would not be necessary if the applicant/developer can demonstrate to the satisfaction of the City that construction noise levels would be below the 80 dBA L_{eq} threshold at sensitive receptors.
- Impact pile driving within 285 feet of any noise-sensitive receptors shall use an acoustical shroud (i.e., a noise curtain shall be installed on the pile driver or around the pile) to reduce noise by up to approximately 15 dBA. Additionally, foundation pile holes shall be predrilled, or sonic or vibratory pile drives shall be used, as feasible based on geologic conditions, to minimize the number of impacts required to seat the pile.
- The construction contractor shall designate a "disturbance coordinator" who would be responsible for responding to any complaints about construction noise. The disturbance

coordinator shall determine the cause of the noise complaint (e.g., a bad muffler) and shall require that measures be implemented to correct the problem.

- These measures may only be granted an exception if an application for construction-related exception is made to and considered by the Building Official of the City in accordance with Section 11.05.070 of the Municipal Code.

MM NOI-2 Prior to issuance of building permits, the property owner/developer shall demonstrate compliance with Noise Policies NE 3.1, NE 3.2, and NE 3.3 of the City's Noise Element for any future commercial or industrial development projects that would include stationary noise sources, such as loading, shipping, or parking facilities within 200 feet of a residential parcel. The property owner/developer shall submit an Operational Noise Reduction Plan to the Planning Director for review and approval. The plan shall identify specific techniques and measures to reduce on-site stationary operational noise to ensure compliance with the noise performance standards within the City of Jurupa Valley noise related CEQA thresholds guidance for noise sensitive receivers; refer to Table 10. Noise reduction design features may include, but are not limited to, locating stationary noise sources on the site to be shielded by structures (buildings, enclosures, or sound walls).

Level of Significance: Less than significant impact with mitigation incorporated.

Threshold 6.2 Would the Project generate excessive ground-borne vibration or ground-borne noise levels?

Construction Vibration

Construction can generate varying degrees of ground vibration, depending on the construction procedures and equipment. Operation of construction equipment generates vibrations that spread through the ground and diminish with distance from the source. Construction on the Project site would have the potential to result in varying degrees of temporary ground-borne vibration, depending on the specific construction equipment used and the operations involved.

The types of construction vibration impacts include human annoyance and building damage. Human annoyance occurs when construction vibration rises significantly above the threshold of human perception for extended periods of time. Building damage can be cosmetic or structural. Ordinary buildings that are not particularly fragile would not experience any cosmetic damage (e.g., plaster cracks) at distances beyond 30 feet. This distance can vary substantially depending on the soil composition and underground geological layer between vibration source and receiver. In addition, not all buildings respond similarly to vibration generated by construction equipment. As shown in Table 10, the City has established 0.2 in/sec PPV as the vibration threshold.

The FTA has published standard vibration velocities for construction equipment operations. Table 15: Typical Construction Equipment Vibration Levels, lists vibration levels at 25 feet for typical construction equipment. Ground-borne vibration generated by construction equipment spreads through the ground and diminishes in magnitude with increases in distance. As indicated in Table 15, based on FTA data, vibration velocities from typical heavy construction equipment operations that would be used during Project construction range from 0.003 to 1.518 in/sec PPV at 25 feet from the source of activity.

Table 15: Typical Construction Equipment Vibration Levels				
Equipment	**Peak Particle Velocity at 25 Feet (in/sec)**	**Peak Particle Velocity at 15 Feet (in/sec)[1]**	**Peak Particle Velocity at 30 Feet (in/sec)[1]**	**Peak Particle Velocity at 100 Feet (in/sec)[1]**
Pile Driver (Impact)	1.518	1.386	-	0.190
Vibratory Roller	0.210	0.452	0.160	-
Large Bulldozer	0.089	0.191	-	-
Caisson Drilling	0.089	0.191	-	-
Loaded Trucks	0.076	0.164	-	-
Jackhammer	0.035	0.075	-	-
Small Bulldozer/Tractors	0.003	0.006	-	-
[1] Calculated using the following formula: $PPV_{equip} = PPV_{ref} \times (25/D)^{1.5}$, where: PPV_{equip} = the peak particle velocity in in/sec of the equipment adjusted for the distance; PPV_{ref} = the reference vibration level in in/sec from Table 7-4 of the Federal Transit Administration, *Transit Noise and Vibration Impact Assessment Manual*, 2018; D = the distance from the equipment to the receiver.				
Source: Federal Transit Administration, *Transit Noise and Vibration Impact Assessment Manual*, 2018.				

The nearest existing structures are single-family residences (Receptors 1, 2, and 3) located approximately 15 feet from the Project boundary line; refer to Exhibit 5. As construction may occur up to the Project boundary line, construction activities may be located as close as 15 feet from the nearest existing structure. As shown in Table 15, vibration levels at 15 feet would range from 0.006 to 1.386 in/sec PPV. However, only vibratory rollers and impact pile drivers have the potential to exceed the City's vibration threshold (0.2 in/sec PPV). Therefore, **MM NOI-3** would require a Construction Vibration Monitoring Plan (VMP) to ensure Project-generated vibration levels would not exceed the City's vibration threshold. Specifically, **MM NOI-3** would require a VMP for construction activities requiring operation of vibratory rollers within 30 feet of an off-site structure and impact pile drivers within 100 feet of an off-site structure. With implementation of **MM NOI-3** impacts would be less than significant.

Operational Vibration

The operation of the Specific Plan would not include any substantial long-term vibration sources. The Project would include truck movement activity at the Project site for deliveries and trash/recycling collection. These movements would generally be low-speed (i.e., less than 15 miles per hour) and would occur over new, smooth surfaces. For perspective, Caltrans has studied the effects of propagation of vehicle vibration on sensitive land uses and notes that "heavy trucks, and quite frequently buses, generate the highest earthborne vibrations of normal traffic."[14] Caltrans further notes that the highest traffic-generated vibrations are along freeways and state routes. Their study finds that "vibrations measured on freeway shoulders (five meters from the centerline of the nearest lane) have never exceeded 0.08 inches per second, with the worst combinations of heavy trucks and poor roadway conditions (while such trucks were moving at freeway speeds). This level coincides with the maximum recommended safe level for ruins and ancient monuments (and historic buildings)".[15] Since truck movements on the Project site would be at low speed (not at freeway speeds) and would be over smooth surfaces (not under poor roadway conditions), Project-related vibration associated with truck activity would not result in excessive groundborne vibrations; no vehicle-generated vibration impacts would occur. In addition, there are no sources of substantial groundborne vibration associated with operation of the Project, such as rail or

[14] California Department of Transportation, *Transportation and Construction Vibration Guidance Manual*, 2020.
[15] California Department of Transportation, *Technical Noise Supplement to the Traffic Noise Analysis Protocol ("TeNS")*, September 2013.

subways. Therefore, Project-related vibration impacts from the operation of the Project would be less than significant.

Mitigation Measures:

MM NOI-3 Prior to issuance of grading and/or building permits, a note shall be provided on grading and building plans indicating that, during grading and construction, the property owner/developer shall be responsible for requiring contractors to implement the following measures to limit construction-related vibration impacts:

- For any future development projects that would necessitate the use of pile driving within 100 feet of an off-site structure, shall submit a Construction Vibration Reduction Plan that identifies specific techniques, such as the depth and location of temporary trenching, that would reduce potential vibration impacts to less than significant for the impacted structure.
- For any future development projects that would necessitate the use of large vibratory rollers within 30 feet of an off-site structure, or the use of other heavy construction equipment within 15 feet of an off-site structure, shall submit a Construction Vibration Reduction Plan that identifies specific techniques, such as the depth and location of temporary trenching, that would reduce potential vibration impacts to less than significant for the impacted structure.
- The individual project owner/developer shall submit the Construction Vibration Reduction Plan to the Planning Director for review and approval. Upon approval by the City, the construction vibration reduction measures shall be incorporated into the construction documents.

Level of Significance: Less than significant impact with mitigation incorporated.

Threshold 6.3 For a Project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the Project expose people residing or working in the Project area to excessive noise levels?

The closest airport to the Project site is the Flabob Airport located approximately 0.7 miles to the southwest. However, according to the Riverside County Airport Land Use Commission, the Project is outside of the 55 dB CNEL noise impact area.[16] Therefore, the Project would not expose people residing or working in the Project area to excessive airport- or airstrip-related noise levels and no impact would occur.

Mitigation Measures: No mitigation is required.

Level of Significance: No impact.

[16] Riverside County, *Riverside County ALUCP—West County Airports Background Data, Flabob Airport and Environs*, December 2004.

6.2 Cumulative Noise Impacts

Cumulative Construction Noise

The Project's construction activities would not result in a substantial temporary increase in ambient noise levels. Construction noise would be periodic and temporary noise impacts that would cease upon completion of construction activities. The Project would contribute to other proximate construction project noise impacts if construction activities were conducted concurrently. However, based on the noise analysis above, the Project's construction-related noise impacts would be less than significant with implementation of **MM NOI-1**.

Construction activities at other planned and approved projects near the Project site would be required to comply with applicable City rules related to noise and would take place during daytime hours on the days permitted by the applicable Municipal Code, and projects requiring discretionary City approvals would be required to evaluate construction noise impacts, comply with the City's standard conditions of approval, and implement mitigation, if necessary, to minimize noise impacts. Construction noise impacts are by nature localized. Based on the fact that noise dissipates as it travels away from its source, noise impacts would be limited to the Project site and vicinity. Therefore, Project construction would not result in a cumulatively considerable contribution to significant cumulative impacts, assuming such a cumulative impact existed, and impacts in this regard are not cumulatively considerable.

Cumulative Operational Noise

Cumulative Off-Site Traffic Noise

Cumulative noise impacts describe how much noise levels are projected to increase over existing conditions with the development of the proposed Project and other foreseeable projects. Cumulative noise impacts would occur primarily as a result of increased traffic on local roadways due to buildout of the proposed Project and other projects in the vicinity. Cumulative increases in traffic noise levels were estimated by comparing the "Existing" and "Horizon Year 2045 Without Project" scenarios to the "Horizon Year 2045 With Project" scenario. The traffic analysis considers cumulative traffic from future growth assumed in the transportation model, as well as cumulative projects.

A project's contribution to a cumulative traffic noise increase would be considered significant when the combined effect exceeds perception level (i.e., auditory level increase) threshold. The following criteria were used to evaluate the combined and incremental effects of the cumulative noise increase.

- *Combined Effect*. The cumulative with Project noise level ("Horizon Year 2045 With Project") would cause a significant cumulative impact if a 3.0 dB increase over "Existing" conditions occurs and the resulting noise level exceeds the applicable exterior standard at a sensitive use. Although there may be a significant noise increase due to the proposed Project in combination with other related projects (combined effects), it must also be demonstrated that the Project has an incremental effect. In other words, a significant portion of the noise increase must be due to the proposed Project.

- *Incremental Effects*. The "Horizon Year 2045 With Project" causes a 1.0 dBA increase in noise over the "Horizon Year 2045 Without Project" noise level.

A significant impact would result only if both the combined and incremental effects criteria have been exceeded and the With Project noise levels exceed the acceptable noise levels identified in Table 10. Noise by definition is a localized phenomenon and reduces as distance from the source increases. Consequently, only the proposed Project and growth due to occur in the general area would contribute to cumulative noise impacts.

Table 16: Cumulative Horizon Year 2045 Traffic Noise Levels identifies the traffic noise effects along roadway segments in the Project vicinity for "Existing," "Horizon Year 2045 Without Project," and "Horizon Year 2045 With Project," conditions, including incremental and net cumulative impacts.

Table 16: Cumulative Horizon Year 2045 Traffic Noise Levels

Roadway Segment		Existing dBA CNEL	Horizon Year 2045 Without Project[1] dBA CNEL	Horizon Year 2045 With Project[1] dBA CNEL	Combined Effects	Incremental Effects	Land Use Threshold dBA CNEL[2]	Cumulatively Significant Impact?
					Difference In dBA Between Existing and Horizon Year 2045 With Project	Difference In dBA Between Horizon Year 2045 Without Project and Horizon Year 2045 With Project		
Cedar Avenue	Slover Avenue to Santa Ave	63.1	64.0	64.3	1.2	0.3	65	No
	Santa Ana Ave to Jurupa Ave	63.9	64.8	65.3	1.4	0.4	65	No
	Jurupa Ave to El Rivino Rd	65.2	66.5	67.0	1.8	0.5	65	No
	El Rivino Rd to 20th St/Market St	65.4	67.5	67.8	2.5	0.4	65	No
Rubidoux Blvd	20th St/Market St to 24th St	64.7	67.4	67.9	3.2	0.5	65	No
	24th St to 26th St	64.5	66.8	67.4	2.9	0.6	65	No
	26th St to 28th St	64.6	67.2	67.7	3.2	0.5	65	No
	28th St to 30 St/SR-60 WB Off-Ramp	62.8	65.3	65.8	3.1	0.6	65	No
	30th St/SR-60 WB Off-Ramp to SR-60 WB On-Ramp	64.4	66.4	67.4	3.0	1.0	65	No
	SR-60 WB On-Ramp to SR-60 EB-Off Ramp/Frontage Rd	63.2	65.3	66.9	3.6	1.5	N/A[1]	No
	SR-60 EB Off-Ramp/Frontage Rd to 34th St	64.5	67.0	68.4	3.9	1.4	65	**Yes**
	34th St to Mission Blvd	62.6	65.3	66.0	3.4	0.7	65	No
Market St	Rubidoux Blvd to Agua Mansa Rd	63.8	66.0	66.1	2.3	0.1	65	No
	Agua Mansa Rd to Hall Ave	62.5	65.1	65.1	2.7	0.1	65	No
	Hall Ave to 24th St/Via Cerro	62.5	64.9	65.0	2.5	0.1	65	No
	24th St/Via Cerro to Rivera St	64.0	65.7	65.8	1.8	0.1	65	No
	Rivera St to SR-60 WB Ramps	65.1	66.6	66.7	1.6	0.1	65	No
	SR-60 WB Ramps to SR-60 EB Ramps	63.9	65.7	65.9	2.0	0.2	65	No
Hall Avenue	Market St to 24th St	49.7	55.3	56.1	6.3	0.8	65	No
	24th St to 26th St	54.3	56.0	56.8	2.5	0.8	65	No
	26th St to 28th St	54.3	56.2	57.0	2.6	0.7	65	No
Mission Blvd	Valley Way to Golden W Ave	63.2	64.6	65.5	2.4	1.0	65	No
	Golden W Ave to Opal St	63.5	64.9	66.0	2.5	1.1	65	No
	Opal St to Pacific Ave	63.6	65.1	66.2	2.6	1.2	65	No
	Pacific Ave to La Rue St	63.2	65.3	66.7	3.5	1.4	65	**Yes**
	La Rue St at Riverview Dr	63.3	65.0	66.5	3.2	1.5	65	**Yes**
	Riverview Dr to Rubidoux Blvd	64.4	65.9	68.2	3.8	2.3	65	**Yes**
	Rubidoux Blvd to Wallace St	64.4	65.4	65.4	1.0	0.0	65	No
	Wallace St to Crestmore Rd	64.1	65.1	65.6	1.5	0.5	65	No

Table 16: Cumulative Horizon Year 2045 Traffic Noise Levels

Roadway Segment		Existing dBA CNEL	Horizon Year 2045 Without Project[1] dBA CNEL	Horizon Year 2045 With Project[1] dBA CNEL	Combined Effects: Difference In dBA Between Existing and Horizon Year 2045 With Project	Incremental Effects: Difference In dBA Between Horizon Year 2045 Without Project and Horizon Year 2045 With Project	Land Use Threshold dBA CNEL[2]	Cumulatively Significant Impact?
Riverview Dr/ Limonite Avenue	Mission Blvd to 42nd St	62.6	64.0	64.6	2.0	0.6	65	No
	42nd St to Pacific Ave	63.2	64.7	65.2	2.0	0.4	65	No
	Pacific Ave to Ave Juan Bautista	65.6	67.0	67.3	1.7	0.3	65	No
	Ave Juan Bautista to Camino Real	66.0	67.4	67.7	1.6	0.2	65	No
24th Street	Rubidoux Blvd to Hall Ave	50.1	55.2	55.2	5.1	0.0	65	No
	Hall Ave to Market St	51.5	55.2	55.3	3.8	0.1	65	No
26th Street	Rubidoux Blvd to Hall Ave	44.4	46.0	46.0	1.6	0.0	65	No
28th Street	Rubidoux Blvd to Hall Ave	49.4	55.2	55.5	6.2	0.3	65	No
Frontage Road	Rubidoux Blvd to 30th St	55.2	57.2	60.9	5.7	3.7	N/A[1]	No
Wallace Street	34th St to 36th St	52.6	55.1	55.5	2.9	0.4	65	No
	36th St to Mission Blvd	53.5	55.9	56.2	2.7	0.3	65	No
Crestmore Road	34th St to 36th St	50.0	50.6	50.9	0.9	0.3	65	No
	36th St to Mission Blvd	50.5	51.1	51.4	0.9	0.3	65	No
34th Street	Rubidoux Blvd to Wallace St	52.4	53.6	53.6	1.2	0.0	65	No
	Wallace St to Crestmore Rd	51.0	51.6	51.6	0.6	0.0	65	No
36th Street	Wallace St to Crestmore Rd	40.8	41.4	41.4	0.6	0.0	65	No

ADT = average daily traffic; dBA = A-weighted decibels; CNEL = community noise equivalent level.

