# **Appendices**

# **Noise Study**

# **Appendices**

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# Agua Mansa Commerce Park Specific Plan

NOISE IMPACT ANALYSIS
CITY OF JURUPA VALLEY

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11215-16 Noise Study



# **TABLE OF CONTENTS**

		OF CONTENTS	
		DICES	
		EXHIBITS	
		TABLES	
		ABBREVIATED TERMS	
EX	ECUT	IVE SUMMARY	1
	Off-S	ite Traffic Noise Analysis	1
		rational (Stationary-Source) Noise Analysis	
	Oper	rational Vibration Analysis	2
	Cons	truction Noise Analysis	2
	Cons	truction Vibration Analysis	2
	Sumr	mary of Significance Findings	3
1	IN	TRODUCTION	5
	1.1	Site Location	5
	1.2	Project Description	
2	EII	JNDAMENTALS	
_			
	2.1	Range of Noise	
	2.2	Noise Descriptors	
	2.3	Sound Propagation  Noise Control	
	2.4 2.5	Noise Barrier Attenuation	
	2.5	Land Use Compatibility With Noise	
	2.7	Community Response to Noise	
	2.8	Exposure to High Noise Levels	
	2.9	Vibration	
•			
3		GULATORY SETTING	
	3.1	State of California Noise Requirements	
	3.2	State of California Green Building Standards Code	
	3.3	Transportation Noise Criteria	
	3.4	Operational (Stationary-Source) Noise Standards  Construction Noise Standards	
	3.5 3.6	Vibration Standards	
	3.7	Agua Mansa Industrial Corridor Specific Plan	
4	_	GNIFICANCE CRITERIA	
_			
	4.1	Long-Term Noise Level Increases	
	4.2	Significance Criteria Summary	
5	EX	SISTING NOISE LEVEL MEASUREMENTS	27
	5.1	Measurement Procedure and Criteria	
	5.2	Noise Measurement Locations	
	5.3	Noise Measurement Results	28
6	M	ETHODS AND PROCEDURES	33
	6.1	FHWA Traffic Noise Prediction Model	33



	6.2	Off-Site Traffic Noise Prediction Model Inputs	33
	6.3	Vibration Assessment	46
7	OF	F-SITE TRANSPORTATION NOISE IMPACTS	47
	7.1	Traffic Noise Contours	
	7.2	Existing Conditions Project Traffic Noise Level Contributions	63
	7.3	Opening Year 2020 Project Traffic Noise Level Contributions	68
	7.4	Year 2035 Project Traffic Noise Level Contributions	73
8	SEI	NSITIVE RECEIVER LOCATIONS	79
9		PERATIONAL (STATIONARY-SOURCE) NOISE IMPACTS	
	9.1	Operational (Stationary-Source) Noise Sources	83
	9.2	Reference Noise Levels	83
	9.3	Project Operational (Stationary-Source) Noise Levels	87
	9.4	Project Operational (Stationary-Source) Noise Level Contributions	91
	9.5	Operational Vibration Impacts	93
10	со	DNSTRUCTION IMPACTS	95
	10.1	Construction Noise Levels	95
	10.2	Construction Reference Noise Levels	95
	10.3	Construction Noise Analysis	98
	10.4	Construction Noise Thresholds of Significance	103
	10.5	Construction Vibration Impacts	
11	. RE	FERENCES	109
12	CF	RTIFICATION	111

# **APPENDICES**

- APPENDIX 3.1: CITY OF JURUPA VALLEY CEQA THRESHOLDS GUIDANCE
- APPENDIX 3.2: COUNTY OF SAN BERNARDINO DEVELOPMENT CODE
- **APPENDIX 5.1: STUDY AREA PHOTOS**
- **APPENDIX 5.2: NOISE LEVEL MEASUREMENT WORKSHEETS**
- **APPENDIX 6.1: PCE TO ACTUAL VEHICLE TRAFFIC VOLUMES**
- **APPENDIX 7.1: OFF-SITE TRAFFIC NOISE CONTOURS**
- **APPENDIX 9.1: OPERATIONAL STATIONARY-SOURCE NOISE CALCULATIONS**



# **LIST OF EXHIBITS**

EXHIBIT 1-A: LOCATION MAP	7
EXHIBIT 1-B: SITE PLAN	
EXHIBIT 2-A: TYPICAL NOISE LEVELS	ç
EXHIBIT 2-B: NOISE LEVEL INCREASE PERCEPTION	13
EXHIBIT 2-C: TYPICAL LEVELS OF GROUND-BORNE VIBRATION	15
EXHIBIT 5-A: NOISE MEASUREMENT LOCATIONS	
EXHIBIT 8-A: SENSITIVE RECEIVER LOCATIONS	81
EXHIBIT 9-A: OPERATIONAL NOISE SOURCE LOCATIONS	88
EXHIBIT 10-A: CONSTRUCTION NOISE SOURCE LOCATIONS	96
<u>LIST OF TABLES</u>	
TABLE ES-1: SUMMARY OF SIGNIFICANCE FINDINGS	3
TABLE 3-1: OPERATIONAL (STATIONARY-SOURCE) NOISE STANDARDS	<b>2</b> 1
TABLE 4-1: SIGNIFICANCE CRITERIA SUMMARY	
TABLE 5-1: 24-HOUR AMBIENT NOISE LEVEL MEASUREMENTS	
TABLE 6-1: OFF-SITE ROADWAY PARAMETERS	
TABLE 6-2: EXISTIND CONDITIONS AVERAGE DAILY TRAFFIC VOLUMES	
TABLE 6-3: OPENING YEAR 2020 CONDITIONS AVERAGE DAILY TRAFFIC VOLUMES	
TABLE 6-4: YEAR 2035 CONDITIONS AVERAGE DAILY TRAFFIC VOLUMES	
TABLE 6-5: TIME OF DAY VEHICLE SPLITS	
TABLE 6-6: WITHOUT PROJECT CONDITIONS VEHICLE MIX	
TABLE 6-7: EXISTING WITH PROJECT ALT. 1 & 1A CONDITIONS VEHICLE MIX	
TABLE 6-8: EXISTING WITH PROJECT ALT. 2 & 2A CONDITIONS VEHICLE MIX	
TABLE 6-9: OPENING YEAR 2020 WITH PROJECT ALT. 1 & 1A CONDITIONS VEHICLE MIX	
TABLE 6-10: OPENING YEAR 2020 WITH PROJECT ALT. 2 & 2A CONDITIONS VEHICLE MIX	
TABLE 6-11: YEAR 2035 WITH PROJECT ALT. 1 & 1A CONDITIONS VEHICLE MIX	
TABLE 6-12: YEAR 2035 WITH PROJECT ALT. 2 & 2A CONDITIONS VEHICLE MIX	
TABLE 6-13: VIBRATION SOURCE LEVELS FOR CONSTRUCTION EQUIPMENT	
TABLE 7-1: EXISTING WITHOUT PROJECT CONDITIONS NOISE CONTOURS	
TABLE 7-2: EXISTING WITH ALTERNATIVE 1 CONDITIONS NOISE CONTOURS	
TABLE 7-3: EXISTING WITH ALTERNATIVE 1A CONDITIONS NOISE CONTOURS	
TABLE 7-4: EXISTING WITH ALTERNATIVE 2 CONDITIONS NOISE CONTOURS	
TABLE 7-5: EXISTING WITH ALTERNATIVE 2A CONDITIONS NOISE CONTOURS	
TABLE 7-6: OPENING YEAR 2020 WITHOUT PROJECT CONDITIONS NOISE CONTOURS	
TABLE 7-7: OPENING YEAR 2020 WITH ALTERNATIVE 1 CONDITIONS NOISE CONTOURS	
TABLE 7-8: OPENING YEAR 2020 WITH ALTERNATIVE 1A CONDITIONS NOISE CONTOURS	
TABLE 7-9: OPENING YEAR 2020 WITH ALTERNATIVE 2 CONDITIONS NOISE CONTOURS	
TABLE 7-10: OPENING YEAR 2020 WITH ALTERNATIVE 2A CONDITIONS NOISE CONTOURS	
TABLE 7-11: YEAR 2035 WITHOUT PROJECT CONDITIONS NOISE CONTOURS	
TABLE 7-12: YEAR 2035 WITH ALTERNATIVE 1 CONDITIONS NOISE CONTOURS	
TABLE 7-13: YEAR 2035 WITH ALTERNATIVE 1A CONDITIONS NOISE CONTOURS	
TABLE 7-14: YEAR 2035 WITH ALTERNATIVE 2 CONDITIONS NOISE CONTOURS	
TABLE 7-15: YEAR 2035 WITH ALTERNATIVE 2A CONDITIONS NOISE CONTOURS	62



TABLE 7-16: UNMITIGATED EXISTING PROJECT ALTERNATIVE 1 TRAFFIC NOISE IMPACTS	64
TABLE 7-17: UNMITIGATED EXISTING PROJECT ALTERNATIVE 1A TRAFFIC NOISE IMPACTS	65
TABLE 7-18: UNMITIGATED EXISTING PROJECT ALTERNATIVE 2 TRAFFIC NOISE IMPACTS	66
TABLE 7-19: UNMITIGATED EXISTING PROJECT ALTERNATIVE 2A TRAFFIC NOISE IMPACTS	67
TABLE 7-20: UNMITIGATED YEAR 2020 ALTERNATIVE 1 TRAFFIC NOISE IMPACTS	
TABLE 7-21: UNMITIGATED YEAR 2020 ALTERNATIVE 1A TRAFFIC NOISE IMPACTS	
TABLE 7-22: UNMITIGATED YEAR 2020 ALTERNATIVE 2 TRAFFIC NOISE IMPACTS	
TABLE 7-23: UNMITIGATED YEAR 2020 ALTERNATIVE 2A TRAFFIC NOISE IMPACTS	
TABLE 7-24: UNMITIGATED YEAR 2035 ALTERNATIVE 1 TRAFFIC NOISE IMPACTS	
TABLE 7-25: UNMITIGATED YEAR 2035 ALTERNATIVE 1A TRAFFIC NOISE IMPACTS	
TABLE 7-26: UNMITIGATED YEAR 2035 ALTERNATIVE 2 TRAFFIC NOISE IMPACTS	
TABLE 7-27: UNMITIGATED YEAR 2035 ALTERNATIVE 2A TRAFFIC NOISE IMPACTS	
TABLE 9-1: REFERENCE NOISE LEVEL MEASUREMENTS	
TABLE 9-2: UNMITIGATED PROJECT-ONLY OPERATIONAL NOISE LEVELS	
TABLE 9-3: UNMITIGATED OPERATIONAL NOISE LEVEL COMPLIANCE	
TABLE 9-4: PROJECT DAYTIME NOISE LEVEL CONTRIBUTIONS	
TABLE 9-5: PROJECT NIGHTTIME NOISE LEVEL CONTRIBUTIONS	
TABLE 10-1: CONSTRUCTION REFERENCE NOISE LEVELS	
TABLE 10-2: DEMOLITION EQUIPMENT NOISE LEVELS	
TABLE 10-3: SITE PREPARATION EQUIPMENT NOISE LEVELS	
TABLE 10-4: GRADING EQUIPMENT NOISE LEVELS	
TABLE 10-5: BUILDING CONSTRUCTION EQUIPMENT NOISE LEVELS	101
TABLE 10-6: PAVING EQUIPMENT NOISE LEVELS	102
TABLE 10-7: ARCHITECTURAL COATING EQUIPMENT NOISE LEVELS	
TABLE 10-8: UNMITIGATED CONSTRUCTION EQUIPMENT NOISE LEVEL SUMMARY (DBA LEQ)	
TABLE 10-9: CONSTRUCTION EQUIPMENT NOISE LEVEL COMPLIANCE (DBA LEQ)	
TABLE 10, 13. DROJECT CONSTRUCTION VIDRATION LEVELS	100



# **LIST OF ABBREVIATED TERMS**

(1) Reference

ADT Average Daily Traffic

ANSI American National Standards Institute

Calveno California Vehicle Noise

CEQA California Environmental Quality Act
CNEL Community Noise Equivalent Level

dBA A-weighted decibels

EPA Environmental Protection Agency
FHWA Federal Highway Administration
FTA Federal Transit Administration

Hz Hertz

I-10 Interstate 10

INCE Institute of Noise Control Engineering

 $\begin{array}{lll} L_{eq} & & & Equivalent \ continuous \ (average) \ sound \ level \\ L_{max} & & Maximum \ level \ measured \ over \ the \ time \ interval \\ L_{min} & & Minimum \ level \ measured \ over \ the \ time \ interval \end{array}$ 

mph Miles per hour

OPR Office of Planning and Research

PPV Peak particle velocity

Project Agua Mansa Commerce Park Specific Plan
REMEL Reference Energy Mean Emission Level

RMS Root-mean-square
SR-60 State Route 60
VdB Vibration Decibels



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### **EXECUTIVE SUMMARY**

Urban Crossroads, Inc. has prepared this noise study to determine the noise exposure and the necessary noise mitigation measures for the proposed Agua Mansa Commerce Park Specific Plan development ("Project"). The Project site is located east of Rubidoux Boulevard between El Rivino Road, the West Riverside Canal, and Hall Avenue in the City of Jurupa Valley. The Project site is proposed to consist of five high-cube warehouse distribution center buildings totaling 4,216,000 square feet (comprised of 3,452,000 square foot building footprint with 764,000 square feet of mezzanine), an approximately 71.3 acre regional park, 200,000 square feet of light industrial (Alternative 1) or 170,000 square feet of business park and 25,000 square feet of commercial retail (Alternative 2), and 64,000 square feet of research and development (Cal Portland). At the time this noise analysis was prepared, the future tenants of the proposed Project were unknown, and therefore, this noise study includes a conservative analysis of the proposed Project uses. This study has been prepared to satisfy applicable City of Jurupa Valley and adjacent local jurisdiction standards and thresholds of significance, consistent with guidance provided by Appendix G of the California Environmental Quality Act (CEQA) Guidelines. (1)

#### **OFF-SITE TRAFFIC NOISE ANALYSIS**

Traffic generated by the operation of all Project Alternatives (1, 1A, 2, and 2A) will influence the traffic noise levels in surrounding off-site areas. To quantify the off-site traffic noise increases on the surrounding off-site areas, the changes in traffic noise levels on 40 study-area roadway segments were calculated based on the change in the average daily traffic (ADT) volumes. The traffic noise levels provided in this analysis are based on the traffic forecasts found in the *Agua Mansa Commerce Park Specific Plan Traffic Impact Analysis* prepared by Ganddini Group, Inc. (2) To assess the off-site noise level impacts associated with the proposed Project, noise contour boundaries were developed for Existing, Opening Year 2020, and Year 2035 conditions.

The analysis shows that based on the City of Jurupa Valley thresholds of significance for off-site traffic noise impacts, the unmitigated Project-related traffic noise level increases under the with Project traffic scenarios are considered *less than significant* impacts at noise-sensitive and commercial land uses adjacent to the 40 study-area roadway segments.

# **OPERATIONAL (STATIONARY-SOURCE) NOISE ANALYSIS**

Using reference noise levels to represent the expected noise sources from the Agua Mansa Commerce Park Specific Plan site, this analysis estimates the Project-related stationary-source noise levels at nearby sensitive receiver locations. The normal activities associated with the proposed Agua Mansa Commerce Park Specific Plan are anticipated to include roof-top air conditioning units, idling trucks, delivery truck activities, backup alarms, as well as loading and unloading of dry goods, parking lot vehicle movements, and regional park activities (playgrounds, a dog park, and trail activities). The operational (stationary-source) noise analysis shows that the Project-related stationary-source noise levels at all receiver locations will satisfy the applicable daytime and nighttime exterior noise level standards, and therefore, the operational (stationary-source) noise level impacts will be *less than significant*.



Further, this analysis demonstrates that the Project will not contribute a long-term operational (stationary-source) noise level impact to the existing ambient noise environment at any of the sensitive receiver locations. Therefore, the operational (stationary-source) noise level impacts associated with the proposed 24-hour seven days per week Project activities, such as the roof-top air conditioning units, idling trucks, delivery truck activities, backup alarms, as well as loading and unloading of dry goods, parking lot vehicle movements, and regional park activities (playgrounds, a dog park, and trail activities), are considered *less than significant*.

#### **OPERATIONAL VIBRATION ANALYSIS**

The operation of the Project site will include heavy trucks moving on site to and from the loading dock areas. Truck vibration levels are dependent on vehicle characteristics, load, speed, and pavement conditions. Typical vibration levels for the Agua Mansa Commerce Park Specific Plan heavy truck activity at normal traffic speeds will approach 0.004 in/sec PPV and 0.003 in/sec RMS at 25 feet based on the FTA *Transit Noise Impact and Vibration Assessment*. (3) Trucks transiting on site will be travelling at very low speeds so it is expected that delivery truck vibration impacts at nearby homes will satisfy the applicable vibration thresholds, and therefore, will be *less than significant*.

#### **CONSTRUCTION NOISE ANALYSIS**

Construction-related noise impacts are expected to create temporary and intermittent high-level noise conditions at receivers surrounding the Project site. Using sample reference noise levels to represent the planned construction activities of the Agua Mansa Commerce Park Specific Plan site, this analysis estimates the Project-related construction noise levels at nearby sensitive receiver locations. The Project-related short-term construction noise levels are expected to range from 43.8 to 70.2 dBA L<sub>eq</sub> during the daytime hours and from 35.8 to 62.2 dBA L<sub>eq</sub> during the nighttime hours and will satisfy the 80 dBA L<sub>eq</sub> daytime and 70 dBA L<sub>eq</sub> nighttime exterior noise level thresholds, respectively, as identified by the City of Jurupa Valley at all receiver locations. Therefore, based on the results of this analysis, all nearby sensitive receiver locations will experience *less than significant* impacts due to Project construction noise levels.

#### **CONSTRUCTION VIBRATION ANALYSIS**

Construction activity can result in varying degrees of ground vibration, depending on the equipment and methods used, distance to the affected structures and soil type. It is expected that ground-borne vibration from Project construction activities would cause only intermittent, localized intrusion. This analysis shows the highest construction vibration levels are expected to approach a peak particle velocity of 0.015 in/sec (PPV), which is below the vibration standard of 0.2 in/sec PPV at all receiver locations. Therefore, the Project-related vibration impacts are considered *less than significant* during the construction activities at the Project site.

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



### **SUMMARY OF SIGNIFICANCE FINDINGS**

The results of this Agua Mansa Commerce Park Specific Plan Noise Impact Analysis are summarized below based on the significance criteria in Section 4 of this report. Table ES-1 shows the findings of significance for each potential noise and/or vibration impact before and after any required mitigation measures.

**TABLE ES-1: SUMMARY OF SIGNIFICANCE FINDINGS** 

Amakata	Report	Significance Findings		
Analysis	Section	Unmitigated	Mitigated	
Off-Site Traffic Noise	7	Less Than Significant -		
Operational (Stationary) Noise	9	Less Than Significant	-	
Operational Vibration	9	Less Than Significant	-	
Construction Noise	10	Less Than Significant	-	
Construction Vibration	10	Less Than Significant	-	



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# 1 INTRODUCTION

This noise analysis has been completed to determine the noise impacts associated with the development of the proposed Agua Mansa Commerce Park Specific Plan ("Project"). This noise study briefly describes the proposed Project, provides information regarding noise fundamentals, describes the local regulatory setting, provides the study methods and procedures for traffic noise analysis, and evaluates the future exterior noise environment. In addition, this study includes an analysis of the potential Project-related long-term operational (stationary-source) and short-term construction noise impacts.

#### 1.1 SITE LOCATION

The proposed Agua Mansa Commerce Park Specific Plan site is located east of Rubidoux Boulevard between El Rivino Road, the West Riverside Canal, and Hall Avenue in the City of Jurupa Valley; while unincorporated San Bernardino County and the City of Rialto border the Project site to the north across El Rivino Road, as shown on Exhibit 1-A.

The Project site is currently occupied by an existing Riverside Cement Plant. Existing land uses near the site include residential homes north, south, east, and west of the Project site. A planned industrial warehouse use is located north of the Project site across El Rivino Road, and existing industrial uses border the Project site to the east, south, and southwest. State Route 60 (SR-60) is located roughly 1.2 miles south of the Project site, and Interstate 10 (I-10) is located approximately 2.4 miles north of the Project site. The San Bernardino International Airport is located roughly 8 miles northeast of the Project site in the City of San Bernardino, Riverside Municipal Airport is located roughly 5.7 miles southwest of the Project site, and Flabob Airport is located approximately 2.5 miles southwest of the Project site. No airports are located within 2 miles of the Project site.

#### 1.2 PROJECT DESCRIPTION

The Project site is proposed to consist of five high-cube warehouse distribution center buildings totaling 4,216,000 square feet (comprised of 3,452,000 square foot building footprint with 764,000 square feet of mezzanine), an approximately 71.3 acre regional park, 200,000 square feet of light industrial (Alternative 1) or 170,000 square feet of business park and 25,000 square feet of commercial retail (Alternative 2), and 64,000 square feet of research and development (Cal Portland). The Project site plan is shown on Exhibit 1-B.

Additional analysis is provided for Alternatives 1A and 2A, consistent with the *Traffic Impact Analysis* which evaluates Alternatives 1 and 2 if connectivity between Buildings 1 to 5 (Industrial Park) and Rubidoux Boulevard does not exist because access is not possible across the railroad spur line.

At the time this noise analysis was prepared, the future tenants of the proposed Project were unknown. The on-site Project-related noise sources are expected to include: roof-top air conditioning units, idling trucks, delivery truck activities, backup alarms, as well as loading and unloading of dry goods, parking lot vehicle movements, and regional park activities (playgrounds,



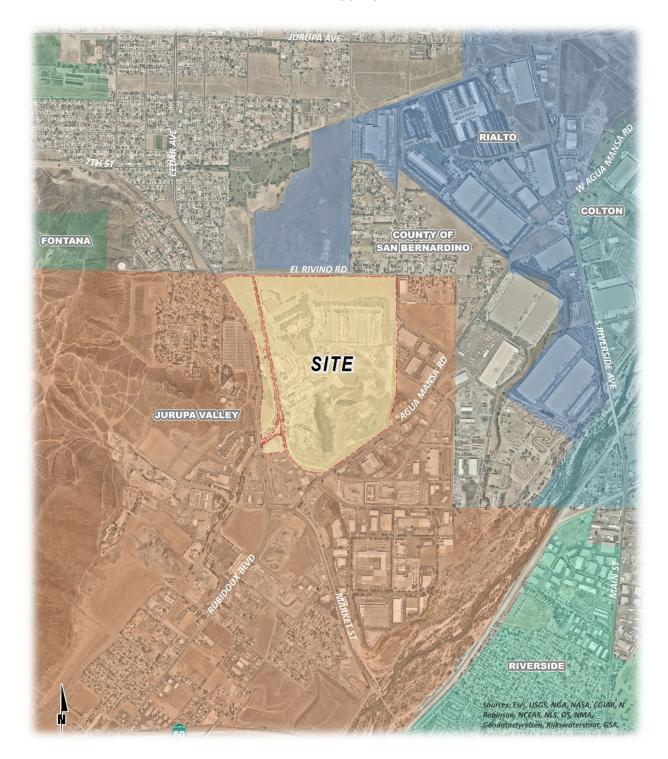
a dog park, and trail activities). This noise analysis is intended to describe noise level impacts associated with the expected typical operational (stationary-source) activities at the Project site.

Traffic noise analysis provided in this report is based on the passenger car equivalent (PCE) average daily traffic (ADT) volumes obtained from the *Agua Mansa Commerce Park Specific Plan Traffic Impact Analysis* prepared by Ganddini Group, Inc. for the Project. (2) PCE volumes convert medium and heavy trucks into an equivalent number of passenger cars for traffic impact analysis, however, this approach underestimates the potential impacts with regard to off-site traffic noise levels generated by medium and heavy trucks. Therefore, to present a conservative off-site traffic noise analysis and account for the effect of individual medium and heavy truck trips on the study area roadway network, this noise study converts all PCE ADT volumes into actual vehicle volumes for analysis.

Per the Agua Mansa Commerce Park Specific Plan Traffic Impact Analysis prepared by Ganddini Group, Inc. the Project is expected to generate a total of approximately 7,674 trip-ends per day (actual vehicles) and includes 2,457 truck trip-ends per day under Alternative 1. Under Alternative 2 conditions, the Project is expected to generate a total of approximately 9,741 trip-ends per day (actual vehicles), with truck trips reduced to 2,245 truck trip-ends per day. This noise study relies on the net Project trips (as opposed to the passenger car equivalents) to accurately account for the effect of individual truck trips on the study area roadway network.

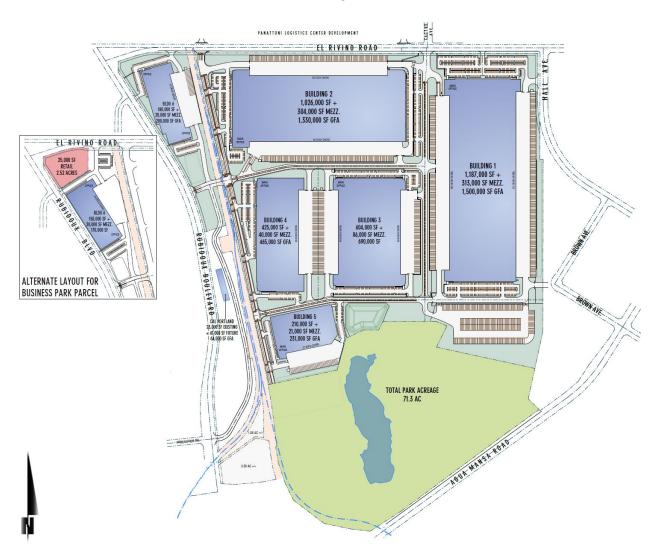


**EXHIBIT 1-A: LOCATION MAP** 





**EXHIBIT 1-B: SITE PLAN** 





# **2 FUNDAMENTALS**

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

**EXHIBIT 2-A: TYPICAL NOISE LEVELS** 

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

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

#### 2.1 RANGE OF NOISE

Since the range of intensities that the human ear can detect is so large, the scale frequently used to measure intensity is a scale based on multiples of 10, the logarithmic scale. The scale for measuring intensity is the decibel scale. Each interval of 10 decibels indicates a sound energy ten times greater than before, which is perceived by the human ear as being roughly twice as loud. (4) The most common sounds vary between 40 dBA (very quiet) to 100 dBA (very loud). Normal conversation at three feet is roughly at 60 dBA, while loud jet engine noises equate to 110 dBA



at approximately 100 feet, which can cause serious discomfort. (5) Another important aspect of noise is the duration of the sound and the way it is described and distributed in time.

#### 2.2 Noise Descriptors

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

To describe the time-varying character of environmental noise, the statistical or percentile noise descriptors  $L_{50}$ ,  $L_{25}$ ,  $L_{8}$  and  $L_{2}$ , are commonly used. The percentile noise descriptors are the noise levels equaled or exceeded during 50 percent, 25 percent, 8 percent, and 2 percent of a stated time. Sound levels associated with the  $L_{2}$  and  $L_{8}$  typically describe transient or short-term events, while levels associated with the  $L_{50}$  describe the steady state (or median) noise conditions. While the  $L_{50}$  describes the median noise levels occurring 50 percent of the time, the  $L_{eq}$  accounts for the total energy (average) observed for the entire hour.

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

#### 2.3 SOUND PROPAGATION

When sound propagates over a distance, it changes in level and frequency content. The way noise reduces with distance depends on the following factors.

#### 2.3.1 GEOMETRIC SPREADING

Sound from a localized source (i.e., a stationary point source) propagates uniformly outward in a spherical pattern. The sound level attenuates (or decreases) at a rate of 6 dB for each doubling of distance from a point source. Highways consist of several localized noise sources on a defined path and hence can be treated as a line source, which approximates the effect of several point sources. Noise from a line source propagates outward in a cylindrical pattern, often referred to



as cylindrical spreading. Sound levels attenuate at a rate of 3 dB for each doubling of distance from a line source. (4)

#### 2.3.2 GROUND ABSORPTION

The propagation path of noise from a highway to a receptor is usually very close to the ground. Noise attenuation from ground absorption and reflective wave canceling adds to the attenuation associated with geometric spreading. Traditionally, the excess attenuation has also been expressed in terms of attenuation per doubling of distance. This approximation is usually sufficiently accurate for distances of less than 200 ft. For acoustically hard sites (i.e., sites with a reflective surface between the source and the receptor, such as a parking lot or body of water), no excess ground attenuation is assumed. For acoustically absorptive or soft sites (i.e., those sites with an absorptive ground surface between the source and the receptor such as soft dirt, grass, or scattered bushes and trees), an excess ground attenuation value of 1.5 dB per doubling of distance is normally assumed. When added to the cylindrical spreading, the excess ground attenuation results in an overall drop-off rate of 4.5 dB per doubling of distance from a line source. (6)

#### 2.3.3 ATMOSPHERIC EFFECTS

Receptors located downwind from a source can be exposed to increased noise levels relative to calm conditions, whereas locations upwind can have lowered noise levels. Sound levels can be increased at large distances (e.g., more than 500 feet) due to atmospheric temperature inversion (i.e., increasing temperature with elevation). Other factors such as air temperature, humidity, and turbulence can also have significant effects. (4)

#### 2.3.4 SHIELDING

A large object or barrier in the path between a noise source and a receptor can substantially attenuate noise levels at the receptor. The amount of attenuation provided by shielding depends on the size of the object and the frequency content of the noise source. Shielding by trees and other such vegetation typically only has an "out of sight, out of mind" effect. That is, the perception of noise impact tends to decrease when vegetation blocks the line-of-sight to nearby resident. However, for vegetation to provide a substantial, or even noticeable, noise reduction, the vegetation area must be at least 15 feet in height, 100 feet wide and dense enough to completely obstruct the line-of sight between the source and the receiver. This size of vegetation may provide up to 5 dBA of noise reduction. The FHWA does not consider the planting of vegetation to be a noise abatement measure. (6)

#### 2.4 Noise Control

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



#### 2.5 Noise Barrier Attenuation

Effective noise barriers can reduce noise levels by 10 to 15 dBA, cutting the loudness of traffic noise in half. A noise barrier is most effective when placed close to the noise source or receptor. Noise barriers, however, do have limitations. For a noise barrier to work, it must be high enough and long enough to block the path of the noise source. (6)

#### 2.6 LAND USE COMPATIBILITY WITH NOISE

Some land uses are more tolerant of noise than others. For example, schools, hospitals, churches, and residences are more sensitive to noise intrusion than are commercial or industrial developments and related activities. As ambient noise levels affect the perceived amenity or livability of a development, so too can the mismanagement of noise impacts impair the economic health and growth potential of a community by reducing the area's desirability as a place to live, shop and work. For this reason, land use compatibility with the noise environment is an important consideration in the planning and design process. The FHWA encourages State and Local government to regulate land development in such a way that noise-sensitive land uses are either prohibited from being located adjacent to a highway, or that the developments are planned, designed, and constructed in such a way that noise impacts are minimized. (7)

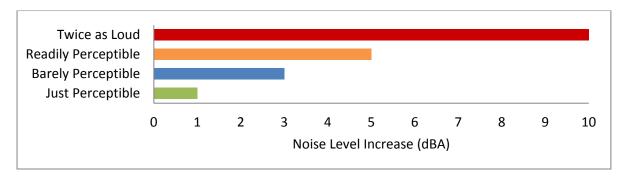
#### 2.7 COMMUNITY RESPONSE TO NOISE

Community responses to noise may range from registering a complaint by telephone or letter, to initiating court action, depending upon everyone's susceptibility to noise and personal attitudes about noise. Several factors are related to the level of community annoyance including:

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

Approximately ten percent of the population has a very low tolerance for noise and will object to any noise not of their making. Consequently, even in the quietest environment, some complaints will occur. Another twenty-five percent of the population will not complain even in very severe noise environments. Thus, a variety of reactions can be expected from people exposed to any given noise environment. (8) Surveys have shown that about ten percent of the people exposed to traffic noise of 60 dBA will report being highly annoyed with the noise, and each increase of one dBA is associated with approximately two percent more people being highly annoyed. When traffic noise exceeds 60 dBA or aircraft noise exceeds 55 dBA, people may begin to complain. (8) Despite this variability in behavior on an individual level, the population can be expected to exhibit the following responses to changes in noise levels as shown on Exhibit 2-B. An increase or decrease of 1 dBA cannot be perceived except in carefully controlled laboratory experiments, a change of 3 dBA are considered *barely perceptible*, and changes of 5 dBA are considered *readily perceptible*. (6)





**EXHIBIT 2-B: NOISE LEVEL INCREASE PERCEPTION** 

#### 2.8 EXPOSURE TO HIGH NOISE LEVELS

The Occupational Safety and Health Administration (OSHA) sets legal limits on noise exposure in the workplace. The permissible exposure limit (PEL) for a worker over an eight-hour day is 90 dBA. The OSHA standard uses a 5 dBA exchange rate. This means that when the noise level is increased by 5 dBA, the amount of time a person can be exposed to a certain noise level to receive the same dose is cut in half. The National Institute for Occupational Safety and Health (NIOSH) has recommended that all worker exposures to noise should be controlled below a level equivalent to 85 dBA for eight hours to minimize occupational noise induced hearing loss. NIOSH also recommends a 3 dBA exchange rate so that every increase by 3 dBA doubles the amount of the noise and halves the recommended amount of exposure time. (9)

OSHA has implemented requirements to protect all workers in general industry (e.g. the manufacturing and the service sectors) for employers to implement a Hearing Conservation Program where workers are exposed to a time weighted average noise level of 85 dBA or higher over an eight-hour work shift. Hearing Conservation Programs require employers to measure noise levels, provide free annual hearing exams and free hearing protection, provide training, and conduct evaluations of the adequacy of the hearing protectors in use unless changes to tools, equipment and schedules are made so that they are less noisy and worker exposure to noise is less than the 85 dBA. This noise study does not evaluate the noise exposure of workers within a project or construction site based on CEQA requirements, and instead, evaluates Project-related operational and construction noise levels at the nearby sensitive receiver locations in the Project study area. Further, periodic exposure to high noise levels in short duration, such as Project construction, is typically considered an annoyance and not impactful to human health. It would take several years of exposure to high noise levels to result in hearing impairment. (10)

#### 2.9 VIBRATION

Per the Federal Transit Administration (FTA) *Transit Noise Impact and Vibration Assessment* (3), vibration is the periodic oscillation of a medium or object. The rumbling sound caused by the vibration of room surfaces is called structure-borne noise. Sources of ground-borne vibrations include natural phenomena (e.g., earthquakes, volcanic eruptions, sea waves, landslides) or human-made causes (e.g., explosions, machinery, traffic, trains, construction equipment). Vibration sources may be continuous, such as factory machinery, or transient, such as explosions.



As is the case with airborne sound, ground-borne vibrations may be described by amplitude and frequency.

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

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



Velocity Typical Sources Level\* Human/Structural Response (50 ft from source) 100 Threshold, minor cosmetic damage Blasting from construction projects fragile buildings Bulldozers and other heavy tracked construction equipment Difficulty with tasks such as 90 reading a VDT screen Commuter rail, upper range 80 Residential annoyance, infrequent Rapid transit, upper range events (e.g. commuter rail) Commuter rail, typical Residential annoyance, frequent Bus or truck over bump events (e.g. rapid transit) Rapid transit, typical Limit for vibration sensitive equipment. Approx. threshold for Bus or truck, typical human perception of vibration 60 Typical background vibration 50

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

\* RMS Vibration Velocity Level in VdB relative to 10-6 inches/second

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



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# 3 REGULATORY SETTING

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

#### 3.1 STATE OF CALIFORNIA NOISE REQUIREMENTS

The State of California regulates freeway noise, sets standards for sound transmission, provides occupational noise control criteria, identifies noise standards, and provides guidance for local land use compatibility. State law requires that each county and city adopt a General Plan that includes a Noise Element which is to be prepared per guidelines adopted by the Governor's Office of Planning and Research (OPR). (11) The purpose of the Noise Element is to *limit the exposure* of the community to excessive noise levels.

### 3.2 STATE OF CALIFORNIA GREEN BUILDING STANDARDS CODE

The 2016 State of California's Green Building Standards Code contains mandatory measures for non-residential building construction in Section 5.507 on Environmental Comfort. (12) These noise standards are applied to new construction in California for controlling interior noise levels resulting from exterior noise sources. The regulations specify that acoustical studies must be prepared when non-residential structures are developed in areas where the exterior noise levels exceed 65 dBA CNEL, such as within a noise contour of an airport, freeway, railroad, and other areas where noise contours are not readily available. If the development falls within an airport or freeway 65 dBA CNEL noise contour, the combined sound transmission class (STC) rating of the wall and roof-ceiling assemblies must be at least 50. For those developments in areas where noise contours are not readily available and the noise level exceeds 65 dBA L<sub>eq</sub> for any hour of operation, a wall and roof-ceiling combined STC rating of 45, and exterior windows with a minimum STC rating of 40 are required (Section 5.507.4.1).

#### 3.3 Transportation Noise Criteria

Off-site roadway segments conveying Project traffic are in the City of Jurupa Valley and adjacent jurisdictions of the County of San Bernardino, City of Rialto, and City of Riverside. As such, General Plan noise criteria of each jurisdiction is described below as they relate to this noise study for the Project.



#### 3.3.1 CITY OF JURUPA VALLEY GENERAL PLAN NOISE ELEMENT

The City of Jurupa Valley adopted the Draft 2017 Jurupa Valley General Plan on August 17, 2017, and therefore, the Draft 2017 adopted General Plan is used in this report. (13) The Noise Element specifies the maximum allowable exterior noise levels for new developments impacted by transportation noise sources such as arterial roads, freeways, airports, and railroads. In addition, the Noise Element identifies several polices to minimize the impacts of excessive noise levels throughout the community, and establishes noise level requirements for all land uses.

The Land Use/Noise Compatibility Matrix, Figure 7-3 of the General Plan, identifies guidelines to describe categories of compatibility and not specific noise standards. The noise-sensitive residential land use in the Project study area, is considered normally acceptable with unmitigated exterior levels of less than 60 dBA CNEL and conditionally acceptable with noise levels approaching 70 dBA CNEL. For industrial land uses, exterior noise levels approaching 70 dBA CNEL are considered normally acceptable, and noise levels ranging from 70 dBA CNEL to 80 dBA CNEL are considered conditionally acceptable. For conditionally acceptable exterior noise levels, new construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and the needed noise insulation features are included in the design. (13)

#### 3.3.2 COUNTY OF SAN BERNARDING GENERAL PLAN NOISE ELEMENT

The County of San Bernardino has adopted a Noise Element of the General Plan to limit the exposure of the community to excessive noise levels. (14) The most common sources of environmental noise in San Bernardino County are associated with roads, airports, railroad operations, and industrial activities. The facilities are used to transport residents, consumer products and provide basic infrastructure for the community. (14) To address these noise sources found in the County, the following goals have been identified in the General Plan Noise Element:

- N 1 The County will abate and avoid excessive noise exposures through noise mitigation measures incorporated into the design of new noise-generating and new noise-sensitive land uses, while protecting areas within the County where the present noise environment is within acceptable limits.
- N 1.5 Limit truck traffic in residential and commercial areas to designated truck routes; limit construction, delivery, and through-truck traffic to designated routes; and distribute maps of approved truck routes to County traffic officers.
- N 2 The County will strive to preserve and maintain the quiet environment of mountain, desert, and other rural areas.

#### 3.3.3 COUNTY OF SAN BERNARDINO DEVELOPMENT CODE

While the County of San Bernardino General Plan Noise Element provides guidelines and criteria to assess transportation noise on sensitive land uses, the County Code, Title 8 Development Code contains the noise level limits for mobile, stationary, and construction-related noise sources. (15) Section 83.01.080(d), Table 83-3, contains the County's mobile noise source-related standards. Based on the County's mobile noise source standards, there are no exterior or interior noise level standards for the industrial warehouse use of the Project and existing uses in the Project study



area. Exterior transportation (mobile) noise level standards for residential land uses in the Project study area are shown to be up to 65 dBA CNEL with mitigation.

#### 3.3.4 CITY OF RIALTO GENERAL PLAN SAFETY & NOISE ELEMENT

The City of Rialto General Plan Safety & Noise Element establishes policies to guard against the creation of any new noise and land use conflicts, and to minimize the impact of existing noise sources on the community. The Noise Element does not contain specific transportation-related noise standards; however, it does provide land use compatibility guidelines for future development and the future noise contour boundaries for major roadways in the City of Rialto.

The Rialto Noise Guidelines for Land Use Planning matrix indicates that light industrial land uses, such as the Project site, are considered normally acceptable with exterior noise levels below 70 dBA CNEL, and conditionally acceptable with noise levels below 75 dBA CNEL. Noise-sensitive residential land uses are considered normally acceptable with exterior noise levels below 60 dBA CNEL, and conditionally acceptable with noise levels below 65 dBA CNEL. For conditionally acceptable land uses, new development should be undertaken only after detailed analysis of noise reduction requirements are made. (16)

#### 3.3.5 CITY OF RIVERSIDE GENERAL PLAN NOISE ELEMENT

The City of Riverside adopted a Noise Element of the General Plan to identify noise conflicts and to reduce existing and potential noise impacts. (17) The Noise Element contains objectives and policies to achieve and maintain noise levels compatible with various types of land uses. The Noise/Land Use Noise Compatibility Criteria (Figure N-10) in the City of Riverside General Plan Noise Element provides guidelines to evaluate the land use compatibility of transportation related noise. Based on the land use noise compatibility categories, residential land use is considered normally acceptable with unmitigated exterior noise levels of less than 60 dBA CNEL, and conditionally acceptable with noise levels approaching 65 dBA CNEL. Industrial land uses are considered normally acceptable with exterior noise levels approaching 70 dBA CNEL and conditionally acceptable with exterior noise level of up to 80 dBA CNEL. For conditionally acceptable land use, new construction or development should be undertaken only after a detailed analysis of noise reduction requirements is made and needed noise insulation features are included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning, will normally suffice.

# 3.4 OPERATIONAL (STATIONARY-SOURCE) NOISE STANDARDS

To analyze noise impacts originating from a designated fixed location or private property such as the Agua Mansa Commerce Park Specific Plan Project, stationary-source (operational) noise such as the expected roof-top air conditioning units, idling trucks, delivery truck activities, backup alarms, as well as loading and unloading of dry goods, parking lot vehicle movements, and regional park activities (playgrounds, a dog park, and trail activities) are typically evaluated against standards established under a City's Municipal Code. Although the Project site is located within the City of Jurupa Valley, sensitive receivers are also located in the adjacent jurisdiction of the County of San Bernardino (north). Therefore, to accurately describe the potential operational



(stationary-source) noise levels, this analysis presents the appropriate operational (stationary-source) noise standards for each of the noise-sensitive receiver location within their respective jurisdictions. Table 3-1 shows the operational (stationary-source) noise level limits by jurisdiction used in this noise study.

#### 3.4.1 CITY OF JURUPA VALLEY OPERATIONAL NOISE STANDARDS

Chapter 11.05 of the City of Jurupa Valley Municipal Code sets stationary-source (operational) exterior noise limits for residential uses in the Project study area of 55 dBA L<sub>eq</sub> for daytime hours of 7:00 a.m. to 10:00 p.m., and 45 dBA L<sub>eq</sub> during the noise-sensitive nighttime hours of 10:00 p.m. to 7:00 a.m. (18) However, consistent with guidance received from the City of Jurupa Valley, dated December 19<sup>th</sup>, 2018, this noise study has been prepared to evaluate potential impacts based on 65 dBA L<sub>eq</sub> daytime (7:00 a.m. to 10:00 p.m.), and 45 dBA L<sub>eq</sub> nighttime (10:00 p.m. to 7:00 a.m.) exterior noise level standards. (19) The City of Jurupa Valley noise-related CEQA thresholds guidance is provided in Appendix 3.1 for reference.

#### 3.4.2 CITY OF RIALTO OPERATIONAL NOISE STANDARDS

The City of Rialto Municipal Code does not identify specific stationary-source exterior noise level standards. (20) Therefore, to evaluate potential impacts at adjacent sensitive receiver locations per CEQA Guidelines, discussed in Section 4, exterior noise level thresholds are identified based on the County of San Bernardino Development Code.

#### 3.4.3 COUNTY OF SAN BERNARDING OPERATIONAL NOISE STANDARDS

The County of San Bernardino County Code, Title 8 Development Code, Section 83.01.080(c) establishes the noise level standards for stationary noise sources. For residential properties the exterior noise level shall not exceed 55 dBA L<sub>eq</sub> during daytime hours (7:00 a.m. to 10:00 p.m.) and shall not exceed 45 dBA L<sub>eq</sub> during the nighttime hours (10:00 p.m. to 7:00 a.m.) for both the whole hour, and for not more than 30 minutes in any hour. (21) These standards shall apply for a cumulative period of 30 minutes in any hour, as well as the standard plus 5 dBA cannot be exceeded for a cumulative period of more than 15 minutes in any hour, or the standard plus 10 dBA for a cumulative period of more than 5 minutes in any hour, or the standard plus 15 dBA for a cumulative period of more than 1 minute in any hour, or the standard plus 20 dBA for any period of time. Appendix 3.2 includes the County Code noise standards.



TABLE 3-1: OPERATIONAL (STATIONARY-SOURCE) NOISE STANDARDS

		<b>T</b> :	Exterior Noise Level Standards (dBA) <sup>1</sup>					
Jurisdiction		Time Period	Leq (E. Avg.)	L <sub>50</sub> (30 mins)	L <sub>25</sub> (15 mins)	L <sub>8</sub> (5 mins)	L <sub>2</sub> (1 min)	L <sub>max</sub> (Anytime)
City of	Residential	Daytime	65	-	-	-	-	-
Jurupa Valley <sup>2</sup>		Nighttime	45	-	-	-	-	-
	Residential	Daytime	55	55	60	65	70	75
		Nighttime	45	45	50	55	60	65
County of San Bernardino <sup>3</sup>	Professional Services	Anytime	55	55	60	65	70	75
2 3 3 . 4 6	Other Commercial	Anytime	60	60	65	70	75	80
	Industrial	Anytime	70	70	75	80	85	90

 $<sup>^{1}</sup>$  Leq represents a steady state sound level containing the same total energy as a time varying signal over a given sample period. The percent noise level is the level exceeded "n" percent of the time during the measurement period. L<sub>25</sub> is the noise level exceeded 25% of the time.

#### 3.5 CONSTRUCTION NOISE STANDARDS

To control noise impacts associated with the construction of the proposed Project, the City of Jurupa Valley has established limits to the hours of operation. Section 11.05.020 of the City's Municipal Code, indicates that noise sources associated with any private construction activity located within one-quarter of a mile from an inhabited dwelling are exempt from the noise regulations if construction activity occurs between the hours of 6:00 a.m. and 6:00 p.m., during the months of June through September, and 7:00 a.m. and 6:00 p.m., during the months of October through May. (18) However, neither the City of Jurupa Valley, City of Rialto, or County of San Bernardino General Plans or Municipal Codes establish numeric maximum acceptable construction source noise levels at potentially affected receivers, which would allow for a quantified determination of what CEQA constitutes a *substantial temporary or periodic noise increase*. Further, the City of Jurupa Valley, the City of Rialto, and County of San Bernardino General Plan and Municipal Code do not identify specific construction noise level thresholds, and therefore, the following construction noise level threshold is used in this noise study based on guidance received from the City of Jurupa Valley. (19)



<sup>&</sup>lt;sup>2</sup> Source: City of Jurupa Valley guidance (December 19, 2018).

<sup>&</sup>lt;sup>3</sup> Source: Section 83.01.080(c) of the County of San Bernardino County Code, Title 8 Development Code (Appendix 3.2).