Note:

1. This roadway segment is not surrounded by land uses identified in the Jurupa Valley Community Noise Compatibility Matrix. Therefore, no land use threshold is applicable.
2. Potential impacts occur when the Project change exceeds 65 dBA CNEL and a 3 dBA increase (i.e., both must occur) at the receiving noise-sensitive land use (e.g., residences, hospitals, schools, childcare facilities, and places of assembly).

Source: Based on traffic data within the *Traffic Analysis Memorandum for the proposed District at Jurupa Valley*, prepared by Kimley-Horn, 2023.
Refer to Appendix B for traffic noise modeling assumptions and results. Refer to Appendix C for ADT Traffic Data.

As shown in Table 16, some of the roadway segments meet the criteria for cumulative noise increases. Below is the explanation for each segment:

- Rubidoux Boulevard (from SR-60 WB On-Ramp to SR-60 EB Off-Ramp/Frontage Rd): the combined effects and incremental effects are above 3 dBA and 1 dBA, respectively; however, there is no sensitive receptor near the segment, and therefore the cumulative impact is less than significant.

- Rubidoux Boulevard (from SR-60 EB Off-Ramp/Frontage Rd to 34th St): the combined effects and incremental effects are above 3 dBA and 1 dBA, respectively and the cumulative impact is significant.

- Mission Boulevard (from Pacific Ave to La Rue St): the combined effects and incremental effects are above 3 dBA and 1 dBA, respectively, and the cumulative impact is significant.

- Mission Boulevard (from La Rue St to Riverview Dr): the combined effects and incremental effects are above 3 dBA and 1 dBA, respectively, and the cumulative impact is significant.

- Mission Boulevard (Riverview Dr to Rubidoux Blvd): the combined effects and incremental effects are above 3 dBA and 1 dBA, respectively, and the cumulative impact is significant.

- Frontage Road (from Rubidoux Blvd to 30th St): the combined effects and incremental effects are above 3 dBA and 1 dBA, respectively; however, there is no sensitive receptor near to the roadway segment, and therefore the cumulative impact is less than significant.

Feasible mitigation is not available to reduce traffic noise. Typically, feasible mitigation measures for off-site roadway noise impacts includes repairing the roads with rubberized asphalt and developing sound walls or attenuation barriers to minimize noise impacts. However, this mitigation can only be imposed on on-site roadways since the Applicant would not have authorization or control to make off-site improvements. As summarized above, Project-generated traffic volumes would meet the cumulative noise impact criteria for multiple roadway segments and mitigation to reduce the Project's mobile off-site noise is not feasible. Thus, cumulative operational noise impacts from related projects, in conjunction with Project-specific noise impacts, would be cumulatively considerable and impacts would be significant and unavoidable.

Cumulative Stationary Noise

Stationary noise sources of the proposed Project would result in an incremental increase in non-transportation noise sources in the Project vicinity and as discussed above, operational noise caused by the proposed Project would be less than significant with implementation of **MM NOI-2**. Similar to the proposed Project, other planned and approved projects would be required to mitigate for stationary noise impacts at nearby sensitive receptors, if necessary. As stationary noise sources are generally localized, there is a limited potential for other projects to contribute to cumulative noise impacts.

No known past, present, or reasonably foreseeable projects would combine with the operational noise levels generated by the Project to increase noise levels above acceptable standards because each project must comply with applicable City regulations that limit operational noise. Therefore, the Project, together with other projects, would not create a significant cumulative impact and even if there was such a significant cumulative impact, the Project would not make a cumulatively considerable contribution to significant cumulative operational noise.

Given that noise dissipates as it travels away from its source, operational noise impacts from on-site activities and other stationary sources would be limited to the Project site and vicinity. Thus, cumulative operational noise impacts from related projects, in conjunction with Project-specific noise impacts, would not be cumulatively significant.

7 REFERENCES

1. California Department of Transportation, *California Vehicle Noise Emission Levels*, 1987.
2. California Department of Transportation, *Traffic Noise Analysis Protocol*, 2020.
3. California Department of Transportation, *Technical Noise Supplement to the Traffic Noise Analysis Protocol*, 2013.
4. California Department of Transportation, *Transportation and Construction Vibration Guidance Manual*, 2020.
5. City of Jurupa Valley, *Jurupa Valley General Plan*, 2017
6. City of Jurupa Valley, *Jurupa Valley Municipal Code*, 2022.
7. Cowan, James P., *Handbook of Environmental Acoustics*, 1994.
8. Federal Highway Administration, *Noise Fundamentals*, 2017.
9. Federal Highway Administration, *Noise Measurement Handbook – Final Report*, 2018.
10. Federal Highway Administration, *Roadway Construction Noise Model*, 2006.
11. Federal Highway Administration, *Roadway Construction Noise Model User's Guide Final Report*, 2006.
12. Federal Interagency Committee on Noise, *Federal Agency Review of Selected Airport Noise Analysis Issues*, 1992.
13. Federal Transit Administration, *Transit Noise and Vibration Impact Assessment Manual*, 2018.
14. Kimley-Horn, *Transportation Impact Analysis for District at Jurupa Valley in the City of Jurupa Valley*, May 2022.
15. Kimley-Horn, T*raffic Analysis Memorandum for the proposed District at Jurupa Valley in the City of Jurupa Valley*, 2023.
16. United States Environmental Protection Agency, *Protective Noise Levels (EPA 550/9-79-100)*, 1979.

Appendix A

Existing Ambient Noise Measurements

Noise Measurement Field Data

Project:	Districts at Rubidoux Specific Plan	**Job Number:**	194399001
Site No.:	1	**Date:**	4/26/2022
Analyst:	Alex Howard and Kiera Pascua	**Time:**	10:41am - 10:51am
Location:	2862 Razor Way		
Noise Sources:	Traffic on SR-60		
Comments:	residential neighborhood		

Results (dBA):

Leq:	Lmin:	Lmax:	Peak:
68.3	60.9	71.1	104.8

Equipment	
Sound Level Meter:	LD SoundExpert LxT
Calibrator:	CAL200
Response Time:	Slow
Weighting:	A
Microphone Height:	5 feet

Weather	
Temp. (degrees F):	76
Wind (mph):	< 5
Sky:	Clear
Bar. Pressure:	29.9
Humidity:	17%

Photo:



Kimley»Horn

Summary

File Name on Meter	RUBIDOUX.001
File Name on PC	Location 1.ldbin
Serial Number	0005586
Model	SoundExpert® LxT
Firmware Version	2.404
User	Alex Howard
Location	Jurupa Valley
Job Description	Districts at Rubidoux Specific Plan
Note	

Measurement

Description	
Start	2022-04-26 10:41:06
Stop	2022-04-26 10:51:06
Duration	00:10:00.0
Run Time	00:00:04.8
Pause	00:09:55.2
Pre Calibration	2022-04-26 07:34:58
Post Calibration	None
Calibration Deviation	---

Overall Settings

RMS Weight	A Weighting
Peak Weight	A Weighting
Detector	Slow
Preamp	PRMLxT1L
Microphone Correction	Off
Integration Method	Linear
OBA Range	Normal
OBA Bandwidth	1/1 and 1/3
OBA Freq. Weighting	A Weighting
OBA Max Spectrum	At LMax
Overload	122.4 dB

	A	**C**
Under Range Peak	**79.0**	76.0
Under Range Limit	**25.3**	25.9
Noise Floor	16.1	16.8

Results

LA_{eq}	68.3	
LAE	75.1	
EA	3.628 µPa²h	
$LA_{peak\ (max)}$	2022-04-26 10:41:07	104.8
LAS_{max}	2022-04-26 10:41:11	71.1
LAS_{min}	2022-04-26 10:41:11	60.9
SEA	-99.9 dB	

LAS > 85.0 dB (Exceedance Counts / Duration)	0	0.0
LAS > 115.0 dB (Exceedance Counts / Duration)	0	0.0
LApeak > 135.0 dB (Exceedance Counts / Duration)	0	0.0
LApeak > 137.0 dB (Exceedance Counts / Duration)	0	0.0
LApeak > 140.0 dB (Exceedance Counts / Duration)	0	0.0

Community Noise	**Ldn**	**LDay 07:00-22:00**
	68.3	68.3

LCeq	77.7	dB
LAeq	68.3	dB
LCeq - LAeq	9.4	dB
LAIeq	79.5	dB
LAeq	68.3	dB
LAIeq - LAeq	11.2	dB

	A	
	dB	**Time Stamp**
Leq	68.3	
LS(max)	71.1	2022/04/26 10:41:11
LS(min)	60.9	2022/04/26 10:41:11
LPeak(max)	104.8	2022/04/26 10:41:07

# Overloads	0	
Overload Duration	0.0	s
# OBA Overloads	0	
OBA Overload Duration	0.0	s

Statistics

LAI5.00	70.7	dB
LAI10.00	70.3	dB
LAI33.30	68.7	dB
LAI50.00	66.5	dB
LAI66.60	63.8	dB
LAI90.00	62.7	dB

Calibration History

Preamp	**Date**	**dB re. 1V/Pa**
Direct	2019-10-29 12:18:45	-28.39
PRMLxT1L	2022-04-26 07:34:56	-28.67
PRMLxT1L	2022-04-20 12:08:42	-27.27
PRMLxT1L	2022-04-19 14:36:50	-28.55
PRMLxT1L	2022-04-19 13:55:24	-28.54
PRMLxT1L	2022-04-12 16:27:20	-28.61
PRMLxT1L	2022-04-06 08:45:00	-28.57
PRMLxT1L	2022-04-06 08:44:10	-28.58
PRMLxT1L	2022-03-29 16:29:50	-28.59
PRMLxT1L	2022-03-29 16:27:56	-28.61
PRMLxT1L	2022-03-09 15:06:37	-28.48
PRMLxT1L	2022-03-08 13:00:00	-27.65

Noise Measurement Field Data

Project:	Districts at Rubidoux Specific Plan	**Job Number:**	194399001
Site No.:	2	**Date:**	4/26/2022
Analyst:	Alex Howard and Kiera Pascua	**Time:**	11:00am - 11:10am
Location:	100 feet north of 2861 Wallace Street		
Noise Sources:	Traffic on SR-60 and Wallace Street		
Comments:			

Results (dBA):

Leq:	Lmin:	Lmax:	Peak:
65.0	57.5	72.6	94.0

Equipment	
Sound Level Meter:	LD SoundExpert LxT
Calibrator:	CAL200
Response Time:	Slow
Weighting:	A
Microphone Height:	5 feet

Weather	
Temp. (degrees F):	81
Wind (mph):	< 5
Sky:	Clear
Bar. Pressure:	29.9
Humidity:	17%

Photo:



Kimley»Horn

Summary

File Name on Meter	RUBIDOUX.002
File Name on PC	Location 2.ldbin
Serial Number	0005586
Model	SoundExpert® LxT
Firmware Version	2.404
User	Alex Howard
Location	Jurupa Valley
Job Description	Districts at Rubidoux Specific Plan
Note	

Measurement

Description	
Start	2022-04-26 11:00:26
Stop	2022-04-26 11:10:26
Duration	00:10:00.0
Run Time	00:10:00.0
Pause	00:00:00.0
Pre Calibration	2022-04-26 07:34:56
Post Calibration	None
Calibration Deviation	---

Overall Settings

RMS Weight	A Weighting	
Peak Weight	A Weighting	
Detector	Slow	
Preamp	PRMLxT1L	
Microphone Correction	Off	
Integration Method	Linear	
OBA Range	Normal	
OBA Bandwidth	1/1 and 1/3	
OBA Freq. Weighting	A Weighting	
OBA Max Spectrum	At LMax	
Overload	122.4 dB	
	A	**C**
Under Range Peak	**79.0**	76.0
Under Range Limit	**25.3**	25.9
Noise Floor	16.1	16.8

Results

L_{Aeq}	65.0		
LAE	92.8		
EA	211.181	µPa²h	
$L_{Apeak\ (max)}$	2022-04-26 11:00:26		94.0
L_{ASmax}	2022-04-26 11:08:59		72.6
L_{ASmin}	2022-04-26 11:08:28		57.5
SEA	-99.9 dB		

LAS > 85.0 dB (Exceedance Counts / Duration)	0	0.0
LAS > 115.0 dB (Exceedance Counts / Duration)	0	0.0
LApeak > 135.0 dB (Exceedance Counts / Duration)	0	0.0
LApeak > 137.0 dB (Exceedance Counts / Duration)	0	0.0
LApeak > 140.0 dB (Exceedance Counts / Duration)	0	0.0

Community Noise	**Ldn**	**LDay 07:00-22:00**
	65.0	65.0

LCeq	76.9	dB
LAeq	65.0	dB
LCeq - LAeq	11.9	dB
LAIeq	66.8	dB
LAeq	65.0	dB
LAIeq - LAeq	1.8	dB

	A	
	dB	**Time Stamp**
Leq	65.0	
LS(max)	72.6	2022/04/26 11:08:59
LS(min)	57.5	2022/04/26 11:08:28
LPeak(max)	94.0	2022/04/26 11:00:26

# Overloads	0	
Overload Duration	0.0	s
# OBA Overloads	0	
OBA Overload Duration	0.0	s

Statistics

LAI5.00	67.9	dB
LAI10.00	67.4	dB
LAI33.30	65.5	dB
LAI50.00	64.5	dB
LAI66.60	63.3	dB
LAI90.00	61.3	dB

Calibration History

Preamp	**Date**	**dB re. 1V/Pa**
Direct	2019-10-29 12:18:45	-28.39
PRMLxT1L	2022-04-26 07:34:56	-28.67
PRMLxT1L	2022-04-20 12:08:42	-27.27
PRMLxT1L	2022-04-19 14:36:50	-28.55
PRMLxT1L	2022-04-19 13:55:24	-28.54
PRMLxT1L	2022-04-12 16:27:20	-28.61
PRMLxT1L	2022-04-06 08:45:00	-28.57
PRMLxT1L	2022-04-06 08:44:10	-28.58
PRMLxT1L	2022-03-29 16:29:50	-28.59
PRMLxT1L	2022-03-29 16:27:56	-28.61
PRMLxT1L	2022-03-09 15:06:37	-28.48

Noise Measurement Field Data

Project:	Districts at Rubidoux Specific Plan	**Job Number:**	194399001
Site No.:	3	**Date:**	4/26/2022
Analyst:	Alex Howard and Kiera Pascua	**Time:**	12:08am - 12:18am
Location:	4725 Circle Lazy J Road		
Noise Sources:	Traffic on SR-60		
Comments:	Cul-de-sac of Residential neighborhood		

Results (dBA):

Leq:	Lmin:	Lmax:	Peak:
51.8	47.5	57.6	79.4

Equipment	
Sound Level Meter:	LD SoundExpert LxT
Calibrator:	CAL200
Response Time:	Slow
Weighting:	A
Microphone Height:	5 feet

Weather	
Temp. (degrees F):	82
Wind (mph):	< 5
Sky:	Clear
Bar. Pressure:	29.9
Humidity:	17%

Photo:



Kimley»Horn

Summary

File Name on Meter	RUBIDOUX.006
File Name on PC	Location 3.ldbin
Serial Number	0005586
Model	SoundExpert® LxT
Firmware Version	2.404
User	Alex Howard
Location	Jurupa Valley
Job Description	Districts at Rubidoux Specific Plan
Note	

Measurement

Description	
Start	2022-04-26 12:08:04
Stop	2022-04-26 12:18:04
Duration	00:10:00.0
Run Time	00:10:00.0
Pause	00:00:00.0
Pre Calibration	2022-04-26 07:34:56
Post Calibration	None
Calibration Deviation	---

Overall Settings

RMS Weight	A Weighting
Peak Weight	A Weighting
Detector	Slow
Preamp	PRMLxT1L
Microphone Correction	Off
Integration Method	Linear
OBA Range	Normal
OBA Bandwidth	1/1 and 1/3
OBA Freq. Weighting	A Weighting
OBA Max Spectrum	At LMax
Overload	122.4 dB

	A	**C**
Under Range Peak	**79.0**	76.0
Under Range Limit	**25.3**	25.9
Noise Floor	16.1	16.8

Results

L_{Aeq}	51.8	
LAE	79.5	
EA	10.013 µPa²h	
$L_{Apeak\ (max)}$	2022-04-26 12:08:08	79.4
L_{ASmax}	2022-04-26 12:13:36	57.6
L_{ASmin}	2022-04-26 12:08:12	47.5
SEA	-99.9 dB	

LAS > 85.0 dB (Exceedance Counts / Duration)	0	0.0
LAS > 115.0 dB (Exceedance Counts / Duration)	0	0.0
LApeak > 135.0 dB (Exceedance Counts / Duration)	0	0.0
LApeak > 137.0 dB (Exceedance Counts / Duration)	0	0.0
LApeak > 140.0 dB (Exceedance Counts / Duration)	0	0.0

Community Noise	**Ldn**	**LDay 07:00-22:00**
	51.8	51.8

LCeq	64.4	dB
LAeq	51.8	dB
LCeq - LAeq	12.7	dB
LAIeq	52.9	dB
LAeq	51.8	dB
LAIeq - LAeq	1.1	dB

	A	
	dB	**Time Stamp**
Leq	51.8	
LS(max)	57.6	2022/04/26 12:13:36
LS(min)	47.5	2022/04/26 12:08:12
LPeak(max)	79.4	2022/04/26 12:08:08

# Overloads	0	
Overload Duration	0.0	s
# OBA Overloads	0	
OBA Overload Duration	0.0	s

Statistics

LAI5.00	55.8	dB
LAI10.00	55.5	dB
LAI33.30	49.7	dB
LAI50.00	49.0	dB
LAI66.60	48.7	dB
LAI90.00	48.4	dB

Calibration History

Preamp	**Date**	**dB re. 1V/Pa**
Direct	2019-10-29 12:18:45	-28.39
PRMLxT1L	2022-04-26 07:34:56	-28.67
PRMLxT1L	2022-04-20 12:08:42	-27.27
PRMLxT1L	2022-04-19 14:36:50	-28.55
PRMLxT1L	2022-04-19 13:55:24	-28.54
PRMLxT1L	2022-04-12 16:27:20	-28.61
PRMLxT1L	2022-04-06 08:45:00	-28.57
PRMLxT1L	2022-04-06 08:44:10	-28.58
PRMLxT1L	2022-03-29 16:29:50	-28.59
PRMLxT1L	2022-03-29 16:27:56	-28.61
PRMLxT1L	2022-03-09 15:06:37	-28.48

Noise Measurement Field Data

Project:	Districts at Rubidoux Specific Plan	**Job Number:**	194399001
Site No.:	4	**Date:**	4/26/2022
Analyst:	Alex Howard and Kiera Pascua	**Time:**	12:18am - 12:28am
Location:	5160 24th Street		
Noise Sources:	Traffic on 34th		
Comments:			

Results (dBA):

Leq:	Lmin:	Lmax:	Peak:
60.9	48.2	82.9	113.6

Equipment	
Sound Level Meter:	LD SoundExpert LxT
Calibrator:	CAL200
Response Time:	Slow
Weighting:	A
Microphone Height:	5 feet

Weather	
Temp. (degrees F):	87
Wind (mph):	< 5
Sky:	Clear
Bar. Pressure:	29.9
Humidity:	17%

Photo:



Kimley»Horn

Summary

File Name on Meter	RUBIDOUX.003
File Name on PC	Location 4.ldbin
Serial Number	0005586
Model	SoundExpert® LxT
Firmware Version	2.404
User	Alex Howard
Location	Jurupa Valley
Job Description	Districts at Rubidoux Specific Plan
Note	

Measurement

Description	
Start	2022-04-26 11:18:29
Stop	2022-04-26 11:28:29
Duration	00:10:00.0
Run Time	00:09:59.4
Pause	00:00:00.6
Pre Calibration	2022-04-26 07:34:56
Post Calibration	None
Calibration Deviation	---

Overall Settings

RMS Weight	A Weighting
Peak Weight	A Weighting
Detector	Slow
Preamp	PRMLxT1L
Microphone Correction	Off
Integration Method	Linear
OBA Range	Normal
OBA Bandwidth	1/1 and 1/3
OBA Freq. Weighting	A Weighting
OBA Max Spectrum	At LMax
Overload	122.4 dB

	A	**C**
Under Range Peak	**79.0**	76.0
Under Range Limit	**25.3**	25.9
Noise Floor	16.1	16.8

Results

L_{Aeq}	60.9	
LAE	88.7	
EA	82.574 µPa²h	
$L_{Apeak\ (max)}$	2022-04-26 11:18:43	113.6
L_{ASmax}	2022-04-26 11:19:43	82.9
L_{ASmin}	2022-04-26 11:22:18	48.2
SEA	-99.9 dB	

LAS > 85.0 dB (Exceedance Counts / Duration)	0	0.0
LAS > 115.0 dB (Exceedance Counts / Duration)	0	0.0
LA_{peak} > 135.0 dB (Exceedance Counts / Duration)	0	0.0
LA_{peak} > 137.0 dB (Exceedance Counts / Duration)	0	0.0
LA_{peak} > 140.0 dB (Exceedance Counts / Duration)	0	0.0

Community Noise	**Ldn**	**LDay 07:00-22:00**
	60.9	60.9

LC_{eq}	77.8	dB
LA_{eq}	60.9	dB
LC_{eq} - LA_{eq}	16.8	dB
LAI_{eq}	73.4	dB
LA_{eq}	60.9	dB
LAI_{eq} - LA_{eq}	12.5	dB

	A	
	dB	**Time Stamp**
L_{eq}	60.9	
$L_{S(max)}$	82.9	2022/04/26 11:19:43
$L_{S(min)}$	48.2	2022/04/26 11:22:18
$L_{Peak(max)}$	113.6	2022/04/26 11:18:43

# Overloads	0	
Overload Duration	0.0	s
# OBA Overloads	0	
OBA Overload Duration	0.0	s

Statistics

LAI5.00	62.3	dB
LAI10.00	57.1	dB
LAI33.30	52.4	dB
LAI50.00	52.0	dB
LAI66.60	51.7	dB
LAI90.00	51.0	dB

Calibration History

Preamp	**Date**	**dB re. 1V/Pa**
Direct	2019-10-29 12:18:45	-28.39
PRMLxT1L	2022-04-26 07:34:56	-28.67
PRMLxT1L	2022-04-20 12:08:42	-27.27
PRMLxT1L	2022-04-19 14:36:50	-28.55
PRMLxT1L	2022-04-19 13:55:24	-28.54
PRMLxT1L	2022-04-12 16:27:20	-28.61
PRMLxT1L	2022-04-06 08:45:00	-28.57
PRMLxT1L	2022-04-06 08:44:10	-28.58
PRMLxT1L	2022-03-29 16:29:50	-28.59
PRMLxT1L	2022-03-29 16:27:56	-28.61
PRMLxT1L	2022-03-09 15:06:37	-28.48

Noise Measurement Field Data

Project:	Districts at Rubidoux Specific Plan	**Job Number:**	194399001
Site No.:	5	**Date:**	4/26/2022
Analyst:	Alex Howard and Kiera Pascua	**Time:**	11:33am - 11:43am
Location:	5364-5400 34th Street		
Noise Sources:	Traffic on 34th		
Comments:			

Results (dBA):

Leq:	Lmin:	Lmax:	Peak:
59.5	46.9	76.9	110.6

Equipment	
Sound Level Meter:	LD SoundExpert LxT
Calibrator:	CAL200
Response Time:	Slow
Weighting:	A
Microphone Height:	5 feet

Weather	
Temp. (degrees F):	87
Wind (mph):	< 5
Sky:	Clear
Bar. Pressure:	29.9
Humidity:	17%

Photo:



Kimley»Horn

Summary

File Name on Meter	RUBIDOUX.004
File Name on PC	Location 5.ldbin
Serial Number	0005586
Model	SoundExpert® LxT
Firmware Version	2.404
User	Alex Howard
Location	Jurupa Valley
Job Description	Districts at Rubidoux Specific Plan
Note	

Measurement

Description	
Start	2022-04-26 11:33:24
Stop	2022-04-26 11:43:24
Duration	00:10:00.0
Run Time	00:10:00.0
Pause	00:00:00.0
Pre Calibration	2022-04-26 07:34:56
Post Calibration	None
Calibration Deviation	---

Overall Settings

RMS Weight	A Weighting	
Peak Weight	A Weighting	
Detector	Slow	
Preamp	PRMLxT1L	
Microphone Correction	Off	
Integration Method	Linear	
OBA Range	Normal	
OBA Bandwidth	1/1 and 1/3	
OBA Freq. Weighting	A Weighting	
OBA Max Spectrum	At LMax	
Overload	122.4 dB	
	A	**C**
Under Range Peak	**79.0**	76.0
Under Range Limit	**25.3**	25.9
Noise Floor	16.1	16.8

Results

L_{Aeq}	59.5		
LAE	87.3		
EA	59.692	µPa²h	
$L_{Apeak\ (max)}$	2022-04-26 11:33:28		110.6
L_{ASmax}	2022-04-26 11:33:28		76.9
L_{ASmin}	2022-04-26 11:37:29		46.9
SEA	-99.9	dB	

LAS > 85.0 dB (Exceedance Counts / Duration)	0	0.0
LAS > 115.0 dB (Exceedance Counts / Duration)	0	0.0
LApeak > 135.0 dB (Exceedance Counts / Duration)	0	0.0
LApeak > 137.0 dB (Exceedance Counts / Duration)	0	0.0
LApeak > 140.0 dB (Exceedance Counts / Duration)	0	0.0

Community Noise	**Ldn**	**LDay 07:00-22:00**
	59.5	59.5

LCeq	75.7	dB
LAeq	59.5	dB
LCeq - LAeq	16.1	dB
LAIeq	67.2	dB
LAeq	59.5	dB
LAIeq - LAeq	7.6	dB

	A	
	dB	**Time Stamp**
Leq	59.5	
LS(max)	76.9	2022/04/26 11:33:28
LS(min)	46.9	2022/04/26 11:37:29
LPeak(max)	110.6	2022/04/26 11:33:28

# Overloads	0	
Overload Duration	0.0	s
# OBA Overloads	0	
OBA Overload Duration	0.0	s

Statistics

LAI5.00	65.8	dB
LAI10.00	63.7	dB
LAI33.30	57.1	dB
LAI50.00	54.3	dB
LAI66.60	52.3	dB
LAI90.00	50.2	dB

Calibration History

Preamp	**Date**	**dB re. 1V/Pa**
Direct	2019-10-29 12:18:45	-28.39
PRMLxT1L	2022-04-26 07:34:56	-28.67
PRMLxT1L	2022-04-20 12:08:42	-27.27
PRMLxT1L	2022-04-19 14:36:50	-28.55
PRMLxT1L	2022-04-19 13:55:24	-28.54
PRMLxT1L	2022-04-12 16:27:20	-28.61
PRMLxT1L	2022-04-06 08:45:00	-28.57
PRMLxT1L	2022-04-06 08:44:10	-28.58
PRMLxT1L	2022-03-29 16:29:50	-28.59
PRMLxT1L	2022-03-29 16:27:56	-28.61
PRMLxT1L	2022-03-09 15:06:37	-28.48

Noise Measurement Field Data

Project:	Districts at Rubidoux Specific Plan	**Job Number:**	194399001
Site No.:	6	**Date:**	4/26/2022
Analyst:	Alex Howard and Kiera Pascua	**Time:**	11:48am - 11:58am
Location:	3259 Rubiduox Boulevard		
Noise Sources:	Traffic on Rubidoux Blvd.		
Comments:			

Results (dBA):

Leq:	Lmin:	Lmax:	Peak:
68.5	52.3	80.4	104.7

Equipment	
Sound Level Meter:	LD SoundExpert LxT
Calibrator:	CAL200
Response Time:	Slow
Weighting:	A
Microphone Height:	5 feet

Weather	
Temp. (degrees F):	88
Wind (mph):	< 5
Sky:	Clear
Bar. Pressure:	29.9
Humidity:	16%

Photo:



Kimley»Horn

Summary

File Name on Meter	RUBIDOUX.005
File Name on PC	Location 6.ldbin
Serial Number	0005586
Model	SoundExpert® LxT
Firmware Version	2.404
User	Alex Howard
Location	Jurupa Valley
Job Description	Districts at Rubidoux Specific Plan
Note	