<sup>&</sup>quot;Daytime" = 7:00 a.m. to 10:00 p.m.; "Nighttime" = 10:00 p.m. to 7:00 a.m.; "E. Avg." = logarithmic (energy) average

Per City of Jurupa Valley guidance, the daytime and nighttime 8-hour construction noise level standards are 80 dBA  $L_{eq}$  and 70 dBA  $L_{eq}$ , respectively. These standards are consistent with FTA guidance for construction noise analysis. (3)

#### **3.6** VIBRATION STANDARDS

To analyze vibration impacts originating from the operation and construction of the Agua Mansa Commerce Park Specific Plan, vibration-generating activities are evaluated against standards identified by the City of Jurupa Valley as a threshold of 0.2 inches per second (in/sec) peakparticle-velocity (PPV) during either long-term operation or construction of the Project. (19)

#### 3.7 AGUA MANSA INDUSTRIAL CORRIDOR SPECIFIC PLAN

While the Project is proposing to be removed from the Agua Mansa Industrial Corridor Specific Plan, the existing *Agua Mansa Industrial Corridor Specific Plan* (AMICSP) document, prepared in July 1986, identifies development standards related to industrial uses. (22) Page 4-16 of the AMICSP document indicates that residentially-zoned property exterior noise level standards are 55 dBA during daytime hours, and 50 dBA during nighttime hours. While the daytime standard identified in the AMICSP is lower than the daytime threshold identified in guidance provided by the City of Jurupa Valley for the purpose of this analysis, the nighttime noise level threshold identified by the City's threshold guidance of 45 dBA L<sub>eq</sub> represents a more conservative threshold during the noise-sensitive nighttime hours at sensitive residential uses. (19) This study has been prepared consistent with the City of Jurupa Valley's guidance for CEQA noise thresholds of significance and evaluates Project noise level compliance based on the 2018 guidance received from the City of Jurupa Valley; and therefore, does not rely on the AMICSP standards.



# 4 SIGNIFICANCE CRITERIA

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

- A. Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies;
- B. Exposure of persons to or generation of excessive ground-borne vibration or ground-borne noise levels.
- C. A substantial permanent increase in ambient noise levels in the Project vicinity above existing levels without the proposed Project; or
- D. A substantial temporary or periodic increase in ambient noise levels in the Project vicinity above noise levels existing without the proposed Project.
- E. For a project located within 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.
- F. For a project within the vicinity of a private airstrip, expose people residing or working in the Project area to excessive noise levels.

While the CEQA Guidelines and the City of Jurupa Valley General Plan Guidelines provide direction on noise compatibility and establish noise standards by land use type that are sufficient to assess the significance of noise impacts under CEQA Guideline A, they do not define the levels at which increases are considered substantial for use under Guidelines B, C, and D. CEQA Guidelines E and F apply to nearby public and private airports, if any, and the Project's land use compatibility.

#### **CEQA GUIDELINES NOT FURTHER ANALYZED**

The Project site is located approximately 8 miles southwest of SBIA, Riverside Municipal Airport is located roughly 5.7 miles southwest of the Project site, and Flabob Airport is located approximately 2.5 miles southwest of the Project site. Further, no private airstrips are in the vicinity of the Project site. As such, the Project would not be exposed to substantial noise from aircraft overflights. Accordingly, people at the Project site would not be exposed to excessive noise levels from nearby airport operations, and therefore, impacts are considered *less than significant* and no further noise analysis is conducted in relation to Guidelines E and F.

#### 4.1 LONG-TERM NOISE LEVEL INCREASES

Noise level increases resulting from the Project are evaluated based on the Appendix G CEQA Guidelines described above at the closest sensitive receiver locations. Under CEQA, consideration must be given to the magnitude of the increase, the existing ambient noise levels, and the location of noise-sensitive receivers to determine if a noise increase represents a



significant adverse environmental impact. This approach recognizes that there is no single noise increase that renders the noise impact significant. (23)

Unfortunately, there is no completely satisfactory way to measure the subjective effects of noise or of the corresponding human reactions of annoyance and dissatisfaction. This is primarily because of the wide variation in individual thresholds of annoyance and differing individual experiences with noise. Thus, an important way of determining a person's subjective reaction to a new noise is the comparison of it to the existing environment to which one has adapted—the so-called *ambient* environment.

### **OFF-SITE TRAFFIC NOISE LEVEL INCREASES**

Based on guidance dated December 19<sup>th</sup>, 2018 provided by the City of Jurupa Valley, the following significance criteria is used to assess potential off-site traffic noise impacts at noise-sensitive uses related to operational noise level increases over without Project conditions (i.e., the ambient noise environment) (19):

When the Project creates a 3 dBA CNEL or greater off-site traffic noise level increase at
existing and future noise-sensitive land uses (e.g. residential, etc.), increasing the without
Project off-site traffic noise level to 65 dBA CNEL or above;

Similarly, the City of Jurupa Valley has provided the following guidance related to commercial uses and operational noise level increases over without Project conditions (i.e., the ambient noise environment):

• When the Project creates a 3 dBA CNEL or greater off-site traffic noise level increase at existing and future commercial, increasing the without Project off-site traffic noise level to 70 dBA CNEL or above (City of Jurupa Valley guidance received December 19<sup>th</sup>, 2018).

#### **OPERATIONAL (STATIONARY-SOURCE) NOISE LEVEL INCREASES**

For the purpose of this Noise Impact Analysis a threshold must be determined to evaluate the operational (stationary-source) noise level increases related to the Project. As such, the criteria previously discussed and provided by the City of Jurupa Valley for off-site traffic noise is used with the equivalent noise level metrics to describe stationary-source noise levels at nearby sensitive uses, as follows:

 When the Project creates a 3 dBA L<sub>eq</sub> or greater operational (stationary-source) noise level increase at existing and future noise-sensitive land uses (e.g. residential, etc.), increasing the without Project off-site traffic noise level to 65 dBA L<sub>eq</sub> or above;

Similarly, the City of Jurupa Valley has provided the following guidance related to commercial uses and operational noise level increases over without Project conditions (i.e., the ambient noise environment):

 When the Project creates a 3 dBA L<sub>eq</sub> or greater operational (stationary-source) noise level increase at existing and future commercial, increasing the without Project off-site traffic noise level to 70 dBA L<sub>eq</sub> or above (City of Jurupa Valley guidance received December 19<sup>th</sup>, 2018).



#### 4.2 SIGNIFICANCE CRITERIA SUMMARY

Noise impacts shall be considered significant if any of the following occur as a direct result of the proposed development. Table 4-1 shows the significance criteria summary matrix.

#### **OFF-SITE TRAFFIC NOISE**

- An analysis of off-site traffic noise levels under without and with Project scenarios is included in this noise study for Existing, Opening Year 2020, and Year 2035 conditions. While existing traffic noise levels plus traffic noise generated by the proposed Project (E+P) has been included in this report, the analysis of existing traffic noise levels plus traffic noise generated by the proposed Project (E+P) scenario will not actually occur since the Project would not be fully constructed and operational until Opening Year 2020 conditions. As such, impact evaluations related to Project off-site traffic noise level increases are based on Opening Year 2020 and Year 2035 conditions, according to the following criteria:
  - When the Project creates a 3 dBA CNEL or greater off-site traffic noise level increase at existing and future noise-sensitive land uses (e.g. residential, etc.), increasing the without Project off-site traffic noise level to 65 dBA CNEL or above;
  - When the Project creates a 3 dBA CNEL or greater off-site traffic noise level increase at existing and future commercial, increasing the without Project off-site traffic noise level to 70 dBA CNEL or above (City of Jurupa Valley guidance received December 19<sup>th</sup>, 2018).

#### **OPERATIONAL (STATIONARY-SOURCE) NOISE**

- If Project-related operational (stationary-source) noise levels exceed:
  - the exterior 65 dBA L<sub>eq</sub> daytime or 45 dBA L<sub>eq</sub> nighttime noise level standards at nearby sensitive receiver locations in the City of Jurupa Valley (City of Jurupa Valley guidance received December 19<sup>th</sup>, 2018); or
  - o the exterior 55 dBA L<sub>eq</sub> daytime or 45 dBA L<sub>eq</sub> nighttime noise level standards for sensitive land uses in unincorporated County of San Bernardino and in the City of Rialto. These standards shall not be exceeded for a cumulative period of 30 minutes (L<sub>50</sub>), or the standard plus 5 dBA cannot be exceeded for a cumulative period of more than 15 minutes (L<sub>25</sub>) in any hour, or the standard plus 10 dBA for a cumulative period of more than 5 minutes (L<sub>8</sub>) in any hour, or the standard plus 15 dBA for a cumulative period of more than 1 minute (L<sub>2</sub>) in any hour, or the standard plus 20 dBA at any time (L<sub>max</sub>) (Section 83.01.080(c) of the County of San Bernardino County Code, Title 8 Development Code).
  - Long-term operational (stationary-source) noise level impacts are evaluated as follows:
    - When the Project creates a 3 dBA L<sub>eq</sub> or greater operational (stationary-source) noise level increase at existing and future noise-sensitive land uses (e.g. residential, etc.), increasing the without Project off-site traffic noise level to 65 dBA L<sub>eq</sub> or above; or
    - o When the Project creates a 3 dBA  $L_{eq}$  or greater operational (stationary-source) noise level increase at existing and future commercial, increasing the without Project off-site traffic noise level to 70 dBA  $L_{eq}$  or above (City of Jurupa Valley guidance received December 19<sup>th</sup>, 2018).



 If long-term Project operational vibration levels exceed the City of Jurupa Valley vibration threshold of 0.2 in/sec PPV at sensitive receiver locations (City of Jurupa Valley guidance received December 19<sup>th</sup>, 2018).

#### **CONSTRUCTION NOISE AND VIBRATION**

- If Project-related construction activities generate noise levels at sensitive receiver locations which exceed the 80 dBA L<sub>eq</sub> daytime and/or 70 dBA L<sub>eq</sub> nighttime noise level standards identified by the FTA (FTA, Transit Noise and Vibration Impact Assessment);
- If short-term Project construction vibration levels exceed the City of Jurupa Valley vibration threshold of 0.2 in/sec PPV at sensitive receiver locations (City of Jurupa Valley guidance received December 19<sup>th</sup>, 2018).

**TABLE 4-1: SIGNIFICANCE CRITERIA SUMMARY** 

	Receiving		0 Put ()	Significance Criteria <sup>1</sup>		
Analysis	Land Use	Jurisdiction	Condition(s)	Daytime	Nighttime	
Off-Site	Noise- Sensitive <sup>1</sup>	All	If ambient is < 65 dBA CNEL	Project plus ambient > 65 dBA CNEL and a $\geq$ 3 dBA CNEL Project increase		
Traffic	Commercial <sup>1</sup>	All	If ambient is < 70 dBA CNEL	Project plus ambient > 65 dBA  CNEL  and a ≥ 3 dBA CNEL Project  increase		
	Noise- Sensitive	City of Jurupa Valley County of San Bernardino	Operational Nois	e 3-1 for the se Level Standards on & Land Use		
Operational (Stationary)		Bernardino	If ambient is < 65 dBA L <sub>eq</sub>	Project plus ambient > 65 dBA L <sub>o</sub> and a ≥ 3 dBA L <sub>eq</sub> Project increas		
	Commercial	$\label{eq:localization} \mbox{If ambient is < 70 dBA $L_{eq}$} \qquad \mbox{Project plus ambient > 65} \\ \mbox{and a $\geq$ 3 dBA $L_{eq}$ Project in $L_{eq}$} $		· ·		
	Sensitive		Vibration Level Threshold	0.2 in/sec PPV		
Construction	Noise-	All	Noise Level Threshold	80 dBA L <sub>eq</sub> 70 dBA L <sub>eq</sub>		
Construction	Sensitive	All	Vibration Level Threshold	0.2 in/sec PPV		

<sup>&</sup>lt;sup>1</sup> All thresholds of significance based on guidance from the City of Jurupa Valley dated December 19, 2018. Additional operational (stationary-source) noise level standards are used for receiver locations located outside the City's jurisdiction in the County of San Bernardino.



<sup>&</sup>quot;Daytime" = 7:00 a.m. to 10:00 p.m.; "Nighttime" = 10:00 p.m. to 7:00 a.m.; "n/a" = No nighttime construction activity is permitted, so no nighttime construction noise level limits are identified; "PPV" = Peak Particle Velocity

# 5 EXISTING NOISE LEVEL MEASUREMENTS

To assess the existing noise level environment, 24-hour noise level measurements were taken at 10 locations in the Project study area. The receiver locations were selected to describe and document the existing noise environment within the Project study area. Exhibit 5-A provides the boundaries of the Project study area and the noise level measurement locations. To fully describe the existing noise conditions, noise level measurements were collected by Urban Crossroads, Inc. on Wednesday, August 30<sup>th</sup>, 2017. Appendix 5.1 includes study area photos.

### 5.1 Measurement Procedure and Criteria

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

### **5.2** Noise Measurement Locations

The long-term noise level measurements were positioned as close to the nearest sensitive receiver locations as possible to assess the existing ambient hourly noise levels surrounding the Project site. Both Caltrans and the FTA recognize that it is not reasonable to collect noise level measurements that can fully represent every part of a private yard, patio, deck, or balcony normally used for human activity when estimating impacts for new development projects. This is demonstrated in the Caltrans general site location guidelines which indicate that, sites must be free of noise contamination by sources other than sources of interest. Avoid sites located near sources such as barking dogs, lawnmowers, pool pumps, and air conditioners unless it is the express intent of the analyst to measure these sources. (4) Further, FTA guidance states, that it is not necessary nor recommended that existing noise exposure be determined by measuring at every noise-sensitive location in the project area. Rather, the recommended approach is to characterize the noise environment for clusters of sites based on measurements or estimates at representative locations in the community. (3)

Based on recommendations of Caltrans and the FTA, it is not necessary to collect measurements at each individual building or residence, because each receiver measurement represents a group of buildings that share acoustical equivalence. (3) In other words, the area represented by the receiver shares similar shielding, terrain, and geometric relationship to the reference noise source. Receivers represent a location of noise sensitive areas and are used to estimate the future noise level impacts. Collecting reference ambient noise level measurements at the nearby sensitive receiver locations allows for a comparison of the before and after Project noise levels



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

#### **5.3** Noise Measurement Results

The noise measurements presented below focus on the average or equivalent sound levels ( $L_{eq}$ ). The equivalent sound level ( $L_{eq}$ ) represents a steady state sound level containing the same total energy as a time varying signal over a given sample period. Table 5-1 identifies the hourly daytime (7:00 a.m. to 10:00 p.m.) and nighttime (10:00 p.m. to 7:00 a.m.) noise levels at each noise level measurement location, and the jurisdiction in which each measurement was located. Appendix 5.2 provides a summary of the existing hourly ambient noise levels described below:

- Location L1 represents the noise levels near existing residential homes northwest of the Project site. The noise level measurements collected show an overall 24-hour exterior noise level of 66.2 dBA CNEL. The hourly noise levels measured at location L1 ranged from 57.2 to 66.9 dBA L<sub>eq</sub> during the daytime hours and from 53.6 to 63.3 dBA L<sub>eq</sub> during the nighttime hours. The energy (logarithmic) average daytime noise level was calculated at 61.6 dBA L<sub>eq</sub> with an average nighttime noise level of 59.1 dBA L<sub>eq</sub>.
- Location L2 represents the noise levels ear existing residential homes on El Rivino Road north
  of the Project site. The noise level measurements collected show an overall 24-hour exterior
  noise level of 65.5 dBA CNEL. The hourly noise levels measured at location L2 ranged from
  56.3 to 62.6 dBA L<sub>eq</sub> during the daytime hours and from 49.8 to 62.5 dBA L<sub>eq</sub> during the
  nighttime hours. The energy (logarithmic) average daytime noise level was calculated at 59.6
  dBA L<sub>eq</sub> with an average nighttime noise level of 58.8 dBA L<sub>eq</sub>.
- Location L3 represents the noise levels near existing residential homes on El Rivino Road northeast of the Project site. The 24-hour CNEL indicates that the overall exterior noise level is 65.3 dBA CNEL. At location L3 the background ambient noise levels ranged from 57.8 to 64.8 dBA L<sub>eq</sub> during the daytime hours to levels of 51.0 to 62.1 dBA L<sub>eq</sub> during the nighttime hours. The energy (logarithmic) average daytime noise level was calculated at 60.8 dBA L<sub>eq</sub> with an average nighttime noise level of 58.1 dBA L<sub>eq</sub>.
- Located east of the Project site, location L4 represents the noise levels near existing industrial uses on Agua Mansa Road. The noise level measurements collected show an overall 24-hour exterior noise level of 77.3 dBA CNEL. The hourly noise levels measured at location L4 ranged from 67.4 to 73.2 dBA L<sub>eq</sub> during the daytime hours and from 68.5 to 73.2 dBA L<sub>eq</sub> during the nighttime hours. The energy (logarithmic) average daytime noise level was calculated at 70.6 dBA L<sub>eq</sub> with an average nighttime noise level of 70.7 dBA L<sub>eq</sub>.
- Location L5 represents the noise levels on Wilson Street near an existing residential home and industrial uses. The 24-hour CNEL indicates that the overall exterior noise level is 69.1 dBA CNEL. At location L5 the background ambient noise levels ranged from 57.0 to 67.6 dBA L<sub>eq</sub> during the daytime hours to levels of 58.1 to 64.9 dBA L<sub>eq</sub> during the nighttime hours. The energy (logarithmic) average daytime noise level was calculated at 63.7 dBA L<sub>eq</sub> with an average nighttime noise level of 62.4 dBA L<sub>eq</sub>.
- Location L6 represents the noise levels on Agua Mansa Road south of the Project site near
  existing industrial uses. The noise level measurements collected show an overall 24-hour
  exterior noise level of 76.9 dBA CNEL. The hourly noise levels measured at location L6 ranged
  from 65.7 to 73.2 dBA L<sub>eq</sub> during the daytime hours and from 66.8 to 73.3 dBA L<sub>eq</sub> during the



- nighttime hours. The energy (logarithmic) average daytime noise level was calculated at 71.4 dBA  $L_{eq}$  with an average nighttime noise level of 70.1 dBA  $L_{eq}$ .
- Location L7 represents the noise levels measured on Hall Avenue near existing residential
  homes south of the Project site. The noise level measurements collected show an overall 24hour exterior noise level of 67.8 dBA CNEL. The hourly noise levels measured at location L7
  ranged from 59.6 to 66.7 dBA L<sub>eq</sub> during the daytime hours and from 53.9 to 63.4 dBA L<sub>eq</sub>
  during the nighttime hours. The energy (logarithmic) average daytime noise level was
  calculated at 64.2 dBA L<sub>eq</sub> with an average nighttime noise level of 60.1 dBA L<sub>eq</sub>.
- Location L8 represents the noise levels on 24th Street near Avalon Park south of the Project site. The 24-hour CNEL indicates that the overall exterior noise level is 67.1 dBA CNEL. At location L8 the background ambient noise levels ranged from 55.5 to 65.3 dBA L<sub>eq</sub> during the daytime hours to levels of 53.4 to 64.3 dBA L<sub>eq</sub> during the nighttime hours. The energy (logarithmic) average daytime noise level was calculated at 62.3 dBA L<sub>eq</sub> with an average nighttime noise level of 60.2 dBA L<sub>eq</sub>.
- Located west of the Project site, location L9 represents the noise levels on Andalusia Avenue near existing residential homes. The noise level measurements collected show an overall 24-hour exterior noise level of 56.5 dBA CNEL. The hourly noise levels measured at location L9 ranged from 46.1 to 55.5 dBA L<sub>eq</sub> during the daytime hours and from 46.9 to 52.7 dBA L<sub>eq</sub> during the nighttime hours. The energy (logarithmic) average daytime noise level was calculated at 50.6 dBA L<sub>eq</sub> with an average nighttime noise level of 49.6 dBA L<sub>eq</sub>.
- Location L10 represents the noise levels on Castellano Road west of the Project site near existing residential homes. The 24-hour CNEL indicates that the overall exterior noise level is 65.4 dBA CNEL. At location L10 the background ambient noise levels ranged from 56.9 to 61.0 dBA L<sub>eq</sub> during the daytime hours to levels of 53.6 to 62.2 dBA L<sub>eq</sub> during the nighttime hours. The energy (logarithmic) average daytime noise level was calculated at 59.2 dBA L<sub>eq</sub> with an average nighttime noise level of 58.7 dBA L<sub>eq</sub>.

Table 5-1 provides the (energy average) noise levels used to describe the daytime and nighttime ambient conditions. These daytime and nighttime energy average noise levels represent the average of all hourly noise levels observed during these time periods expressed as a single number. Appendix 5.2 provides summary worksheets of the noise levels for each hour as well as the minimum, maximum, L<sub>1</sub>, L<sub>2</sub>, L<sub>5</sub>, L<sub>8</sub>, L<sub>25</sub>, L<sub>50</sub>, L<sub>90</sub>, L<sub>95</sub>, and L<sub>99</sub> percentile noise levels observed during the daytime and nighttime periods.

The background ambient noise levels in the Project study area are dominated by the transportation-related noise associated with the arterial transportation network, such as State Route 60 (SR-60), and background industrial land use activities. This includes the auto and heavy truck activities on study area roadway segments near the noise level measurement locations. The 24-hour existing noise level measurement results are shown on Table 5-1.



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

Location <sup>1</sup>	Jurisdiction	Distance to Project	Description	Noise	Average Level Le <sub>eq</sub> ) <sup>2</sup>	CNEL
	Juri	Boundary (Feet)		Daytime	Nighttime	
L1	County of SB	1,075'	Located near existing residential homes northwest of the Project site.	61.6	59.1	66.2
L2	Jurupa Valley	40'	Located near existing residential homes on El Rivino Road north of the Project site.	59.6	58.8	65.5
L3	County of SB	740'	Located near existing residential homes on El Rivino Road northeast of the Project site.	60.8	58.1	65.3
L4	Jurupa Valley	170'	Located on Agua Mansa Road east of the Project site near existing industrial uses.	70.6	70.7	77.3
L5	Jurupa Valley	2,290'	Located on Wilson Street near an existing residential home and industrial uses.	63.7	62.4	69.1
L6	Jurupa Valley	80'	Located on Agua Mansa Road south of the Project site near existing industrial uses.	71.4	70.1	76.9
L7	Jurupa Valley	3,000'	Located on Hall Avenue near existing residential homes south of the Project site.	64.2	60.1	67.8
L8	Jurupa Valley	2,995'	Located on 24th Street near Avalon Park south of the Project site.	62.3	60.2	67.1
L9	Jurupa Valley	925'	Located on Andalusia Avenue west of the Project site near existing residential homes.	50.6	49.6	56.5
L10	Jurupa Valley	240'	Located on Castellano Road west of the Project site near existing residential homes.	59.2	58.7	65.4

 $<sup>^{\</sup>rm 1}\,\mbox{See}$  Exhibit 5-A for the noise level measurement locations.



<sup>&</sup>lt;sup>2</sup> Energy (logarithmic) average hourly levels. The long-term 24-hour measurement worksheets are included in Appendix 5.2.

<sup>&</sup>quot;Daytime" = 7:00 a.m. to 10:00 p.m.; "Nighttime" = 10:00 p.m. to 7:00 a.m.; "SB" = San Bernardino

Residential RIALTO Future Industrial Use Residential Residential Residential Industrial Uses SITE Milestone MXX Park Industrial Industrial Uses Uses Industrial Uses Down River Horse Ranch JURUPA VALLEY Avalon Park Residential RIVERSIDE **LEGEND:** 

**EXHIBIT 5-A: NOISE MEASUREMENT LOCATIONS** 



Noise Measurement Locations

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# **6 METHODS AND PROCEDURES**

The following section outlines the methods and procedures used to model and analyze the future traffic noise environment.

### 6.1 FHWA TRAFFIC NOISE PREDICTION MODEL

The expected roadway noise level increases from vehicular traffic were calculated by Urban Crossroads, Inc. using a computer program that replicates the Federal Highway Administration (FHWA) Traffic Noise Prediction Model- FHWA-RD-77-108. (25) The FHWA Model arrives at a predicted noise level through a series of adjustments to the Reference Energy Mean Emission Level (REMEL). In California the national REMELs are substituted with the California Vehicle Noise (Calveno) Emission Levels. (26) Adjustments are then made to the REMEL to account for: the roadway classification (e.g., collector, secondary, major or arterial), the roadway active width (i.e., the distance between the center of the outermost travel lanes on each side of the roadway), the total average daily traffic (ADT), the travel speed, the percentages of automobiles, medium trucks, and heavy trucks in the traffic volume, the roadway grade, the angle of view (e.g., whether the roadway view is blocked), the site conditions ("hard" or "soft" relates to the absorption of the ground, pavement, or landscaping), and the percentage of total ADT which flows each hour throughout a 24-hour period. Research conducted by Caltrans has shown that the use of soft site conditions is appropriate for the application of the FHWA traffic noise prediction model used in this analysis. (27)

## 6.2 OFF-SITE TRAFFIC NOISE PREDICTION MODEL INPUTS

Table 6-1 presents the roadway parameters used to assess the Project's off-site transportation noise impacts. Table 6-1 identifies the 40 study area roadway segments, the distance from the centerline to adjacent land use based on the functional roadway classifications per the City of Jurupa Valley, County of San Bernardino, City of Rialto, and City of Riverside General Plan Circulation Elements, and the posted vehicle speeds. The ADT volumes used in this study are presented on Tables 6-2 to 6-4 are based on the *Agua Mansa Commerce Park Specific Plan Traffic Impact Analysis* prepared by Ganddini Group, Inc., for the following traffic scenarios: Existing, Opening Year 2020, and Year 2035 conditions under Project Alternatives 1, 1A, 2, and 2A. (2)



**TABLE 6-1: OFF-SITE ROADWAY PARAMETERS** 

ID	Roadway	Segment	Adjacent Land Use <sup>1</sup>	Distance from Centerline to Nearest Adjacent Land Use (Feet) <sup>2</sup>	Posted Vehicle Speed (mph)
1	Cedar Av.	n/o I-10 Fwy.	General Commercial	52	40
2	Cedar Av.	s/o I-10 Fwy.	Light Industrial	52	40
3	Cedar Av.	s/o Slover Av.	General Commercial	52	40
4	Cedar Av.	s/o Santa Ana Av.	Residential	52	40
5	Cedar Av.	s/o Jurupa Av.	General Commercial	52	50
6	Rubidoux Bl.	s/o El Rivino Rd.	Heavy Industrial	59	50
7	Rubidoux Bl.	s/o Production Circle	Heavy Industrial	59	50
8	Rubidoux Bl.	s/o 20th St.	Light Industrial	59	50
9	Rubidoux Bl.	s/o 24th St.	Light Industrial	59	50
10	Rubidoux Bl.	s/o 26th St.	Light Industrial	59	50
11	Rubidoux Bl.	s/o 28th St.	Residential	59	50
12	Rubidoux Bl.	s/o SR-60 Fwy.	Residential	59	50
13	Rubidoux Bl.	s/o 34th St.	Residential	59	50
14	Cactus Av.	n/o El Rivino Rd.	Residential	30	40
15	Rivera St.	n/o Market St.	Business Park	33	30
16	Riverside Av.	n/o I-10 Fwy.	General Commercial	60	40
17	Riverside Av.	s/o I-10 Fwy.	General Industrial	60	50
18	Riverside Av.	s/o Slover Av.	General Industrial	52	50
19	Riverside Av.	s/o Santa Ana Av.	General Industrial	52	55
20	Riverside Av.	s/o Jurupa Av.	General Industrial	52	55
21	Rancho Av.	n/o Agua Mansa Rd.	General Industrial	52	40
22	Rancho Av.	s/o Agua Mansa Rd.	General Industrial	52	40
23	Slover Av.	w/o Cedar Av.	Light Industrial	52	50
24	Slover Av.	w/o Riverside Av.	General Industrial	52	50
25	Santa Ana Av.	w/o Cedar Av.	Residential	44	40
26	Santa Ana Av.	w/o Riverside Av.	General Industrial	44	40
27	Jurupa Av.	w/o Cedar Av.	Residential	52	40
28	El Rivino Rd.	e/o Cedar Av.	Heavy Industrial	44	45
29	El Rivino Rd.	e/o Cactus Av.	Residential	44	45
30	El Rivino Rd.	e/o Hall Av.	Residential	44	45
31	Agua Mansa Rd.	e/o 20th St.	Heavy Industrial	50	45
32	Agua Mansa Rd.	w/o Brown Av.	Heavy Industrial	50	45
33	Agua Mansa Rd.	w/o Holly St.	Heavy Industrial	52	45
34	Agua Mansa Rd.	e/o Holly St.	Heavy Industrial	52	45
35	Agua Mansa Rd.	e/o El Rivino Rd.	General Industrial	60	45
36	Agua Mansa Rd.	e/o Riverside Av.	General Industrial	60	45
37	20th St.	e/o Rubidoux Bl.	Light Industrial	50	45
38	20th St.	e/o Agua Mansa Rd.	Light Industrial	50	45
39	Market St.	e/o Hall Av.	Light Industrial	50	45
40	Market St.	e/o Rivera St.	Business Park	50	45

<sup>&</sup>lt;sup>1</sup> Sources: City of Jurupa Valley General Plan Land Use Map, County of San Bernardino General Plan Land Use Zoning Districts Map, City of Rialto General Plan Land Use Policy Plan, and the City of Riverside General Plan Land Use/Urban Design Element.

<sup>2</sup> Distance to adjacent land use is based upon the right-of-way distances for each functional roadway classification provided in

<sup>&</sup>lt;sup>2</sup> Distance to adjacent land use is based upon the right-of-way distances for each functional roadway classification provided in the General Plan Circulation Elements.



TABLE 6-2: EXISTIND CONDITIONS AVERAGE DAILY TRAFFIC VOLUMES

				Average D	aily Traffic	Volumes <sup>1</sup>	
					Existing		
ID	Roadway	Segment	Without Project	With Alt 1	With Alt 1A	With Alt 2	With Alt 2A
1	Cedar Av.	n/o I-10 Fwy.	40,344	40,822	40,822	40,842	40,842
2	Cedar Av.	s/o I-10 Fwy.	27,873	29,346	29,346	29,378	29,378
3	Cedar Av.	s/o Slover Av.	23,526	25,285	25,285	25,392	25,392
4	Cedar Av.	s/o Santa Ana Av.	23,715	25,820	25,820	26,036	26,036
5	Cedar Av.	s/o Jurupa Av.	20,881	23,181	23,181	23,527	23,527
6	Rubidoux Bl.	s/o El Rivino Rd.	21,070	24,138	25,178	24,531	25,563
7	Rubidoux Bl.	s/o Production Circle	20,786	25,469	25,246	25,862	25,632
8	Rubidoux Bl.	s/o 20th St.	17,574	20,118	19,871	20,304	20,057
9	Rubidoux Bl.	s/o 24th St.	18,519	20,815	20,815	21,002	21,002
10	Rubidoux Bl.	s/o 26th St.	19,086	21,382	21,382	21,569	21,569
11	Rubidoux Bl.	s/o 28th St.	20,597	22,868	22,868	22,976	22,976
12	Rubidoux Bl.	s/o SR-60 Fwy.	23,810	24,340	24,340	24,399	24,399
13	Rubidoux Bl.	s/o 34th St.	18,141	18,671	18,671	18,730	18,730
14	Cactus Av.	n/o El Rivino Rd.	2,929	3,215	3,215	3,320	3,320
15	Rivera St.	n/o Market St.	8,692	8,797	8,797	8,862	8,862
16	Riverside Av.	n/o I-10 Fwy.	37,604	37,978	37,978	37,998	37,998
17	Riverside Av.	s/o I-10 Fwy.	38,738	39,927	39,927	39,961	39,961
18	Riverside Av.	s/o Slover Av.	36,093	37,295	37,295	37,328	37,328
19	Riverside Av.	s/o Santa Ana Av.	27,967	29,221	29,221	29,255	29,255
20	Riverside Av.	s/o Jurupa Av.	32,691	33,946	33,946	33,979	33,979
21	Rancho Av.	n/o Agua Mansa Rd.	17,763	18,148	18,148	18,177	18,177
22	Rancho Av.	s/o Agua Mansa Rd.	12,661	12,918	12,918	12,940	12,940
23	Slover Av.	w/o Cedar Av.	10,960	11,181	11,181	11,260	11,260
24	Slover Av.	w/o Riverside Av.	10,015	10,067	10,067	10,067	10,067
25	Santa Ana Av.	w/o Cedar Av.	6,330	6,664	6,664	6,745	6,745
26	Santa Ana Av.	w/o Riverside Av.	3,968	4,020	4,020	4,020	4,020
27	Jurupa Av.	w/o Cedar Av.	5,102	5,284	5,284	5,389	5,389
28	El Rivino Rd.	e/o Cedar Av.	4,063	6,301	9,097	7,096	9,990
29	El Rivino Rd.	e/o Cactus Av.	3,779	5,849	5,849	6,501	6,501
30	El Rivino Rd.	e/o Hall Av.	2,929	4,257	4,257	4,387	4,387
31	Agua Mansa Rd.	e/o 20th St.	10,677	11,509	11,856	12,114	12,458
32	Agua Mansa Rd.	w/o Brown Av.	10,677	11,378	11,856	11,984	12,458
33	Agua Mansa Rd.	w/o Holly St.	12,094	12,730	12,656	13,201	13,224
34	Agua Mansa Rd.	e/o Holly St.	12,094	12,282	12,675	12,631	12,631
35	Agua Mansa Rd.	e/o El Rivino Rd.	14,361	16,271	16,271	16,357	16,357
36	Agua Mansa Rd.	e/o Riverside Av.	7,275	7,917	7,917	7,970	7,970
37	20th St.	e/o Rubidoux Bl.	20,975	23,696	23,439	23,919	23,648
38	20th St.	e/o Agua Mansa Rd.	16,062	19,329	19,329	19,579	19,579
39	Market St.	e/o Hall Av.	22,298	25,565	25,565	25,776	25,776
40	Market St.	e/o Rivera St.	26,739	29,901	29,901	30,048	30,048

<sup>&</sup>lt;sup>1</sup> Source: Agua Mansa Commerce Park Specific Plan Traffic Impact Analysis, Ganddini Group, Inc.



TABLE 6-3: OPENING YEAR 2020 CONDITIONS AVERAGE DAILY TRAFFIC VOLUMES

				Average D	aily Traffic	Volumes <sup>1</sup>	
				Ope	ning Year 2	.020	
ID	Roadway	Segment	Without	With	With	With	With
			Project	Alt 1	Alt 1A	Alt 2	Alt 2A
1	Cedar Av.	n/o I-10 Fwy.	44,029	44,507	44,507	44,527	44,527
2	Cedar Av.	s/o I-10 Fwy.	37,699	39,173	39,173	39,205	39,205
3	Cedar Av.	s/o Slover Av.	30,518	32,277	32,277	32,383	32,383
4	Cedar Av.	s/o Santa Ana Av.	30,707	32,812	32,812	33,028	33,028
5	Cedar Av.	s/o Jurupa Av.	27,873	30,172	30,172	30,519	30,519
6	Rubidoux Bl.	s/o El Rivino Rd.	28,439	31,507	32,547	31,900	32,933
7	Rubidoux Bl.	s/o Production Circle	28,156	32,838	32,615	33,231	33,001
8	Rubidoux Bl.	s/o 20th St.	23,621	26,165	25,917	26,351	26,104
9	Rubidoux Bl.	s/o 24th St.	24,377	26,673	26,673	26,860	26,860
10	Rubidoux Bl.	s/o 26th St.	25,227	27,524	27,524	27,710	27,710
11	Rubidoux Bl.	s/o 28th St.	26,550	28,820	28,820	28,929	28,929
12	Rubidoux Bl.	s/o SR-60 Fwy.	27,306	27,835	27,835	27,894	27,894
13	Rubidoux Bl.	s/o 34th St.	20,503	21,033	21,033	21,092	21,092
14	Cactus Av.	n/o El Rivino Rd.	7,464	7,751	7,751	7,855	7,855
15	Rivera St.	n/o Market St.	10,110	10,214	10,214	10,279	10,279
16	Riverside Av.	n/o I-10 Fwy.	40,439	40,812	40,812	40,832	40,832
17	Riverside Av.	s/o I-10 Fwy.	45,163	46,352	46,352	46,385	46,385
18	Riverside Av.	s/o Slover Av.	41,762	42,964	42,964	42,997	42,997
19	Riverside Av.	s/o Santa Ana Av.	33,353	34,607	34,607	34,640	34,640
20	Riverside Av.	s/o Jurupa Av.	38,171	39,426	39,426	39,459	39,459
21	Rancho Av.	n/o Agua Mansa Rd.	20,219	20,605	20,605	20,634	20,634
22	Rancho Av.	s/o Agua Mansa Rd.	14,645	14,902	14,902	14,924	14,924
23	Slover Av.	w/o Cedar Av.	13,795	14,016	14,016	14,094	14,094
24	Slover Av.	w/o Riverside Av.	11,338	11,390	11,390	11,390	11,390
25	Santa Ana Av.	w/o Cedar Av.	8,031	8,364	8,364	8,446	8,446
26	Santa Ana Av.	w/o Riverside Av.	5,102	5,154	5,154	5,154	5,154
27	Jurupa Av.	w/o Cedar Av.	7,181	7,363	7,363	7,467	7,467
28	El Rivino Rd.	e/o Cedar Av.	9,543	11,781	14,577	12,576	15,470
29	El Rivino Rd.	e/o Cactus Av.	5,669	7,739	7,739	8,391	8,391
30	El Rivino Rd.	e/o Hall Av.	3,874	5,202	5,202	5,332	5,332
31	Agua Mansa Rd.	e/o 20th St.	14,739	15,571	15,918	16,177	16,521
32	Agua Mansa Rd.	w/o Brown Av.	14,739	15,441	15,918	16,047	16,521
33	Agua Mansa Rd.	w/o Holly St.	15,023	15,659	15,585	16,130	16,153
34	Agua Mansa Rd.	e/o Holly St.	15,023	15,211	15,604	15,560	15,560
35	Agua Mansa Rd.	e/o El Rivino Rd.	18,330	20,239	20,239	20,325	20,325
36	Agua Mansa Rd.	e/o Riverside Av.	9,637	10,279	10,279	10,332	10,332
37	20th St.	e/o Rubidoux Bl.	28,062	30,783	30,525	31,005	30,734
38	20th St.	e/o Agua Mansa Rd.	24,282	27,549	27,549	27,799	27,799
39	Market St.	e/o Hall Av.	33,069	36,336	36,336	36,547	36,547
40	Market St.	e/o Rivera St.	36,754	39,917	39,917	40,063	40,063

 $<sup>^1\,</sup> Source: Agua\,\, Mansa\,\, Commerce\,\, Park\,\, Specific\,\, Plan\,\, Traffic\,\, Impact\,\, Analysis,\,\, Ganddini\,\, Group,\,\, Inc.$ 



TABLE 6-4: YEAR 2035 CONDITIONS AVERAGE DAILY TRAFFIC VOLUMES

				Average D	aily Traffic	Volumes <sup>1</sup>	
					Year 2035		
ID	Roadway	Segment	Without Project	With Alt 1	With Alt 1A	With Alt 2	With Alt 2A
1	Cedar Av.	n/o I-10 Fwy.	46,297	46,774	46,774	46,794	46,794
2	Cedar Av.	s/o I-10 Fwy.	37,699	39,173	39,173	39,205	39,205
3	Cedar Av.	s/o Slover Av.	30,518	32,277	32,277	32,383	32,383
4	Cedar Av.	s/o Santa Ana Av.	30,707	32,812	32,812	33,028	33,028
5	Cedar Av.	s/o Jurupa Av.	27,873	30,172	30,172	30,519	30,519
6	Rubidoux Bl.	s/o El Rivino Rd.	28,439	31,507	32,547	31,900	32,933
7	Rubidoux Bl.	s/o Production Circle	28,156	32,838	32,615	33,231	33,001
8	Rubidoux Bl.	s/o 20th St.	23,621	26,165	25,917	26,351	26,104
9	Rubidoux Bl.	s/o 24th St.	24,377	26,673	26,673	26,860	26,860
10	Rubidoux Bl.	s/o 26th St.	25,227	27,524	27,524	27,710	27,710
11	Rubidoux Bl.	s/o 28th St.	27,400	29,671	29,671	29,779	29,779
12	Rubidoux Bl.	s/o SR-60 Fwy.	27,778	28,308	28,308	28,367	28,367
13	Rubidoux Bl.	s/o 34th St.	20,503	21,033	21,033	21,092	21,092
14	Cactus Av.	n/o El Rivino Rd.	7,464	7,751	7,751	7,855	7,855
15	Rivera St.	n/o Market St.	10,110	10,214	10,214	10,279	10,279
16	Riverside Av.	n/o I-10 Fwy.	49,604	49,977	49,977	49,997	49,997
17	Riverside Av.	s/o I-10 Fwy.	54,989	56,179	56,179	56,212	56,212
18	Riverside Av.	s/o Slover Av.	51,021	52,223	52,223	52,256	52,256
19	Riverside Av.	s/o Santa Ana Av.	43,651	44,906	44,906	44,939	44,939
20	Riverside Av.	s/o Jurupa Av.	43,651	44,906	44,906	44,939	44,939
21	Rancho Av.	n/o Agua Mansa Rd.	23,148	23,534	23,534	23,563	23,563
22	Rancho Av.	s/o Agua Mansa Rd.	18,802	19,060	19,060	19,082	19,082
23	Slover Av.	w/o Cedar Av.	16,818	17,039	17,039	17,117	17,117
24	Slover Av.	w/o Riverside Av.	11,621	11,674	11,674	11,674	11,674
25	Santa Ana Av.	w/o Cedar Av.	8,787	9,120	9,120	9,201	9,201
26	Santa Ana Av.	w/o Riverside Av.	5,102	5,154	5,154	5,154	5,154
27	Jurupa Av.	w/o Cedar Av.	7,370	7,552	7,552	7,656	7,656
28	El Rivino Rd.	e/o Cedar Av.	10,771	13,009	15,805	13,804	16,698
29	El Rivino Rd.	e/o Cactus Av.	6,236	8,305	8,305	8,957	8,957
30	El Rivino Rd.	e/o Hall Av.	3,874	5,202	5,202	5,332	5,332
31	Agua Mansa Rd.	e/o 20th St.	18,802	19,634	19,981	20,240	20,584
32	Agua Mansa Rd.	w/o Brown Av.	18,802	19,504	19,981	20,110	20,584
33	Agua Mansa Rd.	w/o Holly St.	18,519	19,155	19,081	19,626	19,649
34	Agua Mansa Rd.	e/o Holly St.	18,519	18,707	19,100	19,056	19,056
35	Agua Mansa Rd.	e/o El Rivino Rd.	22,582	24,491	24,491	24,577	24,577
36	Agua Mansa Rd.	e/o Riverside Av.	10,393	11,035	11,035	11,088	11,088
37	20th St.	e/o Rubidoux Bl.	28,156	30,877	30,620	31,100	30,828
38	20th St.	e/o Agua Mansa Rd.	24,282	27,549	27,549	27,799	27,799
39	Market St.	e/o Hall Av.	33,069	36,336	36,336	36,547	36,547
40	Market St.	e/o Rivera St.	41,195	44,357	44,357	44,504	44,504

 $<sup>^1\,</sup> Source: Agua\,\, Mansa\,\, Commerce\,\, Park\,\, Specific\,\, Plan\,\, Traffic\,\, Impact\,\, Analysis,\,\, Ganddini\,\, Group,\,\, Inc.$ 



Traffic noise analysis provided in this report is based on the actual vehicle volumes derived from passenger car equivalent (PCE) average daily traffic (ADT) volumes obtained from the *Agua Mansa Commerce Park Specific Plan Traffic Impact Analysis* prepared by Ganddini Group, Inc. for the Project. (2) PCE volumes convert medium and heavy trucks into an equivalent number of passenger cars for traffic impact analysis, however, this approach underestimates the potential impacts with regard to off-site traffic noise levels generated by medium and heavy trucks. Therefore, to present a conservative off-site traffic noise analysis and account for the effect of individual medium and heavy truck trips on the study area roadway network, this noise study converts all PCE ADT volumes into actual vehicle volumes for analysis. Appendix 6.1 includes the PCE to actual vehicle ADT volume calculation worksheets by roadway segment.

To quantify the off-site noise levels, the Project related truck trips were added to the heavy truck category in the FHWA noise prediction model. The addition of the Project related truck trips increases the percentage of heavy trucks in the vehicle mix. This approach recognizes that the FHWA noise prediction model is significantly influenced by the number of heavy trucks in the vehicle mix.

Table 6-5 provides the time of day (daytime, evening, and nighttime) vehicle splits. The daily Project truck trip-ends were assigned to the individual off-site study area roadway segments based on the Project truck trip distribution percentages documented in the *Traffic Impact Analysis*. Using the Project truck trips in combination with the Project trip distribution, Urban Crossroads, Inc. calculated the number of additional Project truck trips and vehicle mix percentages for each of the study area roadway segments. Table 6-6 shows the traffic flow by vehicle type (vehicle mix) used for all without Project traffic scenarios, and Tables 6-7 to 6-12 show the vehicle mixes used for the with Project traffic scenarios.



**TABLE 6-5: TIME OF DAY VEHICLE SPLITS** 

Vahiala Tura		Time of Day Splits		Total of Time of
Vehicle Type	Daytime	Evening	Nighttime	Day Splits
Autos	73.25%	8.12%	18.63%	100.00%
Medium Trucks	82.18%	3.85%	13.97%	100.00%
Heavy Trucks	76.47%	3.99%	19.54%	100.00%

Based on existing ADT count data taken at Market Street and 24th Street. Vehicle mix percentage values rounded to the nearest one-hundredth.

TABLE 6-6: WITHOUT PROJECT CONDITIONS VEHICLE MIX

Classification		Total % Traffic Flow		Total
Classification	Autos	Medium Trucks	Heavy Trucks	Total
All Segments	89.90%	2.50%	7.60%	100.00%

Based on existing PM peak hour count data taken at Rubidoux Boulevard and 20th Street/Market Street (Agua Mansa Commerce Park Specific Plan Traffic Impact Analysis, Ganddini Group, Inc.). Vehicle mix percentage values rounded to the nearest one-hundredth.