Measurement

Description	
Start	2022-04-26 11:48:52
Stop	2022-04-26 11:58:52
Duration	00:10:00.0
Run Time	00:10:00.0
Pause	00:00:00.0
Pre Calibration	2022-04-26 07:34:56
Post Calibration	None
Calibration Deviation	---

Overall Settings

RMS Weight	A Weighting	
Peak Weight	A Weighting	
Detector	Slow	
Preamp	PRMLxT1L	
Microphone Correction	Off	
Integration Method	Linear	
OBA Range	Normal	
OBA Bandwidth	1/1 and 1/3	
OBA Freq. Weighting	A Weighting	
OBA Max Spectrum	At LMax	
Overload	122.4 dB	
	A	**C**
Under Range Peak	**79.0**	76.0
Under Range Limit	**25.3**	25.9
Noise Floor	16.1	16.8

Results

L_{Aeq}	68.5	
LAE	96.3	
EA	473.737 µPa²h	
$L_{Apeak\ (max)}$	2022-04-26 11:52:53	104.7
L_{ASmax}	2022-04-26 11:49:28	80.4
L_{ASmin}	2022-04-26 11:53:11	52.3
SEA	-99.9 dB	

LAS > 85.0 dB (Exceedance Counts / Duration)	0	0.0
LAS > 115.0 dB (Exceedance Counts / Duration)	0	0.0
LA_{peak} > 135.0 dB (Exceedance Counts / Duration)	0	0.0
LA_{peak} > 137.0 dB (Exceedance Counts / Duration)	0	0.0
LA_{peak} > 140.0 dB (Exceedance Counts / Duration)	0	0.0

Community Noise	**Ldn**	**LDay 07:00-22:00**
	68.5	68.5

LC_{eq}	78.8	dB
LA_{eq}	68.5	dB
LC_{eq} - LA_{eq}	10.3	dB
LAI_{eq}	70.9	dB
LA_{eq}	68.5	dB
LAI_{eq} - LA_{eq}	2.4	dB

	A	
	dB	**Time Stamp**
L_{eq}	68.5	
$L_{S(max)}$	80.4	2022/04/26 11:49:28
$L_{S(min)}$	52.3	2022/04/26 11:53:11
$L_{Peak(max)}$	104.7	2022/04/26 11:52:53

# Overloads	0	
Overload Duration	0.0	s
# OBA Overloads	0	
OBA Overload Duration	0.0	s

Statistics

LAI5.00	73.3	dB
LAI10.00	72.3	dB
LAI33.30	68.4	dB
LAI50.00	66.5	dB
LAI66.60	63.9	dB
LAI90.00	56.2	dB

Calibration History

Preamp	**Date**	**dB re. 1V/Pa**
Direct	2019-10-29 12:18:45	-28.39
PRMLxT1L	2022-04-26 07:34:56	-28.67
PRMLxT1L	2022-04-20 12:08:42	-27.27
PRMLxT1L	2022-04-19 14:36:50	-28.55
PRMLxT1L	2022-04-19 13:55:24	-28.54
PRMLxT1L	2022-04-12 16:27:20	-28.61
PRMLxT1L	2022-04-06 08:45:00	-28.57
PRMLxT1L	2022-04-06 08:44:10	-28.58
PRMLxT1L	2022-03-29 16:29:50	-28.59
PRMLxT1L	2022-03-29 16:27:56	-28.61
PRMLxT1L	2022-03-09 15:06:37	-28.48

Appendix B

Noise Modeling Data

Project: Districts at Rubidoux - Phase 1
Unmitigated Construction

Construction Noise Impact on Sensitive Receptors

Parameters

Construction Hours:	Daytime hours (7 am to 7 pm)	8
	Evening hours (7 pm to 10 pm)	0
	Nighttime hours (10 pm to 7 am)	0
Leq to L10 factor		3

	Receptor (Land Use)	Distance (feet)	Shielding	Direction
1	Off-Site Residential Uses to South	250	0	S
2	NAP 1 and NAP 2	180	0	C
3	-	-	-	-
4	-	-	-	-
5	-	-	-	-
6	-	-	-	-
7	-	-	-	-

					RECEPTOR 1		RECEPTOR 2	
Construction Phase	**Equipment Type**	**No. of Equip.**	**Acoustical Usage Factor**	**Reference Noise Level at 50ft per Unit, Lmax**	**Noise Level at Receptor 1, Lmax**	**Noise Level at Receptor 1, Leq**	**Noise Level at Receptor 2, Lmax**	**Noise Level at Receptor 2, Leq**
Demolition								
	Concrete Saw	1	20%	90	75.6	68.6	78.5	71.5
	Excavator	3	40%	81	71.5	67.5	74.3	70.4
	Dozer	2	40%	82	70.7	66.8	73.6	69.6
Combined LEQ						**72.5**		**75.3**
Site Preparation								
	Dozer	3	40%	82	72.5	68.5	75.3	71.4
	Tractor	4	40%	84	76.0	72.1	78.9	74.9
Combined LEQ						**73.7**		**76.5**
Grading								
	Excavator	2	40%	81	69.7	65.8	72.6	68.6
	Grader	1	40%	85	71.0	67.0	73.9	69.9
	Dozer	1	40%	82	67.7	63.7	70.6	66.6
	Scraper	2	40%	84	72.6	68.7	75.5	71.5
	Tractor	2	40%	84	73.0	69.1	75.9	71.9
Combined LEQ						**74.2**		**77.1**
Building Construction								
	Crane	1	16%	81	66.6	58.7	69.5	61.5
	Forklift	3	40%	74	65.1	61.1	67.9	64.0
	Generator	1	50%	81	66.6	63.6	69.5	66.5
	Tractor	3	40%	84	74.8	70.8	77.6	73.7
	Welder/Torch	1	40%	74	60.0	56.0	62.9	58.9
	Impact Pile Driver	1	20%	101	87.3	80.3	90.2	83.2
Combined LEQ						**81.0**		**83.8**
Paving								
	Paver	2	50%	77	66.2	63.2	69.1	66.1
	Paving Equipment	2	50%	77	66.2	63.2	69.1	66.1
	Rollers	2	20%	80	69.0	62.0	71.9	64.9
Combined LEQ						**67.6**		**70.5**
Architectural Coating								
	Compressor (air)	1	40%	78	63.7	59.7	66.6	62.6
Combined LEQ						**59.7**		**62.6**

Source for Ref. Noise Levels: RCNM, 2005

Receptor	Phase	Direction	Distance to Center of Site	Ambient (dBA Leq)	Project Construction Noise Level dBA Leq	Threshold	Exceeds Threshold?	over threshold
1 Off-Site Residential Uses to South	Demolition	S	250	59.5	72.5	80.0	No	--
	Site Preparation				73.7		No	--
	Grading				74.2		No	--
	Building Construction				81.0		Yes	1.0
	Paving				67.6		No	--
	Architectural Coating				59.7		No	--
2 NAP 1 and NAP 2	Demolition	C	180	65	75.3	80.0	No	--
	Site Preparation				76.5		No	--
	Grading				77.1		No	--
	Building Construction				83.8		Yes	3.8
	Paving				70.5		No	--
	Architectural Coating				62.6		No	--

Project: Districts at Rubidoux - Phase 2
Unmitigated Construction

Construction Noise Impact on Sensitive Receptors

Parameters

Construction Hours:	Daytime hours (7 am to 7 pm)	8
	Evening hours (7 pm to 10 pm)	0
	Nighttime hours (10 pm to 7 am)	0
Leq to L10 factor		3

	Receptor (Land Use)	Distance (feet)	Shielding	Direction
1	Off-Site Residential Uses to South	250	0	S
2	Future On-Site Residential Uses	180	0	N/W
3	NAP 1 and NAP 2	180	0	C
4	-	-	-	-
5	-	-	-	-
6	-	-	-	-
7	-	-	-	-

					RECEPTOR 1		RECEPTOR 2		RECEPTOR 3	
Construction Phase	**Equipment Type**	**No. of Equip.**	**Acoustical Usage Factor**	**Reference Noise Level at 50ft per Unit, Lmax**	**Noise Level at Receptor 1, Lmax**	**Noise Level at Receptor 1, Leq**	**Noise Level at Receptor 2, Lmax**	**Noise Level at Receptor 2, Leq**	**Noise Level at Receptor 3, Lmax**	**Noise Level at Receptor 3, Leq**
Grading										
	Excavator	2	40%	81	69.7	65.8	72.6	68.6	72.6	68.6
	Grader	1	40%	85	71.0	67.0	73.9	69.9	73.9	69.9
	Dozer	1	40%	82	67.7	63.7	70.6	66.6	70.6	66.6
	Scraper	2	40%	84	72.6	68.7	75.5	71.5	75.5	71.5
	Tractor	2	40%	84	73.0	69.1	75.9	71.9	75.9	71.9
Combined LEQ						**74.2**		**77.1**		**77.1**
Building Construction										
	Crane	1	16%	81	66.6	58.7	69.5	61.5	69.5	61.5
	Forklift	3	40%	74	65.1	61.1	67.9	64.0	67.9	64.0
	Generator	1	50%	81	66.6	63.6	69.5	66.5	69.5	66.5
	Tractor	3	40%	84	74.8	70.8	77.6	73.7	77.6	73.7
	Welder/Torch	1	40%	74	60.0	56.0	62.9	58.9	62.9	58.9
	Impact Pile Driver	1	20%	101	87.3	80.3	90.2	83.2	90.2	83.2
Combined LEQ						**81.0**		**83.8**		**83.8**
Paving										
	Paver	2	50%	77	66.2	63.2	69.1	66.1	69.1	66.1
	Paving Equipment	2	50%	77	66.2	63.2	69.1	66.1	69.1	66.1
	Rollers	2	20%	80	69.0	62.0	71.9	64.9	71.9	64.9
Combined LEQ						**67.6**		**70.5**		**70.5**
Architectural Coating										
	Compressor (air)	1	40%	78	63.7	59.7	66.6	62.6	66.6	62.6
Combined LEQ						**59.7**		**62.6**		**62.6**

Source for Ref. Noise Levels: RCNM, 2005

Receptor	Phase	Direction	Distance to Center of Site	Ambient (dBA Leq)	Project Construction Noise Level dBA Leq	Threshold	Exceeds Threshold?	over threshold
1 Off-Site Residential Uses to South	Grading	S	250	59.5	74.2	80.0	No	--
	Building Construction				81.0		Yes	1.0
	Paving				67.6		No	--
	Architectural Coating				59.7		No	--
2 Future On-Site Residential Uses	Grading	N/W	180	59.5	77.1	80.0	No	--
	Building Construction				83.8		Yes	3.8
	Paving				70.5		No	--
	Architectural Coating				62.6		No	--
3 NAP 1 and NAP 2	Grading	C	180	65	77.1	80.0	No	--
	Building Construction				83.8		Yes	3.8
	Paving				70.5		No	--
	Architectural Coating				62.6		No	--

Project: Districts at Rubidoux - Phase 1 Mitigated Construction

Construction Noise Impact on Sensitive Receptors

Parameters

Construction Hours:	Daytime hours (7 am to 7 pm)	8
	Evening hours (7 pm to 10 pm)	0
	Nighttime hours (10 pm to 7 am)	0
Leq to L10 factor		3

	Receptor (Land Use)	Distance (feet)	Shielding	Direction
1	Off-Site Residential Uses to South	50	15	S
2	NAP 1 and NAP 2	50	15	C
3	-	-	-	-
4	-	-	-	-
5	-	-	-	-
6	-	-	-	-
7	-	-	-	-

Construction Phase	Equipment Type	No. of Equip.	Acoustical Usage Factor	Reference Noise Level at 50ft per Unit, Lmax	RECEPTOR 1 Noise Level at Receptor 1, Lmax	RECEPTOR 1 Noise Level at Receptor 1, Leq	RECEPTOR 2 Noise Level at Receptor 2, Lmax	RECEPTOR 2 Noise Level at Receptor 2, Leq
Demolition								
	Concrete Saw	1	20%	90	74.6	67.6	74.6	67.6
	Excavator	3	40%	81	70.5	66.5	70.5	66.5
	Dozer	2	40%	82	69.7	65.7	69.7	65.7
Combined LEQ						**71.5**		**71.5**
Site Preparation								
	Dozer	3	40%	82	71.5	67.5	71.5	67.5
	Tractor	4	40%	84	75.0	71.0	75.0	71.0
Combined LEQ						**72.6**		**72.6**
Grading								
	Excavator	2	40%	81	68.7	64.7	68.7	64.7
	Grader	1	40%	85	70.0	66.0	70.0	66.0
	Dozer	1	40%	82	66.7	62.7	66.7	62.7
	Scraper	2	40%	84	71.6	67.6	71.6	67.6
	Tractor	2	40%	84	72.0	68.0	72.0	68.0
Combined LEQ						**73.2**		**73.2**
Building Construction								
	Crane	1	16%	81	65.6	57.6	65.6	57.6
	Forklift	3	40%	74	64.1	60.1	64.1	60.1
	Generator	1	50%	81	65.6	62.6	65.6	62.6
	Tractor	3	40%	84	73.8	69.8	73.8	69.8
	Welder/Torch	1	40%	74	59.0	55.0	59.0	55.0
	Impact Pile Driver	1	20%	101	86.3	79.3	86.3	79.3
Combined LEQ						**79.9**		**79.9**
Paving								
	Paver	2	50%	77	65.2	62.2	65.2	62.2
	Paving Equipment	2	50%	77	65.2	62.2	65.2	62.2
	Rollers	2	20%	80	68.0	61.0	68.0	61.0
Combined LEQ						**66.6**		**66.6**
Architectural Coating								
	Compressor (air)	1	40%	78	62.7	58.7	62.7	58.7
Combined LEQ						**58.7**		**58.7**

Source for Ref. Noise Levels: RCNM, 2005

Receptor	Phase	Direction	Distance to Center of Site	Ambient (dBA Leq)	Project Construction Noise Level dBA Leq	Threshold	Exceeds Threshold?	over threshold
1 Off-Site Residential Uses to South	Demolition	S	50	59.5	71.5	80.0	No	--
	Site Preparation				72.6		No	--
	Grading				73.2		No	--
	Building Construction				79.9		No	--
	Paving				66.6		No	--
	Architectural Coating				58.7		No	--
2 NAP 1 and NAP 2	Demolition	C	50	65	71.5	80.0	No	--
	Site Preparation				72.6		No	--
	Grading				73.2		No	--
	Building Construction				79.9		No	--
	Paving				66.6		No	--
	Architectural Coating				58.7		No	--

Project: Districts at Rubidoux - Phase 2
Mitigated Construction

Construction Noise Impact on Sensitive Receptors

Parameters

Construction Hours:	Daytime hours (7 am to 7 pm)	8
	Evening hours (7 pm to 10 pm)	0
	Nighttime hours (10 pm to 7 am)	0
Leq to L10 factor		3

	Receptor (Land Use)	Distance (feet)	Shielding	Direction
1	Off-Site Residential Uses to South	50	15	S
2	Future On-Site Residential Uses	50	15	N/W
3	NAP 1 and NAP 2	50	15	C
4	-	-	-	-
5	-	-	-	-
6	-	-	-	-
7	-	-	-	-

					RECEPTOR 1		RECEPTOR 2		RECEPTOR 3	
Construction Phase	**Equipment Type**	**No. of Equip.**	**Acoustical Usage Factor**	**Reference Noise Level at 50ft per Unit, Lmax**	**Noise Level at Receptor 1, Lmax**	**Noise Level at Receptor 1, Leq**	**Noise Level at Receptor 2, Lmax**	**Noise Level at Receptor 2, Leq**	**Noise Level at Receptor 3, Lmax**	**Noise Level at Receptor 3, Leq**
Grading										
	Excavator	2	40%	81	68.7	64.7	68.7	64.7	68.7	64.7
	Grader	1	40%	85	70.0	66.0	70.0	66.0	70.0	66.0
	Dozer	1	40%	82	66.7	62.7	66.7	62.7	66.7	62.7
	Scraper	2	40%	84	71.6	67.6	71.6	67.6	71.6	67.6
	Tractor	2	40%	84	72.0	68.0	72.0	68.0	72.0	68.0
Combined LEQ						**73.2**		**73.2**		**73.2**
Building Construction										
	Crane	1	16%	81	65.6	57.6	65.6	57.6	65.6	57.6
	Forklift	3	40%	74	64.1	60.1	64.1	60.1	64.1	60.1
	Generator	1	50%	81	65.6	62.6	65.6	62.6	65.6	62.6
	Tractor	3	40%	84	73.8	69.8	73.8	69.8	73.8	69.8
	Welder/Torch	1	40%	74	59.0	55.0	59.0	55.0	59.0	55.0
	Impact Pile Driver	1	20%	101	86.3	79.3	86.3	79.3	86.3	79.3
Combined LEQ						**79.9**		**79.9**		**79.9**
Paving										
	Paver	2	50%	77	65.2	62.2	65.2	62.2	65.2	62.2
	Paving Equipment	2	50%	77	65.2	62.2	65.2	62.2	65.2	62.2
	Rollers	2	20%	80	68.0	61.0	68.0	61.0	68.0	61.0
Combined LEQ						**66.6**		**66.6**		**66.6**
Architectural Coating										
	Compressor (air)	1	40%	78	62.7	58.7	62.7	58.7	62.7	58.7
Combined LEQ						**58.7**		**58.7**		**58.7**

Source for Ref. Noise Levels: RCNM, 2005

Receptor	Phase	Direction	Distance to Center of Site	Ambient (dBA Leq)	Project Construction Noise Level dBA Leq	Threshold	Exceeds Threshold?	over threshold
1 Off-Site Residential Uses to South	Grading	S	50	59.5	73.2	80.0	No	--
	Building Construction				79.9		No	--
	Paving				66.6		No	--
	Architectural Coating				58.7		No	--
2 Future On-Site Residential Uses	Grading	N/W	50	59.5	73.2	80.0	No	--
	Building Construction				79.9		No	--
	Paving				66.6		No	--
	Architectural Coating				58.7		No	--
3 NAP 1 and NAP 2	Grading	C	50	65	73.2	80.0	No	--
	Building Construction				79.9		No	--
	Paving				66.6		No	--
	Architectural Coating				58.7		No	--

FHWA Highway Noise Prediction Model (FHWA-RD-77-108) with California Vehicle Noise (CALVENO) Emission Levels

Project Name: Districts at Rubidoux
Project Number: 194399001
Scenario: Existing
Ldn/CNEL: CNEL

Assumed 24-Hour Traffic Distribution:	Day	Evening	Night
Total ADT Volumes	77.70%	12.70%	9.60%
Medium-Duty Trucks	87.43%	5.05%	7.52%
Heavy-Duty Trucks	89.10%	2.84%	8.06%

#	Roadway	Segment	Lanes	Median Width	ADT Volume	Speed (mph)	Alpha Factor	Vehicle Mix: Medium Trucks	Vehicle Mix: Heavy Trucks	CNEL at 100 Feet	Distance from Centerline of Roadway to Contour: 70 CNEL	65 CNEL	60 CNEL	55 CNEL
1	Cedar Ave	Slover Avenue to Santa Ave	4	15	19,130	40	0.5	1.8%	0.74%	63.1	-	75	161	346
2		Santa Ana Ave to Jurupa Ave	4	14	17,300	45	0.5	1.8%	0.74%	63.9	-	84	181	390
3		Jurupa Ave to El Rivino Rd	4	14	18,180	50	0.5	1.8%	0.74%	65.2	-	103	222	478
4		El Rivino Rd to 20th St/Market St	4	10	19,060	50	0.5	1.8%	0.74%	65.4	49	106	228	491
5		20th St/Market St to 24th St	4	10	16,370	50	0.5	1.8%	0.74%	64.7	-	96	206	444
6		24th St to 26th St	4	0	16,010	50	0.5	1.8%	0.74%	64.5	-	93	201	433
7		26th St to 28th St	4	0	16,070	50	0.5	1.8%	0.74%	64.6	-	93	201	434
8	Rubidoux Blvd	28th St to 30 St/SR-60 WB Off-Ramp	4	12	17,850	40	0.5	1.8%	0.74%	62.8	-	71	153	329
9		30th St/SR-60 WB Off-Ramp to SR-60 WB On-Ramp	4	12	25,990	40	0.5	1.8%	0.74%	64.4	-	91	196	423
10		SR-60 WB On-Ramp to SR-60 EB-Off Ramp/Frontage Rd	4	12	19,790	40	0.5	1.8%	0.74%	63.2	-	76	164	353
11		SR-60 EB Off-Ramp/Frontage Rd to 34th St	4	12	20,280	45	0.5	1.8%	0.74%	64.5	-	93	201	432
12		34th St to Mission Blvd	4	12	17,240	40	0.5	1.8%	0.74%	62.6	-	69	149	322
13		Rubidoux Blvd to Agua Mansa Rd	4	20	16,910	45	0.5	1.8%	0.74%	63.8	-	83	180	387
14		Agua Mansa Rd to Hall Ave	2	0	13,140	45	0.5	1.8%	0.74%	62.5	-	68	146	315
15	Market St	Hall Ave to 24th St/Via Cerro	2	0	13,160	45	0.5	1.8%	0.74%	62.5	-	68	146	315
16		24th St/Via Cerro to Rivera St	2	0	18,660	45	0.5	1.8%	0.74%	64.0	40	86	185	398
17		Rivera St to SR-60 WB Ramps	5	18	21,930	45	0.5	1.8%	0.74%	65.1	-	101	217	468
18		SR-60 WB Ramps to SR-60 EB Ramps	5	14	16,870	45	0.5	1.8%	0.74%	63.9	-	84	181	390
19		Market St to 24th St	3	0	920	40	0.5	1.8%	0.74%	49.7	-	-	-	45
20	Hall Ave	24th St to 26th St	2	0	2,630	40	0.5	1.8%	0.74%	54.3	-	-	41	89
21		26th St to 28th St	2	0	2,670	40	0.5	1.8%	0.74%	54.3	-	-	42	90
22		Valley Way to Golden W Ave	4	24	19,170	40	0.5	1.8%	0.74%	63.2	-	76	163	351
23		Golden W Ave to Opal St	4	26	20,420	40	0.5	1.8%	0.74%	63.5	-	79	171	368
24		Opal St to Pacific Ave	4	26	21,120	40	0.5	1.8%	0.74%	63.6	-	81	175	376
25	Mission Blvd	Pacific Ave to La Rue St	4	26	19,220	40	0.5	1.8%	0.74%	63.2	-	76	164	353
26		La Rue St to Riverview Dr	4	26	19,570	40	0.5	1.8%	0.74%	63.3	-	77	166	357
27		Riverview Dr to Rubidoux Blvd	4	35	24,390	40	0.5	1.8%	0.74%	64.4	-	91	195	421
28		Rubidoux Blvd to Wallace St	4	32	24,780	40	0.5	1.8%	0.74%	64.4	-	91	196	423
29		Wallace St to Crestmore Rd	4	30	23,110	40	0.5	1.8%	0.74%	64.1	-	87	187	402
30		Mission Blvd to 42nd St	4	12	12,950	45	0.5	1.8%	0.74%	62.6	-	69	149	321
31	Riverview Dr/	42nd St to Pacific Ave	4	12	14,830	45	0.5	1.8%	0.74%	63.2	-	76	163	351
32	Limonite Ave	Pacific Ave to Ave Juan Bautista	4	32	19,220	50	0.5	1.8%	0.74%	65.6	-	110	237	511
33		Ave Juan Bautista to Camino Real	4	40	20,460	50	0.5	1.8%	0.74%	66.0	-	117	251	542
34	24th St	Rubidoux Blvd to Hall Ave	2	0	2,470	25	0.5	1.8%	0.74%	50.1	-	-	-	47
35		Hall Ave to Market St	2	0	3,430	25	0.5	1.8%	0.74%	51.5	-	-	-	59
36	26th St	Rubidoux Blvd to Hall Ave	2	0	670	25	0.5	1.8%	0.74%	44.4	-	-	-	-
37	28th St	Rubidoux Blvd to Hall Ave	2	0	2,090	25	0.5	1.8%	0.74%	49.4	-	-	-	42
38	Frontage Rd	Rubidoux Blvd to 30th St	2	0	7,970	25	0.5	1.8%	0.74%	55.2	-	-	48	103
39	Wallace St	34th St to 36th St	2	0	1,800	40	0.5	1.8%	0.74%	52.6	-	-	32	69
40		36th St to Mission Blvd	2	0	2,180	40	0.5	1.8%	0.74%	53.5	-	-	37	79
41	Crestmore Rd	34th St to 36th St	2	0	2,410	25	0.5	1.8%	0.74%	50.0	-	-	-	46
42		36th St to Mission Blvd	2	0	2,690	25	0.5	1.8%	0.74%	50.5	-	-	-	50
43	34th St	Rubidoux Blvd to Wallace St	2	0	4,190	25	0.5	1.8%	0.74%	52.4	-	-	-	67
44		Wallace St to Crestmore Rd	2	0	3,020	25	0.5	1.8%	0.74%	51.0	-	-	-	54
45	36th St	Wallace St to Crestmore Rd	2	0	290	25	0.5	1.8%	0.74%	40.8	-	-	-	-

[1] Distance is from the centerline of the roadway segment to the receptor location.
"-" = contour is located within the roadway right-of-way.

FHWA Highway Noise Prediction Model (FHWA-RD-77-108) with California Vehicle Noise (CALVENO) Emission Levels

Project Name: Districts at Rubidoux
Project Number: 194399001
Scenario: Opening Year Phase 1
Ldn/CNEL: CNEL

Assumed 24-Hour Traffic Distribution:	Day	Evening	Night
Total ADT Volumes	77.70%	12.70%	9.60%
Medium-Duty Trucks	87.43%	5.05%	7.52%
Heavy-Duty Trucks	89.10%	2.84%	8.06%

#	Roadway	Segment	Lanes	Median Width	ADT Volume	Speed (mph)	Alpha Factor	Vehicle Mix: Medium Trucks	Vehicle Mix: Heavy Trucks	CNEL at 100 Feet	Distance from Centerline of Roadway to Contour: 70 CNEL	65 CNEL	60 CNEL	55 CNEL
1	Cedar Ave	Slover Avenue to Santa Ave	4	15	22,327	40	0.5	1.8%	0.74%	63.8	-	83	178	384
2		Santa Ana Ave to Jurupa Ave	4	14	20,356	45	0.5	1.8%	0.74%	64.6	-	94	202	434
3		Jurupa Ave to El Rivino Rd	4	14	21,309	50	0.5	1.8%	0.74%	65.9	53	115	247	532
4		El Rivino Rd to 20th St/Market St	4	10	22,061	50	0.5	1.8%	0.74%	66.0	54	117	251	542
5		20th St/Market St to 24th St	4	10	20,789	50	0.5	1.8%	0.74%	65.7	52	112	242	520
6		24th St to 26th St	4	0	20,450	50	0.5	1.8%	0.74%	65.6	51	110	236	509
7		26th St to 28th St	4	0	21,845	50	0.5	1.8%	0.74%	65.9	53	115	247	532
8	Rubidoux Blvd	28th St to 30 St/SR-60 WB Off-Ramp	4	12	27,161	40	0.5	1.8%	0.74%	64.6	-	94	202	436
9		30th St/SR-60 WB Off-Ramp to SR-60 WB On-Ramp	4	12	39,912	40	0.5	1.8%	0.74%	66.3	56	121	261	563
10		SR-60 WB On-Ramp to SR-60 EB-Off Ramp/Frontage Rd	4	12	31,011	40	0.5	1.8%	0.74%	65.2	-	103	221	476
11		SR-60 EB Off-Ramp/Frontage Rd to 34th St	4	12	33,232	45	0.5	1.8%	0.74%	66.7	60	129	279	601
12		34th St to Mission Blvd	4	12	29,371	40	0.5	1.8%	0.74%	64.9	-	99	213	459
13		Rubidoux Blvd to Agua Mansa Rd	4	20	21,314	45	0.5	1.8%	0.74%	64.8	-	97	210	452
14		Agua Mansa Rd to Hall Ave	2	0	16,493	45	0.5	1.8%	0.74%	63.5	37	79	170	366
15	Market St	Hall Ave to 24th St/Via Cerro	2	0	17,135	45	0.5	1.8%	0.74%	63.6	38	81	174	376
16		24th St/Via Cerro to Rivera St	2	0	24,828	45	0.5	1.8%	0.74%	65.2	48	104	223	481
17		Rivera St to SR-60 WB Ramps	5	18	27,978	45	0.5	1.8%	0.74%	66.1	-	119	256	551
18		SR-60 WB Ramps to SR-60 EB Ramps	5	14	22,431	45	0.5	1.8%	0.74%	65.1	-	102	219	472
19	Hall Ave	Market St to 24th St	3	0	996	40	0.5	1.8%	0.74%	50.1	-	-	-	47
20		24th St to 26th St	2	0	2,847	40	0.5	1.8%	0.74%	54.6	-	-	44	94
21		26th St to 28th St	2	0	2,890	40	0.5	1.8%	0.74%	54.7	-	-	44	95
22	Mission Blvd	Valley Way to Golden W Ave	4	24	25,210	40	0.5	1.8%	0.74%	64.4	-	91	196	422
23		Golden W Ave to Opal St	4	26	27,223	40	0.5	1.8%	0.74%	64.7	-	96	207	445
24		Opal St to Pacific Ave	4	26	27,981	40	0.5	1.8%	0.74%	64.9	-	98	211	454
25		Pacific Ave to La Rue St	4	26	26,914	40	0.5	1.8%	0.74%	64.7	-	95	205	442
26		La Rue St to Riverview Dr	4	26	27,553	40	0.5	1.8%	0.74%	64.8	-	97	208	449
27		Riverview Dr to Rubidoux Blvd	4	35	32,541	40	0.5	1.8%	0.74%	65.6	-	110	237	510
28		Rubidoux Blvd to Wallace St	4	32	29,563	40	0.5	1.8%	0.74%	65.2	-	103	221	476
29		Wallace St to Crestmore Rd	4	30	27,275	40	0.5	1.8%	0.74%	64.8	-	97	209	449
30		Mission Blvd to 42nd St	4	12	17,077	45	0.5	1.8%	0.74%	63.8	-	83	179	385
31	Riverview Dr/ Limonite Ave	42nd St to Pacific Ave	4	12	19,112	45	0.5	1.8%	0.74%	64.3	-	90	193	415
32		Pacific Ave to Ave Juan Bautista	4	32	23,864	50	0.5	1.8%	0.74%	66.6	-	127	274	591
33		Ave Juan Bautista to Camino Real	4	40	25,207	50	0.5	1.8%	0.74%	66.9	-	134	289	623
34	24th St	Rubidoux Blvd to Hall Ave	2	0	2,674	25	0.5	1.8%	0.74%	50.4	-	-	-	50
35		Hall Ave to Market St	2	0	3,713	25	0.5	1.8%	0.74%	51.9	-	-	-	62
36	26th St	Rubidoux Blvd to Hall Ave	2	0	725	25	0.5	1.8%	0.74%	44.8	-	-	-	-
37	28th St	Rubidoux Blvd to Hall Ave	2	0	2,262	25	0.5	1.8%	0.74%	49.7	-	-	-	44
38	Frontage Rd	Rubidoux Blvd to 30th St	2	0	12,237	25	0.5	1.8%	0.74%	57.0	-	-	63	137
39	Wallace St	34th St to 36th St	2	0	1,948	40	0.5	1.8%	0.74%	53.0	-	-	34	73
40		36th St to Mission Blvd	2	0	3,160	40	0.5	1.8%	0.74%	55.1	-	-	47	101
41	Crestmore Rd	34th St to 36th St	2	0	2,609	25	0.5	1.8%	0.74%	50.3	-	-	-	49
42		36th St to Mission Blvd	2	0	2,912	25	0.5	1.8%	0.74%	50.8	-	-	-	52
43	34th St	Rubidoux Blvd to Wallace St	2	0	4,535	25	0.5	1.8%	0.74%	52.7	-	-	33	71
44		Wallace St to Crestmore Rd	2	0	3,269	25	0.5	1.8%	0.74%	51.3	-	-	-	57
45	36th St	Wallace St to Crestmore Rd	2	0	314	25	0.5	1.8%	0.74%	41.1	-	-	-	-

[1] Distance is from the centerline of the roadway segment to the receptor location.
"-" = contour is located within the roadway right-of-way.