 $<sup>&</sup>quot;Daytime" = 7:00 \ a.m. \ to \ 7:00 \ p.m.; "Evening" = 7:00 \ p.m. \ to \ 10:00 \ p.m.; "Nighttime" = 10:00 \ p.m. \ to \ 7:00 \ a.m.$ 

TABLE 6-7: EXISTING WITH PROJECT ALT. 1 & 1A CONDITIONS VEHICLE MIX

			Witl	h Project A	lternative	1 <sup>1</sup>	With	Project Al	ternative	1A <sup>1</sup>
ID	Roadway	Segment	Autos	Medium Trucks	Heavy Trucks	Total <sup>2</sup>	Autos	Medium Trucks	Heavy Trucks	Total <sup>2</sup>
1	Cedar Av.	n/o I-10 Fwy.	89.84%	2.50%	7.66%	100%	89.84%	2.50%	7.66%	100%
2	Cedar Av.	s/o I-10 Fwy.	89.07%	2.61%	8.32%	100%	89.07%	2.61%	8.32%	100%
3	Cedar Av.	s/o Slover Av.	88.95%	2.62%	8.43%	100%	88.95%	2.62%	8.43%	100%
4	Cedar Av.	s/o Santa Ana Av.	88.72%	2.65%	8.62%	100%	88.72%	2.65%	8.62%	100%
5	Cedar Av.	s/o Jurupa Av.	88.68%	2.65%	8.68%	100%	88.68%	2.65%	8.68%	100%
6	Rubidoux Bl.	s/o El Rivino Rd.	86.40%	3.04%	10.56%	100%	87.64%	2.79%	9.57%	100%
7	Rubidoux Bl.	s/o Production Circle	87.23%	2.85%	9.92%	100%	87.79%	2.76%	9.45%	100%
8	Rubidoux Bl.	s/o 20th St.	88.37%	2.69%	8.95%	100%	88.22%	2.72%	9.06%	100%
9	Rubidoux Bl.	s/o 24th St.	88.30%	2.71%	8.99%	100%	88.30%	2.71%	8.99%	100%
10	Rubidoux Bl.	s/o 26th St.	88.34%	2.70%	8.95%	100%	88.34%	2.70%	8.95%	100%
11	Rubidoux Bl.	s/o 28th St.	88.43%	2.69%	8.87%	100%	88.43%	2.69%	8.87%	100%
12	Rubidoux Bl.	s/o SR-60 Fwy.	89.82%	2.50%	7.69%	100%	89.82%	2.50%	7.69%	100%
13	Rubidoux Bl.	s/o 34th St.	89.79%	2.50%	7.71%	100%	89.79%	2.50%	7.71%	100%
14	Cactus Av.	n/o El Rivino Rd.	90.80%	2.28%	6.92%	100%	90.80%	2.28%	6.92%	100%
15	Rivera St.	n/o Market St.	90.02%	2.47%	7.51%	100%	90.02%	2.47%	7.51%	100%
16	Riverside Av.	n/o I-10 Fwy.	89.80%	2.51%	7.69%	100%	89.80%	2.51%	7.69%	100%
17	Riverside Av.	s/o I-10 Fwy.	89.28%	2.59%	8.13%	100%	89.28%	2.59%	8.13%	100%
18	Riverside Av.	s/o Slover Av.	89.24%	2.60%	8.17%	100%	89.24%	2.60%	8.17%	100%
19	Riverside Av.	s/o Santa Ana Av.	89.07%	2.62%	8.31%	100%	89.07%	2.62%	8.31%	100%
20	Riverside Av.	s/o Jurupa Av.	89.19%	2.60%	8.21%	100%	89.19%	2.60%	8.21%	100%
21	Rancho Av.	n/o Agua Mansa Rd.	89.57%	2.55%	7.88%	100%	89.57%	2.55%	7.88%	100%
22	Rancho Av.	s/o Agua Mansa Rd.	89.72%	2.52%	7.76%	100%	89.72%	2.52%	7.76%	100%
23	Slover Av.	w/o Cedar Av.	90.10%	2.45%	7.45%	100%	90.10%	2.45%	7.45%	100%
24	Slover Av.	w/o Riverside Av.	89.95%	2.49%	7.56%	100%	89.95%	2.49%	7.56%	100%
25	Santa Ana Av.	w/o Cedar Av.	88.92%	2.65%	8.44%	100%	88.92%	2.65%	8.44%	100%
26	Santa Ana Av.	w/o Riverside Av.	90.03%	2.47%	7.50%	100%	90.03%	2.47%	7.50%	100%
27	Jurupa Av.	w/o Cedar Av.	90.25%	2.41%	7.34%	100%	90.25%	2.41%	7.34%	100%
28	El Rivino Rd.	e/o Cedar Av.	89.58%	2.31%	8.11%	100%	82.52%	3.44%	14.05%	100%
29	El Rivino Rd.	e/o Cactus Av.	85.92%	2.97%	11.12%	100%	85.92%	2.97%	11.12%	100%
30	El Rivino Rd.	e/o Hall Av.	93.05%	1.72%	5.23%	100%	93.05%	1.72%	5.23%	100%
31	Agua Mansa Rd.	e/o 20th St.	88.49%	2.70%	8.81%	100%	86.34%	3.07%	10.59%	100%
32	Agua Mansa Rd.	w/o Brown Av.	88.36%	2.73%	8.91%	100%	86.34%	3.07%	10.59%	100%
33	Agua Mansa Rd.	w/o Holly St.	88.47%	2.72%	8.81%	100%	88.99%	2.63%	8.38%	100%
34	Agua Mansa Rd.	e/o Holly St.	89.05%	2.64%	8.31%	100%	86.29%	3.11%	10.60%	100%
35	Agua Mansa Rd.	e/o El Rivino Rd.	87.91%	2.77%	9.31%	100%	87.91%	2.77%	9.31%	100%
36	Agua Mansa Rd.	e/o Riverside Av.	88.86%	2.63%	8.51%	100%	88.86%	2.63%	8.51%	100%
37	20th St.	e/o Rubidoux Bl.	88.26%	2.72%	9.03%	100%	88.45%	2.69%	8.87%	100%
38	20th St.	e/o Agua Mansa Rd.	87.03%	2.89%	10.07%	100%	87.03%	2.89%	10.07%	100%
39	Market St.	e/o Hall Av.	87.73%	2.80%	9.47%	100%	87.73%	2.80%	9.47%	100%
40	Market St.	e/o Rivera St.	88.01%	2.76%	9.22%	100%	88.01%	2.76%	9.22%	100%
40	iviai ket Jt.	C/O Mivera 3t.	00.01/0	2.70/0	J.ZZ/0	100/0	00.01/0	2.70/0	J.ZZ/0	100/0

<sup>&</sup>lt;sup>1</sup> Source: Agua Mansa Commerce Park Specific Plan Traffic Impact Analysis, Ganddini Group, Inc.



 $<sup>^{\</sup>rm 2}$  Total of vehicle mix percentage values rounded to the nearest one-hundredth.

TABLE 6-8: EXISTING WITH PROJECT ALT. 2 & 2A CONDITIONS VEHICLE MIX

December   Roadway   Rogment   Ratos   Redium   Heavy Trucks   Total*   Total*   Total*   Total*   Total*   Total*   Trucks   Total*   Total*   Trucks   Total*   Total*   Trucks   Total*   Trucks   Total*   T				Witl	h Project A	lternative	<b>2</b> <sup>1</sup>	With	Project Al	ternative	2A <sup>1</sup>
2   Cedar Av.   S/O I-10 Fwy.   89.19%   2.57%   8.24%   100%   89.19%   2.57%   8.24%   100%   3   Cedar Av.   S/O Slover Av.   89.14%   2.56%   8.30%   100%   89.14%   2.55%   8.30%   100%   89.14%   2.55%   8.30%   100%   5   Cedar Av.   S/O Santa Ana Av.   88.99%   2.57%   8.44%   100%   88.99%   2.57%   8.44%   100%   89.03%   2.54%   8.43%   100%   6   Rubidoux Bl.   S/O El Rivino Rd.   87.30%   2.79%   9.91%   100%   88.95%   2.57%   8.43%   100%   6   Rubidoux Bl.   S/O Production Circle   80.07%   2.62%   8.43%   100%   88.51%   2.57%   8.92%   100%   8   Rubidoux Bl.   S/O 20th St.   88.71%   2.57%   8.72%   100%   88.55%   2.53%   8.81%   100%   8   Rubidoux Bl.   S/O 20th St.   88.63%   2.60%   8.77%   100%   88.63%   2.60%   8.77%   100%   8   Rubidoux Bl.   S/O 26th St.   88.63%   2.60%   8.77%   100%   88.63%   2.60%   8.77%   100%   10   Rubidoux Bl.   S/O 28th St.   88.67%   2.60%   8.79%   100%   88.63%   2.60%   8.77%   100%   12   Rubidoux Bl.   S/O 28th St.   88.67%   2.60%   8.70%   100%   88.70%   2.60%   8.70%   100%   12   Rubidoux Bl.   S/O 28th St.   89.85%   2.48%   7.65%   100%   89.87%   2.48%   7.65%   100%   12   Rubidoux Bl.   S/O 34th St.   89.85%   2.48%   7.65%   100%   89.87%   2.48%   7.65%   100%   12   Rubidoux Bl.   S/O 34th St.   89.85%   2.48%   7.65%   100%   89.87%   2.48%   7.65%   100%   15   Rivera St.   n/O El Rivino Rd.   91.09%   2.21%   6.71%   100%   91.09%   2.21%   6.71%   100%   15   Riverside Av.   n/O I-10 Fwy.   89.83%   2.50%   3.08%   100%   89.33%   2.55%   8.11%   100%   1	ID	Roadway	Segment	Autos		•	Total <sup>2</sup>	Autos		•	Total <sup>2</sup>
3   Cedar Av.   \$/o Slover Av.   \$9.14%   2.56%   8.30%   100%   89.14%   2.56%   8.30%   100%   4   Cedar Av.   \$/o Slanta Ana Av.   88.99%   2.57%   8.44%   100%   88.99%   2.57%   8.44%   100%   88.99%   2.57%   8.44%   100%   89.03%   2.54%   8.43%   100%   89.03%   2.54%   8.43%   100%   89.03%   2.54%   8.43%   100%   89.03%   2.54%   8.43%   100%   89.03%   2.54%   8.43%   100%   89.03%   2.54%   8.43%   100%   89.03%   2.54%   8.43%   100%   89.03%   2.54%   8.43%   100%   88.57%   2.57%   8.92%   100%   7   Rubidoux Bl.   \$/o Poduction Circle   88.07%   2.62%   9.31%   100%   88.55%   2.53%   8.81%   100%   9   Rubidoux Bl.   \$/o Zoth St.   88.71%   2.57%   8.72%   100%   88.57%   2.60%   8.82%   100%   9   Rubidoux Bl.   \$/o Zeth St.   88.63%   2.60%   8.74%   100%   88.63%   2.60%   8.74%   100%   10   Rubidoux Bl.   \$/o Zeth St.   88.67%   2.60%   8.74%   100%   88.67%   2.60%   8.74%   100%   10   Rubidoux Bl.   \$/o Zeth St.   88.70%   2.60%   8.70%   100%   88.70%   2.60%   8.74%   100%   12   Rubidoux Bl.   \$/o Seth St.   88.70%   2.60%   8.70%   100%   88.70%   2.60%   8.74%   100%   13   Rubidoux Bl.   \$/o Seth St.   88.70%   2.48%   7.65%   100%   89.87%   2.48%   7.65%   100%   89.87%   2.48%   7.65%   100%   13   Rubidoux Bl.   \$/o Seth St.   89.85%   2.48%   7.65%   100%   89.85%   2.48%   7.65%   100%   13   Rubidoux Bl.   \$/o Seth St.   89.85%   2.48%   7.65%   100%   89.85%   2.48%   7.65%   100%   13   Rubidoux Bl.   \$/o Seth St.   90.09%   2.24%   7.65%   100%   90.09%   2.45%   7.65%   100%   15   Riverside Av.   \$/o I El Rivino Rd.   91.09%   2.24%   7.65%   100%   90.09%   2.45%   7.45%   100%   16   Riverside Av.   \$/o I Devy.   89.33%   2.50%   7.67%   100%   89.33%   2.56%   8.11%   100%   18   Riverside Av.   \$/o Solver Av.   89.33%   2.55%   8.13%   100%   89.33%   2.56%   8.11%   100%   19   Riverside Av.   \$/o Solver Av.   89.33%   2.55%   8.23%   100%   89.39%   2.55%   8.23%   100%   19   Riverside Av.   \$/o Solver Av.   89.93%   2.55%   8.23%   100%   89.95%   2.45%   7	1	Cedar Av.	n/o I-10 Fwy.	89.86%	2.50%	7.65%	100%	89.86%	2.50%	7.65%	100%
4         Cedar Av.         s/o Santa Ana Av.         88.99%         2.57%         8.44%         100%         88.99%         2.57%         8.44%         100%           5         Cedar Av.         s/o Jurupa Av.         89.03%         2.54%         8.43%         100%         88.51%         2.57%         8.91%         100%         88.51%         2.57%         8.91%         100%         88.51%         2.57%         8.92%         100%           7         Rubidoux Bl.         s/o 20th St.         88.71%         2.57%         8.72%         100%         88.57%         2.60%         8.87%         100%         8.65%         2.53%         8.81%         100%           8         Rubidoux Bl.         s/o 26th St.         88.63%         2.60%         8.77%         100%         88.67%         2.60%         8.77%         100%         88.67%         2.60%         8.77%         100%         88.67%         2.60%         8.70%         100%         88.67%         2.60%         8.70%         100%         88.67%         2.60%         8.70%         100%         89.87%         2.48%         7.65%         100%         89.87%         2.48%         7.65%         100%         89.88%         2.48%         7.65%         100%	2	Cedar Av.	s/o I-10 Fwy.	89.19%	2.57%	8.24%	100%	89.19%	2.57%	8.24%	100%
5         Cedar Av.         S/o Jurupa Av.         89.03%         2.54%         8.43%         100%         89.03%         2.54%         8.43%         100%           6         Rubidoux Bl.         s/o El Rivino Rd.         87.30%         2.79%         9.911%         100%         88.51%         2.57%         8.92%         100%           8         Rubidoux Bl.         s/o 20th St.         88.71%         2.57%         8.72%         100%         88.57%         2.60%         8.77%         100%           9         Rubidoux Bl.         s/o 26th St.         88.63%         2.60%         8.77%         100%         88.63%         2.60%         8.77%         100%         88.63%         2.60%         8.77%         100%           10         Rubidoux Bl.         s/o 26th St.         88.63%         2.60%         8.77%         100%         88.67%         2.60%         8.77%         100%           11         Rubidoux Bl.         s/o 28th St.         88.87%         2.48%         7.65%         100%         89.87%         2.48%         7.65%         100%           13         Rubidoux Bl.         s/o 34th St.         89.85%         2.48%         7.67%         100%         89.87%         2.48%         7.65%	3	Cedar Av.	s/o Slover Av.	89.14%	2.56%	8.30%	100%	89.14%	2.56%	8.30%	100%
6         Rubidoux Bl.         s/o El Rivino Rd.         87.30%         2.79%         9.91%         100%         88.51%         2.57%         8.92%         100%           7         Rubidoux Bl.         s/o Production Circle         88.07%         2.62%         9.31%         100%         88.65%         2.53%         8.81%         100%           9         Rubidoux Bl.         s/o 24th St.         88.67%         2.60%         8.77%         100%         88.63%         2.60%         8.77%         100%         88.63%         2.60%         8.77%         100%         88.63%         2.60%         8.77%         100%         88.63%         2.60%         8.77%         100%         88.63%         2.60%         8.77%         100%         88.63%         2.60%         8.70%         100%         88.67%         2.60%         8.70%         100%         88.70%         2.60%         8.70%         100%         88.70%         2.60%         8.70%         100%         88.70%         2.40%         7.65%         100%         88.70%         2.40%         7.65%         100%         89.87%         2.44%         7.65%         100%         89.87%         2.44%         7.65%         100%         89.85%         2.48%         7.65%         100% <td>4</td> <td>Cedar Av.</td> <td>s/o Santa Ana Av.</td> <td>88.99%</td> <td>2.57%</td> <td>8.44%</td> <td>100%</td> <td>88.99%</td> <td>2.57%</td> <td>8.44%</td> <td>100%</td>	4	Cedar Av.	s/o Santa Ana Av.	88.99%	2.57%	8.44%	100%	88.99%	2.57%	8.44%	100%
7         Rubidoux BI.         s/o Production Circle         88.07%         2.62%         9.31%         100%         88.65%         2.53%         8.81%         100%           8         Rubidoux BI.         s/o 24th St.         88.67%         2.50%         8.77%         100%         88.57%         2.60%         8.77%         100%         88.67%         2.60%         8.77%         100%         88.67%         2.60%         8.77%         100%         88.67%         2.60%         8.77%         100%         88.67%         2.60%         8.77%         100%         88.67%         2.60%         8.70%         100%         88.67%         2.60%         8.70%         100%         88.67%         2.60%         8.70%         100%         88.67%         2.60%         8.70%         100%         88.67%         2.60%         8.70%         100%         89.87%         2.48%         7.65%         100%         89.87%         2.48%         7.65%         100%         89.87%         2.48%         7.65%         100%         89.87%         2.48%         7.65%         100%         89.87%         2.48%         7.65%         100%         89.87%         2.48%         7.65%         100%         89.87%         2.45%         7.67%         100%         <	5	Cedar Av.	s/o Jurupa Av.	89.03%	2.54%	8.43%	100%	89.03%	2.54%	8.43%	100%
8         Rubidoux Bl.         s/o 20th St.         88.71%         2.57%         8.72%         100%         88.57%         2.60%         8.82%         100%           9         Rubidoux Bl.         s/o 24th St.         88.63%         2.60%         8.77%         100%         88.63%         2.60%         8.77%         100%         88.63%         2.60%         8.77%         100%         88.67%         2.60%         8.70%         100%         88.67%         2.60%         8.70%         100%         88.67%         2.60%         8.70%         100%         88.70%         2.60%         8.70%         100%         88.70%         2.60%         8.70%         100%         89.87%         2.48%         7.65%         100%         89.87%         2.48%         7.65%         100%         89.87%         2.48%         7.65%         100%         89.87%         2.48%         7.65%         100%         89.87%         2.48%         7.65%         100%         89.87%         2.48%         7.65%         100%         89.87%         2.48%         7.65%         100%         89.87%         2.48%         7.65%         100%         89.87%         2.48%         7.65%         100%         89.87%         2.48%         7.45%         100%         89.84%	6		s/o El Rivino Rd.	87.30%	2.79%	9.91%	100%		2.57%	8.92%	100%
9         Rubidoux Bl.         s/o 24th St.         88.63%         2.60%         8.77%         100%         88.63%         2.60%         8.77%         100%           10         Rubidoux Bl.         s/o 26th St.         88.67%         2.60%         8.74%         100%         88.67%         2.60%         8.74%         100%           11         Rubidoux Bl.         s/o SR-60 Fwy.         89.87%         2.48%         7.65%         100%         89.87%         2.48%         7.65%         100%           13         Rubidoux Bl.         s/o SK-60 Fwy.         89.87%         2.48%         7.65%         100%         89.85%         2.48%         7.65%         100%           14         Cactus Av.         n/o El Rivino Rd.         91.09%         2.45%         7.65%         100%         89.85%         2.48%         7.67%         100%           15         Riverside Av.         n/o I-10 Fwy.         89.83%         2.50%         7.67%         100%         89.33%         2.50%         7.67%         100%         89.33%         2.50%         7.67%         100%         89.33%         2.56%         8.08%         100%         89.33%         2.56%         8.08%         100%         89.33%         2.56%         8.08%	7	Rubidoux Bl.	s/o Production Circle	88.07%	2.62%	9.31%	100%	88.65%	2.53%	8.81%	100%
9         Rubidoux Bl.         s/o 24th St.         88.63%         2.60%         8.77%         100%         88.63%         2.60%         8.77%         100%           10         Rubidoux Bl.         s/o 26th St.         88.67%         2.60%         8.74%         100%         88.67%         2.60%         8.74%         100%           11         Rubidoux Bl.         s/o SR-60 Fwy.         89.87%         2.48%         7.65%         100%         89.87%         2.48%         7.65%         100%           13         Rubidoux Bl.         s/o SK-60 Fwy.         89.87%         2.48%         7.65%         100%         89.85%         2.48%         7.65%         100%           14         Cactus Av.         n/o El Rivino Rd.         91.09%         2.45%         7.65%         100%         89.85%         2.48%         7.67%         100%           15         Riverside Av.         n/o I-10 Fwy.         89.83%         2.50%         7.67%         100%         89.33%         2.50%         7.67%         100%         89.33%         2.50%         7.67%         100%         89.33%         2.56%         8.08%         100%         89.33%         2.56%         8.08%         100%         89.33%         2.56%         8.08%	8	Rubidoux Bl.	s/o 20th St.	88.71%	2.57%	8.72%	100%	88.57%	2.60%	8.82%	100%
11       Rubidoux BI.       s/o 28th St.       88.70%       2.60%       8.70%       100%       88.70%       2.60%       8.70%       100%         12       Rubidoux BI.       s/o S4th St.       89.87%       2.48%       7.65%       100%       89.87%       2.48%       7.65%       100%         13       Rubidoux BI.       s/o 34th St.       89.85%       2.48%       7.67%       100%       89.85%       2.48%       7.65%       100%         14       Cactus Av.       n/o El Rivino Rd.       91.09%       2.21%       6.71%       100%       91.09%       2.21%       6.71%       100%         15       Riverside Av.       n/o I-10 Fwy.       89.83%       2.50%       7.45%       100%       89.83%       2.50%       7.67%       100%         16       Riverside Av.       n/o I-10 Fwy.       89.37%       2.56%       8.08%       100%       89.33%       2.50%       7.67%       100%         18       Riverside Av.       s/o Slover Av.       89.37%       2.56%       8.11%       100%       89.33%       2.56%       8.11%       100%         19       Riverside Av.       s/o Jurupa Av.       89.19%       2.57%       8.23%       100%       89.19%	9		s/o 24th St.	88.63%	2.60%	8.77%	100%	88.63%	2.60%	8.77%	100%
11         Rubidoux BI.         \$/o 28th St.         88.70%         2.60%         8.70%         100%         88.70%         2.60%         8.70%         100%           12         Rubidoux BI.         \$/o S8th-60 Fwy.         89.87%         2.48%         7.65%         100%         89.87%         2.48%         7.65%         100%           13         Rubidoux BI.         \$/o 34th St.         89.85%         2.48%         7.67%         100%         99.87%         2.48%         7.67%         100%           14         Cactus Av.         n/o El Rivino Rd.         91.09%         2.21%         6.71%         100%         91.09%         2.21%         6.71%         100%           15         Riverside Av.         n/o H-10 Fwy.         89.83%         2.50%         7.67%         100%         89.83%         2.50%         7.67%         100%           16         Riverside Av.         s/o I-10 Fwy.         89.37%         2.56%         8.08%         100%         89.83%         2.50%         8.08%         100%           18         Riverside Av.         s/o Slover Av.         89.19%         2.57%         8.23%         100%         89.19%         2.56%         8.11%         100%           19         Riversi	10	Rubidoux Bl.	s/o 26th St.	88.67%	2.60%	8.74%	100%	88.67%	2.60%	8.74%	100%
12         Rubidoux BI.         s/o SR-60 Fwy.         89.87%         2.48%         7.65%         100%         89.87%         2.48%         7.65%         100%           13         Rubidoux BI.         s/o 34th St.         89.85%         2.48%         7.67%         100%         89.85%         2.48%         7.67%         100%           14         Cactus Av.         n/o El Rivino Rd.         91.09%         2.21%         6.71%         100%         91.09%         2.24%         7.67%         100%           15         Riverside Av.         n/o I-10 Fwy.         89.83%         2.50%         7.67%         100%         89.33%         2.50%         7.67%         100%         89.33%         2.56%         8.08%         100%           18         Riverside Av.         s/o I-10 Fwy.         89.33%         2.56%         8.11%         100%         89.33%         2.56%         8.08%         100%           18         Riverside Av.         s/o Sobre Av.         89.33%         2.56%         8.11%         100%         89.33%         2.56%         8.11%         100%           19         Riverside Av.         s/o Jurapa Av.         89.19%         2.57%         8.23%         100%         89.19%         2.56%	11	Rubidoux Bl.					100%	88.70%	2.60%	8.70%	100%
13         Rubidoux Bl.         \$/o 34th St.         89.85%         2.48%         7.67%         100%         89.85%         2.48%         7.67%         100%           14         Cactus Av.         n/o El Rivino Rd.         91.09%         2.21%         6.71%         100%         91.09%         2.21%         6.71%         100%         91.09%         2.21%         6.71%         100%         91.09%         2.21%         6.71%         100%         91.09%         2.21%         6.71%         100%         91.09%         2.21%         6.71%         100%         90.09%         2.21%         6.71%         100%         90.09%         2.21%         6.71%         100%         100%         90.09%         2.25%         7.45%         100%         89.38%         2.50%         7.67%         100%         89.20%         2.50%         7.67%         100%         89.37%         2.56%         8.08%         100%         89.37%         2.56%         8.08%         100%         89.33%         2.56%         8.08%         100%         89.33%         2.56%         8.11%         100%         89.33%         2.56%         8.11%         100%         89.19%         2.57%         8.23%         100%         89.19%         2.57%         8.23%         1	12		· .								
14         Cactus Av.         n/o El Rivino Rd.         91.09%         2.21%         6.71%         100%         91.09%         2.21%         6.71%         100%           15         Rivera St.         n/o Market St.         90.09%         2.45%         7.45%         100%         90.09%         2.45%         7.45%         100%           16         Riverside Av.         n/o I-10 Fwy.         89.83%         2.50%         7.67%         100%         89.83%         2.56%         7.67%         100%           17         Riverside Av.         s/o I-10 Fwy.         89.37%         2.56%         8.08%         100%         89.33%         2.56%         8.08%           18         Riverside Av.         s/o Slover Av.         89.33%         2.56%         8.11%         100%         89.33%         2.56%         8.11%         100%           19         Riverside Av.         s/o Jurupa Av.         89.19%         2.57%         8.23%         100%         89.19%         2.57%         8.23%         100%           20         Riverside Av.         s/o Agua Mansa Rd.         89.64%         2.52%         7.84%         100%         89.64%         2.52%         7.84%         100%           21         Rancho Av.	13		•			l e				1	
15         Rivera St.         n/o Market St.         90.09%         2.45%         7.45%         100%         90.09%         2.45%         7.45%         100%           16         Riverside Av.         n/o I-10 Fwy.         89.83%         2.50%         7.67%         100%         89.83%         2.50%         7.67%         100%           17         Riverside Av.         s/o I-10 Fwy.         89.37%         2.56%         8.08%         100%         89.37%         2.56%         8.08%         100%           18         Riverside Av.         s/o Slover Av.         89.33%         2.56%         8.11%         100%         89.33%         2.56%         8.11%           19         Riverside Av.         s/o Santa Ana Av.         89.19%         2.57%         8.23%         100%         89.19%         2.57%         8.23%         100%           20         Riverside Av.         s/o Jurupa Av.         89.19%         2.56%         8.14%         100%         89.29%         2.56%         8.14%         100%           21         Rancho Av.         n/o Agua Mansa Rd.         89.77%         2.50%         7.73%         100%         89.64%         2.52%         7.84%         100%           23         Slover Av.		Cactus Av.		91.09%			100%				
16         Riverside Av.         n/o I-10 Fwy.         89.83%         2.50%         7.67%         100%         89.83%         2.50%         7.67%         100%           17         Riverside Av.         \$/o I-10 Fwy.         89.37%         2.56%         8.08%         100%         89.37%         2.56%         8.08%         100%           18         Riverside Av.         \$/o Sonta Ana Av.         89.33%         2.56%         8.11%         100%         89.33%         2.56%         8.11%         100%           19         Riverside Av.         \$/o Santa Ana Av.         89.19%         2.57%         8.23%         100%         89.19%         2.56%         8.114         100%           20         Riverside Av.         \$/o Jurupa Av.         89.29%         2.56%         8.14%         100%           21         Rancho Av.         \$/o Agua Mansa Rd.         89.64%         2.52%         7.84%         100%         89.29%         2.56%         8.14%         100%           22         Rancho Av.         \$/o Agua Mansa Rd.         89.77%         2.50%         7.73%         100%         89.64%         2.52%         7.84%         100%           23         Slover Av.         \$/o Cedar Av.         90.17%         2.43	15		•								
17         Riverside Av.         s/o I-10 Fwy.         89.37%         2.56%         8.08%         100%         89.37%         2.56%         8.08%         100%         89.37%         2.56%         8.08%         100%           18         Riverside Av.         s/o Santa Ana Av.         89.33%         2.56%         8.11%         100%         89.33%         2.56%         8.11%         100%           20         Riverside Av.         s/o Jurupa Av.         89.299%         2.56%         8.14%         100%         89.29%         2.56%         8.14%         100%         89.29%         2.56%         8.14%         100%         89.29%         2.56%         8.14%         100%         89.29%         2.56%         8.14%         100%         89.29%         2.56%         8.14%         100%         89.29%         2.56%         8.14%         100%         89.29%         2.56%         8.14%         100%         89.29%         2.56%         7.84%         100%         89.29%         2.50%         7.73%         100%         89.29%         2.50%         7.73%         100%         89.77%         2.50%         7.73%         100%         89.27%         2.50%         7.73%         100%         2.50%         7.73%         100%         89.29% <td></td> <td></td> <td>•</td> <td></td> <td></td> <td></td> <td>100%</td> <td></td> <td></td> <td></td> <td></td>			•				100%				
18         Riverside Av.         s/o Slover Av.         89.33%         2.56%         8.11%         100%         89.33%         2.56%         8.11%         100%           19         Riverside Av.         s/o Santa Ana Av.         89.19%         2.57%         8.23%         100%         89.19%         2.57%         8.23%         100%           20         Riverside Av.         s/o Jurupa Av.         89.29%         2.56%         8.14%         100%         89.29%         2.56%         8.14%         100%         89.29%         2.56%         8.14%         100%         89.29%         2.56%         8.14%         100%         89.29%         2.56%         8.14%         100%         89.29%         2.56%         8.14%         100%         89.29%         2.56%         8.14%         100%         89.29%         2.56%         8.14%         100%         89.29%         2.56%         7.84%         100%         89.29%         2.56%         7.84%         100%         89.27%         2.50%         7.73%         100%         89.27%         2.50%         7.73%         100%         89.17%         2.43%         7.40%         100%         90.17%         2.43%         7.40%         100%         89.27%         2.25%         8.24%         100% <td>17</td> <td></td> <td>•</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	17		•								
19         Riverside Av.         \$/o Santa Ana Av.         89.19%         2.57%         8.23%         100%         89.19%         2.57%         8.23%         100%           20         Riverside Av.         \$/o Jurupa Av.         89.29%         2.56%         8.14%         100%         89.29%         2.56%         8.14%         100%           21         Rancho Av.         n/o Agua Mansa Rd.         89.64%         2.52%         7.84%         100%         89.64%         2.52%         7.84%         100%           22         Rancho Av.         \$/o Agua Mansa Rd.         89.77%         2.50%         7.73%         100%         89.77%         2.50%         7.73%         100%           23         Slover Av.         w/o Cedar Av.         90.17%         2.43%         7.40%         100%         89.95%         2.49%         7.56%         100%           24         Slover Av.         w/o Riverside Av.         89.95%         2.49%         7.56%         100%         89.95%         2.49%         7.56%         100%           25         Santa Ana Av.         w/o Riverside Av.         90.03%         2.47%         7.50%         100%         90.03%         2.47%         7.50%         100%         90.03%         2.47%	18		s/o Slover Av.				100%	89.33%	2.56%		
20         Riverside Av.         \$/o Jurupa Av.         89.29%         2.56%         8.14%         100%         89.29%         2.56%         8.14%         100%           21         Rancho Av.         n/o Agua Mansa Rd.         89.64%         2.52%         7.84%         100%         89.64%         2.52%         7.84%         100%           22         Rancho Av.         \$/o Agua Mansa Rd.         89.77%         2.50%         7.73%         100%         89.77%         2.50%         7.73%         100%           23         Slover Av.         w/o Riverside Av.         89.95%         2.49%         7.56%         100%         89.95%         2.49%         7.56%         100%           25         Santa Ana Av.         w/o Cedar Av.         89.20%         2.55%         8.24%         100%         89.20%         2.55%         8.24%         100%           26         Santa Ana Av.         w/o Riverside Av.         90.03%         2.47%         7.50%         100%         90.03%         2.47%         7.50%         100%         90.03%         2.47%         7.50%         100%         90.03%         2.47%         7.50%         100%         90.03%         2.47%         7.50%         100%         83.09%         3.07% <td< td=""><td></td><td></td><td>· .</td><td></td><td></td><td></td><td></td><td></td><td></td><td>1</td><td></td></td<>			· .							1	
21         Rancho Av.         n/o Agua Mansa Rd.         89.64%         2.52%         7.84%         100%         89.64%         2.52%         7.84%         100%           22         Rancho Av.         s/o Agua Mansa Rd.         89.77%         2.50%         7.73%         100%         89.77%         2.50%         7.73%         100%           23         Slover Av.         w/o Cedar Av.         90.17%         2.43%         7.40%         100%         90.17%         2.43%         7.40%         100%           24         Slover Av.         w/o Riverside Av.         89.95%         2.49%         7.56%         100%         89.95%         2.49%         7.56%         100%           25         Santa Ana Av.         w/o Cedar Av.         89.20%         2.55%         8.24%         100%         89.20%         2.55%         8.24%         100%           26         Santa Ana Av.         w/o Edar Av.         90.03%         2.47%         7.50%         100%         90.3%         2.47%         7.50%         100%           27         Jurupa Av.         w/o Cedar Av.         90.44%         2.37%         7.20%         100%         83.09%         3.07%         13.84%         100%           28         El Rivino	20		· .								
22         Rancho Av.         s/o Agua Mansa Rd.         89.77%         2.50%         7.73%         100%         89.77%         2.50%         7.73%         100%           23         Slover Av.         W/o Cedar Av.         90.17%         2.43%         7.40%         100%         90.17%         2.43%         7.40%         100%           24         Slover Av.         W/o Riverside Av.         89.95%         2.49%         7.56%         100%         89.95%         2.49%         7.56%         100%           25         Santa Ana Av.         W/o Cedar Av.         89.20%         2.55%         8.24%         100%         89.20%         2.55%         8.24%         100%           26         Santa Ana Av.         W/o Riverside Av.         90.03%         2.47%         7.50%         100%         90.03%         2.47%         7.50%         100%           27         Jurupa Av.         W/o Cedar Av.         90.44%         2.37%         7.20%         100%         90.44%         2.37%         7.20%         100%           28         El Rivino Rd.         e/o Cactus Av.         87.91%         2.45%         9.63%         100%         87.91%         2.45%         9.63%         100%         87.91%         2.45% <t< td=""><td></td><td></td><td>•</td><td></td><td></td><td>1</td><td></td><td></td><td></td><td>1</td><td></td></t<>			•			1				1	
23         Slover Av.         w/o Cedar Av.         90.17%         2.43%         7.40%         100%         90.17%         2.43%         7.40%         100%           24         Slover Av.         w/o Riverside Av.         89.95%         2.49%         7.56%         100%         89.95%         2.49%         7.56%         100%           25         Santa Ana Av.         w/o Riverside Av.         90.03%         2.47%         7.50%         100%         90.03%         2.47%         7.50%         100%         90.03%         2.47%         7.50%         100%         90.03%         2.47%         7.50%         100%         90.03%         2.47%         7.50%         100%         90.03%         2.47%         7.50%         100%         90.03%         2.47%         7.50%         100%         90.03%         2.47%         7.50%         100%         90.03%         2.47%         7.50%         100%         90.03%         2.47%         7.50%         100%         90.03%         2.47%         7.50%         100%         90.03%         2.47%         7.20%         100%         90.03%         2.47%         7.20%         100%         83.09%         3.07%         13.84%         100%         88.09%         2.55%         8.72%         100%	22		_			1	100%			1	
24         Slover Av.         w/o Riverside Av.         89.95%         2.49%         7.56%         100%         89.95%         2.49%         7.56%         100%           25         Santa Ana Av.         w/o Cedar Av.         89.20%         2.55%         8.24%         100%         89.20%         2.55%         8.24%         100%           26         Santa Ana Av.         w/o Riverside Av.         90.03%         2.47%         7.50%         100%         90.03%         2.47%         7.50%         100%           27         Jurupa Av.         w/o Cedar Av.         90.44%         2.37%         7.20%         100%         90.44%         2.37%         7.20%         100%           28         El Rivino Rd.         e/o Cactus Av.         87.91%         2.45%         9.63%         100%         87.91%         2.45%         9.63%         100%         87.91%         2.45%         9.63%         100%         87.91%         2.45%         9.63%         100%         87.91%         2.45%         9.63%         100%         87.91%         2.45%         9.63%         100%         87.91%         2.45%         9.63%         100%         87.91%         2.45%         9.63%         100%         86.66%         2.90%         10.45%			_								
25         Santa Ana Av.         w/o Cedar Av.         89.20%         2.55%         8.24%         100%         89.20%         2.55%         8.24%         100%           26         Santa Ana Av.         w/o Riverside Av.         90.03%         2.47%         7.50%         100%         90.03%         2.47%         7.50%         100%           27         Jurupa Av.         w/o Cedar Av.         90.44%         2.37%         7.20%         100%         90.44%         2.37%         7.20%         100%           28         El Rivino Rd.         e/o Cedar Av.         90.74%         2.00%         7.27%         100%         83.09%         3.07%         13.84%         100%           29         El Rivino Rd.         e/o Cactus Av.         87.91%         2.45%         9.63%         100%         87.91%         2.45%         9.63%         100%           30         El Rivino Rd.         e/o Hall Av.         93.26%         1.67%         5.07%         100%         83.26%         1.67%         5.07%         100%         86.66%         2.90%         10.45%         100%           31         Agua Mansa Rd.         e/o Brown Av.         88.57%         2.62%         8.82%         100%         86.66%         2.90%											
26         Santa Ana Av.         W/o Riverside Av.         90.03%         2.47%         7.50%         100%         90.03%         2.47%         7.50%         100%           27         Jurupa Av.         W/o Cedar Av.         90.44%         2.37%         7.20%         100%         90.44%         2.37%         7.20%         100%           28         El Rivino Rd.         e/o Cedar Av.         90.74%         2.00%         7.27%         100%         83.09%         3.07%         13.84%         100%           29         El Rivino Rd.         e/o Cactus Av.         87.91%         2.45%         9.63%         100%         87.91%         2.45%         9.63%         100%           30         El Rivino Rd.         e/o Hall Av.         93.26%         1.67%         5.07%         100%         83.26%         1.67%         5.07%         100%         83.26%         1.67%         5.07%         100%         86.66%         2.90%         10.45%         100%           31         Agua Mansa Rd.         e/o 20th St.         88.69%         2.59%         8.72%         100%         86.66%         2.90%         10.45%         100%           32         Agua Mansa Rd.         w/o Holly St.         89.56%         2.48%	25	Santa Ana Av.									
27         Jurupa Av.         w/o Cedar Av.         90.44%         2.37%         7.20%         100%         90.44%         2.37%         7.20%         100%           28         El Rivino Rd.         e/o Cedar Av.         90.74%         2.00%         7.27%         100%         83.09%         3.07%         13.84%         100%           29         El Rivino Rd.         e/o Cactus Av.         87.91%         2.45%         9.63%         100%         87.91%         2.45%         9.63%         100%           30         El Rivino Rd.         e/o Hall Av.         93.26%         1.67%         5.07%         100%         93.26%         1.67%         5.07%         100%           31         Agua Mansa Rd.         e/o 20th St.         88.69%         2.59%         8.72%         100%         86.66%         2.90%         10.45%         100%           32         Agua Mansa Rd.         w/o Brown Av.         88.57%         2.62%         8.82%         100%         86.66%         2.90%         10.45%         100%           33         Agua Mansa Rd.         w/o Holly St.         89.56%         2.48%         7.96%         100%         89.40%         2.51%         8.09%         100%           34         Agua M	26		· .								
28         El Rivino Rd.         e/o Cedar Av.         90.74%         2.00%         7.27%         100%         83.09%         3.07%         13.84%         100%           29         El Rivino Rd.         e/o Cactus Av.         87.91%         2.45%         9.63%         100%         87.91%         2.45%         9.63%         100%           30         El Rivino Rd.         e/o Hall Av.         93.26%         1.67%         5.07%         100%         93.26%         1.67%         5.07%         100%           31         Agua Mansa Rd.         e/o 20th St.         88.69%         2.59%         8.72%         100%         86.66%         2.90%         10.45%         100%           32         Agua Mansa Rd.         w/o Brown Av.         88.57%         2.62%         8.82%         100%         86.66%         2.90%         10.45%         100%           33         Agua Mansa Rd.         w/o Holly St.         89.56%         2.48%         7.96%         100%         89.40%         2.51%         8.09%         100%           34         Agua Mansa Rd.         e/o Holly St.         86.59%         3.00%         10.41%         100%         86.59%         3.00%         10.41%         100%         88.25%         2.66%	27										100%
29       El Rivino Rd.       e/o Cactus Av.       87.91%       2.45%       9.63%       100%       87.91%       2.45%       9.63%       100%         30       El Rivino Rd.       e/o Hall Av.       93.26%       1.67%       5.07%       100%       93.26%       1.67%       5.07%       100%         31       Agua Mansa Rd.       e/o 20th St.       88.69%       2.59%       8.72%       100%       86.66%       2.90%       10.45%       100%         32       Agua Mansa Rd.       w/o Brown Av.       88.57%       2.62%       8.82%       100%       86.66%       2.90%       10.45%       100%         33       Agua Mansa Rd.       w/o Holly St.       89.56%       2.48%       7.96%       100%       89.40%       2.51%       8.09%       100%         34       Agua Mansa Rd.       e/o Holly St.       86.59%       3.00%       10.41%       100%       86.59%       3.00%       10.41%       100%         35       Agua Mansa Rd.       e/o El Rivino Rd.       88.25%       2.66%       9.09%       100%       88.25%       2.66%       9.09%       100%         36       Agua Mansa Rd.       e/o Riverside Av.       89.09%       2.56%       8.36%       100%       <	28	•									
30         El Rivino Rd.         e/o Hall Av.         93.26%         1.67%         5.07%         100%         93.26%         1.67%         5.07%         100%           31         Agua Mansa Rd.         e/o 20th St.         88.69%         2.59%         8.72%         100%         86.66%         2.90%         10.45%         100%           32         Agua Mansa Rd.         w/o Brown Av.         88.57%         2.62%         8.82%         100%         86.66%         2.90%         10.45%         100%           33         Agua Mansa Rd.         w/o Holly St.         89.56%         2.48%         7.96%         100%         89.40%         2.51%         8.09%         100%           34         Agua Mansa Rd.         e/o Holly St.         86.59%         3.00%         10.41%         100%         86.59%         3.00%         10.41%         100%         86.59%         3.00%         10.41%         100%         86.59%         3.00%         10.41%         100%         86.59%         3.00%         10.41%         100%         86.59%         3.00%         10.41%         100%         86.59%         3.00%         10.41%         100%         88.25%         2.66%         9.09%         10.0%         88.25%         2.66%         9.09%<			-								
31         Agua Mansa Rd.         e/o 20th St.         88.69%         2.59%         8.72%         100%         86.66%         2.90%         10.45%         100%           32         Agua Mansa Rd.         w/o Brown Av.         88.57%         2.62%         8.82%         100%         86.66%         2.90%         10.45%         100%           33         Agua Mansa Rd.         w/o Holly St.         89.56%         2.48%         7.96%         100%         89.40%         2.51%         8.09%         100%           34         Agua Mansa Rd.         e/o Holly St.         86.59%         3.00%         10.41%         100%         86.59%         3.00%         10.41%         100%         86.59%         3.00%         10.41%         100%         86.59%         3.00%         10.41%         100%         86.59%         3.00%         10.41%         100%         86.59%         3.00%         10.41%         100%         86.59%         3.00%         10.41%         100%         86.59%         3.00%         10.41%         100%         88.25%         2.66%         9.09%         100%         88.25%         2.66%         9.09%         100%         88.25%         2.66%         9.09%         2.56%         8.36%         100%         89.09%	30		e/o Hall Av.			1					
32       Agua Mansa Rd.       w/o Brown Av.       88.57%       2.62%       8.82%       100%       86.66%       2.90%       10.45%       100%         33       Agua Mansa Rd.       w/o Holly St.       89.56%       2.48%       7.96%       100%       89.40%       2.51%       8.09%       100%         34       Agua Mansa Rd.       e/o Holly St.       86.59%       3.00%       10.41%       100%       86.59%       3.00%       10.41%       100%         35       Agua Mansa Rd.       e/o El Rivino Rd.       88.25%       2.66%       9.09%       100%       88.25%       2.66%       9.09%       100%         36       Agua Mansa Rd.       e/o Riverside Av.       89.09%       2.56%       8.36%       100%       89.09%       2.56%       8.36%       100%         37       20th St.       e/o Rubidoux Bl.       88.80%       2.57%       8.63%       100%       89.05%       2.54%       8.42%       100%         38       20th St.       e/o Agua Mansa Rd.       87.58%       2.71%       9.70%       100%       87.58%       2.71%       9.70%       100%         39       Market St.       e/o Hall Av.       88.12%       2.67%       9.21%       100%       88.1	31	Agua Mansa Rd.	·				100%				
33         Agua Mansa Rd.         w/o Holly St.         89.56%         2.48%         7.96%         100%         89.40%         2.51%         8.09%         100%           34         Agua Mansa Rd.         e/o Holly St.         86.59%         3.00%         10.41%         100%         86.59%         3.00%         10.41%         100%           35         Agua Mansa Rd.         e/o El Rivino Rd.         88.25%         2.66%         9.09%         100%         88.25%         2.66%         9.09%         100%           36         Agua Mansa Rd.         e/o Riverside Av.         89.09%         2.56%         8.36%         100%         89.09%         2.56%         8.36%         100%           37         20th St.         e/o Rubidoux Bl.         88.80%         2.57%         8.63%         100%         89.05%         2.54%         8.42%         100%           38         20th St.         e/o Agua Mansa Rd.         87.58%         2.71%         9.70%         100%         87.58%         2.71%         9.70%         100%         88.12%         2.67%         9.21%         100%	32	_	-	88.57%			100%				
34         Agua Mansa Rd.         e/o Holly St.         86.59%         3.00%         10.41%         100%         86.59%         3.00%         10.41%         100%           35         Agua Mansa Rd.         e/o El Rivino Rd.         88.25%         2.66%         9.09%         100%         88.25%         2.66%         9.09%         100%           36         Agua Mansa Rd.         e/o Riverside Av.         89.09%         2.56%         8.36%         100%         89.09%         2.56%         8.36%         100%           37         20th St.         e/o Rubidoux Bl.         88.80%         2.57%         8.63%         100%         89.05%         2.54%         8.42%         100%           38         20th St.         e/o Agua Mansa Rd.         87.58%         2.71%         9.70%         100%         87.58%         2.71%         9.70%         100%         88.12%         2.67%         9.21%         100%           39         Market St.         e/o Hall Av.         88.12%         2.67%         9.21%         100%         88.12%         2.67%         9.21%         100%		_									
35         Agua Mansa Rd.         e/o El Rivino Rd.         88.25%         2.66%         9.09%         100%         88.25%         2.66%         9.09%         100%           36         Agua Mansa Rd.         e/o Riverside Av.         89.09%         2.56%         8.36%         100%         89.09%         2.56%         8.36%         100%           37         20th St.         e/o Rubidoux Bl.         88.80%         2.57%         8.63%         100%         89.05%         2.54%         8.42%         100%           38         20th St.         e/o Agua Mansa Rd.         87.58%         2.71%         9.70%         100%         87.58%         2.71%         9.70%         100%           39         Market St.         e/o Hall Av.         88.12%         2.67%         9.21%         100%         88.12%         2.67%         9.21%         100%		_	-								
36       Agua Mansa Rd.       e/o Riverside Av.       89.09%       2.56%       8.36%       100%       89.09%       2.56%       8.36%       100%         37       20th St.       e/o Rubidoux Bl.       88.80%       2.57%       8.63%       100%       89.05%       2.54%       8.42%       100%         38       20th St.       e/o Agua Mansa Rd.       87.58%       2.71%       9.70%       100%       87.58%       2.71%       9.70%       100%         39       Market St.       e/o Hall Av.       88.12%       2.67%       9.21%       100%       88.12%       2.67%       9.21%       100%			·							1	
37     20th St.     e/o Rubidoux Bl.     88.80%     2.57%     8.63%     100%     89.05%     2.54%     8.42%     100%       38     20th St.     e/o Agua Mansa Rd.     87.58%     2.71%     9.70%     100%     87.58%     2.71%     9.70%     100%       39     Market St.     e/o Hall Av.     88.12%     2.67%     9.21%     100%     88.12%     2.67%     9.21%     100%			·								
38     20th St.     e/o Agua Mansa Rd.     87.58%     2.71%     9.70%     100%     87.58%     2.71%     9.70%     100%       39     Market St.     e/o Hall Av.     88.12%     2.67%     9.21%     100%     88.12%     2.67%     9.21%     100%		_									
39 Market St. e/o Hall Av. 88.12% 2.67% 9.21% 100% 88.12% 2.67% 9.21% 100%			•								
440   IVIAIKEL SL.   8/0 KIVETA SL.   88.32%   2.66%   9.02%   100%   88.32%   2.66%   9.02%   100%	40	Market St.	e/o Rivera St.	88.32%	2.66%	9.02%	100%	88.32%	2.66%	9.02%	100%

<sup>&</sup>lt;sup>1</sup> Source: Agua Mansa Commerce Park Specific Plan Traffic Impact Analysis, Ganddini Group, Inc. <sup>2</sup> Total of vehicle mix percentage values rounded to the nearest one-hundredth.