FHWA Highway Noise Prediction Model (FHWA-RD-77-108) with California Vehicle Noise (CALVENO) Emission Levels

Project Name: Districts at Rubidoux
Project Number: 194399001
Scenario: Opening Year Plus Project Phase 1
Ldn/CNEL: CNEL

Assumed 24-Hour Traffic Distribution:	Day	Evening	Night
Total ADT Volumes	77.70%	12.70%	9.60%
Medium-Duty Trucks	87.43%	5.05%	7.52%
Heavy-Duty Trucks	89.10%	2.84%	8.06%

#	Roadway	Segment	Lanes	Median Width	ADT Volume	Speed (mph)	Alpha Factor	Vehicle Mix: Medium Trucks	Vehicle Mix: Heavy Trucks	CNEL at 100 Feet	Distance from Centerline of Roadway to Contour: 70 CNEL	65 CNEL	60 CNEL	55 CNEL
1	Cedar Ave	Slover Avenue to Santa Ave	4	15	23,507	40	0.5	1.8%	0.9%	64.1	-	87	188	405
2		Santa Ana Ave to Jurupa Ave	4	14	21,936	45	0.5	1.9%	0.9%	65.0	-	101	217	467
3		Jurupa Ave to El Rivino Rd	4	14	23,289	50	0.5	1.9%	0.9%	66.4	58	124	268	577
4		El Rivino Rd to 20th St/Market St	4	10	24,041	50	0.5	1.9%	0.9%	66.5	59	126	272	586
5		20th St/Market St to 24th St	4	10	23,539	50	0.5	1.9%	1.0%	66.5	58	126	270	583
6		24th St to 26th St	4	0	23,200	50	0.5	1.9%	1.0%	66.4	57	123	265	571
7		26th St to 28th St	4	0	24,595	50	0.5	1.9%	1.0%	66.6	59	128	275	593
8	Rubidoux Blvd	28th St to 30 St/SR-60 WB Off-Ramp	4	12	30,021	40	0.5	1.9%	1.0%	65.2	-	104	224	482
9		30th St/SR-60 WB Off-Ramp to SR-60 WB On-Ramp	4	12	46,712	40	0.5	1.9%	1.1%	67.3	66	142	306	658
10		SR-60 WB On-Ramp to SR-60 EB-Off Ramp/Frontage Rd	4	12	39,681	40	0.5	1.9%	1.2%	66.7	60	130	281	605
11		SR-60 EB Off-Ramp/Frontage Rd to 34th St	4	12	42,632	45	0.5	1.9%	1.2%	68.2	76	163	351	756
12		34th St to Mission Blvd	4	12	33,101	40	0.5	1.9%	1.0%	65.7	52	111	240	517
13		Rubidoux Blvd to Agua Mansa Rd	4	20	21,704	45	0.5	1.8%	0.8%	64.9	-	99	213	460
14		Agua Mansa Rd to Hall Ave	2	0	16,693	45	0.5	1.8%	0.8%	63.5	37	80	172	371
15	Market St	Hall Ave to 24th St/Via Cerro	2	0	17,705	45	0.5	1.8%	0.8%	63.8	39	84	180	388
16		24th St/Via Cerro to Rivera St	2	0	25,478	45	0.5	1.8%	0.8%	65.4	49	106	229	493
17		Rivera St to SR-60 WB Ramps	5	18	28,898	45	0.5	1.8%	0.8%	66.3	-	122	264	568
18		SR-60 WB Ramps to SR-60 EB Ramps	5	14	23,451	45	0.5	1.8%	0.8%	65.4	-	106	229	493
19		Market St to 24th St	3	0	1,766	40	0.5	1.9%	1.7%	53.5	-	-	-	79
20	Hall Ave	24th St to 26th St	2	0	3,697	40	0.5	1.9%	1.3%	56.3	-	-	56	121
21		26th St to 28th St	2	0	3,740	40	0.5	1.9%	1.3%	56.3	-	-	57	122
22		Valley Way to Golden W Ave	4	24	26,110	40	0.5	2.3%	1.5%	65.4	-	106	228	492
23		Golden W Ave to Opal St	4	26	28,333	40	0.5	2.3%	1.6%	65.9	-	114	246	530
24		Opal St to Pacific Ave	4	26	29,241	40	0.5	2.4%	1.6%	66.1	-	118	254	548
25	Mission Blvd	Pacific Ave to La Rue St	4	26	28,554	40	0.5	2.6%	1.9%	66.3	-	122	262	564
26		La Rue St to Riverview Dr	4	26	29,193	40	0.5	2.5%	1.9%	66.3	57	123	265	570
27		Riverview Dr to Rubidoux Blvd	4	35	35,931	40	0.5	3.0%	2.7%	68.1	74	160	345	743
28		Rubidoux Blvd to Wallace St	4	32	29,563	40	0.5	1.8%	0.7%	65.2	-	103	221	476
29		Wallace St to Crestmore Rd	4	30	27,765	40	0.5	2.1%	1.1%	65.3	-	105	226	488
30		Mission Blvd to 42nd St	4	12	18,827	45	0.5	1.9%	1.0%	64.4	-	91	196	423
31	Riverview Dr/ Limonite Ave	42nd St to Pacific Ave	4	12	20,672	45	0.5	1.9%	0.9%	64.8	-	97	208	448
32		Pacific Ave to Ave Juan Bautista	4	32	25,424	50	0.5	1.9%	0.9%	66.9	63	135	290	626
33		Ave Juan Bautista to Camino Real	4	40	26,247	50	0.5	1.8%	0.8%	67.2	65	139	300	646
34	24th St	Rubidoux Blvd to Hall Ave	2	0	2,674	25	0.5	1.8%	0.7%	50.4	-	-	-	50
35		Hall Ave to Market St	2	0	3,793	25	0.5	1.8%	0.8%	52.1	-	-	-	64
36	26th St	Rubidoux Blvd to Hall Ave	2	0	725	25	0.5	1.8%	0.7%	44.8	-	-	-	-
37	28th St	Rubidoux Blvd to Hall Ave	2	0	2,522	25	0.5	1.9%	1.0%	50.7	-	-	-	52
38	Frontage Rd	Rubidoux Blvd to 30th St	2	0	19,797	25	0.5	1.9%	1.6%	60.8	-	53	113	244
39	Wallace St	34th St to 36th St	2	0	2,438	40	0.5	1.5%	0.6%	53.6	-	-	37	80
40		36th St to Mission Blvd	2	0	3,650	40	0.5	1.6%	0.6%	55.5	-	-	50	107
41	Crestmore Rd	34th St to 36th St	2	0	3,209	25	0.5	1.5%	0.6%	50.7	-	-	-	52
42		36th St to Mission Blvd	2	0	3,512	25	0.5	1.5%	0.6%	51.1	-	-	-	55
43	34th St	Rubidoux Blvd to Wallace St	2	0	4,535	25	0.5	1.8%	0.7%	52.7	-	-	33	71
44		Wallace St to Crestmore Rd	2	0	3,269	25	0.5	1.8%	0.7%	51.3	-	-	-	57
45	36th St	Wallace St to Crestmore Rd	2	0	314	25	0.5	1.8%	0.7%	41.1	-	-	-	-

[1] Distance is from the centerline of the roadway segment to the receptor location.
"-" = contour is located within the roadway right-of-way.

FHWA Highway Noise Prediction Model (FHWA-RD-77-108) with California Vehicle Noise (CALVENO) Emission Levels

Project Name: Districts at Rubidoux
Project Number: 194399001
Scenario: Opening Year Phase 2
Ldn/CNEL: CNEL

Assumed 24-Hour Traffic Distribution:	Day	Evening	Night
Total ADT Volumes	77.70%	12.70%	9.60%
Medium-Duty Trucks	87.43%	5.05%	7.52%
Heavy-Duty Trucks	89.10%	2.84%	8.06%

#	Roadway	Segment	Lanes	Median Width	ADT Volume	Speed (mph)	Alpha Factor	Vehicle Mix: Medium Trucks	Vehicle Mix: Heavy Trucks	CNEL at 100 Feet	Distance from Centerline of Roadway to Contour: 70 CNEL	65 CNEL	60 CNEL	55 CNEL
1	Cedar Ave	Slover Avenue to Santa Ave	4	15	23,594	40	0.5	1.8%	0.74%	64.0	-	86	185	398
2		Santa Ana Ave to Jurupa Ave	4	14	21,502	45	0.5	1.8%	0.74%	64.8	-	97	209	451
3		Jurupa Ave to El Rivino Rd	4	14	22,513	50	0.5	1.8%	0.74%	66.1	55	119	256	552
4	Rubidoux Blvd	El Rivino Rd to 20th St/Market St	4	10	23,324	50	0.5	1.8%	0.74%	66.2	56	121	261	562
5		20th St/Market St to 24th St	4	10	21,874	50	0.5	1.8%	0.74%	66.0	54	116	250	538
6		24th St to 26th St	4	0	21,510	50	0.5	1.8%	0.74%	65.8	53	113	245	527
7		26th St to 28th St	4	0	22,909	50	0.5	1.8%	0.74%	66.1	55	118	255	549
8		28th St to 30 St/SR-60 WB Off-Ramp	4	12	28,344	40	0.5	1.8%	0.74%	64.8	-	97	208	448
9		30th St/SR-60 WB Off-Ramp to SR-60 WB On-Ramp	4	12	41,634	40	0.5	1.8%	0.74%	66.4	58	125	269	579
10		SR-60 WB On-Ramp to SR-60 EB-Off Ramp/Frontage Rd	4	12	32,322	40	0.5	1.8%	0.74%	65.3	-	105	227	489
11		SR-60 EB Off-Ramp/Frontage Rd to 34th St	4	12	34,575	45	0.5	1.8%	0.74%	66.9	62	133	286	617
12		34th St to Mission Blvd	4	12	30,513	40	0.5	1.8%	0.74%	65.1	-	101	219	471
13		Rubidoux Blvd to Agua Mansa Rd	4	20	22,434	45	0.5	1.8%	0.74%	65.0	-	101	217	467
14	Market St	Agua Mansa Rd to Hall Ave	2	0	17,364	45	0.5	1.8%	0.74%	63.7	38	82	176	379
15		Hall Ave to 24th St/Via Cerro	2	0	18,007	45	0.5	1.8%	0.74%	63.8	39	84	180	388
16		24th St/Via Cerro to Rivera St	2	0	26,064	45	0.5	1.8%	0.74%	65.4	50	107	231	497
17	Mission Blvd	Rivera St to SR-60 WB Ramps	5	18	29,431	45	0.5	1.8%	0.74%	66.3	-	123	264	570
18		SR-60 WB Ramps to SR-60 EB Ramps	5	14	23,548	45	0.5	1.8%	0.74%	65.3	-	105	226	488
19	Hall Ave	Market St to 24th St	3	0	1,057	40	0.5	1.8%	0.74%	50.3	-	-	-	49
20		24th St to 26th St	2	0	3,021	40	0.5	1.8%	0.74%	54.9	-	-	45	98
21		26th St to 28th St	2	0	3,067	40	0.5	1.8%	0.74%	54.9	-	-	46	99
22		Valley Way to Golden W Ave	4	24	26,480	40	0.5	1.8%	0.74%	64.6	-	94	202	436
23		Golden W Ave to Opal St	4	26	28,576	40	0.5	1.8%	0.74%	64.9	-	99	214	460
24		Opal St to Pacific Ave	4	26	29,380	40	0.5	1.8%	0.74%	65.1	-	101	218	469
25		Pacific Ave to La Rue St	4	26	28,188	40	0.5	1.8%	0.74%	64.9	-	98	212	456
26		La Rue St to Riverview Dr	4	26	28,850	40	0.5	1.8%	0.74%	65.0	-	100	215	463
27		Riverview Dr to Rubidoux Blvd	4	35	34,156	40	0.5	1.8%	0.74%	65.8	-	114	245	527
28		Rubidoux Blvd to Wallace St	4	32	31,204	40	0.5	1.8%	0.74%	65.4	-	106	229	493
29		Wallace St to Crestmore Rd	4	30	28,806	40	0.5	1.8%	0.74%	65.0	-	100	216	466
30		Mission Blvd to 42nd St	4	12	17,935	45	0.5	1.8%	0.74%	64.0	-	86	185	398
31	Riverview Dr/ Limonite Ave	42nd St to Pacific Ave	4	12	20,095	45	0.5	1.8%	0.74%	64.5	-	93	199	430
32		Pacific Ave to Ave Juan Bautista	4	32	25,138	50	0.5	1.8%	0.74%	66.8	61	132	284	611
33		Ave Juan Bautista to Camino Real	4	40	26,562	50	0.5	1.8%	0.74%	67.1	64	139	299	645
34	24th St	Rubidoux Blvd to Hall Ave	2	0	2,837	25	0.5	1.8%	0.74%	50.7	-	-	-	52
35		Hall Ave to Market St	2	0	3,940	25	0.5	1.8%	0.74%	52.1	-	-	-	64
36	26th St	Rubidoux Blvd to Hall Ave	2	0	770	25	0.5	1.8%	0.74%	45.0	-	-	-	-
37	28th St	Rubidoux Blvd to Hall Ave	2	0	2,401	25	0.5	1.8%	0.74%	50.0	-	-	-	46
38	Frontage Rd	Rubidoux Blvd to 30th St	2	0	12,765	25	0.5	1.8%	0.74%	57.2	-	-	65	141
39	Wallace St	34th St to 36th St	2	0	2,068	40	0.5	1.8%	0.74%	53.2	-	-	35	76
40		36th St to Mission Blvd	2	0	3,304	40	0.5	1.8%	0.74%	55.3	-	-	48	104
41	Crestmore Rd	34th St to 36th St	2	0	2,768	25	0.5	1.8%	0.74%	50.6	-	-	-	51
42		36th St to Mission Blvd	2	0	3,090	25	0.5	1.8%	0.74%	51.1	-	-	-	55
43	34th St	Rubidoux Blvd to Wallace St	2	0	4,813	25	0.5	1.8%	0.74%	53.0	-	-	34	73
44		Wallace St to Crestmore Rd	2	0	3,469	25	0.5	1.8%	0.74%	51.6	-	-	-	59
45	36th St	Wallace St to Crestmore Rd	2	0	333	25	0.5	1.8%	0.74%	41.4	-	-	-	-

[1] Distance is from the centerline of the roadway segment to the receptor location.
"-" = contour is located within the roadway right-of-way.