TABLE 6-9: OPENING YEAR 2020 WITH PROJECT ALT. 1 & 1A CONDITIONS VEHICLE MIX

ID	Roadway	Segment						Autos   Medium   Heavy   Trucks   Truck			
		J	Autos	Medium Trucks	Heavy Trucks	Total <sup>2</sup>	Autos		•	Total <sup>2</sup>	
1 C6	Cedar Av.	n/o I-10 Fwy.	89.84%	2.50%	7.66%	100%	89.84%	2.50%	7.66%	100%	
2 Ce	Cedar Av.	s/o I-10 Fwy.	89.28%	2.58%	8.14%	100%	89.28%	2.58%	8.14%	100%	
3 Ce	Cedar Av.	s/o Slover Av.	89.16%	2.60%	8.25%	100%	89.16%	2.60%	8.25%	100%	
4 Ce	Cedar Av.	s/o Santa Ana Av.	88.98%	2.62%	8.40%	100%	88.98%	2.62%	8.40%	100%	
5 Ce	Cedar Av.	s/o Jurupa Av.	88.96%	2.61%	8.43%	100%	88.96%	2.61%	8.43%	100%	
	Rubidoux Bl.	s/o El Rivino Rd.	87.22%	2.91%	9.87%	100%	88.15%	2.73%	9.12%	100%	
7 Ru	Rubidoux Bl.	s/o Production Circle	87.83%	2.77%	9.40%	100%	88.27%	2.70%	9.04%	100%	
8 Ru	Rubidoux Bl.	s/o 20th St.	88.72%	2.64%	8.63%	100%	88.62%	2.67%	8.72%	100%	
	Rubidoux Bl.	s/o 24th St.	88.65%	2.66%	8.69%	100%	88.65%	2.66%	8.69%	100%	
10 Ru	Rubidoux Bl.	s/o 26th St.	88.69%	2.66%	8.65%	100%	88.69%	2.66%	8.65%	100%	
11 Ru	Rubidoux Bl.	s/o 28th St.	88.74%	2.65%	8.61%	100%	88.74%	2.65%	8.61%	100%	
	Rubidoux Bl.	s/o SR-60 Fwy.	89.83%	2.50%	7.67%	100%	89.83%	2.50%	7.67%	100%	
	Rubidoux Bl.	s/o 34th St.	89.80%	2.50%	7.70%	100%	89.80%	2.50%	7.70%	100%	
	Cactus Av.	n/o El Rivino Rd.	90.27%	2.41%	7.32%	100%	90.27%	2.41%	7.32%	100%	
	Rivera St.	n/o Market St.	90.00%	2.47%	7.52%	100%	90.00%	2.47%	7.52%	100%	
	Riverside Av.	n/o I-10 Fwy.	89.81%	2.51%	7.68%	100%	89.81%	2.51%	7.68%	100%	
-	Riverside Av.	s/o I-10 Fwy.	89.36%	2.58%	8.06%	100%	89.36%	2.58%	8.06%	100%	
-	Riverside Av.	s/o Slover Av.	89.32%	2.58%	8.09%	100%	89.32%	2.58%	8.09%	100%	
-	Riverside Av.	s/o Santa Ana Av.	89.20%	2.60%	8.20%	100%	89.20%	2.60%	8.20%	100%	
	Riverside Av.	s/o Jurupa Av.	89.29%	2.59%	8.13%	100%	89.29%	2.59%	8.13%	100%	
	Rancho Av.	n/o Agua Mansa Rd.	89.61%	2.54%	7.85%	100%	89.61%	2.54%	7.85%	100%	
22 Ra	Rancho Av.	s/o Agua Mansa Rd.	89.75%	2.52%	7.74%	100%	89.75%	2.52%	7.74%	100%	
23 SI	lover Av.	w/o Cedar Av.	90.06%	2.46%	7.48%	100%	90.06%	2.46%	7.48%	100%	
	lover Av.	w/o Riverside Av.	89.95%	2.49%	7.57%	100%	89.95%	2.49%	7.57%	100%	
25 Sa	anta Ana Av.	w/o Cedar Av.	89.12%	2.62%	8.27%	100%	89.12%	2.62%	8.27%	100%	
26 Sa	anta Ana Av.	w/o Riverside Av.	90.00%	2.47%	7.52%	100%	90.00%	2.47%	7.52%	100%	
27 Ju	urupa Av.	w/o Cedar Av.	90.15%	2.44%	7.41%	100%	90.15%	2.44%	7.41%	100%	
28 EI	I Rivino Rd.	e/o Cedar Av.	89.73%	2.40%	7.87%	100%	85.29%	3.08%	11.62%	100%	
29 EI	I Rivino Rd.	e/o Cactus Av.	86.89%	2.85%	10.26%	100%	86.89%	2.85%	10.26%	100%	
30 EI	I Rivino Rd.	e/o Hall Av.	92.48%	1.86%	5.66%	100%	92.48%	1.86%	5.66%	100%	
31 Ag	Agua Mansa Rd.	e/o 20th St.	88.86%	2.65%	8.49%	100%	87.25%	2.92%	9.83%	100%	
	Agua Mansa Rd.	w/o Brown Av.	88.77%	2.67%	8.56%	100%	87.25%	2.92%	9.83%	100%	
	Agua Mansa Rd.	w/o Holly St.	88.74%	2.68%	8.58%	100%	89.16%	2.61%	8.23%	100%	
-	Agua Mansa Rd.	e/o Holly St.	89.22%	2.61%	8.17%	100%	86.97%	3.00%	10.03%	100%	
-	Agua Mansa Rd.	e/o El Rivino Rd.	88.30%	2.72%	8.98%	100%	88.30%	2.72%	8.98%	100%	
	Agua Mansa Rd.	e/o Riverside Av.	89.10%	2.60%	8.30%	100%	89.10%	2.60%	8.30%	100%	
	Oth St.	e/o Rubidoux Bl.	88.64%	2.67%	8.70%	100%	88.79%	2.64%	8.57%	100%	
	Oth St.	e/o Agua Mansa Rd.	87.89%	2.78%	9.33%	100%	87.89%	2.78%	9.33%	100%	
	Лarket St.	e/o Hall Av.	88.38%	2.71%	8.91%	100%	88.38%	2.71%	8.91%	100%	
	Market St.	e/o Rivera St.	88.49%	2.70%	8.82%	100%	88.49%	2.70%	8.82%	100%	

<sup>&</sup>lt;sup>1</sup> Source: Agua Mansa Commerce Park Specific Plan Traffic Impact Analysis, Ganddini Group, Inc. <sup>2</sup> Total of vehicle mix percentage values rounded to the nearest one-hundredth.



TABLE 6-10: OPENING YEAR 2020 WITH PROJECT ALT. 2 & 2A CONDITIONS VEHICLE MIX

Trucks   T				With	Project A	ternativ	e <b>2</b> ¹	With	Project Al	ternative	2A <sup>1</sup>
2   Cedar Av.   S/O I-10 Fwy.   89.37%   2.55%   8.08%   100%   89.37%   2.55%   8.08%   100%   3   Cedar Av.   S/O Slover Av.   89.31%   2.54%   8.15%   100%   89.31%   2.54%   8.15%   100%   89.31%   2.54%   8.15%   100%   89.31%   2.55%   8.26%   1000%   5   Cedar Av.   S/O Santa Ana Av.   89.18%   2.55%   8.26%   1000%   89.23%   2.53%   8.24%   1000%   89.23%   2.53%   8.24%   1000%   89.23%   2.55%   8.26%   1000%   80.23%   2.55%   8.26%   1000%   80.23%   2.55%   8.26%   1000%   80.23%   2.55%   8.26%   1000%   80.23%   2.55%   8.26%   1000%   80.23%   2.55%   8.26%   1000%   80.23%   2.55%   8.26%   1000%   80.23%   2.55%   8.26%   1000%   80.23%   2.53%   8.24%   1000%   80.23%   2.55%   8.26%   1000%   80.23%   2.53%   8.24%   1000%   80.23%   2.25%   8.24%   1000%   80.23%   2.25%   8.24%   1000%   80.23%   2.25%   8.24%   1000%   80.23%   2.25%   8.24%   1000%   80.23%   2.25%   8.24%   1000%   80.23%   2.25%   8.24%   1000%   80.23%   2.25%   8.24%   1000%   80.23%   2.25%   8.24%   1000%   80.23%   2.25%   8.24%   1000%   80.23%   2.25%   8.24%   1000%   80.23%   2.25%   8.24%   1000%   80.23%   2.25%   8.24%   1000%   80.23%   2.25%   8.24%   1000%   80.23%   2.25%   8.24%   1000%   80.23%   2.25%   8.24%   1000%   80.23%   2.25%   8.24%   1000%   80.23%   2.25%   8.23%   1000%   80.23%   2.25%   8.23%   1000%   8	ID	Roadway	Segment	Autos		•	Total <sup>2</sup>	Autos		•	Total <sup>2</sup>
3   Cedar Av.   \$/0 Slover Av.   \$89.31%   2.54%   8.15%   100%   89.31%   2.55%   8.15%   100%   4   Cedar Av.   \$/0 Santa Ana Av.   89.18%   2.55%   8.26%   100%   89.18%   2.55%   8.26%   100%   89.23%   2.55%   8.26%   100%   89.23%   2.55%   8.26%   100%   89.23%   2.55%   8.26%   100%   89.23%   2.53%   8.24%   100%   89.23%   2.53%   8.24%   100%   89.23%   2.53%   8.24%   100%   89.23%   2.53%   8.24%   100%   89.23%   2.53%   8.24%   100%   89.23%   2.55%   8.62%   100%   80.23%   2.55%   8.62%   100%   80.23%   2.55%   8.62%   100%   80.23%   2.55%   8.62%   100%   80.23%   2.55%   8.62%   100%   80.23%   2.55%   8.62%   100%   80.23%   2.55%   8.54%   100%   80.23%   2.55%   8.54%   100%   80.23%   2.55%   8.54%   100%   80.23%   2.56%   8.54%   100%   80.23%   2.56%   8.54%   100%   80.23%   2.56%   8.54%   100%   80.23%   2.56%   8.54%   100%   80.23%   2.56%   8.54%   100%   80.23%   2.56%   8.45%   100%   80.23%   2.56%   8.45%   100%   80.23%   2.56%   8.45%   100%   80.23%   2.56%   8.45%   100%   80.23%   2.56%   8.45%   100%   80.23%   2.56%   8.45%   100%   80.23%   2.56%   8.45%   100%   80.23%   2.56%   8.45%   100%   80.23%   2.56%   8.45%   100%   80.23%   2.56%   8.45%   100%   80.23%   2.56%   8.45%   100%   80.23%   2.56%   8.45%   100%   80.23%   2.24%   7.66%   100%   80.23%   2.24%   7.66%   100%   80.23%   2.24%   7.66%   100%   80.23%   2.24%   7.66%   100%   80.23%   2.24%   7.66%   100%   80.23%   2.25%   100%   80.23%   2.25%   100%   80.23%   2.25%   100%   80.23%   2.25%   100%   80.23%   2.25%   100%   80.23%   2.25%   100%   80.23%   2.25%   100%   80.23%   2.25%   100%   80.23%   2.25%   100%   80.23%   2.25%   100%   80.23%   2.25%   100%   80.23%   2.25%   8.13%   100%   80.23%   2.25%   100%   80.23%   2.25%   100%   80.23%   2.25%   100%   80.23%   2.25%   100%   80.23%   2.25%   8.13%   100%   80.23%   2.25%   100%   80.23%   2.25%   100%   80.23%   2.25%   100%   80.23%   2.25%   100%   80.23%   2.25%   100%   80.23%   2.25%   100%   80.23%   2.25%   100%   80.23%	1	Cedar Av.	n/o I-10 Fwy.	89.86%	2.50%	7.64%	100%	89.86%	2.50%	7.64%	100%
4         Cedar Av.         s/o Santa Ana Av.         89.18%         2.55%         8.26%         100%         89.18%         2.55%         8.26%         100%           5         Cedar Av.         s/o Jurupa Av.         89.23%         2.53%         8.24%         100%         88.23%         2.55%         8.24%         100%           6         Rubidoux Bl.         s/o Production Circle         88.47%         2.59%         8.93%         100%         88.83%         2.53%         8.54%         100%           8         Rubidoux Bl.         s/o 20th St.         88.98%         2.56%         8.46%         100%         88.83%         2.53%         8.54%         100           8         Rubidoux Bl.         s/o 24th St.         88.91%         2.58%         8.54%         100%         88.93%         2.58%         8.54%         100%           10         Rubidoux Bl.         s/o 26th St.         88.94%         2.58%         8.48%         100%         88.94%         2.58%         8.48%         100%         88.94%         2.58%         8.48%         100         89.48%         2.58%         8.48%         100         89.48%         2.58%         8.48%         100%         89.48         2.58%         8.48%	2	Cedar Av.	s/o I-10 Fwy.	89.37%	2.55%	8.08%	100%	89.37%	2.55%	8.08%	100%
5         Cedar Av.         \$/o Jurupa Av.         89.23%         2.53%         8.24%         100%         89.23%         2.53%         8.24%         1006           6         Rubidoux Bl.         \$/o Production Circle         87.90%         2.72%         9.37%         100%         88.82%         2.55%         8.62%         1000           8         Rubidoux Bl.         \$/o 20th St.         88.98%         2.56%         8.46%         100%         88.93%         2.53%         8.54%         100           9         Rubidoux Bl.         \$/o 26th St.         88.94%         2.58%         8.51%         100%         88.94%         2.58%         8.51%         100           10         Rubidoux Bl.         \$/o 26th St.         88.94%         2.58%         8.49%         100%         88.94%         2.58%         8.49%         100%           11         Rubidoux Bl.         \$/o 26th St.         88.94%         2.58%         8.48%         100%         88.94%         2.58%         8.48%         100           12         Rubidoux Bl.         \$/o 58r-60 Fwy.         89.87%         2.49%         7.64%         100%         89.87%         2.49%         7.64%         100           13         Rubidoux Bl.	3	Cedar Av.	s/o Slover Av.	89.31%	2.54%	8.15%	100%	89.31%	2.54%	8.15%	100%
6         Rubidoux BI.         s/o El Rivino Rd.         87.90%         2.72%         9.37%         100%         88.82%         2.55%         8.62%         1007           7         Rubidoux BI.         s/o Production Circle         88.47%         2.59%         8.93%         100%         88.93%         2.53%         8.54%         1000           8         Rubidoux BI.         s/o 24th St.         88.98%         2.56%         8.46%         100%         88.93%         2.58%         8.51%         100           10         Rubidoux BI.         s/o 26th St.         88.94%         2.58%         8.49%         100%         88.94%         2.58%         8.49%         100           11         Rubidoux BI.         s/o 26th St.         88.94%         2.58%         8.48%         100%         88.94%         2.58%         8.48%         100           12         Rubidoux BI.         s/o 58-60 Fwy.         89.87%         2.49%         7.66%         100%         89.86%         2.48%         7.66%         100         89.86%         2.48%         7.66%         100         89.86%         2.48%         7.66%         100         49.86%         2.48%         7.66%         100         49.86%         2.48%         7.66%	4	Cedar Av.	s/o Santa Ana Av.	89.18%	2.55%	8.26%	100%	89.18%	2.55%	8.26%	100%
7         Rubidoux BI.         s/o Production Circle         88.47%         2.59%         8.93%         100%         88.93%         2.53%         8.54%         100%           8         Rubidoux BI.         s/o 20th St.         88.98%         2.56%         8.46%         100%         88.888%         2.58%         8.51%         100           10         Rubidoux BI.         s/o 26th St.         88.91%         2.58%         8.49%         100%         88.94%         2.58%         8.49%         100           11         Rubidoux BI.         s/o 26th St.         88.94%         2.58%         8.49%         100%         88.94%         2.58%         8.49%         100           12         Rubidoux BI.         s/o 28th St.         88.94%         2.58%         8.48%         100%         88.94%         2.58%         8.48%         100           13         Rubidoux BI.         s/o 34th St.         89.86%         2.48%         7.66%         100%         89.86%         2.48%         7.66%         100%           14         Cactus Av.         n/o El Rivino Rd.         90.40%         2.38%         7.22%         100           15         Riverside Av.         n/o Harket St.         90.07%         2.46% <t< td=""><td>5</td><td>Cedar Av.</td><td>s/o Jurupa Av.</td><td>89.23%</td><td>2.53%</td><td>8.24%</td><td>100%</td><td>89.23%</td><td>2.53%</td><td>8.24%</td><td>100%</td></t<>	5	Cedar Av.	s/o Jurupa Av.	89.23%	2.53%	8.24%	100%	89.23%	2.53%	8.24%	100%
8         Rubidoux BI.         \$/0 20th St.         88.98%         2.56%         8.46%         100%         88.88%         2.58%         8.54%         1009           9         Rubidoux BI.         \$/0 24th St.         88.91%         2.58%         8.51%         100%         88.91%         2.58%         8.51%         100           10         Rubidoux BI.         \$/0 28th St.         88.94%         2.58%         8.49%         100%         88.94%         2.58%         8.49%         100           11         Rubidoux BI.         \$/0 28th St.         88.94%         2.58%         8.48%         100%         89.87%         2.49%         7.64%         100%         89.87%         2.49%         7.64%         100         89.87%         2.49%         7.66%         100           13         Rubidoux BI.         \$/0 34th St.         89.86%         2.48%         7.66%         100%         89.87%         2.49%         7.66%         100           14         Cactus AV.         n/o El Rivierio Rd.         90.07%         2.46%         7.47%         100%           15         Riverside AV.         n/o I-10 Fwy.         89.83%         2.50%         7.67%         100%         89.83%         2.55%         8.01%	6	Rubidoux Bl.	s/o El Rivino Rd.	87.90%	2.72%	9.37%	100%	88.82%	2.55%	8.62%	100%
9         Rubidoux BI.         \$/0 24th St.         88.91%         2.58%         8.51%         100%         88.91%         2.58%         8.51%         100%           10         Rubidoux BI.         \$/0 26th St.         88.94%         2.58%         8.49%         100%         88.94%         2.58%         8.49%         100%           11         Rubidoux BI.         \$/0 28th St.         88.94%         2.58%         8.48%         100%         89.94%         2.58%         8.48%         100%         89.94%         2.58%         8.48%         100%         89.87%         2.49%         7.64%         100%           12         Rubidoux BI.         \$/0 54th St.         89.86%         2.48%         7.66%         100%         89.86%         2.48%         7.66%         100%           14         Cactus Av.         n/o El Rivino Rd.         90.40%         2.38%         7.22%         100%         90.40%         2.38%         7.22%         100%           15         Riverside Av.         n/o I-10 Fwy.         89.83%         2.50%         7.67%         100%         89.83%         2.50%         7.67%         100%           16         Riverside Av.         \$/0 Flore W.         89.44%         2.55%         8.01% <td>7</td> <td>Rubidoux Bl.</td> <td>s/o Production Circle</td> <td>88.47%</td> <td>2.59%</td> <td>8.93%</td> <td>100%</td> <td>88.93%</td> <td>2.53%</td> <td>8.54%</td> <td>100%</td>	7	Rubidoux Bl.	s/o Production Circle	88.47%	2.59%	8.93%	100%	88.93%	2.53%	8.54%	100%
10   Rubidoux Bl.   S/o 26th St.   88.94%   2.58%   8.49%   100%   88.94%   2.58%   8.49%   1009   1018   1019	8	Rubidoux Bl.	s/o 20th St.	88.98%	2.56%	8.46%	100%	88.88%	2.58%	8.54%	100%
Rubidoux Bl.   S/O 28th St.   88.94%   2.58%   8.48%   100%   88.94%   2.58%   8.48%   100%	9	Rubidoux Bl.	s/o 24th St.	88.91%	2.58%	8.51%	100%	88.91%	2.58%	8.51%	100%
Rubidoux Bl.   S/O SR-60 Fwy.   89.87%   2.49%   7.64%   100%   89.87%   2.49%   7.64%   100%   10	10	Rubidoux Bl.	s/o 26th St.	88.94%	2.58%	8.49%	100%	88.94%	2.58%	8.49%	100%
13         Rubidoux Bl.         s/o 34th St.         89.86%         2.48%         7.66%         100%         89.86%         2.48%         7.66%         1007           14         Cactus Av.         n/o El Rivino Rd.         90.40%         2.38%         7.22%         100%         90.40%         2.38%         7.22%         1009           15         Riverside Av.         n/o I-10 Fwy.         89.40%         2.46%         7.47%         100%         90.07%         2.46%         7.47%         100           16         Riverside Av.         n/o I-10 Fwy.         89.84%         2.50%         7.67%         100%         89.44%         2.55%         8.01%         1009           17         Riverside Av.         s/o Slover Av.         89.44%         2.55%         8.01%         100%         89.44%         2.55%         8.01%         1009           18         Riverside Av.         s/o Sonta Ana Av.         89.30%         2.56%         8.13%         100%         89.44%         2.55%         8.04%         100%           20         Riverside Av.         s/o Agua Mansa Rd.         89.67%         2.52%         7.81%         100%         89.67%         2.52%         7.81%         100           21         R	11	Rubidoux Bl.	s/o 28th St.	88.94%	2.58%	8.48%	100%	88.94%	2.58%	8.48%	100%
14         Cactus Av.         n/o El Rivino Rd.         90.40%         2.38%         7.22%         100%         90.40%         2.38%         7.22%         100%           15         Rivera St.         n/o Market St.         90.07%         2.46%         7.47%         100%         90.07%         2.46%         7.47%         100%           16         Riverside Av.         n/o I-10 Fwy.         89.83%         2.50%         7.67%         100%         89.83%         2.50%         7.67%         100           18         Riverside Av.         s/o Slover Av.         89.44%         2.55%         8.01%         100%         89.44%         2.55%         8.01%         100%           19         Riverside Av.         s/o Santa Ana Av.         89.30%         2.56%         8.13%         100%         89.34%         2.55%         8.01%         100%           20         Riverside Av.         s/o Jurupa Av.         89.38%         2.56%         8.13%         100%         89.38%         2.56%         8.13%         100%           21         Rancho Av.         n/o Agua Mansa Rd.         89.67%         2.52%         7.81%         100%         89.67%         2.52%         7.81%         100%           22         Ra	12	Rubidoux Bl.	s/o SR-60 Fwy.	89.87%	2.49%	7.64%	100%	89.87%	2.49%	7.64%	100%
15         Rivera St.         n/o Market St.         90.07%         2.46%         7.47%         100%         90.07%         2.46%         7.47%         100%           16         Riverside Av.         n/o I-10 Fwy.         89.83%         2.50%         7.67%         100%         89.83%         2.50%         7.67%         1009           17         Riverside Av.         s/o I-10 Fwy.         89.44%         2.55%         8.01%         100%         89.44%         2.55%         8.01%         100           18         Riverside Av.         s/o Sonta Ana Av.         89.41%         2.55%         8.04%         100%         89.41%         2.55%         8.04%         100%           19         Riverside Av.         s/o Surupa Av.         89.38%         2.56%         8.13%         100%         89.34%         2.56%         8.07%         100%           20         Riverside Av.         s/o Jurupa Av.         89.38%         2.56%         8.07%         100%         89.38%         2.56%         8.07%         100%           21         Rancho Av.         n/o Agua Mansa Rd.         89.67%         2.52%         7.81%         100%         89.79%         2.50%         7.71%         100%         89.79%         2.50%	13	Rubidoux Bl.	s/o 34th St.	89.86%	2.48%	7.66%	100%	89.86%	2.48%	7.66%	100%
15   Rivera St.   n/o Market St.   90.07%   2.46%   7.47%   100%   90.07%   2.46%   7.47%   1009   106   Riverside Av.   n/o I-10 Fwy.   89.83%   2.50%   7.67%   100%   89.83%   2.50%   7.67%   1009   17   Riverside Av.   s/o I-10 Fwy.   89.44%   2.55%   8.01%   100%   89.44%   2.55%   8.01%   1009   18   Riverside Av.   s/o Slover Av.   89.41%   2.55%   8.04%   100%   89.44%   2.55%   8.04%   1009   19   Riverside Av.   s/o Santa Ana Av.   89.30%   2.56%   8.13%   100%   89.34%   2.56%   8.13%   1009   20   Riverside Av.   s/o Jurupa Av.   89.38%   2.56%   8.13%   100%   89.38%   2.56%   8.07%   1009   21   Rancho Av.   n/o Agua Mansa Rd.   89.67%   2.52%   7.81%   100%   89.67%   2.52%   7.81%   1009   22   Rancho Av.   s/o Agua Mansa Rd.   89.67%   2.52%   7.81%   100%   89.79%   2.50%   7.71%   1009   23   Slover Av.   w/o Cedar Av.   90.11%   2.45%   7.44%   100%   90.11%   2.45%   7.44%   1009   24   Slover Av.   w/o Riverside Av.   89.95%   2.49%   7.57%   100%   89.95%   2.49%   7.57%   1009   25   Santa Ana Av.   w/o Riverside Av.   89.34%   2.54%   8.12%   100%   89.34%   2.54%   8.12%   1009   22   Iurupa Av.   w/o Cedar Av.   90.29%   2.40%   7.52%   100%   90.00%   2.47%   7.52%   1009   28   El Rivino Rd.   e/o Cedar Av.   90.37%   2.22%   7.41%   100%   85.50%   2.87%   11.63%   1009   29   El Rivino Rd.   e/o Cactus Av.   88.36%   2.46%   9.18%   100%   87.45%   2.80%   9.75%   1009   31   Agua Mansa Rd.   e/o Ball Av.   92.66%   1.82%   5.52%   100%   87.45%   2.80%   9.75%   1009   33   Agua Mansa Rd.   e/o Ball Av.   92.66%   1.82%   5.52%   100%   87.45%   2.80%   9.75%   1009   34   Agua Mansa Rd.   e/o Holly St.   89.62%   2.48%   7.90%   100%   88.57%   2.63%   8.00%   1009   35   Agua Mansa Rd.   e/o El Rivino Rd.   89.27%   2.53%   8.48%   100%   89.27%   2.54%   8.18%   1009   36   Agua Mansa Rd.   e/o Riverside Av.   89.27%   2.54%   8.18%   100%   89.27%   2.54%   8.18%   100%   89.27%   2.54%   8.18%   1009   36   Agua Mansa Rd.   e/o Riverside Av.   89.27%   2.54%   8.18%   100%	14	Cactus Av.	n/o El Rivino Rd.	90.40%	2.38%	7.22%	100%	90.40%	2.38%	7.22%	100%
17         Riverside Av.         \$/0\$ I-10 Fwy.         \$9.44%         2.55%         8.01%         100%         \$9.44%         2.55%         8.01%         100%         \$9.44%         2.55%         8.01%         100%         \$9.44%         2.55%         8.01%         100%         \$9.44%         2.55%         8.04%         100%         \$9.44%         2.55%         8.04%         100%         \$9.44%         2.55%         8.04%         100%         \$9.44%         2.55%         8.04%         100%         \$9.44%         2.55%         8.04%         100%         \$9.44%         2.55%         8.04%         100%         \$9.30%         2.56%         8.03%         100%         \$9.30%         2.56%         8.13%         100%         \$9.30%         2.56%         8.13%         100%         \$9.30%         2.56%         8.13%         100%         \$9.30%         2.56%         8.13%         100%         \$9.30%         2.56%         8.13%         100%         \$9.30%         2.56%         8.07%         100%         \$9.30%         2.56%         8.07%         100%         \$9.67%         2.52%         7.81%         100%         \$9.67%         2.52%         7.81%         100%         \$9.67%         2.52%         7.81%         100%         \$9.67% </td <td>15</td> <td></td> <td>n/o Market St.</td> <td>90.07%</td> <td>2.46%</td> <td>7.47%</td> <td>100%</td> <td>90.07%</td> <td>2.46%</td> <td>7.47%</td> <td>100%</td>	15		n/o Market St.	90.07%	2.46%	7.47%	100%	90.07%	2.46%	7.47%	100%
17         Riverside Av.         \$/0\$ I-10 Fwy.         \$9.44%         2.55%         8.01%         100%         \$9.44%         2.55%         8.01%         100%         \$9.44%         2.55%         8.01%         100%         \$9.44%         2.55%         8.01%         100%         \$9.44%         2.55%         8.04%         100%         \$9.44%         2.55%         8.04%         100%         \$9.44%         2.55%         8.04%         100%         \$9.44%         2.55%         8.04%         100%         \$9.44%         2.55%         8.04%         100%         \$9.44%         2.55%         8.04%         100%         \$9.30%         2.56%         8.03%         100%         \$9.30%         2.56%         8.13%         100%         \$9.30%         2.56%         8.13%         100%         \$9.30%         2.56%         8.07%         100%         \$9.30%         2.56%         8.07%         100%         \$9.30%         2.56%         8.07%         100%         \$9.30%         2.56%         8.07%         100%         \$9.67%         2.52%         7.81%         100%         \$9.67%         2.52%         7.81%         100%         \$9.67%         2.52%         7.81%         100%         \$9.67%         2.52%         7.81%         100%         \$9.67% </td <td>16</td> <td></td> <td>·</td> <td></td> <td></td> <td></td> <td>100%</td> <td></td> <td></td> <td></td> <td>100%</td>	16		·				100%				100%
18         Riverside Av.         \$/o Slover Av.         89.41%         2.55%         8.04%         100%         89.41%         2.55%         8.04%         100%           19         Riverside Av.         \$/o Santa Ana Av.         89.30%         2.56%         8.13%         100%         89.30%         2.56%         8.13%         100%           20         Riverside Av.         \$/o Jurupa Av.         89.38%         2.56%         8.07%         100%         89.38%         2.56%         8.07%         100%           21         Rancho Av.         n/o Agua Mansa Rd.         89.67%         2.52%         7.81%         100%         89.67%         2.52%         7.81%         100%           22         Rancho Av.         \$/o Agua Mansa Rd.         89.79%         2.50%         7.71%         100%         89.67%         2.52%         7.81%         100%           23         Slover Av.         \$/o Agua Mansa Rd.         89.79%         2.50%         7.71%         100%         89.11%         2.45%         7.44%         100%         90.11%         2.45%         7.44%         100%         90.11%         2.45%         7.44%         100%         89.59%         2.49%         7.57%         100%         89.59%         2.49%         <	17	Riverside Av.	·	89.44%		8.01%	100%	89.44%	2.55%	8.01%	100%
19   Riverside Av.   S/o Santa Ana Av.   89.30%   2.56%   8.13%   100%   89.30%   2.56%   8.13%   100%   20   Riverside Av.   S/o Jurupa Av.   89.38%   2.56%   8.07%   100%   89.38%   2.56%   8.07%   100%   21   Rancho Av.   n/o Agua Mansa Rd.   89.67%   2.52%   7.81%   100%   89.67%   2.52%   7.81%   100%   2.52%   7.81%   100%   2.52%   7.81%   100%   2.52%   7.81%   100%   2.52%   7.81%   100%   2.52%   7.81%   100%   2.52%   7.81%   100%   2.52%   7.81%   100%   2.52%   7.71%   100%   2.52%   7.71%   100%   2.45%   7.44%   100%   2.45%   7.44%   100%   2.45%   7.44%   100%   2.45%   7.44%   100%   2.45%   7.44%   100%   2.45%   7.44%   100%   2.45%   7.57%   100%   2.45%   7.57%   100%   2.45%   7.57%   100%   2.45%   7.57%   100%   2.45%   7.57%   100%   2.45%   7.57%   100%   2.45%   7.57%   100%   2.45%   7.52%   100%   2.45%   7.57%   100%   2.45%   7.52%   100%   2.45%	18		·	1	2.55%		100%		2.55%		100%
20         Riverside Av.         s/o Jurupa Av.         89.38%         2.56%         8.07%         100%         89.38%         2.56%         8.07%         100%           21         Rancho Av.         n/o Agua Mansa Rd.         89.67%         2.52%         7.81%         100%         89.67%         2.52%         7.81%         100%           22         Rancho Av.         s/o Agua Mansa Rd.         89.79%         2.50%         7.71%         100%         89.79%         2.50%         7.71%         100%           23         Slover Av.         w/o Cedar Av.         90.11%         2.45%         7.44%         100%         90.11%         2.45%         7.44%         100%         90.11%         2.45%         7.44%         100%         89.95%         2.49%         7.57%         100%         89.95%         2.49%         7.57%         100%         89.34%         2.54%         8.12%         100%         89.34%         2.54%         8.12%         100%         89.34%         2.54%         8.12%         100%         89.34%         2.54%         8.12%         100%         90.00%         2.47%         7.52%         100%         90.00%         2.47%         7.52%         100%         90.00%         2.47%         7.52%         10	19	Riverside Av.	s/o Santa Ana Av.	89.30%	2.56%	8.13%	100%	89.30%	2.56%	8.13%	100%
21         Rancho Av.         n/o Agua Mansa Rd.         89.67%         2.52%         7.81%         100%         89.67%         2.52%         7.81%         100%           22         Rancho Av.         s/o Agua Mansa Rd.         89.79%         2.50%         7.71%         100%         89.79%         2.50%         7.71%         100%           23         Slover Av.         w/o Cedar Av.         90.11%         2.45%         7.44%         100%         90.11%         2.45%         7.44%         100%           24         Slover Av.         w/o Riverside Av.         89.95%         2.49%         7.57%         100%         89.95%         2.49%         7.57%         100%           25         Santa Ana Av.         w/o Cedar Av.         89.34%         2.54%         8.12%         100%         89.34%         2.54%         8.12%         100%           26         Santa Ana Av.         w/o Riverside Av.         90.00%         2.47%         7.52%         100%         90.00%         2.47%         7.52%         100%           27         Jurupa Av.         w/o Cedar Av.         90.29%         2.40%         7.31%         100%         90.29%         2.40%         7.31%         100%           28         El Ri	20										100%
22         Rancho Av.         s/o Agua Mansa Rd.         89.79%         2.50%         7.71%         100%         89.79%         2.50%         7.71%         100%           23         Slover Av.         w/o Cedar Av.         90.11%         2.45%         7.44%         100%         90.11%         2.45%         7.44%         100%           24         Slover Av.         w/o Riverside Av.         89.95%         2.49%         7.57%         100%         89.95%         2.49%         7.57%         100%           25         Santa Ana Av.         w/o Cedar Av.         89.34%         2.54%         8.12%         100%         89.34%         2.54%         8.12%         100%           26         Santa Ana Av.         w/o Riverside Av.         90.00%         2.47%         7.52%         100%         90.00%         2.47%         7.52%         100%           27         Jurupa Av.         w/o Cedar Av.         90.29%         2.40%         7.31%         100%         90.29%         2.40%         7.31%         100%         90.29%         2.40%         7.31%         100%         85.50%         2.87%         11.63%         100%         2.81%         100%         88.36%         2.46%         9.18%         100%         88.36% <td><math>\vdash</math></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>100%</td>	$\vdash$										100%
23         Slover Av.         w/o Cedar Av.         90.11%         2.45%         7.44%         100%         90.11%         2.45%         7.44%         100%           24         Slover Av.         w/o Riverside Av.         89.95%         2.49%         7.57%         100%         89.95%         2.49%         7.57%         100%           25         Santa Ana Av.         w/o Cedar Av.         89.34%         2.54%         8.12%         100%         89.34%         2.54%         8.12%         100%           26         Santa Ana Av.         w/o Riverside Av.         90.00%         2.47%         7.52%         100%         90.00%         2.47%         7.52%         100%           27         Jurupa Av.         w/o Cedar Av.         90.29%         2.40%         7.31%         100%         90.29%         2.40%         7.31%         100%           28         El Rivino Rd.         e/o Cedar Av.         90.37%         2.22%         7.41%         100%         85.50%         2.87%         11.63%         100%           29         El Rivino Rd.         e/o Cactus Av.         88.36%         2.46%         9.18%         100%         88.36%         2.46%         9.18%         100%           30         El Rivi	22	Rancho Av.	_	1							100%
24         Slover Av.         w/o Riverside Av.         89.95%         2.49%         7.57%         100%         89.95%         2.49%         7.57%         100%           25         Santa Ana Av.         w/o Cedar Av.         89.34%         2.54%         8.12%         100%         89.34%         2.54%         8.12%         100%           26         Santa Ana Av.         w/o Riverside Av.         90.00%         2.47%         7.52%         100%         90.00%         2.47%         7.52%         100%           27         Jurupa Av.         w/o Cedar Av.         90.29%         2.40%         7.31%         100%         90.29%         2.40%         7.31%         100%           28         El Rivino Rd.         e/o Cedar Av.         90.37%         2.22%         7.41%         100%         85.50%         2.87%         11.63%         100%           29         El Rivino Rd.         e/o Cactus Av.         88.36%         2.46%         9.18%         100%         85.50%         2.87%         11.63%         100%           30         El Rivino Rd.         e/o Hall Av.         92.66%         1.82%         5.52%         100%         82.66%         1.82%         5.52%         100%           31         Agua	-		_	1							100%
25         Santa Ana Av.         w/o Cedar Av.         89.34%         2.54%         8.12%         100%         89.34%         2.54%         8.12%         100%         2.47%         7.52%         100%         2.47%         7.52%         100%         2.47%         7.52%         100%         90.00%         2.47%         7.52%         100%         90.00%         2.47%         7.52%         100%         90.00%         2.47%         7.52%         100%         90.00%         2.47%         7.52%         100%         90.00%         2.47%         7.52%         100%         90.00%         2.47%         7.52%         100%         90.00%         2.47%         7.52%         100%         90.00%         2.47%         7.52%         100%         90.00%         2.40%         7.31%         100%         90.29%         2.40%         7.31%         100%         90.29%         2.40%         7.31%         100%         90.29%         2.40%         7.31%         100%         90.29%         2.40%         7.31%         100%         90.29%         2.40%         7.31%         100%         80.29%         2.40%         9.18%         100%         80.29%         2.46%         9.18%         100%         80.24%         9.18%         100%         80.24%	24						100%				100%
26         Santa Ana Av.         w/o Riverside Av.         90.00%         2.47%         7.52%         100%         90.00%         2.47%         7.52%         100%           27         Jurupa Av.         w/o Cedar Av.         90.29%         2.40%         7.31%         100%         90.29%         2.40%         7.31%         100%           28         El Rivino Rd.         e/o Cedar Av.         90.37%         2.22%         7.41%         100%         85.50%         2.87%         11.63%         100%           29         El Rivino Rd.         e/o Cactus Av.         88.36%         2.46%         9.18%         100%         88.36%         2.46%         9.18%         100%           30         El Rivino Rd.         e/o Hall Av.         92.66%         1.82%         5.52%         100%         92.66%         1.82%         5.52%         100%           31         Agua Mansa Rd.         e/o 20th St.         88.99%         2.57%         8.44%         100%         87.45%         2.80%         9.75%         100%           32         Agua Mansa Rd.         w/o Holly St.         89.62%         2.48%         7.90%         100%         89.49%         2.50%         8.00%         100%           34         Agua	25	Santa Ana Av.		89.34%	2.54%	8.12%	100%	89.34%	2.54%		100%
28         El Rivino Rd.         e/o Cedar Av.         90.37%         2.22%         7.41%         100%         85.50%         2.87%         11.63%         100%           29         El Rivino Rd.         e/o Cactus Av.         88.36%         2.46%         9.18%         100%         88.36%         2.46%         9.18%         100%           30         El Rivino Rd.         e/o Hall Av.         92.66%         1.82%         5.52%         100%         92.66%         1.82%         5.52%         100%           31         Agua Mansa Rd.         e/o 20th St.         88.99%         2.57%         8.44%         100%         87.45%         2.80%         9.75%         100%           32         Agua Mansa Rd.         w/o Brown Av.         88.90%         2.59%         8.51%         100%         87.45%         2.80%         9.75%         100%           33         Agua Mansa Rd.         w/o Holly St.         89.62%         2.48%         7.90%         100%         89.49%         2.50%         8.00%         100%           34         Agua Mansa Rd.         e/o Holly St.         87.22%         2.90%         9.88%         100%         87.22%         2.90%         9.88%         100%           35         Agua	26	Santa Ana Av.	w/o Riverside Av.	90.00%	2.47%		100%	90.00%	2.47%	7.52%	100%
28         El Rivino Rd.         e/o Cedar Av.         90.37%         2.22%         7.41%         100%         85.50%         2.87%         11.63%         100%           29         El Rivino Rd.         e/o Cactus Av.         88.36%         2.46%         9.18%         100%         88.36%         2.46%         9.18%         100%           30         El Rivino Rd.         e/o Hall Av.         92.66%         1.82%         5.52%         100%         92.66%         1.82%         5.52%         100%           31         Agua Mansa Rd.         e/o 20th St.         88.99%         2.57%         8.44%         100%         87.45%         2.80%         9.75%         100%           32         Agua Mansa Rd.         w/o Brown Av.         88.90%         2.59%         8.51%         100%         87.45%         2.80%         9.75%         100%           33         Agua Mansa Rd.         w/o Holly St.         89.62%         2.48%         7.90%         100%         89.49%         2.50%         8.00%         100%           34         Agua Mansa Rd.         e/o Holly St.         87.22%         2.90%         9.88%         100%         87.22%         2.90%         9.88%         100%           35         Agua	27	Jurupa Av.	w/o Cedar Av.	90.29%	2.40%	7.31%	100%	90.29%	2.40%	7.31%	100%
29         El Rivino Rd.         e/o Cactus Av.         88.36%         2.46%         9.18%         100%         88.36%         2.46%         9.18%         100%           30         El Rivino Rd.         e/o Hall Av.         92.66%         1.82%         5.52%         100%         92.66%         1.82%         5.52%         100%           31         Agua Mansa Rd.         e/o 20th St.         88.99%         2.57%         8.44%         100%         87.45%         2.80%         9.75%         100%           32         Agua Mansa Rd.         w/o Brown Av.         88.90%         2.59%         8.51%         100%         87.45%         2.80%         9.75%         100%           33         Agua Mansa Rd.         w/o Holly St.         89.62%         2.48%         7.90%         100%         89.49%         2.50%         8.00%         100%           34         Agua Mansa Rd.         e/o Holly St.         87.22%         2.90%         9.88%         100%         87.22%         2.90%         9.88%         100%           35         Agua Mansa Rd.         e/o El Rivino Rd.         88.57%         2.63%         8.80%         100%         88.57%         2.63%         8.80%         100%           36	28						100%	85.50%	2.87%	11.63%	100%
30         El Rivino Rd.         e/o Hall Av.         92.66%         1.82%         5.52%         100%         92.66%         1.82%         5.52%         100%           31         Agua Mansa Rd.         e/o 20th St.         88.99%         2.57%         8.44%         100%         87.45%         2.80%         9.75%         100%           32         Agua Mansa Rd.         w/o Brown Av.         88.90%         2.59%         8.51%         100%         87.45%         2.80%         9.75%         100%           33         Agua Mansa Rd.         w/o Holly St.         89.62%         2.48%         7.90%         100%         89.49%         2.50%         8.00%         100%           34         Agua Mansa Rd.         e/o Holly St.         87.22%         2.90%         9.88%         100%         87.22%         2.90%         9.88%         100%           35         Agua Mansa Rd.         e/o El Rivino Rd.         88.57%         2.63%         8.80%         100%         88.57%         2.63%         8.80%         100%           36         Agua Mansa Rd.         e/o Riverside Av.         89.27%         2.54%         8.18%         100%         89.27%         2.54%         8.18%         100%           37	29	El Rivino Rd.	e/o Cactus Av.				100%		2.46%		100%
32         Agua Mansa Rd.         w/o Brown Av.         88.90%         2.59%         8.51%         100%         87.45%         2.80%         9.75%         100%           33         Agua Mansa Rd.         w/o Holly St.         89.62%         2.48%         7.90%         100%         89.49%         2.50%         8.00%         100%           34         Agua Mansa Rd.         e/o Holly St.         87.22%         2.90%         9.88%         100%         87.22%         2.90%         9.88%         100%           35         Agua Mansa Rd.         e/o El Rivino Rd.         88.57%         2.63%         8.80%         100%         88.57%         2.63%         8.80%         100%           36         Agua Mansa Rd.         e/o Riverside Av.         89.27%         2.54%         8.18%         100%         89.27%         2.54%         8.18%         100%           37         20th St.         e/o Rubidoux Bl.         89.05%         2.55%         8.40%         100%         89.24%         2.53%         8.23%         100%	30	El Rivino Rd.	e/o Hall Av.	92.66%	1.82%		100%		1.82%	5.52%	100%
32         Agua Mansa Rd.         w/o Brown Av.         88.90%         2.59%         8.51%         100%         87.45%         2.80%         9.75%         100%           33         Agua Mansa Rd.         w/o Holly St.         89.62%         2.48%         7.90%         100%         89.49%         2.50%         8.00%         100%           34         Agua Mansa Rd.         e/o Holly St.         87.22%         2.90%         9.88%         100%         87.22%         2.90%         9.88%         100%           35         Agua Mansa Rd.         e/o El Rivino Rd.         88.57%         2.63%         8.80%         100%         88.57%         2.63%         8.80%         100%           36         Agua Mansa Rd.         e/o Riverside Av.         89.27%         2.54%         8.18%         100%         89.27%         2.54%         8.18%         100%           37         20th St.         e/o Rubidoux Bl.         89.05%         2.55%         8.40%         100%         89.24%         2.53%         8.23%         100%	31	Agua Mansa Rd.	e/o 20th St.	88.99%	2.57%	8.44%	100%	87.45%	2.80%	9.75%	100%
33       Agua Mansa Rd.       w/o Holly St.       89.62%       2.48%       7.90%       100%       89.49%       2.50%       8.00%       100%         34       Agua Mansa Rd.       e/o Holly St.       87.22%       2.90%       9.88%       100%       87.22%       2.90%       9.88%       100%         35       Agua Mansa Rd.       e/o El Rivino Rd.       88.57%       2.63%       8.80%       100%       88.57%       2.63%       8.80%       100%         36       Agua Mansa Rd.       e/o Riverside Av.       89.27%       2.54%       8.18%       100%       89.27%       2.54%       8.18%       100%         37       20th St.       e/o Rubidoux Bl.       89.05%       2.55%       8.40%       100%       89.24%       2.53%       8.23%       100%	32	_		88.90%	2.59%	8.51%	100%	87.45%	2.80%	9.75%	100%
34       Agua Mansa Rd.       e/o Holly St.       87.22%       2.90%       9.88%       100%       87.22%       2.90%       9.88%       100%         35       Agua Mansa Rd.       e/o El Rivino Rd.       88.57%       2.63%       8.80%       100%       88.57%       2.63%       8.80%       100%         36       Agua Mansa Rd.       e/o Riverside Av.       89.27%       2.54%       8.18%       100%       89.27%       2.54%       8.18%       100%         37       20th St.       e/o Rubidoux Bl.       89.05%       2.55%       8.40%       100%       89.24%       2.53%       8.23%       100%	33	_	w/o Holly St.				100%				100%
35         Agua Mansa Rd.         e/o El Rivino Rd.         88.57%         2.63%         8.80%         100%         88.57%         2.63%         8.80%         100%           36         Agua Mansa Rd.         e/o Riverside Av.         89.27%         2.54%         8.18%         100%         89.27%         2.54%         8.18%         100%           37         20th St.         e/o Rubidoux Bl.         89.05%         2.55%         8.40%         100%         89.24%         2.53%         8.23%         100%	_	_	•								100%
36     Agua Mansa Rd.     e/o Riverside Av.     89.27%     2.54%     8.18%     100%     89.27%     2.54%     8.18%     100%       37     20th St.     e/o Rubidoux Bl.     89.05%     2.55%     8.40%     100%     89.24%     2.53%     8.23%     100%	_		·								100%
37 20th St. e/o Rubidoux Bl. 89.05% 2.55% 8.40% 100% 89.24% 2.53% 8.23% 100%	$\vdash$		•								100%
	$\vdash$	_									100%
	38	20th St.	e/o Agua Mansa Rd.	88.27%	2.65%	9.08%	100%	88.27%	2.65%	9.08%	100%
	-		_								100%
	-										100%

<sup>&</sup>lt;sup>1</sup> Source: Agua Mansa Commerce Park Specific Plan Traffic Impact Analysis, Ganddini Group, Inc. <sup>2</sup> Total of vehicle mix percentage values rounded to the nearest one-hundredth.