FHWA Highway Noise Prediction Model (FHWA-RD-77-108) with California Vehicle Noise (CALVENO) Emission Levels

Project Name: Districts at Rubidoux
Project Number: 194399001
Scenario: Opening Year Plus Project Phase 2
Ldn/CNEL: CNEL

Assumed 24-Hour Traffic Distribution:	Day	Evening	Night
Total ADT Volumes	77.70%	12.70%	9.60%
Medium-Duty Trucks	87.43%	5.05%	7.52%
Heavy-Duty Trucks	89.10%	2.84%	8.06%

#	Roadway	Segment	Lanes	Median Width	ADT Volume	Speed (mph)	Alpha Factor	Vehicle Mix: Medium Trucks	Vehicle Mix: Heavy Trucks	CNEL at 100 Feet	Distance from Centerline of Roadway to Contour: 70 CNEL	65 CNEL	60 CNEL	55 CNEL
1	Cedar Ave	Slover Avenue to Santa Ave	4	15	24,774	40	0.5	1.8%	0.9%	64.3	-	90	194	419
2		Santa Ana Ave to Jurupa Ave	4	14	23,082	45	0.5	1.9%	0.9%	65.3	-	104	224	482
3		Jurupa Ave to El Rivino Rd	4	14	24,493	50	0.5	1.9%	0.9%	66.6	60	128	277	596
4		El Rivino Rd to 20th St/Market St	4	10	25,304	50	0.5	1.9%	0.9%	66.7	61	130	281	605
5		20th St/Market St to 24th St	4	10	24,624	50	0.5	1.9%	1.0%	66.7	60	129	278	600
6		24th St to 26th St	4	0	24,260	50	0.5	1.9%	1.0%	66.5	59	127	273	588
7		26th St to 28th St	4	0	25,659	50	0.5	1.9%	1.0%	66.8	61	131	283	609
8	Rubidoux Blvd	28th St to 30 St/SR-60 WB Off-Ramp	4	12	31,204	40	0.5	1.9%	1.0%	65.4	-	106	229	494
9		30th St/SR-60 WB Off-Ramp to SR-60 WB On-Ramp	4	12	48,434	40	0.5	1.9%	1.1%	67.4	67	145	312	673
10		SR-60 WB On-Ramp to SR-60 EB-Off Ramp/Frontage Rd	4	12	40,992	40	0.5	1.9%	1.2%	66.9	62	133	286	617
11		SR-60 EB Off-Ramp/Frontage Rd to 34th St	4	12	43,975	45	0.5	1.9%	1.2%	68.3	77	166	358	771
12		34th St to Mission Blvd	4	12	34,243	40	0.5	1.9%	1.0%	65.8	53	114	245	529
13		Rubidoux Blvd to Agua Mansa Rd	4	20	22,824	45	0.5	1.8%	0.8%	65.2	-	102	221	475
14		Agua Mansa Rd to Hall Ave	2	0	17,564	45	0.5	1.8%	0.8%	63.8	38	83	178	383
15	Market St	Hall Ave to 24th St/Via Cerro	2	0	18,577	45	0.5	1.8%	0.8%	64.0	40	86	186	400
16		24th St/Via Cerro to Rivera St	2	0	26,714	45	0.5	1.8%	0.8%	65.6	51	110	236	509
17		Rivera St to SR-60 WB Ramps	5	18	30,351	45	0.5	1.8%	0.8%	66.5	-	126	272	587
18		SR-60 WB Ramps to SR-60 EB Ramps	5	14	24,568	45	0.5	1.8%	0.8%	65.6	-	109	236	508
19	Hall Ave	Market St to 24th St	3	0	1,827	40	0.5	1.9%	1.7%	53.6	-	-	-	81
20		24th St to 26th St	2	0	3,871	40	0.5	1.9%	1.3%	56.4	-	-	58	125
21		26th St to 28th St	2	0	3,917	40	0.5	1.9%	1.2%	56.5	-	-	58	126
22		Valley Way to Golden W Ave	4	24	27,380	40	0.5	2.3%	1.4%	65.5	-	109	234	505
23		Golden W Ave to Opal St	4	26	29,686	40	0.5	2.3%	1.5%	66.0	-	117	252	543
24		Opal St to Pacific Ave	4	26	30,640	40	0.5	2.4%	1.6%	66.2	-	121	261	562
25	Mission Blvd	Pacific Ave to La Rue St	4	26	29,828	40	0.5	2.5%	1.9%	66.4	58	124	268	577
26		La Rue St to Riverview Dr	4	26	30,490	40	0.5	2.5%	1.9%	66.5	58	126	271	583
27		Riverview Dr to Rubidoux Blvd	4	35	37,546	40	0.5	3.0%	2.6%	68.2	76	163	351	757
28		Rubidoux Blvd to Wallace St	4	32	31,204	40	0.5	1.8%	0.7%	65.4	-	106	229	493
29		Wallace St to Crestmore Rd	4	30	29,296	40	0.5	2.1%	1.1%	65.5	-	109	234	504
30		Mission Blvd to 42nd St	4	12	19,685	45	0.5	1.9%	0.9%	64.6	-	94	202	435
31	Riverview Dr/ Limonite Ave	42nd St to Pacific Ave	4	12	21,655	45	0.5	1.9%	0.9%	65.0	-	99	214	462
32		Pacific Ave to Ave Juan Bautista	4	32	26,698	50	0.5	1.8%	0.9%	67.2	65	139	300	646
33		Ave Juan Bautista to Camino Real	4	40	27,602	50	0.5	1.8%	0.8%	67.4	67	144	310	668
34	24th St	Rubidoux Blvd to Hall Ave	2	0	2,837	25	0.5	1.8%	0.7%	50.7	-	-	-	52
35		Hall Ave to Market St	2	0	4,020	25	0.5	1.8%	0.8%	52.3	-	-	-	66
36	26th St	Rubidoux Blvd to Hall Ave	2	0	770	25	0.5	1.8%	0.7%	45.0	-	-	-	-
37	28th St	Rubidoux Blvd to Hall Ave	2	0	2,661	25	0.5	1.9%	1.0%	50.9	-	-	-	53
38	Frontage Rd	Rubidoux Blvd to 30th St	2	0	20,325	25	0.5	1.9%	1.6%	60.9	-	53	115	247
39	Wallace St	34th St to 36th St	2	0	2,558	40	0.5	1.5%	0.6%	53.8	-	-	39	83
40		36th St to Mission Blvd	2	0	3,794	40	0.5	1.6%	0.6%	55.6	-	-	51	110
41	Crestmore Rd	34th St to 36th St	2	0	3,368	25	0.5	1.5%	0.6%	50.9	-	-	-	53
42		36th St to Mission Blvd	2	0	3,690	25	0.5	1.5%	0.6%	51.4	-	-	-	57
43	34th St	Rubidoux Blvd to Wallace St	2	0	4,813	25	0.5	1.8%	0.7%	53.0	-	-	34	73
44		Wallace St to Crestmore Rd	2	0	3,469	25	0.5	1.8%	0.7%	51.6	-	-	-	59
45	36th St	Wallace St to Crestmore Rd	2	0	333	25	0.5	1.8%	0.7%	41.4	-	-	-	-

[1] Distance is from the centerline of the roadway segment to the receptor location.
"-" = contour is located within the roadway right-of-way.

FHWA Highway Noise Prediction Model (FHWA-RD-77-108) with California Vehicle Noise (CALVENO) Emission Levels

Project Name: Districts at Rubidoux
Project Number: 194399001
Scenario: Horizon Year
Ldn/CNEL: CNEL

Assumed 24-Hour Traffic Distribution:	Day	Evening	Night
Total ADT Volumes	77.70%	12.70%	9.60%
Medium-Duty Trucks	87.43%	5.05%	7.52%
Heavy-Duty Trucks	89.10%	2.84%	8.06%

#	Roadway	Segment	Lanes	Median Width	ADT Volume	Speed (mph)	Alpha Factor	Vehicle Mix: Medium Trucks	Vehicle Mix: Heavy Trucks	CNEL at 100 Feet	Distance from Centerline of Roadway to Contour: 70 CNEL	65 CNEL	60 CNEL	55 CNEL
1	Cedar Ave	Slover Avenue to Santa Ave	4	15	23,594	40	0.5	1.8%	0.74%	64.0	-	86	185	398
2		Santa Ana Ave to Jurupa Ave	4	14	21,502	45	0.5	1.8%	0.74%	64.8	-	97	209	451
3		Jurupa Ave to El Rivino Rd	4	14	24,590	50	0.5	1.8%	0.74%	66.5	59	126	272	585
4		El Rivino Rd to 20th St/Market St	4	10	30,850	50	0.5	1.8%	0.74%	67.5	68	146	314	677
5		20th St/Market St to 24th St	4	10	30,540	50	0.5	1.8%	0.74%	67.4	67	145	312	673
6		24th St to 26th St	4	0	27,190	50	0.5	1.8%	0.74%	66.8	62	133	286	616
7		26th St to 28th St	4	0	29,530	50	0.5	1.8%	0.74%	67.2	65	140	302	651
8	Rubidoux Blvd	28th St to 30 St/SR-60 WB Off-Ramp	4	12	31,790	40	0.5	1.8%	0.74%	65.3	-	104	225	484
9		30th St/SR-60 WB Off-Ramp to SR-60 WB On-Ramp	4	12	41,634	40	0.5	1.8%	0.74%	66.4	58	125	269	579
10		SR-60 WB On-Ramp to SR-60 EB-Off Ramp/Frontage Rd	4	12	32,322	40	0.5	1.8%	0.74%	65.3	-	105	227	489
11		SR-60 EB Off-Ramp/Frontage Rd to 34th St	4	12	35,590	45	0.5	1.8%	0.74%	67.0	63	135	292	629
12		34th St to Mission Blvd	4	12	32,080	40	0.5	1.8%	0.74%	65.3	-	105	226	487
13		Rubidoux Blvd to Agua Mansa Rd	4	20	27,940	45	0.5	1.8%	0.74%	66.0	54	117	251	541
14		Agua Mansa Rd to Hall Ave	2	0	23,900	45	0.5	1.8%	0.74%	65.1	47	101	218	469
15	Market St	Hall Ave to 24th St/Via Cerro	2	0	23,130	45	0.5	1.8%	0.74%	64.9	46	99	213	459
16		24th St/Via Cerro to Rivera St	2	0	27,810	45	0.5	1.8%	0.74%	65.7	52	112	241	519
17		Rivera St to SR-60 WB Ramps	5	18	30,940	45	0.5	1.8%	0.74%	66.6	-	127	273	589
18		SR-60 WB Ramps to SR-60 EB Ramps	5	14	25,950	45	0.5	1.8%	0.74%	65.7	-	112	241	520
19	Hall Ave	Market St to 24th St	3	0	3,310	40	0.5	1.8%	0.74%	55.3	-	-	49	105
20		24th St to 26th St	2	0	3,950	40	0.5	1.8%	0.74%	56.0	-	-	54	117
21		26th St to 28th St	2	0	4,110	40	0.5	1.8%	0.74%	56.2	-	-	56	120
22		Valley Way to Golden W Ave	4	24	26,480	40	0.5	1.8%	0.74%	64.6	-	94	202	436
23		Golden W Ave to Opal St	4	26	28,576	40	0.5	1.8%	0.74%	64.9	-	99	214	460
24		Opal St to Pacific Ave	4	26	29,380	40	0.5	1.8%	0.74%	65.1	-	101	218	469
25	Mission Blvd	Pacific Ave to La Rue St	4	26	31,040	40	0.5	1.8%	0.74%	65.3	-	105	226	486
26		La Rue St to Riverview Dr	4	26	28,850	40	0.5	1.8%	0.74%	65.0	-	100	215	463
27		Riverview Dr to Rubidoux Blvd	4	35	34,450	40	0.5	1.8%	0.74%	65.9	-	114	246	530
28		Rubidoux Blvd to Wallace St	4	32	31,360	40	0.5	1.8%	0.74%	65.4	-	107	230	495
29		Wallace St to Crestmore Rd	4	30	29,390	40	0.5	1.8%	0.74%	65.1	-	102	219	472
30		Mission Blvd to 42nd St	4	12	17,935	45	0.5	1.8%	0.74%	64.0	-	86	185	398
31	Riverview Dr/	42nd St to Pacific Ave	4	12	21,130	45	0.5	1.8%	0.74%	64.7	-	96	206	444
32	Limonite Ave	Pacific Ave to Ave Juan Bautista	4	32	26,150	50	0.5	1.8%	0.74%	67.0	63	135	291	628
33		Ave Juan Bautista to Camino Real	4	40	28,450	50	0.5	1.8%	0.74%	67.4	68	145	313	675
34	24th St	Rubidoux Blvd to Hall Ave	2	0	7,980	25	0.5	1.8%	0.74%	55.2	-	-	48	103
35		Hall Ave to Market St	2	0	8,080	25	0.5	1.8%	0.74%	55.2	-	-	48	104
36	26th St	Rubidoux Blvd to Hall Ave	2	0	960	25	0.5	1.8%	0.74%	46.0	-	-	-	-
37	28th St	Rubidoux Blvd to Hall Ave	2	0	8,070	25	0.5	1.8%	0.74%	55.2	-	-	48	104
38	Frontage Rd	Rubidoux Blvd to 30th St	2	0	12,765	25	0.5	1.8%	0.74%	57.2	-	-	65	141
39	Wallace St	34th St to 36th St	2	0	3,190	40	0.5	1.8%	0.74%	55.1	-	-	47	102
40		36th St to Mission Blvd	2	0	3,790	40	0.5	1.8%	0.74%	55.9	-	-	53	114
41	Crestmore Rd	34th St to 36th St	2	0	2,768	25	0.5	1.8%	0.74%	50.6	-	-	-	51
42		36th St to Mission Blvd	2	0	3,090	25	0.5	1.8%	0.74%	51.1	-	-	-	55
43	34th St	Rubidoux Blvd to Wallace St	2	0	5,570	25	0.5	1.8%	0.74%	53.6	-	-	38	81
44		Wallace St to Crestmore Rd	2	0	3,469	25	0.5	1.8%	0.74%	51.6	-	-	-	59
45	36th St	Wallace St to Crestmore Rd	2	0	333	25	0.5	1.8%	0.74%	41.4	-	-	-	-

[1] Distance is from the centerline of the roadway segment to the receptor location.
"-" = contour is located within the roadway right-of-way.