TABLE 6-11: YEAR 2035 WITH PROJECT ALT. 1 & 1A CONDITIONS VEHICLE MIX

			Witl	n Project A	lternative	<b>1</b> <sup>1</sup>	With	Project Al	ternative	1A <sup>1</sup>
ID	Roadway	Segment	Autos	Medium Trucks	Heavy Trucks	Total <sup>2</sup>	Autos	Medium Trucks	Heavy Trucks	Total <sup>2</sup>
1	Cedar Av.	n/o I-10 Fwy.	89.84%	2.50%	7.65%	100%	89.84%	2.50%	7.65%	100%
2	Cedar Av.	s/o I-10 Fwy.	89.28%	2.58%	8.14%	100%	89.28%	2.58%	8.14%	100%
3	Cedar Av.	s/o Slover Av.	89.16%	2.60%	8.25%	100%	89.16%	2.60%	8.25%	100%
4	Cedar Av.	s/o Santa Ana Av.	88.98%	2.62%	8.40%	100%	88.98%	2.62%	8.40%	100%
5	Cedar Av.	s/o Jurupa Av.	88.96%	2.61%	8.43%	100%	88.96%	2.61%	8.43%	100%
6	Rubidoux Bl.	s/o El Rivino Rd.	87.22%	2.91%	9.87%	100%	88.15%	2.73%	9.12%	100%
7	Rubidoux Bl.	s/o Production Circle	87.83%	2.77%	9.40%	100%	88.27%	2.70%	9.04%	100%
8	Rubidoux Bl.	s/o 20th St.	88.72%	2.64%	8.63%	100%	88.62%	2.67%	8.72%	100%
9	Rubidoux Bl.	s/o 24th St.	88.65%	2.66%	8.69%	100%	88.65%	2.66%	8.69%	100%
10	Rubidoux Bl.	s/o 26th St.	88.69%	2.66%	8.65%	100%	88.69%	2.66%	8.65%	100%
11	Rubidoux Bl.	s/o 28th St.	88.77%	2.65%	8.58%	100%	88.77%	2.65%	8.58%	100%
12	Rubidoux Bl.	s/o SR-60 Fwy.	89.83%	2.50%	7.67%	100%	89.83%	2.50%	7.67%	100%
13	Rubidoux Bl.	s/o 34th St.	89.80%	2.50%	7.70%	100%	89.80%	2.50%	7.70%	100%
14	Cactus Av.	n/o El Rivino Rd.	90.27%	2.41%	7.32%	100%	90.27%	2.41%	7.32%	100%
15	Rivera St.	n/o Market St.	90.00%	2.47%	7.52%	100%	90.00%	2.47%	7.52%	100%
16	Riverside Av.	n/o I-10 Fwy.	89.83%	2.51%	7.67%	100%	89.83%	2.51%	7.67%	100%
17	Riverside Av.	s/o I-10 Fwy.	89.46%	2.56%	7.98%	100%	89.46%	2.56%	7.98%	100%
18	Riverside Av.	s/o Slover Av.	89.43%	2.57%	8.01%	100%	89.43%	2.57%	8.01%	100%
19	Riverside Av.	s/o Santa Ana Av.	89.36%	2.58%	8.06%	100%	89.36%	2.58%	8.06%	100%
20	Riverside Av.	s/o Jurupa Av.	89.36%	2.58%	8.06%	100%	89.36%	2.58%	8.06%	100%
21	Rancho Av.	n/o Agua Mansa Rd.	89.64%	2.54%	7.82%	100%	89.64%	2.54%	7.82%	100%
22	Rancho Av.	s/o Agua Mansa Rd.	89.78%	2.51%	7.71%	100%	89.78%	2.51%	7.71%	100%
23	Slover Av.	w/o Cedar Av.	90.03%	2.47%	7.50%	100%	90.03%	2.47%	7.50%	100%
24	Slover Av.	w/o Riverside Av.	89.95%	2.49%	7.57%	100%	89.95%	2.49%	7.57%	100%
25	Santa Ana Av.	w/o Cedar Av.	89.18%	2.61%	8.21%	100%	89.18%	2.61%	8.21%	100%
26	Santa Ana Av.	w/o Riverside Av.	90.00%	2.47%	7.52%	100%	90.00%	2.47%	7.52%	100%
27	Jurupa Av.	w/o Cedar Av.	90.14%	2.44%	7.42%	100%	90.14%	2.44%	7.42%	100%
28	El Rivino Rd.	e/o Cedar Av.	89.75%	2.41%	7.85%	100%	85.65%	3.04%	11.31%	100%
29	El Rivino Rd.	e/o Cactus Av.	87.09%	2.83%	10.08%	100%	87.09%	2.83%	10.08%	100%
30	El Rivino Rd.	e/o Hall Av.	92.48%	1.86%	5.66%	100%	92.48%	1.86%	5.66%	100%
31	Agua Mansa Rd.	e/o 20th St.	89.08%	2.62%	8.31%	100%	87.79%	2.84%	9.37%	100%
32	Agua Mansa Rd.	w/o Brown Av.	89.00%	2.64%	8.36%	100%	87.79%	2.84%	9.37%	100%
33	Agua Mansa Rd.	w/o Holly St.	88.95%	2.65%	8.40%	100%	89.30%	2.59%	8.11%	100%
34	Agua Mansa Rd.	e/o Holly St.	89.34%	2.59%	8.06%	100%	87.51%	2.91%	9.59%	100%
35	Agua Mansa Rd.	e/o El Rivino Rd.	88.58%	2.68%	8.74%	100%	88.58%	2.68%	8.74%	100%
36	Agua Mansa Rd.	e/o Riverside Av.	89.16%	2.59%	8.25%	100%	89.16%	2.59%	8.25%	100%
37	20th St.	e/o Rubidoux Bl.	88.64%	2.67%	8.70%	100%	88.79%	2.64%	8.57%	100%
38	20th St.	e/o Agua Mansa Rd.	87.89%	2.78%	9.33%	100%	87.89%	2.78%	9.33%	100%
39	Market St.	e/o Hall Av.	88.38%	2.71%	8.91%	100%	88.38%	2.71%	8.91%	100%
40	Market St.	e/o Rivera St.	88.63%	2.68%	8.69%	100%	88.63%	2.68%	8.69%	100%

<sup>&</sup>lt;sup>1</sup> Source: Agua Mansa Commerce Park Specific Plan Traffic Impact Analysis, Ganddini Group, Inc. <sup>2</sup> Total of vehicle mix percentage values rounded to the nearest one-hundredth.



TABLE 6-12: YEAR 2035 WITH PROJECT ALT. 2 & 2A CONDITIONS VEHICLE MIX

1 Cedar Av.				With	Project A	ternativ	e <b>2</b> ¹	With	Project Al	ternative	2A <sup>1</sup>
2   Cedar Av.   S/O I-10 Fwy.   89.37%   2.55%   8.08%   100%   89.37%   2.55%   8.08%   100%   3   Cedar Av.   S/O Slover Av.   89.31%   2.55%   8.15%   100%   89.31%   2.54%   8.15%   100%   89.31%   2.54%   8.15%   100%   89.31%   2.54%   8.15%   100%   89.33%   2.53%   8.26%   1000%   5   Cedar Av.   S/O Jurupa Av.   89.23%   2.53%   8.24%   100%   89.23%   2.53%   8.24%   100%   89.23%   2.53%   8.24%   100%   89.23%   2.55%   8.26%   100%   89.23%   2.55%   8.26%   100%   89.23%   2.53%   8.24%   100%   89.23%   2.53%   8.24%   100%   89.23%   2.53%   8.24%   100%   89.23%   2.53%   8.24%   100%   89.23%   2.53%   8.24%   100%   89.23%   2.53%   8.24%   100%   89.23%   2.53%   8.24%   100%   89.23%   2.53%   8.24%   100%   89.23%   2.53%   8.24%   100%   89.23%   2.53%   8.24%   100%   89.23%   2.53%   8.24%   100%   89.23%   2.53%   8.24%   100%   89.24%   2.53%   8.24%   100%   89.23%   2.53%   8.24%   100%   89.24%   2.53%   8.24%   100%   89.23%   2.53%   8.24%   100%   89.24%   2.53%   8.24%   100%   89.23%   2.53%   8.24%   100%   89.24%   2.53%   8.24%   100%   89.24%   2.53%   8.24%   100%   89.24%   2.53%   8.24%   100%   89.24%   2.53%   8.24%   100%   89.24%   2.53%   8.24%   100%   89.24%   2.53%   8.24%   100%   89.24%   2.53%   8.24%   100%   89.24%   2.55%   8.25%   100%   89.24%   2.55%   8.25%   100%   89.24%   2.55%   8.25%   100%   89.24%   2.55%   8.24%   100%   89.24%   2.25%   100%   89.25%   2.24%   2.25%   100%   8	ID	Roadway	Segment	Autos		•	Total <sup>2</sup>	Autos		•	Total <sup>2</sup>
3   Cedar Av.   S/O Slover Av.   89.31%   2.54%   8.15%   100%   89.31%   2.55%   8.15%   100%   4   Cedar Av.   S/O Santa Ana Av.   89.18%   2.55%   8.26%   100%   89.18%   2.55%   8.26%   100%   89.18%   2.55%   8.26%   100%   89.18%   2.55%   8.26%   100%   89.18%   2.55%   8.26%   100%   89.23%   2.53%   8.24%   100%   80.23%   2.53%   8.24%   100%   80.23%   2.53%   8.26%   100%   80.23%   2.53%   8.26%   100%   80.23%   2.53%   8.26%   100%   80.23%   2.53%   8.26%   100%   80.23%   2.53%   8.26%   100%   80.23%   2.53%   8.54%   100%   80.23%   2.53%   8.54%   100%   80.23%   2.53%   8.54%   100%   80.23%   2.53%   8.54%   100%   80.23%   2.53%   8.54%   100%   80.23%   2.53%   8.54%   100%   80.23%   2.53%   8.54%   100%   80.23%   2.53%   8.54%   100%   80.23%   2.53%   8.54%   100%   80.23%   2.53%   8.54%   100%   80.23%   2.53%   8.54%   100%   80.23%   2.53%   8.54%   100%   80.23%   2.53%   8.54%   100%   80.23%   2.53%   8.25%   8.54%   100%   80.23%   2.53%   8.25%   100%   80.23%   2.53%   8.25%   100%   80.23%   2.53%   8.25%   100%   80.23%   2.53%   8.25%   100%   80.23%   2.53%   8.25%   100%   80.23%   2.53%   8.25%   100%   80.23%   2.53%   8.25%   100%   80.23%   2.53%   8.25%   100%   80.23%   2.53%   8.25%   100%   80.23%   2.53%   8.25%   100%   80.23%   2.53%   8.25%   100%   80.23%   2.53%   8.25%   100%   80.23%   2.53%   8.25%   100%   80.23%   2.25%   100%   80.23%   2.25%   100%   2.33%   2.25%   100%   2.33%   2.25%   100%   2.33%   2.25%   100%   2.33%   2.25%   100%   2.23%   2.25%   100%   2.23%   2.25%   2.25%   100%   2.23%   2.25%   2.25%   2.25%   100%   2.23%   2.25%   2.25%   2.25%   100%   2.25%	1	Cedar Av.	n/o I-10 Fwy.	89.86%	2.50%	7.64%	100%	89.86%	2.50%	7.64%	100%
4         Cedar Av.         s/o Santa Ana Av.         89.18%         2.55%         8.26%         100%         89.18%         2.55%         8.26%         100%           5         Cedar Av.         s/o Jurupa Av.         89.23%         2.53%         8.24%         100%         88.23%         2.55%         8.24%         100%           6         Rubidoux Bl.         s/o Production Circle         88.47%         2.59%         8.93%         100%         88.83%         2.53%         8.54%         100%           8         Rubidoux Bl.         s/o 20th St.         88.98%         2.56%         8.46%         100%         88.83%         2.53%         8.54%         100           8         Rubidoux Bl.         s/o 24th St.         88.91%         2.58%         8.54%         100%         88.91%         2.58%         8.55%         100%           10         Rubidoux Bl.         s/o 28th St.         88.94%         2.58%         8.45%         100%         88.97%         2.58%         8.45%         100         88.97%         2.58%         8.45%         100         88.97%         2.58%         8.45%         100         88.97%         2.58%         8.45%         100%         89.94%         2.58%         8.45%	2	Cedar Av.	s/o I-10 Fwy.	89.37%	2.55%	8.08%	100%	89.37%	2.55%	8.08%	100%
5         Cedar Av.         \$/o Jurupa Av.         89.23%         2.53%         8.24%         100%         89.23%         2.53%         8.24%         100%           6         Rubidoux Bl.         \$/o Production Circle         87.90%         2.72%         9.37%         100%         88.82%         2.53%         8.54%         1008           8         Rubidoux Bl.         \$/o 20th St.         88.98%         2.56%         8.46%         100%         88.93%         2.53%         8.54%         1009           9         Rubidoux Bl.         \$/o 26th St.         88.94%         2.58%         8.51%         100%         88.94%         2.58%         8.51%         100           10         Rubidoux Bl.         \$/o 26th St.         88.94%         2.58%         8.49%         100%         88.94%         2.58%         8.49%         100%         88.97%         2.58%         8.51%         100           11         Rubidoux Bl.         \$/o 58r-60 Fwy.         89.87%         2.49%         7.64%         100%         89.87%         2.49%         7.64%         100           12         Rubidoux Bl.         \$/o 54th St.         89.86%         2.48%         7.66%         100%         89.87%         2.49%         7.64%	3	Cedar Av.	s/o Slover Av.	89.31%	2.54%	8.15%	100%	89.31%	2.54%	8.15%	100%
6         Rubidoux BI.         S/O EI Rivino Rd.         87.90%         2.72%         9.37%         100%         88.82%         2.55%         8.62%         100%           7         Rubidoux BI.         s/o Production Circle         88.47%         2.59%         8.93%         100%         88.93%         2.53%         8.54%         1009           8         Rubidoux BI.         s/o 24th St.         88.98%         2.56%         8.46%         100%         88.93%         2.58%         8.51%         100           10         Rubidoux BI.         s/o 26th St.         88.91%         2.58%         8.49%         100%         88.94%         2.58%         8.49%         100           11         Rubidoux BI.         s/o 26th St.         88.94%         2.58%         8.49%         100%         88.94%         2.58%         8.49%         100           12         Rubidoux BI.         s/o 34th St.         88.97%         2.49%         7.64%         100%         89.86%         2.48%         7.66%         100%         89.86%         2.48%         7.66%         100         89.86%         2.48%         7.66%         100         49.86%         2.48%         7.66%         100         49.86%         2.48%         7.65%	4	Cedar Av.	s/o Santa Ana Av.	89.18%	2.55%	8.26%	100%	89.18%	2.55%	8.26%	100%
7         Rubidoux BI.         s/o Production Circle         88.47%         2.59%         8.93%         100%         88.93%         2.53%         8.54%         100%           8         Rubidoux BI.         s/o 20th St.         88.98%         2.56%         8.46%         100%         88.883%         2.58%         8.51%         100           10         Rubidoux BI.         s/o 26th St.         88.91%         2.58%         8.49%         100%         88.94%         2.58%         8.49%         100           11         Rubidoux BI.         s/o 26th St.         88.97%         2.58%         8.49%         100%         88.97%         2.58%         8.49%         100%         88.97%         2.58%         8.49%         100           12         Rubidoux BI.         s/o 28th St.         88.97%         2.58%         8.45%         100%         88.97%         2.58%         8.45%         100           13         Rubidoux BI.         s/o 34th St.         89.86%         2.48%         7.66%         100%         89.86%         2.48%         7.66%         100%           14         Cactus Av.         n/o El Rivino Rd.         90.07%         2.46%         7.47%         100%         90.07%         2.26%         7.47% </td <td>5</td> <td>Cedar Av.</td> <td>s/o Jurupa Av.</td> <td>89.23%</td> <td>2.53%</td> <td>8.24%</td> <td>100%</td> <td>89.23%</td> <td>2.53%</td> <td>8.24%</td> <td>100%</td>	5	Cedar Av.	s/o Jurupa Av.	89.23%	2.53%	8.24%	100%	89.23%	2.53%	8.24%	100%
8         Rubidoux BI.         \$/0 20th St.         88.98%         2.56%         8.46%         100%         88.88%         2.58%         8.54%         1009           9         Rubidoux BI.         \$/0 24th St.         88.91%         2.58%         8.51%         100%         88.91%         2.58%         8.51%         100           10         Rubidoux BI.         \$/0 28th St.         88.94%         2.58%         8.49%         100%         88.94%         2.58%         8.49%         100           11         Rubidoux BI.         \$/0 28th St.         88.97%         2.58%         8.45%         100%         89.87%         2.49%         7.64%         100%         89.87%         2.49%         7.64%         100%         89.87%         2.49%         7.64%         100         89.87%         2.49%         7.66%         100           13         Rubidoux BI.         \$/0 34th St.         89.86%         2.48%         7.66%         100%         89.87%         2.49%         7.66%         100           14         Cactus Av.         n/o El Riverior Bd.         90.07%         2.246%         7.47%         100%         89.40%         2.250%         7.65%         100           15         Riverside Av. <td< td=""><td>6</td><td>Rubidoux Bl.</td><td>s/o El Rivino Rd.</td><td>87.90%</td><td>2.72%</td><td>9.37%</td><td>100%</td><td>88.82%</td><td>2.55%</td><td>8.62%</td><td>100%</td></td<>	6	Rubidoux Bl.	s/o El Rivino Rd.	87.90%	2.72%	9.37%	100%	88.82%	2.55%	8.62%	100%
9         Rubidoux Bl.         \$/0 24th St.         88.91%         2.58%         8.51%         100%         88.91%         2.58%         8.51%         100%           10         Rubidoux Bl.         \$/0 26th St.         88.94%         2.58%         8.49%         100%         88.94%         2.58%         8.49%         100%           11         Rubidoux Bl.         \$/0 28th St.         88.97%         2.58%         8.45%         100%         89.87%         2.58%         8.45%         100%           12         Rubidoux Bl.         \$/0 34th St.         89.86%         2.48%         7.64%         100%         89.87%         2.48%         7.66%         100%           14         Cactus Av.         n/o El Rivino Rd.         90.40%         2.38%         7.22%         100%         90.40%         2.38%         7.22%         100           15         Riverside Av.         n/o El Rivino Rd.         90.07%         2.46%         7.47%         100%         99.40%         2.38%         7.22%         100%           15         Riverside Av.         n/o Ho Pwy.         89.84%         2.50%         7.65%         100%         89.84%         2.50%         7.65%         100%         89.84%         2.50%         7.65% </td <td>7</td> <td>Rubidoux Bl.</td> <td>s/o Production Circle</td> <td>88.47%</td> <td>2.59%</td> <td>8.93%</td> <td>100%</td> <td>88.93%</td> <td>2.53%</td> <td>8.54%</td> <td>100%</td>	7	Rubidoux Bl.	s/o Production Circle	88.47%	2.59%	8.93%	100%	88.93%	2.53%	8.54%	100%
10   Rubidoux Bl.   S/o 26th St.   88.94%   2.58%   8.49%   100%   88.94%   2.58%   8.49%   1009   1018	8	Rubidoux Bl.	s/o 20th St.	88.98%	2.56%	8.46%	100%	88.88%	2.58%	8.54%	100%
Rubidoux Bl.   S/O 28th St.   88.97%   2.58%   8.45%   100%   88.97%   2.58%   8.45%   1009   1009   120	9	Rubidoux Bl.	s/o 24th St.	88.91%	2.58%	8.51%	100%	88.91%	2.58%	8.51%	100%
Rubidoux Bl.   S/O SR-60 Fwy.   89.87%   2.49%   7.64%   100%   89.87%   2.49%   7.64%   100%   10	10	Rubidoux Bl.	s/o 26th St.	88.94%	2.58%	8.49%	100%	88.94%	2.58%	8.49%	100%
13         Rubidoux Bl.         s/o 34th St.         89.86%         2.48%         7.66%         100%         89.86%         2.48%         7.66%         1009           14         Cactus Av.         n/o El Rivino Rd.         90.40%         2.38%         7.22%         100%         90.40%         2.38%         7.22%         1009           15         Riverside Av.         n/o I-10 Fwy.         89.46%         7.47%         100%         90.07%         2.46%         7.47%         100           16         Riverside Av.         n/o I-10 Fwy.         89.84%         2.50%         7.65%         100%         89.40%         2.50%         7.65%         100%           17         Riverside Av.         s/o Slover Av.         89.49%         2.54%         7.94%         1009         89.49%         2.54%         7.94%         1009           18         Riverside Av.         s/o Sonta Ana Av.         89.49%         2.55%         8.01%         100%         89.44%         2.55%         8.01%         100         89.44%         2.55%         8.01%         100           20         Riverside Av.         s/o Agua Mansa Rd.         89.70%         2.52%         7.78%         100%         89.70%         2.52%         7.78%	11	Rubidoux Bl.	s/o 28th St.	88.97%	2.58%	8.45%	100%	88.97%	2.58%	8.45%	100%
14         Cactus Av.         n/o El Rivino Rd.         90.40%         2.38%         7.22%         100%         90.40%         2.38%         7.22%         100%           15         Rivera St.         n/o Market St.         90.07%         2.46%         7.47%         100%         90.07%         2.46%         7.47%         100%           16         Riverside Av.         n/o I-10 Fwy.         89.84%         2.50%         7.65%         100%         89.84%         2.50%         7.65%         100%           17         Riverside Av.         s/o Slover Av.         89.49%         2.54%         7.96%         100%         89.49%         2.54%         7.96%         100%           19         Riverside Av.         s/o Santa Ana Av.         89.44%         2.55%         8.01%         100%         89.44%         2.55%         8.01%         100%           20         Riverside Av.         s/o Jurupa Av.         89.44%         2.55%         8.01%         100%         89.44%         2.55%         8.01%         100%           21         Rancho Av.         n/o Agua Mansa Rd.         89.1%         2.50%         7.69%         100%         89.1%         2.50%         7.69%         100%         89.81%         2.50%	12	Rubidoux Bl.	s/o SR-60 Fwy.	89.87%	2.49%	7.64%	100%	89.87%	2.49%	7.64%	100%
15         Rivera St.         n/o Market St.         90.07%         2.46%         7.47%         100%         90.07%         2.46%         7.47%         100%           16         Riverside Av.         n/o I-10 Fwy.         89.84%         2.50%         7.65%         100%         89.84%         2.50%         7.65%         100%           17         Riverside Av.         s/o I-10 Fwy.         89.52%         2.54%         7.94%         100%         89.52%         2.54%         7.94%         100%         89.49%         2.54%         7.96%         100%         89.49%         2.54%         7.96%         100%         89.49%         2.54%         7.96%         100%         89.49%         2.54%         7.96%         100%         89.49%         2.54%         7.96%         100%         89.49%         2.54%         7.96%         100%         89.49%         2.54%         7.96%         100%         89.49%         2.54%         7.96%         100%         89.49%         2.54%         7.96%         100%         89.49%         2.54%         7.96%         100%         89.49%         2.54%         7.96%         100%         89.49%         2.54%         8.01%         100%         89.49%         2.55%         8.01%         100%	13	Rubidoux Bl.		89.86%	2.48%	7.66%	100%	89.86%	2.48%	7.66%	100%
15   Rivera St.   n/o Market St.   90.07%   2.46%   7.47%   100%   90.07%   2.46%   7.47%   1009   106   Riverside Av.   n/o I-10 Fwy.   89.84%   2.50%   7.65%   100%   89.84%   2.50%   7.65%   1009   17   Riverside Av.   s/o I-10 Fwy.   89.52%   2.54%   7.94%   100%   89.52%   2.54%   7.94%   1009	14	Cactus Av.	n/o El Rivino Rd.	90.40%	2.38%	7.22%	100%	90.40%	2.38%	7.22%	100%
16         Riverside Av.         n/o I-10 Fwy.         89.84%         2.50%         7.65%         100%         89.84%         2.50%         7.65%         100%           17         Riverside Av.         s/o I-10 Fwy.         89.52%         2.54%         7.94%         100%         89.52%         2.54%         7.94%         100%           18         Riverside Av.         s/o Santa Ana Av.         89.49%         2.55%         8.01%         100%         89.49%         2.55%         8.01%         100%         89.44%         2.55%         8.01%         100%         89.44%         2.55%         8.01%         100%         89.44%         2.55%         8.01%         100%         89.44%         2.55%         8.01%         100%         89.44%         2.55%         8.01%         100%         89.44%         2.55%         8.01%         100%         89.44%         2.55%         8.01%         100%         89.44%         2.55%         8.01%         100%         89.44%         2.55%         8.01%         100%         89.44%         2.55%         8.01%         100%         89.44%         2.55%         8.01%         100%         89.46%         2.45%         7.69%         100%         89.50%         2.46%         7.47%         100%	15		•								100%
17         Riverside Av.         \$/0\$ I-10 Fwy.         89.52%         2.54%         7.94%         100%         89.52%         2.54%         7.94%         100%         89.52%         2.54%         7.94%         100%         89.49%         2.54%         7.96%         100%         89.49%         2.54%         7.96%         100%         89.49%         2.54%         7.96%         100%         89.49%         2.54%         7.96%         100%         89.49%         2.54%         7.96%         100%         89.44%         2.55%         8.01%         100%         89.44%         2.55%         8.01%         100%         89.44%         2.55%         8.01%         100%         89.44%         2.55%         8.01%         100%         89.44%         2.55%         8.01%         100%         89.44%         2.55%         8.01%         100%         89.44%         2.55%         8.01%         100%         89.44%         2.55%         8.01%         100%         89.44%         2.55%         8.01%         100%         89.44%         2.55%         8.01%         100%         89.81%         2.55%         8.01%         100%         89.81%         2.50%         7.69%         100%         2.52%         7.78%         100%         89.81%         2.50% <td>16</td> <td></td> <td>·</td> <td></td> <td></td> <td></td> <td>100%</td> <td></td> <td></td> <td></td> <td>100%</td>	16		·				100%				100%
18         Riverside Av.         \$/O Slover Av.         89.49%         2.54%         7.96%         100%         89.49%         2.54%         7.96%         100%           19         Riverside Av.         \$/O Santa Ana Av.         89.44%         2.55%         8.01%         100%         89.44%         2.55%         8.01%         100%           20         Riverside Av.         \$/O Jurupa Av.         89.44%         2.55%         8.01%         100%         89.44%         2.55%         8.01%         100%           21         Rancho Av.         n/o Agua Mansa Rd.         89.70%         2.52%         7.78%         100%         89.70%         2.52%         7.78%         100%           22         Rancho Av.         \$/O Agua Mansa Rd.         89.81%         2.50%         7.69%         100%         89.81%         2.50%         7.69%         100%           23         Slover Av.         \$/O Agua Mansa Rd.         89.81%         2.50%         7.47%         100%         90.08%         2.46%         7.47%         100%           24         Slover Av.         \$/O Agua Mansa Rd.         89.95%         2.49%         7.57%         100%         89.39%         2.54%         8.07%         100%         89.39%         2.54% <td>17</td> <td>Riverside Av.</td> <td>•</td> <td>89.52%</td> <td></td> <td>7.94%</td> <td>100%</td> <td>89.52%</td> <td>2.54%</td> <td>7.94%</td> <td>100%</td>	17	Riverside Av.	•	89.52%		7.94%	100%	89.52%	2.54%	7.94%	100%
19   Riverside Av.   S/o Santa Ana Av.   89.44%   2.55%   8.01%   100%   89.44%   2.55%   8.01%   100%   20   Riverside Av.   S/o Jurupa Av.   89.44%   2.55%   8.01%   100%   89.44%   2.55%   8.01%   100%   21   Rancho Av.   n/o Agua Mansa Rd.   89.70%   2.52%   7.78%   100%   89.70%   2.52%   7.78%   100%   2.52%   7.78%   100%   2.52%   7.78%   100%   2.52%   7.78%   100%   2.52%   7.78%   100%   2.52%   7.78%   100%   2.52%   7.78%   100%   2.52%   7.78%   100%   2.52%   7.78%   100%   2.52%   7.78%   100%   2.52%   7.69%   100%   2.52%   7.69%   100%   2.52%   7.69%   100%   2.46%   7.47%   100%   2.46%   7.47%   100%   2.46%   7.47%   100%   2.46%   7.47%   100%   2.46%   7.57%   100%   2.46%   7.57%   100%   2.46%   7.57%   100%   2.46%   7.57%   100%   2.46%   7.57%   100%   2.46%   7.57%   100%   2.46%   7.57%   100%   2.46%   7.57%   100%   2.47%   7.52%   100%   2.47%   7.52%   100%   2.47%   7.52%   100%   2.47%   7.52%   100%   2.47%   7.52%   100%   2.47%   7.52%   100%   2.47%   7.32%   100%   2.47%   7.32%   100%   2.47%   7.32%   100%   2.47%   7.32%   100%   2.47%   7.32%   100%   2.47%   7.32%   100%   2.47%   2.44%   1.33%   100%   2.47%   2.44%   2.47%   2.44%   2.47%   2.44%   2.47%   2.44%   2.47%   2.44%   2.47%   2.44%   2.47%   2.44%   2.47%   2.44%   2.47%   2.44%   2.4	18		·	1			100%				100%
20         Riverside Av.         s/o Jurupa Av.         89.44%         2.55%         8.01%         100%         89.44%         2.55%         8.01%         100%           21         Rancho Av.         n/o Agua Mansa Rd.         89.70%         2.52%         7.78%         100%         89.70%         2.52%         7.78%         100%           22         Rancho Av.         s/o Agua Mansa Rd.         89.81%         2.50%         7.69%         100%         89.81%         2.50%         7.69%         100%           23         Slover Av.         w/o Cedar Av.         90.08%         2.46%         7.47%         100%         90.08%         2.46%         7.47%         100%           24         Slover Av.         w/o Riverside Av.         89.95%         2.49%         7.57%         100%         89.95%         2.49%         7.57%         100%           25         Santa Ana Av.         w/o Riverside Av.         90.00%         2.47%         7.52%         100%         99.00%         2.47%         7.52%         100%         90.00%         2.47%         7.52%         100%         90.00%         2.47%         7.52%         100%         90.00%         2.47%         7.52%         100%         90.28%         2.41%         7.	19	Riverside Av.	s/o Santa Ana Av.	89.44%	2.55%	8.01%	100%	89.44%	2.55%	8.01%	100%
21         Rancho Av.         n/o Agua Mansa Rd.         89.70%         2.52%         7.78%         100%         89.70%         2.52%         7.78%         100%           22         Rancho Av.         s/o Agua Mansa Rd.         89.81%         2.50%         7.69%         100%         89.81%         2.50%         7.69%         100%           23         Slover Av.         w/o Cedar Av.         90.08%         2.46%         7.47%         100%         90.08%         2.46%         7.47%         100%           24         Slover Av.         w/o Riverside Av.         89.95%         2.49%         7.57%         100%         89.95%         2.49%         7.57%         100%           25         Santa Ana Av.         w/o Cedar Av.         89.39%         2.54%         8.07%         100%         89.39%         2.54%         8.07%         100%           26         Santa Ana Av.         w/o Riverside Av.         90.00%         2.47%         7.52%         100%         90.00%         2.47%         7.52%         100%           27         Jurupa Av.         w/o Cedar Av.         90.28%         2.41%         7.32%         100%         90.28%         2.41%         7.32%         100%           28         El Ri	20			1		8.01%					100%
22         Rancho Av.         s/o Agua Mansa Rd.         89.81%         2.50%         7.69%         100%         89.81%         2.50%         7.69%         1009           23         Slover Av.         w/o Cedar Av.         90.08%         2.46%         7.47%         100%         90.08%         2.46%         7.47%         100%           24         Slover Av.         w/o Riverside Av.         89.95%         2.49%         7.57%         100%         89.95%         2.49%         7.57%         1009           25         Santa Ana Av.         w/o Cedar Av.         89.39%         2.54%         8.07%         100%         89.39%         2.54%         8.07%         100%           26         Santa Ana Av.         w/o Riverside Av.         90.00%         2.47%         7.52%         100%         90.00%         2.47%         7.52%         100%           27         Jurupa Av.         w/o Cedar Av.         90.28%         2.41%         7.32%         100%         90.00%         2.47%         7.52%         100%         90.00%         2.41%         7.32%         100%           28         El Rivino Rd.         e/o Cactus Av.         88.46%         2.47%         9.08%         100%         88.46%         2.47% <t< td=""><td><math>\vdash</math></td><td></td><td></td><td>t</td><td></td><td></td><td></td><td></td><td></td><td></td><td>100%</td></t<>	$\vdash$			t							100%
23         Slover Av.         w/o Cedar Av.         90.08%         2.46%         7.47%         100%         90.08%         2.46%         7.47%         100%           24         Slover Av.         w/o Riverside Av.         89.95%         2.49%         7.57%         100%         89.95%         2.49%         7.57%         100%           25         Santa Ana Av.         w/o Cedar Av.         89.39%         2.54%         8.07%         100%         89.39%         2.54%         8.07%         100%           26         Santa Ana Av.         w/o Riverside Av.         90.00%         2.47%         7.52%         100%         90.00%         2.47%         7.52%         100%           27         Jurupa Av.         w/o Cedar Av.         90.28%         2.41%         7.32%         100%         90.28%         2.41%         7.32%         100%           28         El Rivino Rd.         e/o Cedar Av.         90.33%         2.24%         7.43%         100%         85.83%         2.84%         11.33%         100%           29         El Rivino Rd.         e/o Cactus Av.         88.46%         2.47%         9.08%         100%         85.83%         2.84%         11.33%         100%           30         El Riv	22	Rancho Av.	_	1							100%
24         Slover Av.         w/o Riverside Av.         89.95%         2.49%         7.57%         100%         89.95%         2.49%         7.57%         1009           25         Santa Ana Av.         w/o Cedar Av.         89.39%         2.54%         8.07%         100%         89.39%         2.54%         8.07%         1009           26         Santa Ana Av.         w/o Riverside Av.         90.00%         2.47%         7.52%         100%         90.00%         2.47%         7.52%         1009           27         Jurupa Av.         w/o Cedar Av.         90.28%         2.41%         7.32%         100%         90.28%         2.41%         7.32%         1009           28         El Rivino Rd.         e/o Cedar Av.         90.33%         2.24%         7.43%         100%         85.83%         2.84%         11.33%         1009           29         El Rivino Rd.         e/o Cactus Av.         88.46%         2.47%         9.08%         100%         88.46%         2.47%         9.08%         1009           30         El Rivino Rd.         e/o Hall Av.         92.66%         1.82%         5.52%         100%         82.66%         1.82%         5.52%         1009           31         Agua	-		_	1							100%
25         Santa Ana Av.         w/o Cedar Av.         89.39%         2.54%         8.07%         100%         89.39%         2.54%         8.07%         100%           26         Santa Ana Av.         w/o Riverside Av.         90.00%         2.47%         7.52%         100%         90.00%         2.47%         7.52%         100%           27         Jurupa Av.         w/o Cedar Av.         90.28%         2.41%         7.32%         100%         90.28%         2.41%         7.32%         100%           28         El Rivino Rd.         e/o Cedar Av.         90.33%         2.24%         7.43%         100%         85.83%         2.84%         11.33%         100%           29         El Rivino Rd.         e/o Cactus Av.         88.46%         2.47%         9.08%         100%         88.46%         2.47%         9.08%         100%           30         El Rivino Rd.         e/o Hall Av.         92.66%         1.82%         5.52%         100%         92.66%         1.82%         5.52%         100%           31         Agua Mansa Rd.         e/o 20th St.         89.17%         2.55%         8.27%         100%         87.94%         2.74%         9.32%         100%           32         Agua M	24						100%				100%
27         Jurupa Av.         w/o Cedar Av.         90.28%         2.41%         7.32%         100%         90.28%         2.41%         7.32%         100%           28         El Rivino Rd.         e/o Cedar Av.         90.33%         2.24%         7.43%         100%         85.83%         2.84%         11.33%         100%           29         El Rivino Rd.         e/o Cactus Av.         88.46%         2.47%         9.08%         100%         88.46%         2.47%         9.08%         100%           30         El Rivino Rd.         e/o Hall Av.         92.66%         1.82%         5.52%         100%         92.66%         1.82%         5.52%         100%           31         Agua Mansa Rd.         e/o 20th St.         89.17%         2.55%         8.27%         100%         87.94%         2.74%         9.32%         100%           32         Agua Mansa Rd.         w/o Brown Av.         89.10%         2.57%         8.32%         100%         87.94%         2.74%         9.32%         100%           33         Agua Mansa Rd.         w/o Holly St.         89.67%         2.49%         7.84%         100%         89.57%         2.50%         7.93%         100%           34         Agua Man	25	Santa Ana Av.		89.39%	2.54%	8.07%	100%	89.39%	2.54%		100%
28         El Rivino Rd.         e/o Cedar Av.         90.33%         2.24%         7.43%         100%         85.83%         2.84%         11.33%         100%           29         El Rivino Rd.         e/o Cactus Av.         88.46%         2.47%         9.08%         100%         88.46%         2.47%         9.08%         100%           30         El Rivino Rd.         e/o Hall Av.         92.66%         1.82%         5.52%         100%         92.66%         1.82%         5.52%         100%           31         Agua Mansa Rd.         e/o 20th St.         89.17%         2.55%         8.27%         100%         87.94%         2.74%         9.32%         100%           32         Agua Mansa Rd.         w/o Brown Av.         89.10%         2.57%         8.32%         100%         87.94%         2.74%         9.32%         100%           33         Agua Mansa Rd.         w/o Holly St.         89.67%         2.49%         7.84%         100%         89.57%         2.50%         7.93%         100%           34         Agua Mansa Rd.         e/o Holly St.         87.71%         2.83%         9.46%         100%         87.71%         2.83%         9.46%         100%         87.71%         2.83%	26	Santa Ana Av.	w/o Riverside Av.	90.00%	2.47%	7.52%	100%	90.00%	2.47%	7.52%	100%
28         El Rivino Rd.         e/o Cedar Av.         90.33%         2.24%         7.43%         100%         85.83%         2.84%         11.33%         100%           29         El Rivino Rd.         e/o Cactus Av.         88.46%         2.47%         9.08%         100%         88.46%         2.47%         9.08%         100%           30         El Rivino Rd.         e/o Hall Av.         92.66%         1.82%         5.52%         100%         92.66%         1.82%         5.52%         100%           31         Agua Mansa Rd.         e/o 20th St.         89.17%         2.55%         8.27%         100%         87.94%         2.74%         9.32%         100%           32         Agua Mansa Rd.         w/o Brown Av.         89.10%         2.57%         8.32%         100%         87.94%         2.74%         9.32%         100%           33         Agua Mansa Rd.         w/o Holly St.         89.67%         2.49%         7.84%         100%         89.57%         2.50%         7.93%         100%           34         Agua Mansa Rd.         e/o Holly St.         87.71%         2.83%         9.46%         100%         87.71%         2.83%         9.46%         100%         87.71%         2.83%	27	Jurupa Av.	w/o Cedar Av.	90.28%	2.41%	7.32%	100%	90.28%	2.41%	7.32%	100%
29         El Rivino Rd.         e/o Cactus Av.         88.46%         2.47%         9.08%         100%         88.46%         2.47%         9.08%         100%           30         El Rivino Rd.         e/o Hall Av.         92.66%         1.82%         5.52%         100%         92.66%         1.82%         5.52%         100%           31         Agua Mansa Rd.         e/o 20th St.         89.17%         2.55%         8.27%         100%         87.94%         2.74%         9.32%         100%           32         Agua Mansa Rd.         w/o Brown Av.         89.10%         2.57%         8.32%         100%         87.94%         2.74%         9.32%         100%           33         Agua Mansa Rd.         w/o Holly St.         89.67%         2.49%         7.84%         100%         89.57%         2.50%         7.93%         100%           34         Agua Mansa Rd.         e/o Holly St.         87.71%         2.83%         9.46%         100%         87.71%         2.83%         9.46%         100%           35         Agua Mansa Rd.         e/o El Rivino Rd.         88.80%         2.61%         8.59%         100%         88.80%         2.61%         8.59%         100%           36	28				2.24%		100%		2.84%	11.33%	100%
30         El Rivino Rd.         e/o Hall Av.         92.66%         1.82%         5.52%         100%         92.66%         1.82%         5.52%         100%           31         Agua Mansa Rd.         e/o 20th St.         89.17%         2.55%         8.27%         100%         87.94%         2.74%         9.32%         100%           32         Agua Mansa Rd.         w/o Brown Av.         89.10%         2.57%         8.32%         100%         87.94%         2.74%         9.32%         100%           33         Agua Mansa Rd.         w/o Holly St.         89.67%         2.49%         7.84%         100%         89.57%         2.50%         7.93%         100%           34         Agua Mansa Rd.         e/o Holly St.         87.71%         2.83%         9.46%         100%         87.71%         2.83%         9.46%         100%         87.71%         2.83%         9.46%         100%         88.80%         2.61%         8.59%         100%           35         Agua Mansa Rd.         e/o El Rivino Rd.         88.80%         2.61%         8.59%         100%         88.80%         2.61%         8.59%         100%           36         Agua Mansa Rd.         e/o Riverside Av.         89.32%         2.54%	29	El Rivino Rd.	e/o Cactus Av.		2.47%		100%		2.47%		100%
32       Agua Mansa Rd.       w/o Brown Av.       89.10%       2.57%       8.32%       100%       87.94%       2.74%       9.32%       100%         33       Agua Mansa Rd.       w/o Holly St.       89.67%       2.49%       7.84%       100%       89.57%       2.50%       7.93%       100%         34       Agua Mansa Rd.       e/o Holly St.       87.71%       2.83%       9.46%       100%       87.71%       2.83%       9.46%       100%         35       Agua Mansa Rd.       e/o El Rivino Rd.       88.80%       2.61%       8.59%       100%       88.80%       2.61%       8.59%       100%         36       Agua Mansa Rd.       e/o Riverside Av.       89.32%       2.54%       8.14%       100%       89.32%       2.54%       8.14%       100%         37       20th St.       e/o Rubidoux Bl.       89.05%       2.55%       8.40%       100%       89.24%       2.53%       8.23%       100%	30	El Rivino Rd.	e/o Hall Av.		1.82%		100%		1.82%	5.52%	100%
32       Agua Mansa Rd.       w/o Brown Av.       89.10%       2.57%       8.32%       100%       87.94%       2.74%       9.32%       100%         33       Agua Mansa Rd.       w/o Holly St.       89.67%       2.49%       7.84%       100%       89.57%       2.50%       7.93%       100%         34       Agua Mansa Rd.       e/o Holly St.       87.71%       2.83%       9.46%       100%       87.71%       2.83%       9.46%       100%         35       Agua Mansa Rd.       e/o El Rivino Rd.       88.80%       2.61%       8.59%       100%       88.80%       2.61%       8.59%       100%         36       Agua Mansa Rd.       e/o Riverside Av.       89.32%       2.54%       8.14%       100%       89.32%       2.54%       8.14%       100%         37       20th St.       e/o Rubidoux Bl.       89.05%       2.55%       8.40%       100%       89.24%       2.53%       8.23%       100%	31	Agua Mansa Rd.	e/o 20th St.	89.17%	2.55%	8.27%	100%	87.94%	2.74%	9.32%	100%
33         Agua Mansa Rd.         w/o Holly St.         89.67%         2.49%         7.84%         100%         89.57%         2.50%         7.93%         100%           34         Agua Mansa Rd.         e/o Holly St.         87.71%         2.83%         9.46%         100%         87.71%         2.83%         9.46%         100%           35         Agua Mansa Rd.         e/o El Rivino Rd.         88.80%         2.61%         8.59%         100%         88.80%         2.61%         8.59%         100%           36         Agua Mansa Rd.         e/o Riverside Av.         89.32%         2.54%         8.14%         100%         89.32%         2.54%         8.14%         100%           37         20th St.         e/o Rubidoux Bl.         89.05%         2.55%         8.40%         100%         89.24%         2.53%         8.23%         100%	32	_		89.10%	2.57%	8.32%	100%	87.94%	2.74%	9.32%	100%
35         Agua Mansa Rd.         e/o El Rivino Rd.         88.80%         2.61%         8.59%         100%         88.80%         2.61%         8.59%         100%           36         Agua Mansa Rd.         e/o Riverside Av.         89.32%         2.54%         8.14%         100%         89.32%         2.54%         8.14%         100%           37         20th St.         e/o Rubidoux Bl.         89.05%         2.55%         8.40%         100%         89.24%         2.53%         8.23%         100%	33	_	w/o Holly St.				100%		2.50%		100%
35         Agua Mansa Rd.         e/o El Rivino Rd.         88.80%         2.61%         8.59%         100%         88.80%         2.61%         8.59%         100%           36         Agua Mansa Rd.         e/o Riverside Av.         89.32%         2.54%         8.14%         100%         89.32%         2.54%         8.14%         100%           37         20th St.         e/o Rubidoux Bl.         89.05%         2.55%         8.40%         100%         89.24%         2.53%         8.23%         100%	_		•								100%
36     Agua Mansa Rd.     e/o Riverside Av.     89.32%     2.54%     8.14%     100%     89.32%     2.54%     8.14%     100%       37     20th St.     e/o Rubidoux Bl.     89.05%     2.55%     8.40%     100%     89.24%     2.53%     8.23%     100%	_		·								100%
37 20th St. e/o Rubidoux Bl. 89.05% 2.55% 8.40% 100% 89.24% 2.53% 8.23% 100%	$\vdash$		•								100%
	37	_									100%
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	_		_								100%
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<sup>&</sup>lt;sup>1</sup> Source: Agua Mansa Commerce Park Specific Plan Traffic Impact Analysis, Ganddini Group, Inc. <sup>2</sup> Total of vehicle mix percentage values rounded to the nearest one-hundredth.



### **6.3** VIBRATION ASSESSMENT

This analysis focuses on the potential ground-borne vibration associated with vehicular traffic and construction activities. Ground-borne vibration levels from automobile traffic are generally overshadowed by vibration generated by heavy trucks that roll over the same uneven roadway surfaces. However, due to the rapid drop-off rate of ground-borne vibration and the short duration of the associated events, vehicular traffic-induced ground-borne vibration is rarely perceptible beyond the roadway right-of-way, and rarely results in vibration levels that cause damage to buildings in the vicinity.

However, while vehicular traffic is rarely perceptible, construction has the potential to result in varying degrees of temporary ground vibration, depending on the specific construction activities and equipment used. Ground vibration levels associated with various types of construction equipment are summarized on Table 6-13. Based on the representative vibration levels presented for various construction equipment types, it is possible to estimate the human response (annoyance) using the following vibration assessment methods defined by the FTA. To describe the human response (annoyance) associated with vibration impacts the FTA provides the following equation:  $PPV_{equip} = PPV_{ref} \times (25/D)^{1.5}$ 

TABLE 6-13: VIBRATION SOURCE LEVELS FOR CONSTRUCTION EQUIPMENT

Equipment	PPV (in/sec) at 25 feet
Small bulldozer	0.003
Jackhammer	0.035
Loaded Trucks	0.076
Large bulldozer	0.089
Vibratory Roller	0.21

Source: Federal Transit Administration, Transit Noise and Vibration Impact Assessment, September 2018.



## 7 OFF-SITE TRANSPORTATION NOISE IMPACTS

To assess the off-site transportation CNEL noise level impacts associated with the proposed Project, noise contours were developed based on the *Agua Mansa Commerce Park Specific Plan Traffic Impact Analysis*. (2) Noise contour boundaries represent the equal levels of noise exposure and are measured in CNEL from the center of the roadway. Noise contours were developed for the following traffic scenarios:

- Existing Without / With Alternative 1 / With Alternative 1A / With Alternative 2 / With Alternative 2A:
  - This scenario refers to the Existing present-day noise conditions, without and with the proposed Project.
- Opening Year 2020 Without / With Alternative 1 / With Alternative 1A / With Alternative 2 / With Alternative 2A:
  - This scenario below refers to the background noise conditions at future Year 2020 without and with the proposed Project plus ambient growth. This scenario corresponds to Year 2020 conditions, and includes all cumulative projects identified in the *Traffic Impact Analysis*.
- Year 2035 Without / With Alternative 1 / With Alternative 1A / With Alternative 2 / With Alternative 2A:
  - o This scenario below refers to the background noise conditions at future Year 2035 without and with the proposed Project plus ambient growth. This scenario corresponds to Year 2035 conditions, and includes all cumulative projects identified in the *Traffic Impact Analysis*.

### 7.1 TRAFFIC NOISE CONTOURS

Noise contours were used to assess the Project's incremental traffic-related noise impacts at land uses adjacent to roadways conveying Project traffic. The noise contours represent the distance to noise levels of a constant value and are measured from the center of the roadway for the 70, 65, and 60 dBA noise levels. The noise contours do not consider the effect of any existing noise barriers or topography that may attenuate ambient noise levels. In addition, because the noise contours reflect modeling of vehicular noise on area roadways, they appropriately do not reflect noise contributions from the surrounding stationary noise sources within the Project study area. Tables 7-1 through 7-12 present a summary of the exterior traffic noise levels, without barrier attenuation, for the 40 study area roadway segments analyzed from the without Project to the with Project conditions in each of the following timeframes: Existing, Opening Year 2020, and Year 2035 conditions, under Project Alternatives 1, 1A, 2, and 2A. Appendix 7.1 includes a summary of the traffic noise level contours for each of the traffic scenarios.



TABLE 7-1: EXISTING WITHOUT PROJECT CONDITIONS NOISE CONTOURS

				CNEL at	Exceeds	Distar	nce to Co	ntour
			Adjacent Planned	Nearest	Land Use	from C	enterline	e (Feet)
ID	Road	Segment	Land Use <sup>1</sup>	Adjacent	Criteria	70	65	60
			Luna OSC	Land Use	Without	dBA	dBA	dBA
				(dBA) <sup>2</sup>	Project?	CNEL	CNEL	CNEL
1	Cedar Av.	n/o I-10 Fwy.	General Commercial	77.8	Yes	171	369	795
2	Cedar Av.	s/o I-10 Fwy.	Light Industrial	76.2	Yes	134	289	622
3	Cedar Av.	s/o Slover Av.	General Commercial	75.4	Yes	120	258	555
4	Cedar Av.	s/o Santa Ana Av.	Residential	75.5	Yes	120	259	558
5	Cedar Av.	s/o Jurupa Av.	General Commercial	76.7	Yes	145	312	672
6	Rubidoux Bl.	s/o El Rivino Rd.	Heavy Industrial	75.7	Yes	142	305	657
7	Rubidoux Bl.	s/o Production Circle	Heavy Industrial	75.6	Yes	140	302	651
8	Rubidoux Bl.	s/o 20th St.	Light Industrial	74.9	Yes	125	270	582
9	Rubidoux Bl.	s/o 24th St.	Light Industrial	75.1	Yes	130	280	603
10	Rubidoux Bl.	s/o 26th St.	Light Industrial	75.3	Yes	132	285	615
11	Rubidoux Bl.	s/o 28th St.	Residential	75.6	Yes	139	300	647
12	Rubidoux Bl.	s/o SR-60 Fwy.	Residential	76.2	Yes	154	331	713
13	Rubidoux Bl.	s/o 34th St.	Residential	75.0	Yes	128	276	595
14	Cactus Av.	n/o El Rivino Rd.	Residential	69.3	Yes	RW	58	124
15	Rivera St.	n/o Market St.	Business Park	71.2	Yes	40	86	184
16	Riverside Av.	n/o I-10 Fwy.	General Commercial	76.4	Yes	160	344	741
17	Riverside Av.	s/o I-10 Fwy.	General Industrial	78.3	Yes	213	460	991
18	Riverside Av.	s/o Slover Av.	General Industrial	79.2	Yes	214	460	991
19	Riverside Av.	s/o Santa Ana Av.	General Industrial	78.9	Yes	203	437	942
20	Riverside Av.	s/o Jurupa Av.	General Industrial	79.5	Yes	225	485	1045
21	Rancho Av.	n/o Agua Mansa Rd.	General Industrial	74.4	Yes	102	219	471
22	Rancho Av.	s/o Agua Mansa Rd.	General Industrial	72.9	Yes	81	175	376
23	Slover Av.	w/o Cedar Av.	Light Industrial	73.9	Yes	94	203	437
24	Slover Av.	w/o Riverside Av.	General Industrial	73.5	Yes	89	191	412
25	Santa Ana Av.	w/o Cedar Av.	Residential	70.6	Yes	48	104	225
26	Santa Ana Av.	w/o Riverside Av.	General Industrial	68.6	No	RW	76	165
27	Jurupa Av.	w/o Cedar Av.	Residential	68.8	Yes	RW	93	200
28	El Rivino Rd.	e/o Cedar Av.	Heavy Industrial	69.6	Yes	RW	89	193
29	El Rivino Rd.	e/o Cactus Av.	Residential	69.3	Yes	RW	85	184
30	El Rivino Rd.	e/o Hall Av.	Residential	68.2	Yes	RW	72	155
31	Agua Mansa Rd.	e/o 20th St.	Heavy Industrial	72.8	Yes	77	167	359
32	Agua Mansa Rd.	w/o Brown Av.	Heavy Industrial	72.8	Yes	77	167	359
33	Agua Mansa Rd.	w/o Holly St.	Heavy Industrial	73.5	Yes	88	190	410
34	Agua Mansa Rd.	e/o Holly St.	Heavy Industrial	73.5	Yes	88	190	410
35	Agua Mansa Rd.	e/o El Rivino Rd.	General Industrial	74.5	Yes	120	259	559
36	Agua Mansa Rd.	e/o Riverside Av.	General Industrial	71.6	Yes	77	165	355
37	20th St.	e/o Rubidoux Bl.	Light Industrial	75.8	Yes	121	261	563
38	20th St.	e/o Agua Mansa Rd.	Light Industrial	74.6	Yes	102	219	471
39	Market St.	e/o Hall Av.	Light Industrial	76.0	Yes	126	272	587
40	Market St.	e/o Rivera St.	Business Park	77.2	Yes	152	327	704

<sup>&</sup>lt;sup>1</sup> Sources: City of Jurupa Valley General Plan Land Use Map, County of San Bernardino General Plan Land Use Zoning Districts Map, City of Rialto General Plan Land Use Policy Plan, and the City of Riverside General Plan Land Use/Urban Design Element.



<sup>&</sup>lt;sup>2</sup> The CNEL is calculated at the boundary of the right-of-way of each roadway and the property line of the nearest adjacent land use.

<sup>&</sup>quot;RW" = Location of the respective noise contour falls within the right-of-way of the road.

TABLE 7-2: EXISTING WITH ALTERNATIVE 1 CONDITIONS NOISE CONTOURS

2 C 3 C 4 C 5 C 6 R	Road  Cedar Av. Cedar Av. Cedar Av. Cedar Av. Cedar Av. Rubidoux Bl. Rubidoux Bl.	n/o I-10 Fwy. s/o I-10 Fwy. s/o Slover Av. s/o Santa Ana Av. s/o Jurupa Av.	Adjacent Planned Land Use <sup>1</sup> General Commercial Light Industrial General Commercial	Adjacent Land Use (dBA) <sup>2</sup> 77.8 76.7	70 dBA CNEL 173 145	65 dBA CNEL	60 dBA CNEL
2 C 3 C 4 C 5 C 6 R	Cedar Av. Cedar Av. Cedar Av. Cedar Av. Rubidoux Bl.	s/o I-10 Fwy. s/o Slover Av. s/o Santa Ana Av.	Light Industrial			374	805
3 C 4 C 5 C 6 R	Cedar Av. Cedar Av. Cedar Av. Rubidoux Bl.	s/o Slover Av. s/o Santa Ana Av.	_	76.7	1/1		000
4 C 5 C 6 R	Cedar Av. Cedar Av. Rubidoux Bl.	s/o Santa Ana Av.	General Commercial		140	313	673
5 C	Cedar Av. Rubidoux Bl.	•		76.1	132	285	614
6 R	Rubidoux Bl.	s/o Jurupa Av.	Residential	76.2	136	292	630
			General Commercial	77.5	165	356	767
7 0	Ruhidoux Bl	s/o El Rivino Rd.	Heavy Industrial	77.3	182	392	844
,   F	Nabiadax bi.	s/o Production Circle	Heavy Industrial	77.4	183	393	847
8 F	Rubidoux Bl.	s/o 20th St.	Light Industrial	76.0	148	319	688
9 R	Rubidoux Bl.	s/o 24th St.	Light Industrial	76.2	152	328	706
10 R	Rubidoux Bl.	s/o 26th St.	Light Industrial	76.3	154	333	717
11 R	Rubidoux Bl.	s/o 28th St.	Residential	76.5	161	347	747
12 R	Rubidoux Bl.	s/o SR-60 Fwy.	Residential	76.4	157	337	727
13 R	Rubidoux Bl.	s/o 34th St.	Residential	75.2	131	283	610
14 C	Cactus Av.	n/o El Rivino Rd.	Residential	69.4	RW	59	126
15 R	Rivera St.	n/o Market St.	Business Park	71.2	40	86	184
16 R	Riverside Av.	n/o I-10 Fwy.	General Commercial	76.5	162	348	750
17 R	Riverside Av.	s/o I-10 Fwy.	General Industrial	78.6	225	484	1044
18 R	Riverside Av.	s/o Slover Av.	General Industrial	79.6	226	486	1048
19 R	Riverside Av.	s/o Santa Ana Av.	General Industrial	79.3	218	469	1010
20 R	Riverside Av.	s/o Jurupa Av.	General Industrial	79.9	239	515	1110
21 R	Rancho Av.	n/o Agua Mansa Rd.	General Industrial	74.6	105	226	487
22 R	Rancho Av.	s/o Agua Mansa Rd.	General Industrial	73.0	83	179	385
23 S	Slover Av.	w/o Cedar Av.	Light Industrial	73.9	95	204	439
24 S	Slover Av.	w/o Riverside Av.	General Industrial	73.5	89	191	412
25 S	Santa Ana Av.	w/o Cedar Av.	Residential	71.2	53	114	245
26 S	Santa Ana Av.	w/o Riverside Av.	General Industrial	68.6	RW	77	165
27 J	Jurupa Av.	w/o Cedar Av.	Residential	68.8	RW	93	201
28 E	El Rivino Rd.	e/o Cedar Av.	Heavy Industrial	71.7	57	123	265
29 E	El Rivino Rd.	e/o Cactus Av.	Residential	72.4	64	138	297
30 E	El Rivino Rd.	e/o Hall Av.	Residential	68.7	RW	77	166
	Agua Mansa Rd.	e/o 20th St.	Heavy Industrial	73.6	87	188	406
	Agua Mansa Rd.	w/o Brown Av.	Heavy Industrial	73.6	87	188	405
	Agua Mansa Rd.	w/o Holly St.	Heavy Industrial	74.2	98	212	457
	Agua Mansa Rd.	e/o Holly St.	Heavy Industrial	73.8	93	201	433
	Agua Mansa Rd.	e/o El Rivino Rd.	General Industrial	75.7	145	312	672
	Agua Mansa Rd.	e/o Riverside Av.	General Industrial	72.3	86	184	397
	20th St.	e/o Rubidoux Bl.	Light Industrial	76.9	143	309	665
	20th St.	e/o Agua Mansa Rd.	Light Industrial	76.3	132	285	614
	Market St.	e/o Hall Av.	Light Industrial	77.3	154	333	717
	Market St.	e/o Rivera St.	Business Park	78.3	180	387	835

<sup>&</sup>lt;sup>1</sup> Sources: City of Jurupa Valley General Plan Land Use Map, County of San Bernardino General Plan Land Use Zoning Districts Map, City of Rialto General Plan Land Use Policy Plan, and the City of Riverside General Plan Land Use/Urban Design Element.



<sup>&</sup>lt;sup>2</sup> The CNEL is calculated at the boundary of the right-of-way of each roadway and the property line of the nearest adjacent land use.

<sup>&</sup>quot;RW" = Location of the respective noise contour falls within the right-of-way of the road.

TABLE 7-3: EXISTING WITH ALTERNATIVE 1A CONDITIONS NOISE CONTOURS

				CNEL at Nearest		nce to Co	
ID	Road	Segment	Adjacent Planned	Adjacent		ı	` ′
יוו	Nodu	Jeginent	Land Use <sup>1</sup>	Land Use	70	65	60
				(dBA) <sup>2</sup>	dBA	dBA	dBA
1	Codon A.	m/m   10 France	Camanal Camananaial	• •	CNEL	CNEL	CNEL
1	Cedar Av.	n/o I-10 Fwy.	General Commercial	77.8	173	374	805
2	Cedar Av.	s/o I-10 Fwy.	Light Industrial	76.7	145	313	673
3	Cedar Av.	s/o Slover Av.	General Commercial	76.1	132	285	614
4	Cedar Av.	s/o Santa Ana Av.	Residential	76.2	136	292	630
5	Cedar Av.	s/o Jurupa Av.	General Commercial	77.5	165	356	767
6	Rubidoux Bl.	s/o El Rivino Rd.	Heavy Industrial	77.2	178	383	826
7	Rubidoux Bl.	s/o Production Circle	Heavy Industrial	77.2	177	382	822
8	Rubidoux Bl.	s/o 20th St.	Light Industrial	76.0	148	319	687
9	Rubidoux Bl.	s/o 24th St.	Light Industrial	76.2	152	328	706
10	Rubidoux Bl.	s/o 26th St.	Light Industrial	76.3	154	333	717
11	Rubidoux Bl.	s/o 28th St.	Residential	76.5	161	347	747
12	Rubidoux Bl.	s/o SR-60 Fwy.	Residential	76.4	157	337	727
13	Rubidoux Bl.	s/o 34th St.	Residential	75.2	131	283	610
14	Cactus Av.	n/o El Rivino Rd.	Residential	69.4	RW	59	126
15	Rivera St.	n/o Market St.	Business Park	71.2	40	86	184
16	Riverside Av.	n/o I-10 Fwy.	General Commercial	76.5	162	348	750
17	Riverside Av.	s/o I-10 Fwy.	General Industrial	78.6	225	484	1044
18	Riverside Av.	s/o Slover Av.	General Industrial	79.6	226	486	1048
19	Riverside Av.	s/o Santa Ana Av.	General Industrial	79.3	218	469	1010
20	Riverside Av.	s/o Jurupa Av.	General Industrial	79.9	239	515	1110
21	Rancho Av.	n/o Agua Mansa Rd.	General Industrial	74.6	105	226	487
22	Rancho Av.	s/o Agua Mansa Rd.	General Industrial	73.0	83	179	385
23	Slover Av.	w/o Cedar Av.	Light Industrial	73.9	95	204	439
24	Slover Av.	w/o Riverside Av.	General Industrial	73.5	89	191	412
25	Santa Ana Av.	w/o Cedar Av.	Residential	71.2	53	114	245
26	Santa Ana Av.	w/o Riverside Av.	General Industrial	68.6	RW	77	165
27	Jurupa Av.	w/o Cedar Av.	Residential	68.8	RW	93	201
28	El Rivino Rd.	e/o Cedar Av.	Heavy Industrial	75.2	98	210	453
29	El Rivino Rd.	e/o Cactus Av.	Residential	72.4	64	138	297
30	El Rivino Rd.	e/o Hall Av.	Residential	68.7	RW	77	166
31	Agua Mansa Rd.	e/o 20th St.	Heavy Industrial	74.4	98	211	456
32	Agua Mansa Rd.	w/o Brown Av.	Heavy Industrial	74.4	98	211	456
33	Agua Mansa Rd.	w/o Holly St.	Heavy Industrial	74.0	96	206	444
34	Agua Mansa Rd.	e/o Holly St.	Heavy Industrial	74.8	108	233	501
35	Agua Mansa Rd.	e/o El Rivino Rd.	General Industrial	75.7	145	312	672
36	Agua Mansa Rd.	e/o Riverside Av.	General Industrial	72.3	86	184	397
37	20th St.	e/o Rubidoux Bl.	Light Industrial	76.8	141	304	654
38	20th St.	e/o Agua Mansa Rd.	Light Industrial	76.3	132	285	614
39	Market St.	e/o Hall Av.	Light Industrial	77.3	154	333	717
40	Market St.	e/o Rivera St.	Business Park	78.3	180	387	835
		General Plan Land Use Man. Co					

<sup>&</sup>lt;sup>1</sup> Sources: City of Jurupa Valley General Plan Land Use Map, County of San Bernardino General Plan Land Use Zoning Districts Map, City of Rialto General Plan Land Use Policy Plan, and the City of Riverside General Plan Land Use/Urban Design Element.



<sup>&</sup>lt;sup>2</sup> The CNEL is calculated at the boundary of the right-of-way of each roadway and the property line of the nearest adjacent land use.

<sup>&</sup>quot;RW" = Location of the respective noise contour falls within the right-of-way of the road.

TABLE 7-4: EXISTING WITH ALTERNATIVE 2 CONDITIONS NOISE CONTOURS

			Adjacent Planned	CNEL at Nearest		nce to Co	
ID	Road	Segment	Land Use <sup>1</sup>	Adjacent Land Use (dBA) <sup>2</sup>	70 dBA CNEL	65 dBA CNEL	60 dBA CNEL
1	Cedar Av.	n/o I-10 Fwy.	General Commercial	77.8	173	373	804
2	Cedar Av.	s/o I-10 Fwy.	Light Industrial	76.7	144	311	670
3	Cedar Av.	s/o Slover Av.	General Commercial	76.0	132	283	610
4	Cedar Av.	s/o Santa Ana Av.	Residential	76.2	135	291	626
5	Cedar Av.	s/o Jurupa Av.	General Commercial	77.5	164	354	763
6	Rubidoux Bl.	s/o El Rivino Rd.	Heavy Industrial	77.2	178	383	825
7	Rubidoux Bl.	s/o Production Circle	Heavy Industrial	77.2	178	384	828
8	Rubidoux Bl.	s/o 20th St.	Light Industrial	76.0	147	317	683
9	Rubidoux Bl.	s/o 24th St.	Light Industrial	76.1	151	325	700
10	Rubidoux Bl.	s/o 26th St.	Light Industrial	76.2	153	330	712
11	Rubidoux Bl.	s/o 28th St.	Residential	76.5	160	344	741
12	Rubidoux Bl.	s/o SR-60 Fwy.	Residential	76.4	156	337	726
13	Rubidoux Bl.	s/o 34th St.	Residential	75.2	131	283	609
14	Cactus Av.	n/o El Rivino Rd.	Residential	69.4	RW	59	127
15	Rivera St.	n/o Market St.	Business Park	71.2	40	86	185
16	Riverside Av.	n/o I-10 Fwy.	General Commercial	76.5	162	348	750
17	Riverside Av.	s/o I-10 Fwy.	General Industrial	78.6	224	483	1040
18	Riverside Av.	s/o Slover Av.	General Industrial	79.5	225	485	1044
19	Riverside Av.	s/o Santa Ana Av.	General Industrial	79.3	217	467	1006
20	Riverside Av.	s/o Jurupa Av.	General Industrial	79.9	238	513	1106
21	Rancho Av.	n/o Agua Mansa Rd.	General Industrial	74.6	105	226	486
22	Rancho Av.	s/o Agua Mansa Rd.	General Industrial	73.0	83	179	385
23	Slover Av.	w/o Cedar Av.	Light Industrial	73.9	95	204	439
24	Slover Av.	w/o Riverside Av.	General Industrial	73.5	89	191	412
25	Santa Ana Av.	w/o Cedar Av.	Residential	71.2	53	113	244
26	Santa Ana Av.	w/o Riverside Av.	General Industrial	68.6	RW	77	165
27	Jurupa Av.	w/o Cedar Av.	Residential	68.8	RW	94	202
28	El Rivino Rd.	e/o Cedar Av.	Heavy Industrial	71.9	58	126	271
29	El Rivino Rd.	e/o Cactus Av.	Residential	72.4	64	137	295
30	El Rivino Rd.	e/o Hall Av.	Residential	68.7	RW	78	167
31	Agua Mansa Rd.	e/o 20th St.	Heavy Industrial	73.8	90	194	417
32	Agua Mansa Rd.	w/o Brown Av.	Heavy Industrial	73.8	90	193	417
33	Agua Mansa Rd.	w/o Holly St.	Heavy Industrial	74.0	96	206	444
34	Agua Mansa Rd.	e/o Holly St.	Heavy Industrial	74.7	107	230	495
35	Agua Mansa Rd.	e/o El Rivino Rd.	General Industrial	75.7	143	309	665
36	Agua Mansa Rd.	e/o Riverside Av.	General Industrial	72.3	85	183	395
37	20th St.	e/o Rubidoux Bl.	Light Industrial	76.7	141	303	654
38	20th St.	e/o Agua Mansa Rd.	Light Industrial	76.3	131	282	607
39	Market St.	e/o Hall Av.	Light Industrial	77.3	153	329	710
40	Market St.	e/o Rivera St.	Business Park	78.3	178	384	827

<sup>&</sup>lt;sup>1</sup> Sources: City of Jurupa Valley General Plan Land Use Map, County of San Bernardino General Plan Land Use Zoning Districts Map, City of Rialto General Plan Land Use Policy Plan, and the City of Riverside General Plan Land Use/Urban Design Element.



<sup>&</sup>lt;sup>2</sup> The CNEL is calculated at the boundary of the right-of-way of each roadway and the property line of the nearest adjacent land use.

<sup>&</sup>quot;RW" = Location of the respective noise contour falls within the right-of-way of the road.

TABLE 7-5: EXISTING WITH ALTERNATIVE 2A CONDITIONS NOISE CONTOURS

			Adjacent Planned	CNEL at Nearest		nce to Co enterline	
ID	Road	Segment	Land Use <sup>1</sup>	Adjacent Land Use (dBA) <sup>2</sup>	70 dBA CNEL	65 dBA CNEL	60 dBA CNEL
1	Cedar Av.	n/o I-10 Fwy.	General Commercial	77.8	173	373	804
2	Cedar Av.	s/o I-10 Fwy.	Light Industrial	76.7	144	311	670
3	Cedar Av.	s/o Slover Av.	General Commercial	76.0	132	283	610
4	Cedar Av.	s/o Santa Ana Av.	Residential	76.2	135	291	626
5	Cedar Av.	s/o Jurupa Av.	General Commercial	77.5	164	354	763
6	Rubidoux Bl.	s/o El Rivino Rd.	Heavy Industrial	77.0	173	373	805
7	Rubidoux Bl.	s/o Production Circle	Heavy Industrial	77.0	173	372	801
8	Rubidoux Bl.	s/o 20th St.	Light Industrial	75.9	147	316	681
9	Rubidoux Bl.	s/o 24th St.	Light Industrial	76.1	151	325	700
10	Rubidoux Bl.	s/o 26th St.	Light Industrial	76.2	153	330	712
11	Rubidoux Bl.	s/o 28th St.	Residential	76.5	160	344	741
12	Rubidoux Bl.	s/o SR-60 Fwy.	Residential	76.4	156	337	726
13	Rubidoux Bl.	s/o 34th St.	Residential	75.2	131	283	609
14	Cactus Av.	n/o El Rivino Rd.	Residential	69.4	RW	59	127
15	Rivera St.	n/o Market St.	Business Park	71.2	40	86	185
16	Riverside Av.	n/o I-10 Fwy.	General Commercial	76.5	162	348	750
17	Riverside Av.	s/o I-10 Fwy.	General Industrial	78.6	224	483	1040
18	Riverside Av.	s/o Slover Av.	General Industrial	79.5	225	485	1044
19	Riverside Av.	s/o Santa Ana Av.	General Industrial	79.3	217	467	1006
20	Riverside Av.	s/o Jurupa Av.	General Industrial	79.9	238	513	1106
21	Rancho Av.	n/o Agua Mansa Rd.	General Industrial	74.6	105	226	486
22	Rancho Av.	s/o Agua Mansa Rd.	General Industrial	73.0	83	179	385
23	Slover Av.	w/o Cedar Av.	Light Industrial	73.9	95	204	439
24	Slover Av.	w/o Riverside Av.	General Industrial	73.5	89	191	412
25	Santa Ana Av.	w/o Cedar Av.	Residential	71.2	53	113	244
26	Santa Ana Av.	w/o Riverside Av.	General Industrial	68.6	RW	77	165
27	Jurupa Av.	w/o Cedar Av.	Residential	68.8	RW	94	202
28	El Rivino Rd.	e/o Cedar Av.	Heavy Industrial	75.5	103	221	477
29	El Rivino Rd.	e/o Cactus Av.	Residential	72.4	64	137	295
30	El Rivino Rd.	e/o Hall Av.	Residential	68.7	RW	78	167
31	Agua Mansa Rd.	e/o 20th St.	Heavy Industrial	74.6	101	217	467
32	Agua Mansa Rd.	w/o Brown Av.	Heavy Industrial	74.6	101	217	467
33	Agua Mansa Rd.	w/o Holly St.	Heavy Industrial	74.0	97	208	449
34	Agua Mansa Rd.	e/o Holly St.	Heavy Industrial	74.7	107	230	495
35	Agua Mansa Rd.	e/o El Rivino Rd.	General Industrial	75.7	143	309	665
36	Agua Mansa Rd.	e/o Riverside Av.	General Industrial	72.3	85	183	395
37	20th St.	e/o Rubidoux Bl.	Light Industrial	76.6	138	297	641
38	20th St.	e/o Agua Mansa Rd.	Light Industrial	76.3	131	282	607
39	Market St.	e/o Hall Av.	Light Industrial	77.3	153	329	710
40	Market St.	e/o Rivera St.	Business Park	78.3	178	384	827

<sup>&</sup>lt;sup>1</sup> Sources: City of Jurupa Valley General Plan Land Use Map, County of San Bernardino General Plan Land Use Zoning Districts Map, City of Rialto General Plan Land Use Policy Plan, and the City of Riverside General Plan Land Use/Urban Design Element.



<sup>&</sup>lt;sup>2</sup> The CNEL is calculated at the boundary of the right-of-way of each roadway and the property line of the nearest adjacent land use.

<sup>&</sup>quot;RW" = Location of the respective noise contour falls within the right-of-way of the road.

TABLE 7-6: OPENING YEAR 2020 WITHOUT PROJECT CONDITIONS NOISE CONTOURS

			Adjacent Planned	CNEL at Nearest		nce to Co enterline	
ID	Road	Segment	Land Use <sup>1</sup>	Adjacent Land Use (dBA) <sup>2</sup>	70 dBA CNEL	65 dBA CNEL	60 dBA CNEL
1	Cedar Av.	n/o I-10 Fwy.	General Commercial	78.1	182	391	843
2	Cedar Av.	s/o I-10 Fwy.	Light Industrial	77.5	164	353	760
3	Cedar Av.	s/o Slover Av.	General Commercial	76.6	142	306	660
4	Cedar Av.	s/o Santa Ana Av.	Residential	76.6	143	308	663
5	Cedar Av.	s/o Jurupa Av.	General Commercial	77.9	175	378	815
6	Rubidoux Bl.	s/o El Rivino Rd.	Heavy Industrial	77.0	173	372	802
7	Rubidoux Bl.	s/o Production Circle	Heavy Industrial	77.0	172	370	797
8	Rubidoux Bl.	s/o 20th St.	Light Industrial	76.2	153	329	709
9	Rubidoux Bl.	s/o 24th St.	Light Industrial	76.3	156	336	724
10	Rubidoux Bl.	s/o 26th St.	Light Industrial	76.5	160	344	741
11	Rubidoux Bl.	s/o 28th St.	Residential	76.7	165	356	766
12	Rubidoux Bl.	s/o SR-60 Fwy.	Residential	76.8	168	362	781
13	Rubidoux Bl.	s/o 34th St.	Residential	75.6	139	299	645
14	Cactus Av.	n/o El Rivino Rd.	Residential	73.3	50	108	232
15	Rivera St.	n/o Market St.	Business Park	71.9	44	95	204
16	Riverside Av.	n/o I-10 Fwy.	General Commercial	76.7	168	361	778
17	Riverside Av.	s/o I-10 Fwy.	General Industrial	78.9	236	509	1098
18	Riverside Av.	s/o Slover Av.	General Industrial	79.8	235	507	1092
19	Riverside Av.	s/o Santa Ana Av.	General Industrial	79.6	228	492	1059
20	Riverside Av.	s/o Jurupa Av.	General Industrial	80.2	250	538	1159
21	Rancho Av.	n/o Agua Mansa Rd.	General Industrial	74.9	111	239	514
22	Rancho Av.	s/o Agua Mansa Rd.	General Industrial	73.5	89	192	415
23	Slover Av.	w/o Cedar Av.	Light Industrial	74.9	110	237	510
24	Slover Av.	w/o Riverside Av.	General Industrial	74.0	96	208	447
25	Santa Ana Av.	w/o Cedar Av.	Residential	71.7	57	122	263
26	Santa Ana Av.	w/o Riverside Av.	General Industrial	69.7	RW	90	195
27	Jurupa Av.	w/o Cedar Av.	Residential	70.3	54	117	252
28	El Rivino Rd.	e/o Cedar Av.	Heavy Industrial	73.3	73	158	340
29	El Rivino Rd.	e/o Cactus Av.	Residential	71.1	52	112	241
30	El Rivino Rd.	e/o Hall Av.	Residential	69.4	RW	87	187
31	Agua Mansa Rd.	e/o 20th St.	Heavy Industrial	74.2	96	207	445
32	Agua Mansa Rd.	w/o Brown Av.	Heavy Industrial	74.2	96	207	445
33	Agua Mansa Rd.	w/o Holly St.	Heavy Industrial	74.4	102	220	474
34	Agua Mansa Rd.	e/o Holly St.	Heavy Industrial	74.4	102	220	474
35	Agua Mansa Rd.	e/o El Rivino Rd.	General Industrial	75.6	142	305	658
36	Agua Mansa Rd.	e/o Riverside Av.	General Industrial	72.8	92	199	428
37	20th St.	e/o Rubidoux Bl.	Light Industrial	77.0	147	317	684
38	20th St.	e/o Agua Mansa Rd.	Light Industrial	76.4	134	288	621
39	Market St.	e/o Hall Av.	Light Industrial	77.8	164	354	763
40	Market St.	e/o Rivera St.	Business Park	78.6	188	404	870

<sup>&</sup>lt;sup>1</sup> Sources: City of Jurupa Valley General Plan Land Use Map, County of San Bernardino General Plan Land Use Zoning Districts Map, City of Rialto General Plan Land Use Policy Plan, and the City of Riverside General Plan Land Use/Urban Design Element.



<sup>&</sup>lt;sup>2</sup> The CNEL is calculated at the boundary of the right-of-way of each roadway and the property line of the nearest adjacent land use.

<sup>&</sup>quot;RW" = Location of the respective noise contour falls within the right-of-way of the road.

TABLE 7-7: OPENING YEAR 2020 WITH ALTERNATIVE 1 CONDITIONS NOISE CONTOURS

			Adjacent Planned	CNEL at Nearest		nce to Co enterline	
ID	Road	Segment	Land Use <sup>1</sup>	Adjacent Land Use (dBA) <sup>2</sup>	70 dBA CNEL	65 dBA CNEL	60 dBA CNEL
1	Cedar Av.	n/o I-10 Fwy.	General Commercial	78.2	184	396	852
2	Cedar Av.	s/o I-10 Fwy.	Light Industrial	77.9	174	375	807
3	Cedar Av.	s/o Slover Av.	General Commercial	77.1	154	332	714
4	Cedar Av.	s/o Santa Ana Av.	Residential	77.2	157	338	729
5	Cedar Av.	s/o Jurupa Av.	General Commercial	78.6	194	418	901
6	Rubidoux Bl.	s/o El Rivino Rd.	Heavy Industrial	78.3	210	452	975
7	Rubidoux Bl.	s/o Production Circle	Heavy Industrial	78.3	211	454	977
8	Rubidoux Bl.	s/o 20th St.	Light Industrial	77.0	174	374	806
9	Rubidoux Bl.	s/o 24th St.	Light Industrial	77.1	176	380	819
10	Rubidoux Bl.	s/o 26th St.	Light Industrial	77.3	180	387	834
11	Rubidoux Bl.	s/o 28th St.	Residential	77.4	185	398	859
12	Rubidoux Bl.	s/o SR-60 Fwy.	Residential	76.9	171	369	794
13	Rubidoux Bl.	s/o 34th St.	Residential	75.7	142	306	660
14	Cactus Av.	n/o El Rivino Rd.	Residential	73.4	50	108	233
15	Rivera St.	n/o Market St.	Business Park	71.9	44	95	204
16	Riverside Av.	n/o I-10 Fwy.	General Commercial	76.8	170	365	787
17	Riverside Av.	s/o I-10 Fwy.	General Industrial	79.2	247	533	1148
18	Riverside Av.	s/o Slover Av.	General Industrial	80.2	247	532	1147
19	Riverside Av.	s/o Santa Ana Av.	General Industrial	80.0	242	521	1123
20	Riverside Av.	s/o Jurupa Av.	General Industrial	80.6	263	566	1220
21	Rancho Av.	n/o Agua Mansa Rd.	General Industrial	75.1	114	246	529
22	Rancho Av.	s/o Agua Mansa Rd.	General Industrial	73.7	91	196	423
23	Slover Av.	w/o Cedar Av.	Light Industrial	74.9	110	237	511
24	Slover Av.	w/o Riverside Av.	General Industrial	74.0	96	208	448
25	Santa Ana Av.	w/o Cedar Av.	Residential	72.1	61	131	282
26	Santa Ana Av.	w/o Riverside Av.	General Industrial	69.7	RW	90	195
27	Jurupa Av.	w/o Cedar Av.	Residential	70.3	54	117	253
28	El Rivino Rd.	e/o Cedar Av.	Heavy Industrial	74.3	86	184	397
29	El Rivino Rd.	e/o Cactus Av.	Residential	73.4	74	160	344
30	El Rivino Rd.	e/o Hall Av.	Residential	69.8	RW	91	197
31	Agua Mansa Rd.	e/o 20th St.	Heavy Industrial	74.8	105	226	488
32	Agua Mansa Rd.	w/o Brown Av.	Heavy Industrial	74.8	105	226	487
33	Agua Mansa Rd.	w/o Holly St.	Heavy Industrial	75.0	111	240	518
34	Agua Mansa Rd.	e/o Holly St.	Heavy Industrial	74.7	107	230	495
35	Agua Mansa Rd.	e/o El Rivino Rd.	General Industrial	76.6	164	354	763
36	Agua Mansa Rd.	e/o Riverside Av.	General Industrial	73.4	101	217	467
37	20th St.	e/o Rubidoux Bl.	Light Industrial	77.9	167	361	777
38	20th St.	e/o Agua Mansa Rd.	Light Industrial	77.6	161	347	748
39	Market St.	e/o Hall Av.	Light Industrial	78.7	189	408	879
40	Market St.	e/o Rivera St.	Business Park	79.4	213	459	989

<sup>&</sup>lt;sup>1</sup> Sources: City of Jurupa Valley General Plan Land Use Map, County of San Bernardino General Plan Land Use Zoning Districts Map, City of Rialto General Plan Land Use Policy Plan, and the City of Riverside General Plan Land Use/Urban Design Element.



<sup>&</sup>lt;sup>2</sup> The CNEL is calculated at the boundary of the right-of-way of each roadway and the property line of the nearest adjacent land use.

<sup>&</sup>quot;RW" = Location of the respective noise contour falls within the right-of-way of the road.

TABLE 7-8: OPENING YEAR 2020 WITH ALTERNATIVE 1A CONDITIONS NOISE CONTOURS

			Adjacent Planned	CNEL at Nearest		nce to Co	
ID	Road	Segment	Land Use <sup>1</sup>	Adjacent Land Use (dBA) <sup>2</sup>	70 dBA CNEL	65 dBA CNEL	60 dBA CNEL
1	Cedar Av.	n/o I-10 Fwy.	General Commercial	78.2	184	396	852
2	Cedar Av.	s/o I-10 Fwy.	Light Industrial	77.9	174	375	807
3	Cedar Av.	s/o Slover Av.	General Commercial	77.1	154	332	714
4	Cedar Av.	s/o Santa Ana Av.	Residential	77.2	157	338	729
5	Cedar Av.	s/o Jurupa Av.	General Commercial	78.6	194	418	901
6	Rubidoux Bl.	s/o El Rivino Rd.	Heavy Industrial	78.2	206	444	957
7	Rubidoux Bl.	s/o Production Circle	Heavy Industrial	78.1	206	443	954
8	Rubidoux Bl.	s/o 20th St.	Light Industrial	77.0	173	373	805
9	Rubidoux Bl.	s/o 24th St.	Light Industrial	77.1	176	380	819
10	Rubidoux Bl.	s/o 26th St.	Light Industrial	77.3	180	387	834
11	Rubidoux Bl.	s/o 28th St.	Residential	77.4	185	398	859
12	Rubidoux Bl.	s/o SR-60 Fwy.	Residential	76.9	171	369	794
13	Rubidoux Bl.	s/o 34th St.	Residential	75.7	142	306	660
14	Cactus Av.	n/o El Rivino Rd.	Residential	73.4	50	108	233
15	Rivera St.	n/o Market St.	Business Park	71.9	44	95	204
16	Riverside Av.	n/o I-10 Fwy.	General Commercial	76.8	170	365	787
17	Riverside Av.	s/o I-10 Fwy.	General Industrial	79.2	247	533	1148
18	Riverside Av.	s/o Slover Av.	General Industrial	80.2	247	532	1147
19	Riverside Av.	s/o Santa Ana Av.	General Industrial	80.0	242	521	1123
20	Riverside Av.	s/o Jurupa Av.	General Industrial	80.6	263	566	1220
21	Rancho Av.	n/o Agua Mansa Rd.	General Industrial	75.1	114	246	529
22	Rancho Av.	s/o Agua Mansa Rd.	General Industrial	73.7	91	196	423
23	Slover Av.	w/o Cedar Av.	Light Industrial	74.9	110	237	511
24	Slover Av.	w/o Riverside Av.	General Industrial	74.0	96	208	448
25	Santa Ana Av.	w/o Cedar Av.	Residential	72.1	61	131	282
26	Santa Ana Av.	w/o Riverside Av.	General Industrial	69.7	RW	90	195
27	Jurupa Av.	w/o Cedar Av.	Residential	70.3	54	117	253
28	El Rivino Rd.	e/o Cedar Av.	Heavy Industrial	76.6	121	260	560
29	El Rivino Rd.	e/o Cactus Av.	Residential	73.4	74	160	344
30	El Rivino Rd.	e/o Hall Av.	Residential	69.8	RW	91	197
31	Agua Mansa Rd.	e/o 20th St.	Heavy Industrial	75.4	115	247	533
32	Agua Mansa Rd.	w/o Brown Av.	Heavy Industrial	75.4	115	247	533
33	Agua Mansa Rd.	w/o Holly St.	Heavy Industrial	74.8	109	235	505
34	Agua Mansa Rd.	e/o Holly St.	Heavy Industrial	75.5	121	260	560
35	Agua Mansa Rd.	e/o El Rivino Rd.	General Industrial	76.6	164	354	763
36	Agua Mansa Rd.	e/o Riverside Av.	General Industrial	73.4	101	217	467
37	20th St.	e/o Rubidoux Bl.	Light Industrial	77.8	165	356	767
38	20th St.	e/o Agua Mansa Rd.	Light Industrial	77.6	161	347	748
39	Market St.	e/o Hall Av.	Light Industrial	78.7	189	408	879
40	Market St.	e/o Rivera St.	Business Park	79.4	213	459	989

<sup>&</sup>lt;sup>1</sup> Sources: City of Jurupa Valley General Plan Land Use Map, County of San Bernardino General Plan Land Use Zoning Districts Map, City of Rialto General Plan Land Use Policy Plan, and the City of Riverside General Plan Land Use/Urban Design Element.



<sup>&</sup>lt;sup>2</sup> The CNEL is calculated at the boundary of the right-of-way of each roadway and the property line of the nearest adjacent land use.

<sup>&</sup>quot;RW" = Location of the respective noise contour falls within the right-of-way of the road.

TABLE 7-9: OPENING YEAR 2020 WITH ALTERNATIVE 2 CONDITIONS NOISE CONTOURS

				CNEL at		nce to Co	
			Adjacent Planned	Nearest	from C	enterline	e (Feet)
ID	Road	Segment	Land Use <sup>1</sup>	Adjacent	70	65	60
				Land Use	dBA	dBA	dBA
				(dBA) <sup>2</sup>	CNEL	CNEL	CNEL
1	Cedar Av.	n/o I-10 Fwy.	General Commercial	78.2	183	395	852
2	Cedar Av.	s/o I-10 Fwy.	Light Industrial	77.8	173	373	805
3	Cedar Av.	s/o Slover Av.	General Commercial	77.0	153	330	711
4	Cedar Av.	s/o Santa Ana Av.	Residential	77.2	156	337	726
5	Cedar Av.	s/o Jurupa Av.	General Commercial	78.6	193	417	898
6	Rubidoux Bl.	s/o El Rivino Rd.	Heavy Industrial	78.1	206	444	957
7	Rubidoux Bl.	s/o Production Circle	Heavy Industrial	78.2	207	445	959
8	Rubidoux Bl.	s/o 20th St.	Light Industrial	77.0	173	372	801
9	Rubidoux Bl.	s/o 24th St.	Light Industrial	77.1	175	378	814
10	Rubidoux Bl.	s/o 26th St.	Light Industrial	77.2	179	385	830
11	Rubidoux Bl.	s/o 28th St.	Residential	77.4	184	396	853
12	Rubidoux Bl.	s/o SR-60 Fwy.	Residential	76.9	171	369	794
13	Rubidoux Bl.	s/o 34th St.	Residential	75.7	142	306	659
14	Cactus Av.	n/o El Rivino Rd.	Residential	73.4	50	109	234
15	Rivera St.	n/o Market St.	Business Park	71.9	44	95	204
16	Riverside Av.	n/o I-10 Fwy.	General Commercial	76.8	169	365	786
17	Riverside Av.	s/o I-10 Fwy.	General Industrial	79.2	247	531	1145
18	Riverside Av.	s/o Slover Av.	General Industrial	80.1	246	531	1143
19	Riverside Av.	s/o Santa Ana Av.	General Industrial	80.0	241	520	1120
20	Riverside Av.	s/o Jurupa Av.	General Industrial	80.5	262	565	1217
21	Rancho Av.	n/o Agua Mansa Rd.	General Industrial	75.1	114	245	528
22	Rancho Av.	s/o Agua Mansa Rd.	General Industrial	73.7	91	196	423
23	Slover Av.	w/o Cedar Av.	Light Industrial	74.9	110	237	512
24	Slover Av.	w/o Riverside Av.	General Industrial	74.0	96	208	448
25	Santa Ana Av.	w/o Cedar Av.	Residential	72.1	61	131	281
26	Santa Ana Av.	w/o Riverside Av.	General Industrial	69.7	RW	90	195
27	Jurupa Av.	w/o Cedar Av.	Residential	70.3	55	117	253
28	El Rivino Rd.	e/o Cedar Av.	Heavy Industrial	74.4	87	187	403
29	El Rivino Rd.	e/o Cactus Av.	Residential	73.3	74	159	342
30	El Rivino Rd.	e/o Hall Av.	Residential	69.8	RW	92	198
31	Agua Mansa Rd.	e/o 20th St.	Heavy Industrial	75.0	107	231	498
32	Agua Mansa Rd.	w/o Brown Av.	Heavy Industrial	75.0	107	231	498
33	Agua Mansa Rd.	w/o Holly St.	Heavy Industrial	74.8	109	235	506
34	Agua Mansa Rd.	e/o Holly St.	Heavy Industrial	75.4	119	257	554
35	Agua Mansa Rd.	e/o El Rivino Rd.	General Industrial	76.5	163	351	757
36	Agua Mansa Rd.	e/o Riverside Av.	General Industrial	73.3	100	216	465
37	20th St.	e/o Rubidoux Bl.	Light Industrial	77.8	165	356	767
38	20th St.	e/o Agua Mansa Rd.	Light Industrial	77.6	160	344	741
39	Market St.	e/o Hall Av.	Light Industrial	78.6	188	405	873
40	Market St.	e/o Rivera St.	Business Park	79.4	212	456	983

<sup>&</sup>lt;sup>1</sup> Sources: City of Jurupa Valley General Plan Land Use Map, County of San Bernardino General Plan Land Use Zoning Districts Map, City of Rialto General Plan Land Use Policy Plan, and the City of Riverside General Plan Land Use/Urban Design Element.



<sup>&</sup>lt;sup>2</sup> The CNEL is calculated at the boundary of the right-of-way of each roadway and the property line of the nearest adjacent land use.

<sup>&</sup>quot;RW" = Location of the respective noise contour falls within the right-of-way of the road.

TABLE 7-10: OPENING YEAR 2020 WITH ALTERNATIVE 2A CONDITIONS NOISE CONTOURS

			Adjacent Planned	CNEL at Nearest		nce to Co	
ID	Road	Segment	Land Use <sup>1</sup>	Adjacent Land Use (dBA) <sup>2</sup>	70 dBA CNEL	65 dBA CNEL	60 dBA CNEL
1	Cedar Av.	n/o I-10 Fwy.	General Commercial	78.2	183	395	852
2	Cedar Av.	s/o I-10 Fwy.	Light Industrial	77.8	173	373	805
3	Cedar Av.	s/o Slover Av.	General Commercial	77.0	153	330	711
4	Cedar Av.	s/o Santa Ana Av.	Residential	77.2	156	337	726
5	Cedar Av.	s/o Jurupa Av.	General Commercial	78.6	193	417	898
6	Rubidoux Bl.	s/o El Rivino Rd.	Heavy Industrial	78.0	202	435	938
7	Rubidoux Bl.	s/o Production Circle	Heavy Industrial	78.0	201	434	934
8	Rubidoux Bl.	s/o 20th St.	Light Industrial	77.0	172	371	800
9	Rubidoux Bl.	s/o 24th St.	Light Industrial	77.1	175	378	814
10	Rubidoux Bl.	s/o 26th St.	Light Industrial	77.2	179	385	830
11	Rubidoux Bl.	s/o 28th St.	Residential	77.4	184	396	853
12	Rubidoux Bl.	s/o SR-60 Fwy.	Residential	76.9	171	369	794
13	Rubidoux Bl.	s/o 34th St.	Residential	75.7	142	306	659
14	Cactus Av.	n/o El Rivino Rd.	Residential	73.4	50	109	234
15	Rivera St.	n/o Market St.	Business Park	71.9	44	95	204
16	Riverside Av.	n/o I-10 Fwy.	General Commercial	76.8	169	365	786
17	Riverside Av.	s/o I-10 Fwy.	General Industrial	79.2	247	531	1145
18	Riverside Av.	s/o Slover Av.	General Industrial	80.1	246	531	1143
19	Riverside Av.	s/o Santa Ana Av.	General Industrial	80.0	241	520	1120
20	Riverside Av.	s/o Jurupa Av.	General Industrial	80.5	262	565	1217
21	Rancho Av.	n/o Agua Mansa Rd.	General Industrial	75.1	114	245	528
22	Rancho Av.	s/o Agua Mansa Rd.	General Industrial	73.7	91	196	423
23	Slover Av.	w/o Cedar Av.	Light Industrial	74.9	110	237	512
24	Slover Av.	w/o Riverside Av.	General Industrial	74.0	96	208	448
25	Santa Ana Av.	w/o Cedar Av.	Residential	72.1	61	131	281
26	Santa Ana Av.	w/o Riverside Av.	General Industrial	69.7	RW	90	195
27	Jurupa Av.	w/o Cedar Av.	Residential	70.3	55	117	253
28	El Rivino Rd.	e/o Cedar Av.	Heavy Industrial	76.8	125	270	581
29	El Rivino Rd.	e/o Cactus Av.	Residential	73.3	74	159	342
30	El Rivino Rd.	e/o Hall Av.	Residential	69.8	RW	92	198
31	Agua Mansa Rd.	e/o 20th St.	Heavy Industrial	75.5	117	252	543
32	Agua Mansa Rd.	w/o Brown Av.	Heavy Industrial	75.5	117	252	543
33	Agua Mansa Rd.	w/o Holly St.	Heavy Industrial	74.9	110	237	510
34	Agua Mansa Rd.	e/o Holly St.	Heavy Industrial	75.4	119	257	554
35	Agua Mansa Rd.	e/o El Rivino Rd.	General Industrial	76.5	163	351	757
36	Agua Mansa Rd.	e/o Riverside Av.	General Industrial	73.3	100	216	465
37	20th St.	e/o Rubidoux Bl.	Light Industrial	77.7	163	350	755
38	20th St.	e/o Agua Mansa Rd.	Light Industrial	77.6	160	344	741
39	Market St.	e/o Hall Av.	Light Industrial	78.6	188	405	873
40	Market St.	e/o Rivera St.	Business Park	79.4	212	456	983

<sup>&</sup>lt;sup>1</sup> Sources: City of Jurupa Valley General Plan Land Use Map, County of San Bernardino General Plan Land Use Zoning Districts Map, City of Rialto General Plan Land Use Policy Plan, and the City of Riverside General Plan Land Use/Urban Design Element.



<sup>&</sup>lt;sup>2</sup> The CNEL is calculated at the boundary of the right-of-way of each roadway and the property line of the nearest adjacent land use.

<sup>&</sup>quot;RW" = Location of the respective noise contour falls within the right-of-way of the road.