FHWA Highway Noise Prediction Model (FHWA-RD-77-108) with California Vehicle Noise (CALVENO) Emission Levels

Project Name: Districts at Rubidoux
Project Number: 194399001
Scenario: Horizon Year Plus Project
Ldn/CNEL: CNEL

Assumed 24-Hour Traffic Distribution:	Day	Evening	Night
Total ADT Volumes	77.70%	12.70%	9.60%
Medium-Duty Trucks	87.43%	5.05%	7.52%
Heavy-Duty Trucks	89.10%	2.84%	8.06%

#	Roadway	Segment	Lanes	Median Width	ADT Volume	Speed (mph)	Alpha Factor	Vehicle Mix: Medium Trucks	Vehicle Mix: Heavy Trucks	CNEL at 100 Feet	Distance from Centerline of Roadway to Contour: 70 CNEL	65 CNEL	60 CNEL	55 CNEL
1	Cedar Ave	Slover Avenue to Santa Ave	4	15	24,774	40	0.5	1.8%	0.85%	64.3	-	90	194	419
2		Santa Ana Ave to Jurupa Ave	4	14	23,082	45	0.5	1.9%	0.90%	65.3	-	104	224	482
3		Jurupa Ave to El Rivino Rd	4	14	26,570	50	0.5	1.9%	0.91%	67.0	63	135	291	628
4	Rubidoux Blvd	El Rivino Rd to 20th St/Market St	4	10	32,830	50	0.5	1.8%	0.88%	67.8	72	154	333	717
5		20th St/Market St to 24th St	4	10	33,290	50	0.5	1.9%	0.93%	67.9	73	157	338	727
6		24th St to 26th St	4	0	29,940	50	0.5	1.9%	0.95%	67.4	67	145	312	672
7		26th St to 28th St	4	0	32,280	50	0.5	1.9%	0.93%	67.7	71	152	327	705
8		28th St to 30 St/SR-60 WB Off-Ramp	4	12	34,650	40	0.5	1.9%	0.93%	65.8	53	114	245	527
9		30th St/SR-60 WB Off-Ramp to SR-60 WB On-Ramp	4	12	48,434	40	0.5	1.9%	1.07%	67.4	67	145	312	673
10		SR-60 WB On-Ramp to SR-60 EB-Off Ramp/Frontage Rd	4	12	40,992	40	0.5	1.9%	1.23%	66.9	62	133	286	617
11		SR-60 EB Off-Ramp/Frontage Rd to 34th St	4	12	44,990	45	0.5	1.9%	1.21%	68.4	78	168	362	781
12		34th St to Mission Blvd	4	12	35,810	40	0.5	1.9%	0.98%	66.0	54	117	252	543
13		Rubidoux Blvd to Agua Mansa Rd	4	20	28,330	45	0.5	1.8%	0.77%	66.1	55	118	255	548
14	Market St	Agua Mansa Rd to Hall Ave	2	0	24,100	45	0.5	1.8%	0.76%	65.1	47	102	219	473
15		Hall Ave to 24th St/Via Cerro	2	0	23,210	45	0.5	1.8%	0.79%	65.0	46	100	215	463
16		24th St/Via Cerro to Rivera St	2	0	27,970	45	0.5	1.8%	0.79%	65.8	52	113	243	524
17		Rivera St to SR-60 WB Ramps	5	18	31,370	45	0.5	1.8%	0.81%	66.7	60	129	278	600
18		SR-60 WB Ramps to SR-60 EB Ramps	5	14	26,480	45	0.5	1.8%	0.83%	65.9	-	115	247	533
19	Hall Ave	Market St to 24th St	3	0	3,590	40	0.5	1.9%	1.17%	56.1	-	-	55	118
20		24th St to 26th St	2	0	4,310	40	0.5	1.9%	1.14%	56.8	-	-	61	132
21		26th St to 28th St	2	0	4,470	40	0.5	1.9%	1.13%	57.0	-	-	63	135
22	Mission Blvd	Valley Way to Golden W Ave	4	24	27,380	40	0.5	2.3%	1.43%	65.5	-	109	234	505
23		Golden W Ave to Opal St	4	26	29,686	40	0.5	2.3%	1.52%	66.0	-	117	252	543
24		Opal St to Pacific Ave	4	26	30,640	40	0.5	2.3%	1.59%	66.2	-	121	260	560
25		Pacific Ave to La Rue St	4	26	32,680	40	0.5	2.5%	1.76%	66.7	60	129	279	601
26		La Rue St to Riverview Dr	4	26	30,490	40	0.5	2.5%	1.85%	66.5	58	125	270	582
27		Riverview Dr to Rubidoux Blvd	4	35	37,840	40	0.5	2.9%	2.56%	68.2	75	162	350	754
28		Rubidoux Blvd to Wallace St	4	32	31,360	40	0.5	1.8%	0.74%	65.4	-	107	230	495
29		Wallace St to Crestmore Rd	4	30	29,880	40	0.5	2.0%	1.07%	65.6	-	110	236	509
30		Mission Blvd to 42nd St	4	12	19,685	45	0.5	1.9%	0.95%	64.6	-	94	202	435
31	Riverview Dr/ Limonite Ave	42nd St to Pacific Ave	4	12	22,690	45	0.5	1.9%	0.90%	65.2	-	102	221	475
32		Pacific Ave to Ave Juan Bautista	4	32	27,710	50	0.5	1.8%	0.87%	67.3	66	143	307	662
33		Ave Juan Bautista to Camino Real	4	40	29,490	50	0.5	1.8%	0.82%	67.7	70	150	324	698
34	24th St	Rubidoux Blvd to Hall Ave	2	0	7,980	25	0.5	1.8%	0.74%	55.2	-	-	48	103
35		Hall Ave to Market St	2	0	8,160	25	0.5	1.8%	0.76%	55.3	-	-	49	105
36	26th St	Rubidoux Blvd to Hall Ave	2	0	960	25	0.5	1.8%	0.74%	46.0	-	-	-	-
37	28th St	Rubidoux Blvd to Hall Ave	2	0	8,330	25	0.5	1.8%	0.81%	55.5	-	-	50	108
38	Frontage Rd	Rubidoux Blvd to 30th St	2	0	20,325	25	0.5	1.9%	1.60%	60.9	-	53	115	247
39	Wallace St	34th St to 36th St	2	0	3,680	40	0.5	1.6%	0.64%	55.5	-	-	50	108
40		36th St to Mission Blvd	2	0	4,280	40	0.5	1.6%	0.66%	56.2	-	-	56	120
41	Crestmore Rd	34th St to 36th St	2	0	3,368	25	0.5	1.5%	0.60%	50.9	-	-	-	53
42		36th St to Mission Blvd	2	0	3,690	25	0.5	1.5%	0.62%	51.4	-	-	-	57
43	34th St	Rubidoux Blvd to Wallace St	2	0	5,570	25	0.5	1.8%	0.74%	53.6	-	-	38	81
44		Wallace St to Crestmore Rd	2	0	3,469	25	0.5	1.8%	0.74%	51.6	-	-	-	59
45	36th St	Wallace St to Crestmore Rd	2	0	333	25	0.5	1.8%	0.74%	41.4	-	-	-	-

[1] Distance is from the centerline of the roadway segment to the receptor location.
"-" = contour is located within the roadway right-of-way.

Appendix C

ADT Traffic Data

DISTRICTS AT JURUPA VALLEY
ADT VOLUMES

Roadway	Segment	Existing ADT	Cumulative Projects ADT	Daily No Ramp Project Traffic	Daily Project Traffic	Opening Year 2025 + Cumulative Projects ADT	Opening Year 2025 + Cumulative Projects + Project ADT	Opening Year 2028 + Cumulative Projects ADT	Opening Year 2028 + Cumulative Projects + No Ramp Project ADT	Opening Year 2028 + Cumulative Projects + Project ADT	Horizon Year ADT	Horizon Year + No Ramp Project ADT	Horizon Year + Project ADT
Cedar Ave	Slover Avenue to Santa Ana Ave	19,130	1,620	1,180	1,180	22,327	23,507	23,594	24,774	24,774	23,594	24,774	24,774
	Santa Ana Ave to Jurupa Ave	17,300	1,630	1,580	1,580	20,356	21,936	21,502	23,082	23,082	21,502	23,082	23,082
	Jurupa Ave to El Rivino Rd	18,180	1,630	1,980	1,980	21,309	23,289	22,513	24,493	24,493	24,590	26,570	26,570
	El Rivino Rd to 20th St/Market St	19,060	1,430	1,980	1,980	22,061	24,041	23,324	25,304	25,304	30,850	32,830	32,830
Rubidoux Blvd	20th St/Market St to 24th St	16,370	3,070	2,750	2,750	20,789	23,539	21,874	24,624	24,624	30,540	33,290	33,290
	24th St to 26th St	16,010	3,120	2,750	2,750	20,450	23,200	21,510	24,260	24,260	27,190	29,940	29,940
	26th St to 28th St	16,070	4,450	2,750	2,750	21,845	24,595	22,909	25,659	25,659	29,530	32,280	32,280
	28th St to 30 St/SR-60 WB Off-Ramp	17,850	7,840	2,860	2,860	27,161	30,021	28,344	31,204	31,204	31,790	34,650	34,650
	30th St/SR-60 WB Off-Ramp to SR-60 WB On-Ramp	25,990	11,780	6,800	6,800	39,912	46,712	41,634	48,434	48,434	41,634	48,434	48,434
	SR-60 WB On-Ramp to SR-60 EB-Off Ramp/Frontage Rd	19,790	9,590	8,670	8,670	31,011	39,681	32,322	40,992	40,992	32,322	40,992	40,992
	SR-60 EB Off-Ramp/Frontage Rd to 34th St	20,280	11,280	9,400	9,400	33,232	42,632	34,575	43,975	43,975	35,590	44,990	44,990
	34th St to Mission Blvd	17,240	10,710	3,730	3,730	29,371	33,101	30,513	34,243	34,243	32,080	35,810	35,810
Market St	Rubidoux Blvd to Agua Mansa Rd	16,910	3,010	390	390	21,314	21,704	22,434	22,824	22,824	27,940	28,330	28,330
	Agua Mansa Rd to Hall Ave	13,140	2,270	200	200	16,493	16,693	17,364	17,564	17,564	23,900	24,100	24,100
	Hall Ave to 24th St/Via Cerro	13,160	2,890	570	80	17,135	17,705	18,007	18,577	18,087	23,130	23,700	23,210
	24th St/Via Cerro to Rivera St	18,660	4,630	650	160	24,828	25,478	26,064	26,714	26,224	27,810	28,460	27,970
	Rivera St to SR-60 WB Ramps	21,930	4,240	920	430	27,978	28,898	29,431	30,351	29,861	30,940	31,860	31,370
	SR-60 WB Ramps to SR-60 EB Ramps	16,870	4,170	1,020	530	22,431	23,451	23,548	24,568	24,078	25,950	26,970	26,480
Hall Ave	Market St to 24th St	920	0	770	280	996	1,766	1,057	1,827	1,337	3,310	4,080	3,590
	24th St to 26th St	2,630	0	850	360	2,847	3,697	3,021	3,871	3,381	3,950	4,800	4,310
	26th St to 28th St	2,670	0	850	360	2,890	3,740	3,067	3,917	3,427	4,110	4,960	4,470
Mission Blvd	Valley Way to Golden W Ave	19,170	4,460	900	900	25,210	26,110	26,480	27,380	27,380	26,480	27,380	27,380
	Golden W Ave to Opal St	20,420	5,120	1,110	1,110	27,223	28,333	28,576	29,686	29,686	28,576	29,686	29,686
	Opal St to Pacific Ave	21,120	5,120	1,260	1,260	27,981	29,241	29,380	30,640	30,640	29,380	30,640	30,640
	Pacific Ave to La Rue St	19,220	6,110	1,640	1,640	26,914	28,554	28,188	29,828	29,828	31,040	32,680	32,680
	La Rue St at Riverview Dr	19,570	6,370	1,640	1,640	27,553	29,193	28,850	30,490	30,490	28,850	30,490	30,490
	Riverview Dr to Rubidoux Blvd	24,390	6,140	3,390	3,390	32,541	35,931	34,156	37,546	37,546	34,450	37,840	37,840
	Rubidoux Blvd to Wallace St	24,780	2,740	0	0	29,563	29,563	31,204	31,204	31,204	31,360	31,360	31,360
	Wallace St to Crestmore Rd	23,110	2,260	490	490	27,275	27,765	28,806	29,296	29,296	29,390	29,880	29,880
Riverview Dr/ Limonite Ave	Mission Blvd to 42nd St	12,950	3,060	1,750	1,750	17,077	18,827	17,935	19,685	19,685	17,935	19,685	19,685
	42nd St to Pacific Ave	14,830	3,060	1,560	1,560	19,112	20,672	20,095	21,655	21,655	21,130	22,690	22,690
	Pacific Ave to Ave Juan Bautista	19,220	3,060	1,560	1,560	23,864	25,424	25,138	26,698	26,698	26,150	27,710	27,710
	Ave Juan Bautista to Camino Real	20,460	3,060	1,040	1,040	25,207	26,247	26,562	27,602	27,602	28,450	29,490	29,490
24th St	Rubidoux Blvd to Hall Ave	2,470	0	0	0	2,674	2,674	2,837	2,837	2,837	7,980	7,980	7,980
	Hall Ave to Market St	3,430	0	80	80	3,713	3,793	3,940	4,020	4,020	8,080	8,160	8,160
26th St	Rubidoux Blvd to Hall Ave	670	0	0	0	725	725	770	770	770	960	960	960
28th St	Rubidoux Blvd to Hall Ave	2,090	0	260	260	2,262	2,522	2,401	2,661	2,661	8,070	8,330	8,330
Frontage Rd	Rubidoux Blvd to 30th St	7,970	3,610	7,560	7,560	12,237	19,797	12,765	20,325	20,325	12,765	20,325	20,325
Wallace St	34th St to 36th St	1,800	0	490	490	1,948	2,438	2,068	2,558	2,558	3,190	3,680	3,680
	36th St to Mission Blvd	2,180	800	490	490	3,160	3,650	3,304	3,794	3,794	3,790	4,280	4,280
Crestmore Rd	34th St to 36th St	2,410	0	600	600	2,609	3,209	2,768	3,368	3,368	2,768	3,368	3,368
	36th St to Mission Blvd	2,690	0	600	600	2,912	3,512	3,090	3,690	3,690	3,090	3,690	3,690
34th St	Rubidoux Blvd to Wallace St	4,190	0	0	0	4,535	4,535	4,813	4,813	4,813	5,570	5,570	5,570
	Wallace St to Crestmore Rd	3,020	0	0	0	3,269	3,269	3,469	3,469	3,469	3,469	3,469	3,469
36th St	Wallace St to Crestmore Rd	290	0	0	0	314	314	333	333	333	333	333	333