**TABLE 7-11: YEAR 2035 WITHOUT PROJECT CONDITIONS NOISE CONTOURS** 

			Adjacent Planned	CNEL at Nearest	Distance to Contour from Centerline (Feet)		
ID	Road	Segment	Land Use <sup>1</sup>	Adjacent Land Use (dBA) <sup>2</sup>	70 dBA CNEL	65 dBA CNEL	60 dBA CNEL
1	Cedar Av.	n/o I-10 Fwy.	General Commercial	78.4	188	405	872
2	Cedar Av.	s/o I-10 Fwy.	Light Industrial	77.5	164	353	760
3	Cedar Av.	s/o Slover Av.	General Commercial	76.6	142	306	660
4	Cedar Av.	s/o Santa Ana Av.	Residential	76.6	143	308	663
5	Cedar Av.	s/o Jurupa Av.	General Commercial	77.9	175	378	815
6	Rubidoux Bl.	s/o El Rivino Rd.	Heavy Industrial	77.0	173	372	802
7	Rubidoux Bl.	s/o Production Circle	Heavy Industrial	77.0	172	370	797
8	Rubidoux Bl.	s/o 20th St.	Light Industrial	76.2	153	329	709
9	Rubidoux Bl.	s/o 24th St.	Light Industrial	76.3	156	336	724
10	Rubidoux Bl.	s/o 26th St.	Light Industrial	76.5	160	344	741
11	Rubidoux Bl.	s/o 28th St.	Residential	76.8	169	363	783
12	Rubidoux Bl.	s/o SR-60 Fwy.	Residential	76.9	170	367	790
13	Rubidoux Bl.	s/o 34th St.	Residential	75.6	139	299	645
14	Cactus Av.	n/o El Rivino Rd.	Residential	73.3	50	108	232
15	Rivera St.	n/o Market St.	Business Park	71.9	44	95	204
16	Riverside Av.	n/o I-10 Fwy.	General Commercial	77.6	192	414	892
17	Riverside Av.	s/o I-10 Fwy.	General Industrial	79.8	270	581	1251
18	Riverside Av.	s/o Slover Av.	General Industrial	80.7	269	579	1248
19	Riverside Av.	s/o Santa Ana Av.	General Industrial	80.8	273	588	1267
20	Riverside Av.	s/o Jurupa Av.	General Industrial	80.8	273	588	1267
21	Rancho Av.	n/o Agua Mansa Rd.	General Industrial	75.5	121	261	562
22	Rancho Av.	s/o Agua Mansa Rd.	General Industrial	74.6	105	227	490
23	Slover Av.	w/o Cedar Av.	Light Industrial	75.7	125	270	582
24	Slover Av.	w/o Riverside Av.	General Industrial	74.1	98	211	455
25	Santa Ana Av.	w/o Cedar Av.	Residential	72.0	60	130	280
26	Santa Ana Av.	w/o Riverside Av.	General Industrial	69.7	RW	90	195
27	Jurupa Av.	w/o Cedar Av.	Residential	70.4	55	119	256
28	El Rivino Rd.	e/o Cedar Av.	Heavy Industrial	73.9	79	171	369
29	El Rivino Rd.	e/o Cactus Av.	Residential	71.5	55	119	256
30	El Rivino Rd.	e/o Hall Av.	Residential	69.4	RW	87	187
31	Agua Mansa Rd.	e/o 20th St.	Heavy Industrial	75.3	113	243	524
32	Agua Mansa Rd.	w/o Brown Av.	Heavy Industrial	75.3	113	243	524
33	Agua Mansa Rd.	w/o Holly St.	Heavy Industrial	75.3	117	253	545
34	Agua Mansa Rd.	e/o Holly St.	Heavy Industrial	75.3	117	253	545
35	Agua Mansa Rd.	e/o El Rivino Rd.	General Industrial	76.5	163	351	756
36	Agua Mansa Rd.	e/o Riverside Av.	General Industrial	73.1	97	209	451
37	20th St.	e/o Rubidoux Bl.	Light Industrial	77.1	148	318	685
38	20th St.	e/o Agua Mansa Rd.	Light Industrial	76.4	134	288	621
39	Market St.	e/o Hall Av.	Light Industrial	77.8	164	354	763
40	Market St.	e/o Rivera St.	Business Park	79.1	202	436	939

<sup>&</sup>lt;sup>1</sup> Sources: City of Jurupa Valley General Plan Land Use Map, County of San Bernardino General Plan Land Use Zoning Districts Map, City of Rialto General Plan Land Use Policy Plan, and the City of Riverside General Plan Land Use/Urban Design Element.



<sup>&</sup>lt;sup>2</sup> The CNEL is calculated at the boundary of the right-of-way of each roadway and the property line of the nearest adjacent land use.

<sup>&</sup>quot;RW" = Location of the respective noise contour falls within the right-of-way of the road.

TABLE 7-12: YEAR 2035 WITH ALTERNATIVE 1 CONDITIONS NOISE CONTOURS

				CNEL at Nearest			e to Contour	
ID	Road	Segment	Adjacent Planned Land Use <sup>1</sup>	Adjacent Land Use (dBA) <sup>2</sup>	70 dBA CNEL	65 dBA CNEL	60 dBA CNEL	
1	Cedar Av.	n/o I-10 Fwy.	General Commercial	78.4	190	409	881	
2	Cedar Av.	s/o I-10 Fwy.	Light Industrial	77.9	174	375	807	
3	Cedar Av.	s/o Slover Av.	General Commercial	77.1	154	332	714	
4	Cedar Av.	s/o Santa Ana Av.	Residential	77.2	157	338	729	
5	Cedar Av.	s/o Jurupa Av.	General Commercial	78.6	194	418	901	
6	Rubidoux Bl.	s/o El Rivino Rd.	Heavy Industrial	78.3	210	452	975	
7	Rubidoux Bl.	s/o Production Circle	Heavy Industrial	78.3	211	454	977	
8	Rubidoux Bl.	s/o 20th St.	Light Industrial	77.0	174	374	806	
9	Rubidoux Bl.	s/o 24th St.	Light Industrial	77.1	176	380	819	
10	Rubidoux Bl.	s/o 26th St.	Light Industrial	77.3	180	387	834	
11	Rubidoux Bl.	s/o 28th St.	Residential	77.6	188	406	874	
12	Rubidoux Bl.	s/o SR-60 Fwy.	Residential	77.0	173	373	803	
13	Rubidoux Bl.	s/o 34th St.	Residential	75.7	142	306	660	
14	Cactus Av.	n/o El Rivino Rd.	Residential	73.4	50	108	233	
15	Rivera St.	n/o Market St.	Business Park	71.9	44	95	204	
16	Riverside Av.	n/o I-10 Fwy.	General Commercial	77.6	194	418	900	
17	Riverside Av.	s/o I-10 Fwy.	General Industrial	80.0	280	603	1299	
18	Riverside Av.	s/o Slover Av.	General Industrial	81.0	280	603	1299	
19	Riverside Av.	s/o Santa Ana Av.	General Industrial	81.1	286	616	1326	
20	Riverside Av.	s/o Jurupa Av.	General Industrial	81.1	286	616	1326	
21	Rancho Av.	n/o Agua Mansa Rd.	General Industrial	75.7	124	268	577	
22	Rancho Av.	s/o Agua Mansa Rd.	General Industrial	74.7	107	231	498	
23	Slover Av.	w/o Cedar Av.	Light Industrial	75.7	126	271	583	
24	Slover Av.	w/o Riverside Av.	General Industrial	74.1	98	211	455	
25	Santa Ana Av.	w/o Cedar Av.	Residential	72.5	64	138	298	
26	Santa Ana Av.	w/o Riverside Av.	General Industrial	69.7	RW	90	195	
27	Jurupa Av.	w/o Cedar Av.	Residential	70.4	55	119	257	
28	El Rivino Rd.	e/o Cedar Av.	Heavy Industrial	74.8	91	197	424	
29	El Rivino Rd.	e/o Cactus Av.	Residential	73.6	77	166	357	
30	El Rivino Rd.	e/o Hall Av.	Residential	69.8	RW	91	197	
31	Agua Mansa Rd.	e/o 20th St.	Heavy Industrial	75.8	121	261	563	
32	Agua Mansa Rd.	w/o Brown Av.	Heavy Industrial	75.8	121	261	562	
33	Agua Mansa Rd.	w/o Holly St.	Heavy Industrial	75.8	126	272	586	
34	Agua Mansa Rd.	e/o Holly St.	Heavy Industrial	75.5	122	262	565	
35	Agua Mansa Rd.	e/o El Rivino Rd.	General Industrial	77.3	184	397	854	
36	Agua Mansa Rd.	e/o Riverside Av.	General Industrial	73.7	105	227	488	
37	20th St.	e/o Rubidoux Bl.	Light Industrial	77.9	168	361	779	
38	20th St.	e/o Agua Mansa Rd.	Light Industrial	77.6	161	347	748	
39	Market St.	e/o Hall Av.	Light Industrial	78.7	189	408	879	
40	Market St.	e/o Rivera St.	Business Park	79.9	227	489	1054	

<sup>&</sup>lt;sup>1</sup> Sources: City of Jurupa Valley General Plan Land Use Map, County of San Bernardino General Plan Land Use Zoning Districts Map, City of Rialto General Plan Land Use Policy Plan, and the City of Riverside General Plan Land Use/Urban Design Element.



<sup>&</sup>lt;sup>2</sup> The CNEL is calculated at the boundary of the right-of-way of each roadway and the property line of the nearest adjacent land use.

<sup>&</sup>quot;RW" = Location of the respective noise contour falls within the right-of-way of the road.

TABLE 7-13: YEAR 2035 WITH ALTERNATIVE 1A CONDITIONS NOISE CONTOURS

				CNEL at Nearest			to Contour terline (Feet)	
ID	Road	Segment	Adjacent Planned Land Use <sup>1</sup>	Adjacent Land Use (dBA) <sup>2</sup>	70 dBA CNEL	65 dBA CNEL	60 dBA CNEL	
1	Cedar Av.	n/o I-10 Fwy.	General Commercial	78.4	190	409	881	
2	Cedar Av.	s/o I-10 Fwy.	Light Industrial	77.9	174	375	807	
3	Cedar Av.	s/o Slover Av.	General Commercial	77.1	154	332	714	
4	Cedar Av.	s/o Santa Ana Av.	Residential	77.2	157	338	729	
5	Cedar Av.	s/o Jurupa Av.	General Commercial	78.6	194	418	901	
6	Rubidoux Bl.	s/o El Rivino Rd.	Heavy Industrial	78.2	206	444	957	
7	Rubidoux Bl.	s/o Production Circle	Heavy Industrial	78.1	206	443	954	
8	Rubidoux Bl.	s/o 20th St.	Light Industrial	77.0	173	373	805	
9	Rubidoux Bl.	s/o 24th St.	Light Industrial	77.1	176	380	819	
10	Rubidoux Bl.	s/o 26th St.	Light Industrial	77.3	180	387	834	
11	Rubidoux Bl.	s/o 28th St.	Residential	77.6	188	406	874	
12	Rubidoux Bl.	s/o SR-60 Fwy.	Residential	77.0	173	373	803	
13	Rubidoux Bl.	s/o 34th St.	Residential	75.7	142	306	660	
14	Cactus Av.	n/o El Rivino Rd.	Residential	73.4	50	108	233	
15	Rivera St.	n/o Market St.	Business Park	71.9	44	95	204	
16	Riverside Av.	n/o I-10 Fwy.	General Commercial	77.6	194	418	900	
17	Riverside Av.	s/o I-10 Fwy.	General Industrial	80.0	280	603	1299	
18	Riverside Av.	s/o Slover Av.	General Industrial	81.0	280	603	1299	
19	Riverside Av.	s/o Santa Ana Av.	General Industrial	81.1	286	616	1326	
20	Riverside Av.	s/o Jurupa Av.	General Industrial	81.1	286	616	1326	
21	Rancho Av.	n/o Agua Mansa Rd.	General Industrial	75.7	124	268	577	
22	Rancho Av.	s/o Agua Mansa Rd.	General Industrial	74.7	107	231	498	
23	Slover Av.	w/o Cedar Av.	Light Industrial	75.7	126	271	583	
24	Slover Av.	w/o Riverside Av.	General Industrial	74.1	98	211	455	
25	Santa Ana Av.	w/o Cedar Av.	Residential	72.5	64	138	298	
26	Santa Ana Av.	w/o Riverside Av.	General Industrial	69.7	RW	90	195	
27	Jurupa Av.	w/o Cedar Av.	Residential	70.4	55	119	257	
28	El Rivino Rd.	e/o Cedar Av.	Heavy Industrial	76.8	126	270	583	
29	El Rivino Rd.	e/o Cactus Av.	Residential	73.6	77	166	357	
30	El Rivino Rd.	e/o Hall Av.	Residential	69.8	RW	91	197	
31	Agua Mansa Rd.	e/o 20th St.	Heavy Industrial	76.2	130	281	606	
32	Agua Mansa Rd.	w/o Brown Av.	Heavy Industrial	76.2	130	281	606	
33	Agua Mansa Rd.	w/o Holly St.	Heavy Industrial	75.6	124	267	574	
34	Agua Mansa Rd.	e/o Holly St.	Heavy Industrial	76.2	135	290	625	
35	Agua Mansa Rd.	e/o El Rivino Rd.	General Industrial	77.3	184	397	854	
36	Agua Mansa Rd.	e/o Riverside Av.	General Industrial	73.7	105	227	488	
37	20th St.	e/o Rubidoux Bl.	Light Industrial	77.8	166	357	769	
38	20th St.	e/o Agua Mansa Rd.	Light Industrial	77.6	161	347	748	
39	Market St.	e/o Hall Av.	Light Industrial	78.7	189	408	879	
40	Market St.	e/o Rivera St.	Business Park	79.9	227	489	1054	

<sup>&</sup>lt;sup>1</sup> Sources: City of Jurupa Valley General Plan Land Use Map, County of San Bernardino General Plan Land Use Zoning Districts Map, City of Rialto General Plan Land Use Policy Plan, and the City of Riverside General Plan Land Use/Urban Design Element.



<sup>&</sup>lt;sup>2</sup> The CNEL is calculated at the boundary of the right-of-way of each roadway and the property line of the nearest adjacent land use.

<sup>&</sup>quot;RW" = Location of the respective noise contour falls within the right-of-way of the road.

TABLE 7-14: YEAR 2035 WITH ALTERNATIVE 2 CONDITIONS NOISE CONTOURS

			Adjacent Planned	CNEL at Nearest		nce to Contour enterline (Feet)		
ID	Road	Segment	Land Use <sup>1</sup>	Adjacent Land Use (dBA) <sup>2</sup>	70 dBA CNEL	65 dBA CNEL	60 dBA CNEL	
1	Cedar Av.	n/o I-10 Fwy.	General Commercial	78.4	190	409	880	
2	Cedar Av.	s/o I-10 Fwy.	Light Industrial	77.8	173	373	805	
3	Cedar Av.	s/o Slover Av.	General Commercial	77.0	153	330	711	
4	Cedar Av.	s/o Santa Ana Av.	Residential	77.2	156	337	726	
5	Cedar Av.	s/o Jurupa Av.	General Commercial	78.6	193	417	898	
6	Rubidoux Bl.	s/o El Rivino Rd.	Heavy Industrial	78.1	206	444	957	
7	Rubidoux Bl.	s/o Production Circle	Heavy Industrial	78.2	207	445	959	
8	Rubidoux Bl.	s/o 20th St.	Light Industrial	77.0	173	372	801	
9	Rubidoux Bl.	s/o 24th St.	Light Industrial	77.1	175	378	814	
10	Rubidoux Bl.	s/o 26th St.	Light Industrial	77.2	179	385	830	
11	Rubidoux Bl.	s/o 28th St.	Residential	77.5	187	403	869	
12	Rubidoux Bl.	s/o SR-60 Fwy.	Residential	77.0	173	373	803	
13	Rubidoux Bl.	s/o 34th St.	Residential	75.7	142	306	659	
14	Cactus Av.	n/o El Rivino Rd.	Residential	73.4	50	109	234	
15	Rivera St.	n/o Market St.	Business Park	71.9	44	95	204	
16	Riverside Av.	n/o I-10 Fwy.	General Commercial	77.6	194	417	899	
17	Riverside Av.	s/o I-10 Fwy.	General Industrial	80.0	279	601	1296	
18	Riverside Av.	s/o Slover Av.	General Industrial	80.9	279	602	1296	
19	Riverside Av.	s/o Santa Ana Av.	General Industrial	81.1	285	614	1323	
20	Riverside Av.	s/o Jurupa Av.	General Industrial	81.1	285	614	1323	
21	Rancho Av.	n/o Agua Mansa Rd.	General Industrial	75.7	124	267	576	
22	Rancho Av.	s/o Agua Mansa Rd.	General Industrial	74.7	107	231	497	
23	Slover Av.	w/o Cedar Av.	Light Industrial	75.8	126	271	584	
24	Slover Av.	w/o Riverside Av.	General Industrial	74.1	98	211	455	
25	Santa Ana Av.	w/o Cedar Av.	Residential	72.4	64	138	297	
26	Santa Ana Av.	w/o Riverside Av.	General Industrial	69.7	RW	90	195	
27	Jurupa Av.	w/o Cedar Av.	Residential	70.4	55	120	258	
28	El Rivino Rd.	e/o Cedar Av.	Heavy Industrial	74.8	92	199	429	
29	El Rivino Rd.	e/o Cactus Av.	Residential	73.6	76	165	355	
30	El Rivino Rd.	e/o Hall Av.	Residential	69.8	RW	92	198	
31	Agua Mansa Rd.	e/o 20th St.	Heavy Industrial	75.9	123	266	573	
32	Agua Mansa Rd.	w/o Brown Av.	Heavy Industrial	75.9	123	266	572	
33	Agua Mansa Rd.	w/o Holly St.	Heavy Industrial	75.7	124	267	575	
34	Agua Mansa Rd.	e/o Holly St.	Heavy Industrial	76.1	134	288	620	
35	Agua Mansa Rd.	e/o El Rivino Rd.	General Industrial	77.3	183	394	849	
36	Agua Mansa Rd.	e/o Riverside Av.	General Industrial	73.6	105	226	486	
37	20th St.	e/o Rubidoux Bl.	Light Industrial	77.8	165	357	768	
38	20th St.	e/o Agua Mansa Rd.	Light Industrial	77.6	160	344	741	
39	Market St.	e/o Hall Av.	Light Industrial	78.6	188	405	873	
40	Market St.	e/o Rivera St.	Business Park	79.8	226	486	1047	

<sup>&</sup>lt;sup>1</sup> Sources: City of Jurupa Valley General Plan Land Use Map, County of San Bernardino General Plan Land Use Zoning Districts Map, City of Rialto General Plan Land Use Policy Plan, and the City of Riverside General Plan Land Use/Urban Design Element.



<sup>&</sup>lt;sup>2</sup> The CNEL is calculated at the boundary of the right-of-way of each roadway and the property line of the nearest adjacent land use.

<sup>&</sup>quot;RW" = Location of the respective noise contour falls within the right-of-way of the road.

TABLE 7-15: YEAR 2035 WITH ALTERNATIVE 2A CONDITIONS NOISE CONTOURS

Land Use				Adianas Blassad	CNEL at Nearest		ntour e (Feet)	
1         Cedar Av.         n/o I-10 Fwy.         General Commercial         78.4         190         409         880           2         Cedar Av.         s/o I-10 Fwy.         Light Industrial         77.8         173         373         805           3         Cedar Av.         s/o Solver Av.         General Commercial         77.0         153         330         711           4         Cedar Av.         s/o Solvar Av.         General Commercial         77.2         156         337         726           5         Cedar Av.         s/o Jurupa Av.         General Commercial         78.6         193         417         888           6         Rubidoux Bl.         s/o 20th St.         Heavy Industrial         78.0         201         434         934           8         Rubidoux Bl.         s/o 20th St.         Light Industrial         77.0         172         371         800           9         Rubidoux Bl.         s/o 26th St.         Light Industrial         77.1         175         378         814           10         Rubidoux Bl.         s/o 26th St.         Light Industrial         77.2         179         385         830           11         Rubidoux Bl.         s/o 24th St.	ID	Road	Segment	Adjacent Planned Land Use <sup>1</sup>	Land Use	dBA	dBA	dBA
2         Cedar Av.         s/o Slover Av.         General Commercial         77.0         153         3373         805           3         Cedar Av.         s/o Slover Av.         General Commercial         77.0         153         330         721           4         Cedar Av.         s/o Santa Ana Av.         Residential         77.2         156         337         726           5         Cedar Av.         s/o Jurupa Av.         General Commercial         78.6         193         417         898           6         Rubidoux Bl.         s/o El Rivino Rd.         Heavy Industrial         78.0         202         435         938           7         Rubidoux Bl.         s/o 20th St.         Light Industrial         77.0         172         371         800           9         Rubidoux Bl.         s/o 24th St.         Light Industrial         77.1         175         378         814           10         Rubidoux Bl.         s/o 26th St.         Light Industrial         77.1         175         378         830           11         Rubidoux Bl.         s/o 26th St.         Light Industrial         77.5         187         403         869           12         Rubidoux Bl.         s/o SA Shad	1	Cedar Av.	n/o I-10 Fwv.	General Commercial	78.4			
3         Cedar Av.         s/o Slover Av.         General Commercial         77.0         153         330         711           4         Cedar Av.         s/o Santa Ana Av.         Residential         77.2         156         337         726           5         Cedar Av.         s/o Li Rivino Rd.         Heavy Industrial         78.6         193         417         898           6         Rubidoux Bl.         s/o El Rivino Rd.         Heavy Industrial         78.0         202         435         938           7         Rubidoux Bl.         s/o 24th St.         Light Industrial         77.0         172         371         800           9         Rubidoux Bl.         s/o 26th St.         Light Industrial         77.1         175         378         814           10         Rubidoux Bl.         s/o 28th St.         Residential         77.5         187         403         869           12         Rubidoux Bl.         s/o 28th St.         Residential         77.5         187         403         869           12         Rubidoux Bl.         s/o 29th St.         Residential         77.5         187         403         869           12         Rubidoux Bl.         s/o 34th St.         <			•					
4         Cedar Av.         s/o Santa Ana Av.         Residential         77.2         156         337         726           5         Cedar Av.         s/o Jurupa Av.         General Commercial         78.6         193         417         898           6         Rubidoux Bl.         s/o Production Circle         Heavy Industrial         78.0         202         435         938           7         Rubidoux Bl.         s/o 20th St.         Light Industrial         77.0         172         371         800           9         Rubidoux Bl.         s/o 28th St.         Light Industrial         77.1         175         378         814           10         Rubidoux Bl.         s/o 28th St.         Residential         77.2         179         385         830           11         Rubidoux Bl.         s/o 28th St.         Residential         77.5         187         403         869           12         Rubidoux Bl.         s/o 34th St.         Residential         77.0         173         373         803           13         Rubidoux Bl.         s/o 34th St.         Residential         77.0         173         373         803           14         Cactus Av.         n/o Elivinor Rd.			•	_				
5         Cedar Av.         s/o Jurupa Av.         General Commercial         78.6         193         417         898           6         Rubidoux Bl.         s/o El Rivino Rd.         Heavy Industrial         78.0         202         435         938           7         Rubidoux Bl.         s/o 20th St.         Light Industrial         77.0         172         371         800           9         Rubidoux Bl.         s/o 26th St.         Light Industrial         77.1         175         378         814           10         Rubidoux Bl.         s/o 26th St.         Light Industrial         77.2         179         385         330           11         Rubidoux Bl.         s/o 28th St.         Residential         77.5         187         403         869           12         Rubidoux Bl.         s/o 34th St.         Residential         77.5         187         403         869           14         Cactus Av.         n/o El Rivino Rd.         Residential         75.7         142         306         659           14         Cactus Av.         n/o Harket St.         Business Park         71.9         44         95         204           15         Riverside Av.         s/o 110 Fwy.			•		1			
6         Rubidoux BI.         s/o El Rivino Rd.         Heavy Industrial         78.0         202         435         938           7         Rubidoux BI.         s/o Production Circle         Heavy Industrial         78.0         201         434         934           8         Rubidoux BI.         s/o 20th St.         Light Industrial         77.0         172         371         800           9         Rubidoux BI.         s/o 26th St.         Light Industrial         77.2         179         385         830           11         Rubidoux BI.         s/o 28th St.         Residential         77.5         187         403         869           12         Rubidoux BI.         s/o SR-60 Fwy.         Residential         77.0         173         373         803           13         Rubidoux BI.         s/o SR-60 Fwy.         Residential         75.7         142         306         659           14         Cactus Av.         n/o El Rivino Rd.         Residential         75.7         142         306         659           14         Cactus Av.         n/o El Rivino Rd.         Residential         75.7         144         95         204           16         Riverside Av.         n/o Market St. </td <td>5</td> <td></td> <td>·</td> <td></td> <td>ł</td> <td></td> <td></td> <td></td>	5		·		ł			
7         Rubidoux BI.         s/o Production Circle         Heavy Industrial         78.0         201         434         934           8         Rubidoux BI.         s/o 20th St.         Light Industrial         77.0         172         371         800           9         Rubidoux BI.         s/o 26th St.         Light Industrial         77.1         175         378         814           10         Rubidoux BI.         s/o 28th St.         Residential         77.5         187         403         869           12         Rubidoux BI.         s/o 28th St.         Residential         77.0         173         373         803           12         Rubidoux BI.         s/o 34th St.         Residential         77.0         173         373         803           13         Rubidoux BI.         s/o 34th St.         Residential         77.5         142         306         659           14         Cactus Av.         n/o El Rivino Rd.         Residential         77.6         142         306         659           14         Cactus Av.         n/o El Rivino Rd.         Residential         77.6         144         95         204           16         Riverside Av.         s/o I-10 Fwy. <t< td=""><td></td><td></td><td><u>'</u></td><td></td><td>ł</td><td></td><td></td><td></td></t<>			<u>'</u>		ł			
8         Rubidoux BI.         s/o 20th St.         Light Industrial         77.0         172         371         800           9         Rubidoux BI.         s/o 24th St.         Light Industrial         77.1         175         378         814           10         Rubidoux BI.         s/o 26th St.         Light Industrial         77.2         179         385         830           11         Rubidoux BI.         s/o 28th St.         Residential         77.0         173         373         803           12         Rubidoux BI.         s/o 34th St.         Residential         77.0         173         373         803           13         Rubidoux BI.         s/o 34th St.         Residential         75.7         142         306         659           14         Cactus Av.         n/o El Rivino Rd.         Residential         73.4         50         109         234           15         Rivers St.         n/o Market St.         Business Park         71.9         44         95         204           16         Riverside Av.         s/o Slover Av.         General Industrial         80.0         279         601         1296           17         Riverside Av.         s/o Slover Av.         <			· '	•	ł			
9 Rubidoux Bl. \$/0 24th St. Light Industrial 77.1 175 378 814 10 Rubidoux Bl. \$/0 26th St. Light Industrial 77.2 179 385 830 11 Rubidoux Bl. \$/0 28th St. Residential 77.5 187 403 869 12 Rubidoux Bl. \$/0 28th St. Residential 77.5 187 403 869 12 Rubidoux Bl. \$/0 34th St. Residential 77.0 173 373 803 13 Rubidoux Bl. \$/0 34th St. Residential 75.7 142 306 659 14 Cactus Av. n/0 El Rivino Rd. Residential 73.4 50 109 234 15 Rivera St. n/0 Market St. Business Park 71.9 44 95 204 16 Riverside Av. n/0 I-10 Fwy. General Commercial 77.6 194 417 899 17 Riverside Av. \$/0 I-10 Fwy. General Industrial 80.0 279 601 1296 18 Riverside Av. \$/0 Slover Av. General Industrial 80.9 279 602 1296 19 Riverside Av. \$/0 Slover Av. General Industrial 81.1 285 614 1323 20 Riverside Av. \$/0 Jurupa Av. General Industrial 81.1 285 614 1323 21 Rancho Av. n/0 Agua Mansa Rd. General Industrial 75.7 124 267 576 22 Rancho Av. w/0 Cedar Av. Light Industrial 75.8 126 271 584 24 Slover Av. w/0 Cedar Av. Light Industrial 75.8 126 271 584 24 Slover Av. w/0 Riverside Av. General Industrial 75.8 126 271 584 24 Slover Av. w/0 Cedar Av. Residential 72.4 64 138 297 291 Jurupa Av. W/0 Riverside Av. Residential 77.1 130 280 604 29 El Rivino Rd. e/0 Cedar Av. Residential 77.1 130 280 604 29 El Rivino Rd. e/0 Cedar Av. Residential 77.1 130 280 604 29 El Rivino Rd. e/0 Cedar Av. Residential 75.7 125 269 579 34 Agua Mansa Rd. w/0 Brown Av. Heavy Industrial 75.7 125 269 579 34 Agua Mansa Rd. e/0 Hall Av. Residential 75.7 125 269 579 34 Agua Mansa Rd. w/0 Brown Av. Heavy Industrial 75.7 125 269 579 34 Agua Mansa Rd. e/0 Fel Rivino Rd. General Industrial 75.7 125 269 579 34 Agua Mansa Rd. e/0 Fel Rivino Rd. General Industrial 77.3 183 394 849 630 Agua Mansa Rd. e/0 Riviside Av. General Industrial 77.3 183 394 849 630 Agua Mansa Rd. e/0 Riviside Av. General Industrial 77.3 183 394 849 630 Agua Mansa Rd. e/0 Riviside Av. General Industrial 77.7 150 250 570 570 570 570 570 570 570 570 570 5	8		·		ł			
10         Rubidoux Bl.         s/o 26th St.         Light Industrial         77.2         179         385         830           11         Rubidoux Bl.         s/o 28th St.         Residential         77.5         187         403         869           12         Rubidoux Bl.         s/o SR-60 Fwy.         Residential         77.0         173         373         803           13         Rubidoux Bl.         s/o 34th St.         Residential         75.7         142         306         659           14         Cactus Av.         n/o El Rivino Rd.         Residential         73.4         50         109         234           15         Rivers St.         n/o Market St.         Business Park         71.9         44         95         204           16         Riverside Av.         n/o I-10 Fwy.         General Commercial         77.6         194         417         899           17         Riverside Av.         s/o Slover Av.         General Industrial         80.0         279         601         1296           18         Riverside Av.         s/o Santa Ana Av.         General Industrial         81.1         285         614         1323           20         Riverside Av.         s/o Agua Man			· '					
11         Rubidoux Bl.         s/o 28th St.         Residential         77.5         187         403         869           12         Rubidoux Bl.         s/o SR-60 Fwy.         Residential         77.0         173         373         803           13         Rubidoux Bl.         s/o 34th St.         Residential         75.7         142         306         659           14         Cactus Av.         n/o El Rivino Rd.         Residential         73.4         50         109         234           15         Rivera St.         n/o Harket St.         Business Park         71.9         44         95         204           16         Riverside Av.         n/o 1-10 Fwy.         General Commercial         77.6         194         417         899           17         Riverside Av.         s/o Slover Av.         General Industrial         80.0         279         601         1296           18         Riverside Av.         s/o Supra Av.         General Industrial         81.1         285         614         1323           20         Riverside Av.         s/o Agua Mansa Rd.         General Industrial         75.7         124         267         576           22         Rancho Av.         w/o Rivers			· '		ł			
12         Rubidoux Bl.         s/o SR-60 Fwy.         Residential         77.0         173         373         803           13         Rubidoux Bl.         s/o 34th St.         Residential         75.7         142         306         659           14         Cactus Av.         n/o El Rivino Rd.         Residential         73.4         50         109         234           15         Rivers St.         n/o Market St.         Business Park         71.9         44         95         204           16         Riverside Av.         n/o I-10 Fwy.         General Commercial         77.6         194         417         899           17         Riverside Av.         s/o I-10 Fwy.         General Industrial         80.0         279         601         1296           18         Riverside Av.         s/o Solover Av.         General Industrial         81.1         285         614         1323           20         Riverside Av.         s/o Agua Mansa Rd.         General Industrial         81.1         285         614         1323           21         Rancho Av.         s/o Agua Mansa Rd.         General Industrial         75.7         124         267         576           22         Rancho Av.         <			· '		ł			
13         Rubidoux Bl.         s/o 34th St.         Residential         75.7         142         306         659           14         Cactus Av.         n/o El Rivino Rd.         Residential         73.4         50         109         234           15         Rivers St.         n/o Market St.         Business Park         71.9         44         95         204           16         Riverside Av.         n/o I-10 Fwy.         General Commercial         77.6         194         417         899           17         Riverside Av.         s/o I-10 Fwy.         General Industrial         80.0         279         601         1296           18         Riverside Av.         s/o Slover Av.         General Industrial         80.9         279         602         1296           19         Riverside Av.         s/o Sonta Ana Av.         General Industrial         81.1         285         614         1323           20         Riverside Av.         s/o Agua Mansa Rd.         General Industrial         75.7         124         267         576           22         Rancho Av.         s/o Rogua Mansa Rd.         General Industrial         74.7         107         231         497           23         Slover Av. <td>12</td> <td></td> <td>•</td> <td></td> <td>1</td> <td></td> <td></td> <td></td>	12		•		1			
14         Cactus Av.         n/o El Rivino Rd.         Residential         73.4         50         109         234           15         Rivera St.         n/o Market St.         Business Park         71.9         44         95         204           16         Riverside Av.         n/o I-10 Fwy.         General Commercial         77.6         194         417         899           17         Riverside Av.         s/o Slover Av.         General Industrial         80.0         279         601         1296           18         Riverside Av.         s/o Slover Av.         General Industrial         80.0         279         602         1296           19         Riverside Av.         s/o Santa Ana Av.         General Industrial         81.1         285         614         1323           20         Riverside Av.         s/o Jurupa Av.         General Industrial         75.7         124         267         576           22         Rancho Av.         s/o Agua Mansa Rd.         General Industrial         74.7         107         231         497           23         Slover Av.         w/o Riverside Av.         General Industrial         74.1         98         211         455           24         Slover Av			·					
15         Rivera St.         n/o Market St.         Business Park         71.9         44         95         204           16         Riverside Av.         n/o I-10 Fwy.         General Commercial         77.6         194         417         899           17         Riverside Av.         s/o I-10 Fwy.         General Industrial         80.0         279         601         1296           18         Riverside Av.         s/o Solver Av.         General Industrial         80.9         279         602         1296           19         Riverside Av.         s/o Santa Ana Av.         General Industrial         81.1         285         614         1323           20         Riverside Av.         s/o Jurupa Av.         General Industrial         81.1         285         614         1323           21         Rancho Av.         n/o Agua Mansa Rd.         General Industrial         75.7         124         267         576           22         Rancho Av.         w/o Riverside Av.         General Industrial         74.7         107         231         497           23         Slover Av.         w/o Riverside Av.         General Industrial         74.1         98         211         455           25         S		Cactus Av.	n/o El Rivino Rd.		ł			
16         Riverside Av.         n/o I-10 Fwy.         General Commercial         77.6         194         417         899           17         Riverside Av.         s/o I-10 Fwy.         General Industrial         80.0         279         601         1296           18         Riverside Av.         s/o Solver Av.         General Industrial         80.9         279         602         1296           19         Riverside Av.         s/o Santa Ana Av.         General Industrial         81.1         285         614         1323           20         Riverside Av.         s/o Jurupa Av.         General Industrial         75.7         124         267         576           21         Rancho Av.         s/o Agua Mansa Rd.         General Industrial         75.7         124         267         576           22         Rancho Av.         s/o Agua Mansa Rd.         General Industrial         74.7         107         231         497           23         Slover Av.         w/o Riverside Av.         General Industrial         75.8         126         271         584           24         Slover Av.         w/o Riverside Av.         General Industrial         74.1         98         211         455           25	15					44	95	204
17         Riverside Av.         s/o I-10 Fwy.         General Industrial         80.0         279         601         1296           18         Riverside Av.         s/o Slover Av.         General Industrial         80.9         279         602         1296           19         Riverside Av.         s/o Santa Ana Av.         General Industrial         81.1         285         614         1323           20         Riverside Av.         s/o Jurupa Av.         General Industrial         75.7         124         267         576           21         Rancho Av.         s/o Agua Mansa Rd.         General Industrial         74.7         107         231         497           23         Slover Av.         s/o Agua Mansa Rd.         General Industrial         74.7         107         231         497           23         Slover Av.         w/o Riverside Av.         General Industrial         75.8         126         271         584           24         Slover Av.         w/o Riverside Av.         General Industrial         74.1         98         211         455           25         Santa Ana Av.         w/o Cedar Av.         Residential         70.4         55         120         258           26 <td< td=""><td></td><td></td><td>· ·</td><td></td><td></td><td>194</td><td></td><td></td></td<>			· ·			194		
18         Riverside Av.         s/o Slover Av.         General Industrial         80.9         279         602         1296           19         Riverside Av.         s/o Santa Ana Av.         General Industrial         81.1         285         614         1323           20         Riverside Av.         s/o Jurupa Av.         General Industrial         81.1         285         614         1323           21         Rancho Av.         n/o Agua Mansa Rd.         General Industrial         75.7         124         267         576           22         Rancho Av.         s/o Agua Mansa Rd.         General Industrial         74.7         107         231         497           23         Slover Av.         w/o Cedar Av.         Light Industrial         75.8         126         271         584           24         Slover Av.         w/o Riverside Av.         General Industrial         74.1         98         211         455           25         Santa Ana Av.         w/o Cedar Av.         Residential         72.4         64         138         297           26         Santa Ana Av.         w/o Riverside Av.         General Industrial         69.7         RW         90         195           27         Jur	17		· · · · · · · · · · · · · · · · · · ·	General Industrial	ł			1296
19         Riverside Av.         s/o Santa Ana Av.         General Industrial         81.1         285         614         1323           20         Riverside Av.         s/o Jurupa Av.         General Industrial         81.1         285         614         1323           21         Rancho Av.         n/o Agua Mansa Rd.         General Industrial         75.7         124         267         576           22         Rancho Av.         s/o Agua Mansa Rd.         General Industrial         74.7         107         231         497           23         Slover Av.         w/o Cedar Av.         Light Industrial         75.8         126         271         584           24         Slover Av.         w/o Riverside Av.         General Industrial         74.1         98         211         455           25         Santa Ana Av.         w/o Riverside Av.         Residential         72.4         64         138         297           26         Santa Ana Av.         w/o Riverside Av.         Residential         70.4         55         120         258           28         El Rivino Rd.         e/o Cedar Av.         Heavy Industrial         77.1         130         280         604           29         El Rivino			•		ł			1296
20         Riverside Av.         s/o Jurupa Av.         General Industrial         81.1         285         614         1323           21         Rancho Av.         n/o Agua Mansa Rd.         General Industrial         75.7         124         267         576           22         Rancho Av.         s/o Agua Mansa Rd.         General Industrial         74.7         107         231         497           23         Slover Av.         w/o Cedar Av.         Light Industrial         75.8         126         271         584           24         Slover Av.         w/o Riverside Av.         General Industrial         74.1         98         211         455           25         Santa Ana Av.         w/o Cedar Av.         Residential         72.4         64         138         297           26         Santa Ana Av.         w/o Riverside Av.         General Industrial         69.7         RW         90         195           27         Jurupa Av.         w/o Cedar Av.         Residential         70.4         55         120         258           28         El Rivino Rd.         e/o Cactus Av.         Residential         77.1         130         280         604           29         El Rivino Rd.			· '		ł			1323
21         Rancho Av.         n/o Agua Mansa Rd.         General Industrial         75.7         124         267         576           22         Rancho Av.         s/o Agua Mansa Rd.         General Industrial         74.7         107         231         497           23         Slover Av.         w/o Cedar Av.         Light Industrial         75.8         126         271         584           24         Slover Av.         w/o Riverside Av.         General Industrial         74.1         98         211         455           25         Santa Ana Av.         w/o Cedar Av.         Residential         72.4         64         138         297           26         Santa Ana Av.         w/o Riverside Av.         General Industrial         69.7         RW         90         195           27         Jurupa Av.         w/o Cedar Av.         Residential         70.4         55         120         258           28         El Rivino Rd.         e/o Cactus Av.         Residential         77.1         130         280         604           29         El Rivino Rd.         e/o Hall Av.         Residential         73.6         76         165         355           30         El Rivino Rd.         e/o Bau	20		•		ł			1323
22         Rancho Av.         s/o Agua Mansa Rd.         General Industrial         74.7         107         231         497           23         Slover Av.         w/o Cedar Av.         Light Industrial         75.8         126         271         584           24         Slover Av.         w/o Riverside Av.         General Industrial         74.1         98         211         455           25         Santa Ana Av.         w/o Cedar Av.         Residential         72.4         64         138         297           26         Santa Ana Av.         w/o Riverside Av.         General Industrial         69.7         RW         90         195           27         Jurupa Av.         w/o Cedar Av.         Residential         70.4         55         120         258           28         El Rivino Rd.         e/o Cedar Av.         Heavy Industrial         77.1         130         280         604           29         El Rivino Rd.         e/o Cactus Av.         Residential         73.6         76         165         355           30         El Rivino Rd.         e/o Hall Av.         Residential         76.4         133         286         615           31         Agua Mansa Rd.         e/o 20th S					1			
23         Slover Av.         w/o Cedar Av.         Light Industrial         75.8         126         271         584           24         Slover Av.         w/o Riverside Av.         General Industrial         74.1         98         211         455           25         Santa Ana Av.         w/o Cedar Av.         Residential         72.4         64         138         297           26         Santa Ana Av.         w/o Cedar Av.         General Industrial         69.7         RW         90         195           27         Jurupa Av.         w/o Cedar Av.         Residential         70.4         55         120         258           28         El Rivino Rd.         e/o Cedar Av.         Heavy Industrial         77.1         130         280         604           29         El Rivino Rd.         e/o Hall Av.         Residential         73.6         76         165         355           30         El Rivino Rd.         e/o Hall Av.         Residential         73.6         76         165         355           31         Agua Mansa Rd.         e/o 20th St.         Heavy Industrial         76.4         133         286         615           32         Agua Mansa Rd.         e/o Holly St.	_				ł			
24         Slover Av.         w/o Riverside Av.         General Industrial         74.1         98         211         455           25         Santa Ana Av.         w/o Cedar Av.         Residential         72.4         64         138         297           26         Santa Ana Av.         w/o Riverside Av.         General Industrial         69.7         RW         90         195           27         Jurupa Av.         w/o Cedar Av.         Residential         70.4         55         120         258           28         El Rivino Rd.         e/o Cedar Av.         Heavy Industrial         77.1         130         280         604           29         El Rivino Rd.         e/o Cactus Av.         Residential         73.6         76         165         355           30         El Rivino Rd.         e/o Hall Av.         Residential         69.8         RW         92         198           31         Agua Mansa Rd.         e/o 20th St.         Heavy Industrial         76.4         133         286         615           32         Agua Mansa Rd.         e/o Holly St.         Heavy Industrial         75.7         125         269         579           34         Agua Mansa Rd.         e/o Riversid		Slover Av.		Light Industrial	ł	126	271	
25         Santa Ana Av.         w/o Cedar Av.         Residential         72.4         64         138         297           26         Santa Ana Av.         w/o Riverside Av.         General Industrial         69.7         RW         90         195           27         Jurupa Av.         w/o Cedar Av.         Residential         70.4         55         120         258           28         El Rivino Rd.         e/o Cedar Av.         Heavy Industrial         77.1         130         280         604           29         El Rivino Rd.         e/o Cactus Av.         Residential         73.6         76         165         355           30         El Rivino Rd.         e/o Hall Av.         Residential         69.8         RW         92         198           31         Agua Mansa Rd.         e/o 20th St.         Heavy Industrial         76.4         133         286         615           32         Agua Mansa Rd.         w/o Holly St.         Heavy Industrial         75.7         125         269         579           34         Agua Mansa Rd.         e/o Holly St.         Heavy Industrial         76.1         134         288         620           35         Agua Mansa Rd.         e/o Riverside			· '	•	ł	98		
26         Santa Ana Av.         w/o Riverside Av.         General Industrial         69.7         RW         90         195           27         Jurupa Av.         w/o Cedar Av.         Residential         70.4         55         120         258           28         El Rivino Rd.         e/o Cedar Av.         Heavy Industrial         77.1         130         280         604           29         El Rivino Rd.         e/o Cactus Av.         Residential         73.6         76         165         355           30         El Rivino Rd.         e/o Hall Av.         Residential         69.8         RW         92         198           31         Agua Mansa Rd.         e/o 20th St.         Heavy Industrial         76.4         133         286         615           32         Agua Mansa Rd.         w/o Brown Av.         Heavy Industrial         76.4         133         286         615           33         Agua Mansa Rd.         e/o Holly St.         Heavy Industrial         75.7         125         269         579           34         Agua Mansa Rd.         e/o El Rivino Rd.         General Industrial         77.3         183         394         849           36         Agua Mansa Rd.	25	Santa Ana Av.	w/o Cedar Av.	Residential	72.4	64	138	297
28       El Rivino Rd.       e/o Cedar Av.       Heavy Industrial       77.1       130       280       604         29       El Rivino Rd.       e/o Cactus Av.       Residential       73.6       76       165       355         30       El Rivino Rd.       e/o Hall Av.       Residential       69.8       RW       92       198         31       Agua Mansa Rd.       e/o 20th St.       Heavy Industrial       76.4       133       286       615         32       Agua Mansa Rd.       w/o Brown Av.       Heavy Industrial       76.4       133       286       615         33       Agua Mansa Rd.       w/o Holly St.       Heavy Industrial       75.7       125       269       579         34       Agua Mansa Rd.       e/o Holly St.       Heavy Industrial       76.1       134       288       620         35       Agua Mansa Rd.       e/o El Rivino Rd.       General Industrial       77.3       183       394       849         36       Agua Mansa Rd.       e/o Rubidoux Bl.       Light Industrial       77.7       163       351       756         38       20th St.       e/o Agua Mansa Rd.       Light Industrial       78.6       188       405       873		Santa Ana Av.	w/o Riverside Av.	General Industrial	69.7	RW		
28       El Rivino Rd.       e/o Cedar Av.       Heavy Industrial       77.1       130       280       604         29       El Rivino Rd.       e/o Cactus Av.       Residential       73.6       76       165       355         30       El Rivino Rd.       e/o Hall Av.       Residential       69.8       RW       92       198         31       Agua Mansa Rd.       e/o 20th St.       Heavy Industrial       76.4       133       286       615         32       Agua Mansa Rd.       w/o Brown Av.       Heavy Industrial       76.4       133       286       615         33       Agua Mansa Rd.       w/o Holly St.       Heavy Industrial       75.7       125       269       579         34       Agua Mansa Rd.       e/o Holly St.       Heavy Industrial       76.1       134       288       620         35       Agua Mansa Rd.       e/o El Rivino Rd.       General Industrial       77.3       183       394       849         36       Agua Mansa Rd.       e/o Rubidoux Bl.       Light Industrial       77.7       163       351       756         38       20th St.       e/o Agua Mansa Rd.       Light Industrial       77.6       160       344       741	27	Jurupa Av.	w/o Cedar Av.	Residential	70.4	55	120	258
29       El Rivino Rd.       e/o Cactus Av.       Residential       73.6       76       165       355         30       El Rivino Rd.       e/o Hall Av.       Residential       69.8       RW       92       198         31       Agua Mansa Rd.       e/o 20th St.       Heavy Industrial       76.4       133       286       615         32       Agua Mansa Rd.       w/o Brown Av.       Heavy Industrial       76.4       133       286       615         33       Agua Mansa Rd.       w/o Holly St.       Heavy Industrial       75.7       125       269       579         34       Agua Mansa Rd.       e/o Holly St.       Heavy Industrial       76.1       134       288       620         35       Agua Mansa Rd.       e/o El Rivino Rd.       General Industrial       77.3       183       394       849         36       Agua Mansa Rd.       e/o Riverside Av.       General Industrial       73.6       105       226       486         37       20th St.       e/o Rubidoux Bl.       Light Industrial       77.7       163       351       756         38       20th St.       e/o Hall Av.       Light Industrial       78.6       188       405       873 <td></td> <td>•</td> <td></td> <td></td> <td>ł</td> <td></td> <td></td> <td></td>		•			ł			
30       El Rivino Rd.       e/o Hall Av.       Residential       69.8       RW       92       198         31       Agua Mansa Rd.       e/o 20th St.       Heavy Industrial       76.4       133       286       615         32       Agua Mansa Rd.       w/o Brown Av.       Heavy Industrial       76.4       133       286       615         33       Agua Mansa Rd.       w/o Holly St.       Heavy Industrial       75.7       125       269       579         34       Agua Mansa Rd.       e/o Holly St.       Heavy Industrial       76.1       134       288       620         35       Agua Mansa Rd.       e/o El Rivino Rd.       General Industrial       77.3       183       394       849         36       Agua Mansa Rd.       e/o Riverside Av.       General Industrial       73.6       105       226       486         37       20th St.       e/o Rubidoux Bl.       Light Industrial       77.7       163       351       756         38       20th St.       e/o Agua Mansa Rd.       Light Industrial       78.6       188       405       873			e/o Cactus Av.					
31       Agua Mansa Rd.       e/o 20th St.       Heavy Industrial       76.4       133       286       615         32       Agua Mansa Rd.       w/o Brown Av.       Heavy Industrial       76.4       133       286       615         33       Agua Mansa Rd.       w/o Holly St.       Heavy Industrial       75.7       125       269       579         34       Agua Mansa Rd.       e/o Holly St.       Heavy Industrial       76.1       134       288       620         35       Agua Mansa Rd.       e/o El Rivino Rd.       General Industrial       77.3       183       394       849         36       Agua Mansa Rd.       e/o Riverside Av.       General Industrial       73.6       105       226       486         37       20th St.       e/o Rubidoux Bl.       Light Industrial       77.7       163       351       756         38       20th St.       e/o Agua Mansa Rd.       Light Industrial       77.6       160       344       741         39       Market St.       e/o Hall Av.       Light Industrial       78.6       188       405       873			'					400
32       Agua Mansa Rd.       w/o Brown Av.       Heavy Industrial       76.4       133       286       615         33       Agua Mansa Rd.       w/o Holly St.       Heavy Industrial       75.7       125       269       579         34       Agua Mansa Rd.       e/o Holly St.       Heavy Industrial       76.1       134       288       620         35       Agua Mansa Rd.       e/o El Rivino Rd.       General Industrial       77.3       183       394       849         36       Agua Mansa Rd.       e/o Riverside Av.       General Industrial       73.6       105       226       486         37       20th St.       e/o Rubidoux Bl.       Light Industrial       77.7       163       351       756         38       20th St.       e/o Agua Mansa Rd.       Light Industrial       77.6       160       344       741         39       Market St.       e/o Hall Av.       Light Industrial       78.6       188       405       873								
33       Agua Mansa Rd.       w/o Holly St.       Heavy Industrial       75.7       125       269       579         34       Agua Mansa Rd.       e/o Holly St.       Heavy Industrial       76.1       134       288       620         35       Agua Mansa Rd.       e/o El Rivino Rd.       General Industrial       77.3       183       394       849         36       Agua Mansa Rd.       e/o Riverside Av.       General Industrial       73.6       105       226       486         37       20th St.       e/o Rubidoux Bl.       Light Industrial       77.7       163       351       756         38       20th St.       e/o Agua Mansa Rd.       Light Industrial       77.6       160       344       741         39       Market St.       e/o Hall Av.       Light Industrial       78.6       188       405       873	_		·					
34       Agua Mansa Rd.       e/o Holly St.       Heavy Industrial       76.1       134       288       620         35       Agua Mansa Rd.       e/o El Rivino Rd.       General Industrial       77.3       183       394       849         36       Agua Mansa Rd.       e/o Riverside Av.       General Industrial       73.6       105       226       486         37       20th St.       e/o Rubidoux Bl.       Light Industrial       77.7       163       351       756         38       20th St.       e/o Agua Mansa Rd.       Light Industrial       77.6       160       344       741         39       Market St.       e/o Hall Av.       Light Industrial       78.6       188       405       873	_	_			1			
35       Agua Mansa Rd.       e/o El Rivino Rd.       General Industrial       77.3       183       394       849         36       Agua Mansa Rd.       e/o Riverside Av.       General Industrial       73.6       105       226       486         37       20th St.       e/o Rubidoux Bl.       Light Industrial       77.7       163       351       756         38       20th St.       e/o Agua Mansa Rd.       Light Industrial       77.6       160       344       741         39       Market St.       e/o Hall Av.       Light Industrial       78.6       188       405       873	_		•	•				
36       Agua Mansa Rd.       e/o Riverside Av.       General Industrial       73.6       105       226       486         37       20th St.       e/o Rubidoux Bl.       Light Industrial       77.7       163       351       756         38       20th St.       e/o Agua Mansa Rd.       Light Industrial       77.6       160       344       741         39       Market St.       e/o Hall Av.       Light Industrial       78.6       188       405       873	_		· · · · · · · · · · · · · · · · · · ·	•				
37       20th St.       e/o Rubidoux BI.       Light Industrial       77.7       163       351       756         38       20th St.       e/o Agua Mansa Rd.       Light Industrial       77.6       160       344       741         39       Market St.       e/o Hall Av.       Light Industrial       78.6       188       405       873								
38       20th St.       e/o Agua Mansa Rd.       Light Industrial       77.6       160       344       741         39       Market St.       e/o Hall Av.       Light Industrial       78.6       188       405       873	37	_						
39 Market St.         e/o Hall Av.         Light Industrial         78.6         188         405         873				•				
	_			_				
40   Market St.             e/o Rivera St.           Business Park               79.8         226       486       1047	40	Market St.	e/o Rivera St.	Business Park	79.8	226	486	1047

<sup>&</sup>lt;sup>1</sup> Sources: City of Jurupa Valley General Plan Land Use Map, County of San Bernardino General Plan Land Use Zoning Districts Map, City of Rialto General Plan Land Use Policy Plan, and the City of Riverside General Plan Land Use/Urban Design Element.



<sup>&</sup>lt;sup>2</sup> The CNEL is calculated at the boundary of the right-of-way of each roadway and the property line of the nearest adjacent land use.

<sup>&</sup>quot;RW" = Location of the respective noise contour falls within the right-of-way of the road.

## 7.2 Existing Conditions Project Traffic Noise Level Contributions

An analysis of existing traffic noise levels plus traffic noise generated by the proposed Project (E+P) has been included in this report. However, the analysis of existing traffic noise levels plus traffic noise generated by the proposed Project (E+P) scenario will not actually occur since the Project would not be fully constructed and operational until Opening Year 2020 conditions.

Table 7-1 shows the Existing without Project conditions CNEL noise levels. The Existing without Project exterior noise levels are expected to range from 68.2 to 79.5 dBA CNEL, without accounting for any noise attenuation features such as noise barriers or topography.

## 7.2.1 EXISTING WITH PROJECT ALTERNATIVE 1 OFF-SITE TRAFFIC NOISE LEVEL INCREASES

Table 7-2 shows the Existing with Project Alternative 1 conditions will range from 68.6 to 79.9 dBA CNEL. Table 7-16 shows that the Project Alternative 1 off-site traffic noise level increases will range from 0.0 to 3.1 dBA CNEL.

## 7.2.2 EXISTING WITH PROJECT ALTERNATIVE 1A OFF-SITE TRAFFIC NOISE LEVEL INCREASES

Table 7-3 shows the Existing with Project Alternative 1A conditions will range from 68.6 to 79.9 dBA CNEL. Table 7-17 shows that the Project Alternative 1A off-site traffic noise level increases will range from 0.0 to 3.1 dBA CNEL.

## 7.2.3 EXISTING WITH PROJECT ALTERNATIVE 2 OFF-SITE TRAFFIC NOISE LEVEL INCREASES

Table 7-4 shows the Existing with Project Alternative 2 conditions will range from 68.6 to 79.9 dBA CNEL. Table 7-18 shows that the Project Alternative 2 off-site traffic noise level increases will range from 0.0 to 3.1 dBA CNEL.

#### 7.2.4 EXISTING WITH PROJECT ALTERNATIVE 2A OFF-SITE TRAFFIC NOISE LEVEL INCREASES

Table 7-5 shows the Existing with Project Alternative 2A conditions will range from 68.6 to 79.9 dBA CNEL. Table 7-19 shows that the Project Alternative 2A off-site traffic noise level increases will range from 0.0 to 5.9 dBA CNEL.



TABLE 7-16: UNMITIGATED EXISTING PROJECT ALTERNATIVE 1 TRAFFIC NOISE IMPACTS

ID	Road	Segment	Adjacent Planned Land Use <sup>1</sup>	CNEL at Adjacent Land Use (dBA) <sup>1</sup> No With Project Project Project Addition		) <sup>1</sup> Project	Noise- Sensitive Land Use?
1	Cedar Av.	n/o I-10 Fwy.	General Commercial	77.8	77.8	0.1	No
2	Cedar Av.	s/o I-10 Fwy.	Light Industrial	76.2	76.7	0.5	No
3	Cedar Av.	s/o Slover Av.	General Commercial	75.4	76.1	0.7	No
4	Cedar Av.	s/o Santa Ana Av.	Residential	75.5	76.2	0.8	Yes
5	Cedar Av.	s/o Jurupa Av.	General Commercial	76.7	77.5	0.9	No
6	Rubidoux Bl.	s/o El Rivino Rd.	Heavy Industrial	75.7	77.3	1.6	No
7	Rubidoux Bl.	s/o Production Circle	Heavy Industrial	75.6	77.4	1.7	No
8	Rubidoux Bl.	s/o 20th St.	Light Industrial	74.9	76.0	1.1	No
9	Rubidoux Bl.	s/o 24th St.	Light Industrial	75.1	76.2	1.0	No
10	Rubidoux Bl.	s/o 26th St.	Light Industrial	75.3	76.3	1.0	No
11	Rubidoux Bl.	s/o 28th St.	Residential	75.6	76.5	0.9	Yes
12	Rubidoux Bl.	s/o SR-60 Fwy.	Residential	76.2	76.4	0.1	Yes
13 14	Rubidoux Bl. Cactus Av.	s/o 34th St. n/o El Rivino Rd.	Residential Residential	75.0 69.3	75.2 69.4	0.2	Yes
15	Rivera St.	n/o Market St.	Business Park	71.2	71.2	0.0	Yes No
16	Riverside Av.	n/o I-10 Fwy.	General Commercial	76.4	76.5	0.0	No
17	Riverside Av.	s/o I-10 Fwy.	General Industrial	78.3	78.6	0.3	No
18	Riverside Av.	s/o Slover Av.	General Industrial	79.2	79.6	0.4	No
19	Riverside Av.	s/o Santa Ana Av.	General Industrial	78.9	79.3	0.5	No
20	Riverside Av.	s/o Jurupa Av.	General Industrial	79.5	79.9	0.4	No
21	Rancho Av.	n/o Agua Mansa Rd.	General Industrial	74.4	74.6	0.2	No
22	Rancho Av.	s/o Agua Mansa Rd.	General Industrial	72.9	73.0	0.2	No
23	Slover Av.	w/o Cedar Av.	Light Industrial	73.9	73.9	0.0	No
24	Slover Av.	w/o Riverside Av.	General Industrial	73.5	73.5	0.0	No
25	Santa Ana Av.	w/o Cedar Av.	Residential	70.6	71.2	0.6	Yes
26	Santa Ana Av.	w/o Riverside Av.	General Industrial	68.6	68.6	0.0	No
27	Jurupa Av.	w/o Cedar Av.	Residential	68.8	68.8	0.0	Yes
28	El Rivino Rd.	e/o Cedar Av.	Heavy Industrial	69.6	71.7	2.1	No
29	El Rivino Rd.	e/o Cactus Av.	Residential	69.3	72.4	3.1	Yes
30	El Rivino Rd.	e/o Hall Av.	Residential	68.2	68.7	0.5	Yes
31	Agua Mansa Rd.	e/o 20th St.	Heavy Industrial	72.8	73.6	0.8	No
32	Agua Mansa Rd.	w/o Brown Av.	Heavy Industrial	72.8	73.6	0.8	No
33	Agua Mansa Rd.	w/o Holly St.	Heavy Industrial	73.5	74.2	0.7	No
34	Agua Mansa Rd.	e/o Holly St.	Heavy Industrial	73.5	73.8	0.4	No
35	Agua Mansa Rd.	e/o El Rivino Rd.	General Industrial	74.5	75.7	1.2	No No
36	Agua Mansa Rd.	e/o Riverside Av.	General Industrial	71.6	72.3	0.7	No No
37 38	20th St. 20th St.	e/o Rubidoux Bl. e/o Agua Mansa Rd.	Light Industrial Light Industrial	75.8 74.6	76.9 76.3	1.1 1.7	No No
39	Market St.	e/o Hall Av.	Light Industrial	76.0	77.3	1.7	No
40	Market St.	e/o Rivera St.	Business Park	77.2	78.3	1.1	No
1.71	CNEL is sale lated at	C/O MIVETO St.	Dubilicob i di N	11.2	70.5	1.1	140

<sup>&</sup>lt;sup>1</sup> The CNEL is calculated at the boundary of the right-of-way of each roadway and the property line of the nearest adjacent land use.



TABLE 7-17: UNMITIGATED EXISTING PROJECT ALTERNATIVE 1A TRAFFIC NOISE IMPACTS

ID	Road	Segment	Adjacent Planned Land Use <sup>1</sup>	CNEL at Adjacent Land Use (dBA) <sup>1</sup> No With Project Project Project Addition		) <sup>1</sup> Project	Noise- Sensitive Land Use?
1	Cedar Av.	n/o I-10 Fwy.	General Commercial	77.8	77.8	0.1	No
2	Cedar Av.	s/o I-10 Fwy.	Light Industrial	76.2	76.7	0.5	No
3	Cedar Av.	s/o Slover Av.	General Commercial	75.4	76.1	0.7	No
4	Cedar Av.	s/o Santa Ana Av.	Residential	75.5	76.2	0.8	Yes
5	Cedar Av.	s/o Jurupa Av.	General Commercial	76.7	77.5	0.9	No
6	Rubidoux Bl.	s/o El Rivino Rd.	Heavy Industrial	75.7	77.3	1.6	No
7	Rubidoux Bl.	s/o Production Circle	Heavy Industrial	75.6	77.4	1.7	No
8	Rubidoux Bl.	s/o 20th St.	Light Industrial	74.9	76.0	1.1	No
9	Rubidoux Bl.	s/o 24th St.	Light Industrial	75.1	76.2	1.0	No
10	Rubidoux Bl.	s/o 26th St.	Light Industrial	75.3	76.3	1.0	No
11	Rubidoux Bl.	s/o 28th St.	Residential	75.6	76.5	0.9	Yes
12	Rubidoux Bl.	s/o SR-60 Fwy.	Residential	76.2	76.4	0.1	Yes
13 14	Rubidoux Bl. Cactus Av.	s/o 34th St. n/o El Rivino Rd.	Residential Residential	75.0 69.3	75.2 69.4	0.2	Yes
15	Rivera St.	n/o Market St.	Business Park	71.2	71.2	0.0	Yes No
16	Riverside Av.	n/o I-10 Fwy.	General Commercial	76.4	76.5	0.0	No
17	Riverside Av.	s/o I-10 Fwy.	General Industrial	78.3	78.6	0.3	No
18	Riverside Av.	s/o Slover Av.	General Industrial	79.2	79.6	0.4	No
19	Riverside Av.	s/o Santa Ana Av.	General Industrial	78.9	79.3	0.5	No
20	Riverside Av.	s/o Jurupa Av.	General Industrial	79.5	79.9	0.4	No
21	Rancho Av.	n/o Agua Mansa Rd.	General Industrial	74.4	74.6	0.2	No
22	Rancho Av.	s/o Agua Mansa Rd.	General Industrial	72.9	73.0	0.2	No
23	Slover Av.	w/o Cedar Av.	Light Industrial	73.9	73.9	0.0	No
24	Slover Av.	w/o Riverside Av.	General Industrial	73.5	73.5	0.0	No
25	Santa Ana Av.	w/o Cedar Av.	Residential	70.6	71.2	0.6	Yes
26	Santa Ana Av.	w/o Riverside Av.	General Industrial	68.6	68.6	0.0	No
27	Jurupa Av.	w/o Cedar Av.	Residential	68.8	68.8	0.0	Yes
28	El Rivino Rd.	e/o Cedar Av.	Heavy Industrial	69.6	71.7	2.1	No
29	El Rivino Rd.	e/o Cactus Av.	Residential	69.3	72.4	3.1	Yes
30	El Rivino Rd.	e/o Hall Av.	Residential	68.2	68.7	0.5	Yes
31	Agua Mansa Rd.	e/o 20th St.	Heavy Industrial	72.8	73.6	0.8	No
32	Agua Mansa Rd.	w/o Brown Av.	Heavy Industrial	72.8	73.6	0.8	No
33	Agua Mansa Rd.	w/o Holly St.	Heavy Industrial	73.5	74.2	0.7	No
34	Agua Mansa Rd.	e/o Holly St.	Heavy Industrial	73.5	73.8	0.4	No
35	Agua Mansa Rd.	e/o El Rivino Rd.	General Industrial	74.5	75.7	1.2	No No
36	Agua Mansa Rd.	e/o Riverside Av.	General Industrial	71.6	72.3	0.7	No No
37 38	20th St. 20th St.	e/o Rubidoux Bl. e/o Agua Mansa Rd.	Light Industrial Light Industrial	75.8 74.6	76.9 76.3	1.1 1.7	No No
39	Market St.	e/o Hall Av.	Light Industrial	76.0	77.3	1.7	No
40	Market St.	e/o Rivera St.	Business Park	77.2	78.3	1.1	No
1.71	CNEL is sale lated at	C/O MIVETO St.	Dubilicob i di N	11.2	70.5	1.1	140

<sup>&</sup>lt;sup>1</sup> The CNEL is calculated at the boundary of the right-of-way of each roadway and the property line of the nearest adjacent land use.



TABLE 7-18: UNMITIGATED EXISTING PROJECT ALTERNATIVE 2 TRAFFIC NOISE IMPACTS

ID	Road	Segment	Adjacent Planned Land Use <sup>1</sup>				Noise- Sensitive Land Use?
1	Cedar Av.	n/o I-10 Fwy.	General Commercial	77.8	77.8	0.1	No
2	Cedar Av.	s/o I-10 Fwy.	Light Industrial	76.2	76.7	0.5	No
3	Cedar Av.	s/o Slover Av.	General Commercial	75.4	76.0	0.6	No
4	Cedar Av.	s/o Santa Ana Av.	Residential	75.5	76.2	0.7	Yes
5	Cedar Av.	s/o Jurupa Av.	General Commercial	76.7	77.5	0.8	No
6	Rubidoux Bl.	s/o El Rivino Rd.	Heavy Industrial	75.7	77.2	1.5	No
7	Rubidoux Bl.	s/o Production Circle	Heavy Industrial	75.6	77.2	1.6	No
8	Rubidoux Bl.	s/o 20th St.	Light Industrial	74.9	76.0	1.0	No
9	Rubidoux Bl.	s/o 24th St.	Light Industrial	75.1	76.1	1.0	No
10	Rubidoux Bl.	s/o 26th St.	Light Industrial	75.3	76.2	1.0	No
11	Rubidoux Bl.	s/o 28th St.	Residential	75.6	76.5	0.9	Yes
12	Rubidoux Bl.	s/o SR-60 Fwy.	Residential	76.2	76.4	0.1	Yes
13 14	Rubidoux Bl.	s/o 34th St.	Residential Residential	75.0 69.3	75.2 69.4	0.2	Yes Yes
15	Cactus Av. Rivera St.	n/o El Rivino Rd. n/o Market St.	Business Park	71.2	71.2	0.0	No No
16	Riverside Av.	n/o I-10 Fwy.	General Commercial	76.4	76.5	0.0	No
17	Riverside Av.	s/o I-10 Fwy.	General Industrial	78.3	78.6	0.1	No
18	Riverside Av.	s/o Slover Av.	General Industrial	79.2	79.5	0.3	No
19	Riverside Av.	s/o Santa Ana Av.	General Industrial	78.9	79.3	0.4	No
20	Riverside Av.	s/o Jurupa Av.	General Industrial	79.5	79.9	0.4	No
21	Rancho Av.	n/o Agua Mansa Rd.	General Industrial	74.4	74.6	0.2	No
22	Rancho Av.	s/o Agua Mansa Rd.	General Industrial	72.9	73.0	0.1	No
23	Slover Av.	w/o Cedar Av.	Light Industrial	73.9	73.9	0.0	No
24	Slover Av.	w/o Riverside Av.	General Industrial	73.5	73.5	0.0	No
25	Santa Ana Av.	w/o Cedar Av.	Residential	70.6	71.2	0.5	Yes
26	Santa Ana Av.	w/o Riverside Av.	General Industrial	68.6	68.6	0.0	No
27	Jurupa Av.	w/o Cedar Av.	Residential	68.8	68.8	0.1	Yes
28	El Rivino Rd.	e/o Cedar Av.	Heavy Industrial	69.6	71.9	2.2	No
29	El Rivino Rd.	e/o Cactus Av.	Residential	69.3	72.4	3.1	Yes
30	El Rivino Rd.	e/o Hall Av.	Residential	68.2	68.7	0.5	Yes
31	Agua Mansa Rd.	e/o 20th St.	Heavy Industrial	72.8	73.8	1.0	No
32	Agua Mansa Rd.	w/o Brown Av.	Heavy Industrial	72.8	73.8	1.0	No
33	Agua Mansa Rd.	w/o Holly St.	Heavy Industrial	73.5	74.0	0.5	No
34	Agua Mansa Rd.	e/o Holly St.	Heavy Industrial	73.5	74.7	1.2	No
35	Agua Mansa Rd.	e/o El Rivino Rd.	General Industrial	74.5	75.7	1.1	No
36	Agua Mansa Rd.	e/o Riverside Av.	General Industrial	71.6	72.3	0.7	No
37	20th St.	e/o Rubidoux Bl.	Light Industrial	75.8	76.7	1.0	No
38	20th St.	e/o Agua Mansa Rd.	Light Industrial	74.6	76.3	1.6	No
39	Market St.	e/o Hall Av.	Light Industrial	76.0	77.3	1.2	No
40	Market St.	e/o Rivera St.	Business Park	77.2	78.3	1.1	No

<sup>&</sup>lt;sup>1</sup> The CNEL is calculated at the boundary of the right-of-way of each roadway and the property line of the nearest adjacent land use.



TABLE 7-19: UNMITIGATED EXISTING PROJECT ALTERNATIVE 2A TRAFFIC NOISE IMPACTS

ID	Road	Segment	Adjacent Planned Land Use <sup>1</sup>	CNEL at Adjacent Land Use (dBA) <sup>1</sup> No With Project Project Project Addition		) <sup>1</sup> Project	Noise- Sensitive Land Use?
1	Cedar Av.	n/o I-10 Fwy.	General Commercial	77.8	77.8	0.1	No
2	Cedar Av.	s/o I-10 Fwy.	Light Industrial	76.2	76.7	0.5	No
3	Cedar Av.	s/o Slover Av.	General Commercial	75.4	76.0	0.6	No
4	Cedar Av.	s/o Santa Ana Av.	Residential	75.5	76.2	0.7	Yes
5	Cedar Av.	s/o Jurupa Av.	General Commercial	76.7	77.5	0.8	No
6	Rubidoux Bl.	s/o El Rivino Rd.	Heavy Industrial	75.7	77.0	1.3	No
7	Rubidoux Bl.	s/o Production Circle	Heavy Industrial	75.6	77.0	1.4	No
8	Rubidoux Bl.	s/o 20th St.	Light Industrial	74.9	75.9	1.0	No
9	Rubidoux Bl.	s/o 24th St.	Light Industrial	75.1	76.1	1.0	No
10	Rubidoux Bl.	s/o 26th St.	Light Industrial	75.3	76.2	1.0	No
11	Rubidoux Bl.	s/o 28th St.	Residential	75.6	76.5	0.9	Yes
12	Rubidoux Bl.	s/o SR-60 Fwy.	Residential	76.2	76.4	0.1	Yes
13 14	Rubidoux Bl. Cactus Av.	s/o 34th St. n/o El Rivino Rd.	Residential Residential	75.0 69.3	75.2 69.4	0.2	Yes
15	Rivera St.	n/o Market St.	Business Park	71.2	71.2	0.0	Yes No
16	Riverside Av.	n/o I-10 Fwy.	General Commercial	76.4	76.5	0.0	No
17	Riverside Av.	s/o I-10 Fwy.	General Industrial	78.3	78.6	0.3	No
18	Riverside Av.	s/o Slover Av.	General Industrial	79.2	79.5	0.3	No
19	Riverside Av.	s/o Santa Ana Av.	General Industrial	78.9	79.3	0.4	No
20	Riverside Av.	s/o Jurupa Av.	General Industrial	79.5	79.9	0.4	No
21	Rancho Av.	n/o Agua Mansa Rd.	General Industrial	74.4	74.6	0.2	No
22	Rancho Av.	s/o Agua Mansa Rd.	General Industrial	72.9	73.0	0.1	No
23	Slover Av.	w/o Cedar Av.	Light Industrial	73.9	73.9	0.0	No
24	Slover Av.	w/o Riverside Av.	General Industrial	73.5	73.5	0.0	No
25	Santa Ana Av.	w/o Cedar Av.	Residential	70.6	71.2	0.5	Yes
26	Santa Ana Av.	w/o Riverside Av.	General Industrial	68.6	68.6	0.0	No
27	Jurupa Av.	w/o Cedar Av.	Residential	68.8	68.8	0.1	Yes
28	El Rivino Rd.	e/o Cedar Av.	Heavy Industrial	69.6	75.5	5.9	No
29	El Rivino Rd.	e/o Cactus Av.	Residential	69.3	72.4	3.1	Yes
30	El Rivino Rd.	e/o Hall Av.	Residential	68.2	68.7	0.5	Yes
31	Agua Mansa Rd.	e/o 20th St.	Heavy Industrial	72.8	74.6	1.7	No
32	Agua Mansa Rd.	w/o Brown Av.	Heavy Industrial	72.8	74.6	1.7	No
33	Agua Mansa Rd.	w/o Holly St.	Heavy Industrial	73.5	74.0	0.6	No
34	Agua Mansa Rd.	e/o Holly St.	Heavy Industrial	73.5	74.7	1.2	No
35	Agua Mansa Rd.	e/o El Rivino Rd.	General Industrial	74.5	75.7	1.1	No
36	Agua Mansa Rd.	e/o Riverside Av.	General Industrial	71.6	72.3	0.7	No No
37	20th St.	e/o Rubidoux Bl.	Light Industrial	75.8	76.6	0.8	No No
38	20th St.	e/o Agua Mansa Rd.	Light Industrial	74.6	76.3	1.6	No No
	Market St.	e/o Hall Av.	Light Industrial	76.0	77.3	1.2	No No
40	Market St.	e/o Rivera St.	Business Park	77.2	78.3	1.1	No

<sup>&</sup>lt;sup>1</sup> The CNEL is calculated at the boundary of the right-of-way of each roadway and the property line of the nearest adjacent land use.



## 7.3 OPENING YEAR 2020 PROJECT TRAFFIC NOISE LEVEL CONTRIBUTIONS

Table 7-6 presents the Opening Year 2020 without Project conditions CNEL noise levels. The Opening Year 2020 without Project exterior noise levels are expected to range from 69.4 to 80.2 dBA CNEL, without accounting for any noise attenuation features such as noise barriers or topography.

#### 7.3.1 OPENING YEAR 2020 WITH PROJECT ALTERNATIVE 1 OFF-SITE TRAFFIC NOISE LEVEL INCREASES

Table 7-7 shows the Opening Year 2020 with Project Alternative 1 conditions will range from 69.7 to 80.6 dBA CNEL. Table 7-20 shows that the Project Alternative 1 off-site traffic noise level increases will range from 0.0 to 2.3 dBA CNEL. Based on the significance criteria in Section 4, land uses adjacent to the study-area roadway segments would experience *less than significant* noise level increases due to unmitigated Project-related traffic.

#### 7.3.2 OPENING YEAR 2020 WITH PROJECT ALTERNATIVE 1A OFF-SITE TRAFFIC NOISE LEVEL INCREASES

Table 7-8 shows the Opening Year 2020 with Project Alternative 1A conditions will range from 69.7 to 80.6 dBA CNEL. Table 7-21 shows that the Project Alternative 1A off-site traffic noise level increases will range from 0.0 to 3.2 dBA CNEL. Based on the significance criteria in Section 4, land uses adjacent to the study-area roadway segments would experience *less than significant* noise level increases due to unmitigated Project-related traffic.

#### 7.3.3 OPENING YEAR 2020 WITH PROJECT ALTERNATIVE 2 OFF-SITE TRAFFIC NOISE LEVEL INCREASES

Table 7-9 shows the Opening Year 2020 with Project Alternative 2 conditions will range from 69.7 to 80.5 dBA CNEL. Table 7-22 shows that the Project Alternative 2 off-site traffic noise level increases will range from 0.0 to 2.3 dBA CNEL. Based on the significance criteria in Section 4, land uses adjacent to the study-area roadway segments would experience *less than significant* noise level increases due to unmitigated Project-related traffic.

#### 7.3.4 OPENING YEAR 2020 WITH PROJECT ALTERNATIVE 2A OFF-SITE TRAFFIC NOISE LEVEL INCREASES

Table 7-10 shows the Opening Year 2020 with Project Alternative 2A conditions will range from 69.7 to 80.5 dBA CNEL. Table 7-23 shows that the Project Alternative 2A off-site traffic noise level increases will range from 0.0 to 3.5 dBA CNEL. Based on the significance criteria in Section 4, land uses adjacent to the study-area roadway segments would experience *less than significant* noise level increases due to unmitigated Project-related traffic.



TABLE 7-20: UNMITIGATED YEAR 2020 ALTERNATIVE 1 TRAFFIC NOISE IMPACTS

1         Cedar Av.         n/o I-10 Fwy.         78.1         78.2         0.1         No         No           2         Cedar Av.         s/o I-10 Fwy.         77.5         77.9         0.4         No         No           3         Cedar Av.         s/o Slover Av.         76.6         77.1         0.5         No         No           4         Cedar Av.         s/o Slover Av.         76.6         77.2         0.6         Yes         No           5         Cedar Av.         s/o Jurupa Av.         77.9         78.6         0.7         No         No           6         Rubidoux Bl.         s/o 20th St.         77.0         78.3         1.3         No         No           9         Rubidoux Bl.         s/o 24th St.         76.2         77.0         0.8         No         No           10         Rubidoux Bl.         s/o 25th St.         76.5         77.3         0.8         No         No           11         Rubidoux Bl.         s/o 24th St.         76.7         77.4         0.7         Yes         No           12         Rubidoux Bl.         s/o SR-60 Fwy.         76.8         76.9         0.1         Yes         No	ID	Road	Segment		EL at Adjand Use (d  With  Project		Noise- Sensitive Land Use?	Threshold Exceeded? <sup>2</sup>
3   Cedar Av.   S/o Slover Av.   76.6   77.1   0.5   No   No	1	Cedar Av.	n/o I-10 Fwy.	78.1	78.2	0.1	No	No
4         Cedar Av.         s/o Santa Ana Av.         76.6         77.2         0.6         Yes         No           5         Cedar Av.         s/o Jurupa Av.         77.9         78.6         0.7         No         No           6         Rubidoux Bl.         s/o Production Circle         77.0         78.3         1.3         No         No           7         Rubidoux Bl.         s/o 20th St.         76.2         77.0         0.8         No         No           9         Rubidoux Bl.         s/o 24th St.         76.2         77.0         0.8         No         No           10         Rubidoux Bl.         s/o 24th St.         76.3         77.1         0.8         No         No           10         Rubidoux Bl.         s/o 26th St.         76.5         77.3         0.8         No         No           11         Rubidoux Bl.         s/o 28th St.         76.7         77.4         0.7         Yes         No           12         Rubidoux Bl.         s/o 34th St.         75.6         75.7         0.1         Yes         No           12         Rubidoux Bl.         s/o 34th St.         75.6         75.7         0.1         Yes         No     <	2	Cedar Av.	s/o I-10 Fwy.	77.5	77.9	0.4	No	No
5         Cedar Av.         s/o Jurupa Av.         77.9         78.6         0.7         No         No           6         Rubidoux Bl.         s/o El Rivino Rd.         77.0         78.3         1.3         No         No           7         Rubidoux Bl.         s/o Poduction Circle         77.0         78.3         1.3         No         No           8         Rubidoux Bl.         s/o 20th St.         76.2         77.0         0.8         No         No           9         Rubidoux Bl.         s/o 24th St.         76.3         77.1         0.8         No         No           10         Rubidoux Bl.         s/o 26th St.         76.5         77.3         0.8         No         No           11         Rubidoux Bl.         s/o 28th St.         76.7         77.4         0.7         Yes         No           12         Rubidoux Bl.         s/o Sath St.         76.7         77.4         0.7         Yes         No           12         Rubidoux Bl.         s/o Sath St.         75.6         75.7         0.1         Yes         No           12         Rubidoux Bl.         s/o Sath St.         75.6         75.7         0.1         Yes         No	3	Cedar Av.	s/o Slover Av.	76.6	77.1	0.5	No	No
6         Rubidoux Bl.         s/o El Rivino Rd.         77.0         78.3         1.3         No         No           7         Rubidoux Bl.         s/o Production Circle         77.0         78.3         1.3         No         No           8         Rubidoux Bl.         s/o 20th St.         76.2         77.0         0.8         No         No           9         Rubidoux Bl.         s/o 28th St.         76.3         77.1         0.8         No         No           10         Rubidoux Bl.         s/o 28th St.         76.5         77.3         0.8         No         No           11         Rubidoux Bl.         s/o 28th St.         76.7         77.4         0.7         Yes         No           12         Rubidoux Bl.         s/o SR-60 Fwy.         76.8         76.9         0.1         Yes         No           13         Rubidoux Bl.         s/o SR-60 Fwy.         75.6         75.7         0.1         Yes         No           14         Cactus Av.         n/o Il Rivino Rd.         73.3         73.4         0.0         Yes         No           15         Riverside Av.         n/o Il Rivino Rd.         73.3         73.4         0.0         No	4	Cedar Av.	s/o Santa Ana Av.	76.6	77.2	0.6	Yes	No
7         Rubidoux Bl.         s/o Production Circle         77.0         78.3         1.3         No         No           8         Rubidoux Bl.         s/o 20th St.         76.2         77.0         0.8         No         No           9         Rubidoux Bl.         s/o 24th St.         76.3         77.1         0.8         No         No           10         Rubidoux Bl.         s/o 26th St.         76.5         77.3         0.8         No         No           11         Rubidoux Bl.         s/o 28th St.         76.7         77.4         0.7         Yes         No           12         Rubidoux Bl.         s/o Sheo Fwy.         76.8         76.9         0.1         Yes         No           13         Rubidoux Bl.         s/o 34th St.         75.6         75.7         0.1         Yes         No           14         Cactus Av.         n/o El Rivino Rd.         73.3         73.4         0.0         Yes         No           15         Riverside Av.         n/o Market St.         71.9         71.9         0.0         No         No           15         Riverside Av.         s/o I-10 Fwy.         76.7         76.8         0.1         No         No<		Cedar Av.	· · · · · · · · · · · · · · · · · · ·	77.9			No	No
8         Rubidoux Bl.         \$\sigma 0 20th St.         76.2         77.0         0.8         No         No           9         Rubidoux Bl.         \$\sigma 0 24th St.         76.3         77.1         0.8         No         No           10         Rubidoux Bl.         \$\sigma 0 28th St.         76.5         77.3         0.8         No         No           11         Rubidoux Bl.         \$\sigma 0 28th St.         76.7         77.4         0.7         Yes         No           12         Rubidoux Bl.         \$\sigma 0 58th St.         75.6         75.7         0.1         Yes         No           13         Rubidoux Bl.         \$\sigma 0 34th St.         75.6         75.7         0.1         Yes         No           14         Cactus Av.         n/o El Rivino Rd.         73.3         73.4         0.0         Yes         No           15         Riverside Av.         n/o Hayrestole Av.         76.7         76.8         0.1         No         No           16         Riverside Av.         \$\sigma 10 Few.         76.7         76.8         0.1         No         No           18         Riverside Av.         \$\sigma 10 Few.         79.8         80.2         0.3 <td></td> <td></td> <td>· .</td> <td></td> <td></td> <td></td> <td>No</td> <td>No</td>			· .				No	No
9   Rubidoux Bl.   S/o 24th St.   76.3   77.1   0.8   No   No     10   Rubidoux Bl.   S/o 26th St.   76.5   77.3   0.8   No   No     11   Rubidoux Bl.   S/o 28th St.   76.7   77.4   0.7   Yes   No     12   Rubidoux Bl.   S/o SR-60 Fwy.   76.8   76.9   0.1   Yes   No     13   Rubidoux Bl.   S/o 34th St.   75.6   75.7   0.1   Yes   No     14   Cactus Av.   n/o El Rivino Rd.   73.3   73.4   0.0   Yes   No     15   Rivera St.   n/o Market St.   71.9   71.9   0.0   No   No     16   Riverside Av.   n/o I-10 Fwy.   76.7   76.8   0.1   No   No     17   Riverside Av.   S/o I-10 Fwy.   78.9   79.2   0.3   No   No     18   Riverside Av.   S/o Slover Av.   79.8   80.2   0.3   No   No     19   Riverside Av.   S/o Santa Ana Av.   79.6   80.0   0.4   No   No     20   Riverside Av.   S/o Santa Ana Av.   79.6   80.0   0.4   No   No     21   Rancho Av.   n/o Agua Mansa Rd.   74.9   75.1   0.2   No   No     22   Rancho Av.   s/o Agua Mansa Rd.   74.9   75.1   0.2   No   No     23   Slover Av.   w/o Cedar Av.   74.9   74.9   0.0   No   No     25   Santa Ana Av.   w/o Riverside Av.   74.0   74.0   0.0   No   No     26   Santa Ana Av.   w/o Riverside Av.   71.7   72.1   0.5   Yes   No     27   Jurupa Av.   w/o Riverside Av.   70.3   70.3   0.0   Yes   No     29   El Rivino Rd.   e/o Cedar Av.   73.3   74.3   1.0   No   No     29   El Rivino Rd.   e/o Cedar Av.   74.2   74.8   0.6   No   No     30   El Rivino Rd.   e/o Cedar Av.   74.2   74.8   0.6   No   No     31   Agua Mansa Rd.   e/o 20th St.   74.4   75.0   0.6   No   No     34   Agua Mansa Rd.   e/o El Rivino Rd.   75.6   76.6   1.0   No   No     35   Agua Mansa Rd.   e/o El Rivino Rd.   75.6   76.6   1.0   No   No     36   Agua Mansa Rd.   e/o Riverside Av.   72.8   73.4   0.6   No   No     37   20th St.   e/o Rubidoux Bl.   77.0   77.9   0.8   No   No			•					
10   Rubidoux Bl.   s/o 26th St.   76.5   77.3   0.8   No   No   No   11   Rubidoux Bl.   s/o 28th St.   76.7   77.4   0.7   Yes   No   12   Rubidoux Bl.   s/o SR-60 Fwy.   76.8   76.9   0.1   Yes   No   No   13   Rubidoux Bl.   s/o 34th St.   75.6   75.7   0.1   Yes   No   No   14   Cactus Av.   n/o El Rivino Rd.   73.3   73.4   0.0   Yes   No   No   15   Riverside Av.   n/o El Rivino Rd.   71.9   71.9   0.0   No   No   No   No   16   Riverside Av.   n/o I-10 Fwy.   76.7   76.8   0.1   No   No   No   17   Riverside Av.   s/o I-10 Fwy.   78.9   79.2   0.3   No   No   No   18   Riverside Av.   s/o Sonta Ana Av.   79.6   80.0   0.4   No   No   No   19   Riverside Av.   s/o Sonta Ana Av.   79.6   80.0   0.4   No   No   No   20   Riverside Av.   s/o Agua Mansa Rd.   74.9   75.1   0.2   No   No   No   22   Rancho Av.   s/o Agua Mansa Rd.   73.5   73.7   0.1   No   No   No   23   Slover Av.   w/o Cedar Av.   74.9   74.9   0.0   No   No   No   24   Slover Av.   w/o Riverside Av.   74.9   74.9   0.0   No   No   No   25   Santa Ana Av.   w/o Riverside Av.   74.0   74.0   0.0   No   No   No   26   Santa Ana Av.   w/o Riverside Av.   71.7   72.1   0.5   Yes   No   26   Santa Ana Av.   w/o Cedar Av.   71.7   72.1   0.5   Yes   No   No   27   Jurupa Av.   w/o Riverside Av.   69.7   69.7   0.0   No   No   No   29   El Rivino Rd.   e/o Cactus Av.   71.1   73.4   2.3   Yes   No   29   El Rivino Rd.   e/o Cactus Av.   71.1   73.4   2.3   Yes   No   30   El Rivino Rd.   e/o Cactus Av.   74.2   74.8   0.6   No   No   No   31   Agua Mansa Rd.   w/o Riverside Av.   74.4   74.7   0.3   No   No   No   34   Agua Mansa Rd.   e/o El Rivino Rd.   75.6   76.6   1.0   No   No   36   Agua Mansa Rd.   e/o Riverside Av.   72.8   73.4   0.6   No   No   36   Agua Mansa Rd.   e/o Riverside Av.   72.8   73.4   0.6   No   No   36   Agua Mansa Rd.   e/o Riverside Av.   72.8   73.4   0.6   No   No   36   Agua Mansa Rd.   e/o Riverside Av.   72.8   73.4   0.6   No   No   No   37   20th St.   e/o Riviside Av.   72.8   73.4   0.6   No   No   No   37			'					
11         Rubidoux Bl.         s/o 28th St.         76.7         77.4         0.7         Yes         No           12         Rubidoux Bl.         s/o SR-60 Fwy.         76.8         76.9         0.1         Yes         No           13         Rubidoux Bl.         s/o 34th St.         75.6         75.7         0.1         Yes         No           14         Cactus Av.         n/o El Rivino Rd.         73.3         73.4         0.0         Yes         No           15         Riverside Av.         n/o Harket St.         71.9         71.9         0.0         No         No           16         Riverside Av.         n/o I-10 Fwy.         76.7         76.8         0.1         No         No           17         Riverside Av.         s/o Slover Av.         79.8         80.2         0.3         No         No           19         Riverside Av.         s/o Sonta Ana Av.         79.6         80.0         0.4         No         No           20         Riverside Av.         s/o Jurupa Av.         80.2         80.6         0.3         No         No           21         Rancho Av.         n/o Agua Mansa Rd.         74.9         75.1         0.2         No			· .					
12         Rubidoux Bl.         s/o SR-60 Fwy.         76.8         76.9         0.1         Yes         No           13         Rubidoux Bl.         s/o 34th St.         75.6         75.7         0.1         Yes         No           14         Cactus Av.         n/o El Rivino Rd.         73.3         73.4         0.0         Yes         No           15         Rivers St.         n/o Market St.         71.9         71.9         0.0         No         No           16         Riverside Av.         n/o I-10 Fwy.         76.7         76.8         0.1         No         No           17         Riverside Av.         s/o I-10 Fwy.         78.9         79.2         0.3         No         No           18         Riverside Av.         s/o Solver Av.         79.8         80.2         0.3         No         No           19         Riverside Av.         s/o Santa Ana Av.         79.6         80.0         0.4         No         No           20         Riverside Av.         s/o Jurupa Av.         80.2         80.6         0.3         No         No           21         Rancho Av.         n/o Agua Mansa Rd.         73.5         73.7         0.1         No			•					
13         Rubidoux Bl.         s/o 34th St.         75.6         75.7         0.1         Yes         No           14         Cactus Av.         n/o El Rivino Rd.         73.3         73.4         0.0         Yes         No           15         Rivera St.         n/o Market St.         71.9         71.9         0.0         No         No           16         Riverside Av.         n/o I-10 Fwy.         76.7         76.8         0.1         No         No           17         Riverside Av.         s/o I-10 Fwy.         78.9         79.2         0.3         No         No           18         Riverside Av.         s/o Slover Av.         79.8         80.2         0.3         No         No           19         Riverside Av.         s/o Santa Ana Av.         79.6         80.0         0.4         No         No           19         Riverside Av.         s/o Agua Mansa Rd.         74.9         75.1         0.2         No         No           20         Rancho Av.         s/o Agua Mansa Rd.         73.5         73.7         0.1         No         No           22         Rancho Av.         s/o Agua Mansa Rd.         74.9         74.9         0.0         No			'					
14         Cactus Av.         n/o El Rivino Rd.         73.3         73.4         0.0         Yes         No           15         Rivera St.         n/o Market St.         71.9         71.9         0.0         No         No           16         Riverside Av.         n/o I-10 Fwy.         76.7         76.8         0.1         No         No           17         Riverside Av.         s/o I-10 Fwy.         78.9         79.2         0.3         No         No           18         Riverside Av.         s/o Slover Av.         79.8         80.2         0.3         No         No           19         Riverside Av.         s/o Santa Ana Av.         79.6         80.0         0.4         No         No           20         Riverside Av.         s/o Jurupa Av.         80.2         80.6         0.3         No         No           20         Riverside Av.         s/o Jurupa Av.         80.2         80.6         0.3         No         No           21         Rancho Av.         n/o Agua Mansa Rd.         74.9         75.1         0.2         No         No           22         Rancho Av.         w/o Gedar Av.         74.9         74.9         0.0         No			·					
15         Rivera St.         n/o Market St.         71.9         71.9         0.0         No         No           16         Riverside Av.         n/o I-10 Fwy.         76.7         76.8         0.1         No         No           17         Riverside Av.         s/o I-10 Fwy.         78.9         79.2         0.3         No         No           18         Riverside Av.         s/o Solover Av.         79.8         80.2         0.3         No         No           19         Riverside Av.         s/o Santa Ana Av.         79.6         80.0         0.4         No         No           20         Riverside Av.         s/o Jurupa Av.         80.2         80.6         0.3         No         No           20         Riverside Av.         s/o Agua Mansa Rd.         74.9         75.1         0.2         No         No           21         Rancho Av.         s/o Agua Mansa Rd.         73.5         73.7         0.1         No         No           22         Rancho Av.         s/o Agua Mansa Rd.         73.5         73.7         0.1         No         No           23         Slover Av.         w/o Riverside Av.         74.9         74.9         0.0         No			•					
16         Riverside Av.         n/o I-10 Fwy.         76.7         76.8         0.1         No         No           17         Riverside Av.         s/o I-10 Fwy.         78.9         79.2         0.3         No         No           18         Riverside Av.         s/o Slover Av.         79.8         80.2         0.3         No         No           19         Riverside Av.         s/o Santa Ana Av.         79.6         80.0         0.4         No         No           20         Riverside Av.         s/o Jurupa Av.         80.2         80.6         0.3         No         No           20         Riverside Av.         s/o Agua Mansa Rd.         74.9         75.1         0.2         No         No           21         Rancho Av.         s/o Agua Mansa Rd.         73.5         73.7         0.1         No         No           22         Rancho Av.         w/o Cedar Av.         74.9         74.9         0.0         No         No           23         Slover Av.         w/o Riverside Av.         74.0         74.0         0.0         No         No           24         Slover Av.         w/o Riverside Av.         71.7         72.1         0.5         Yes	-		· .		_			
17         Riverside Av.         s/o I-10 Fwy.         78.9         79.2         0.3         No         No           18         Riverside Av.         s/o Slover Av.         79.8         80.2         0.3         No         No           19         Riverside Av.         s/o Santa Ana Av.         79.6         80.0         0.4         No         No           20         Riverside Av.         s/o Jurupa Av.         80.2         80.6         0.3         No         No           21         Rancho Av.         n/o Agua Mansa Rd.         74.9         75.1         0.2         No         No           22         Rancho Av.         s/o Agua Mansa Rd.         73.5         73.7         0.1         No         No           23         Slover Av.         w/o Cedar Av.         74.9         74.9         0.0         No         No           24         Slover Av.         w/o Riverside Av.         74.0         0.0         No         No           25         Santa Ana Av.         w/o Cedar Av.         71.7         72.1         0.5         Yes         No           26         Santa Ana Av.         w/o Riverside Av.         69.7         69.7         0.0         No         No			· .				_	-
18         Riverside Av.         s/o Slover Av.         79.8         80.2         0.3         No         No           19         Riverside Av.         s/o Santa Ana Av.         79.6         80.0         0.4         No         No           20         Riverside Av.         s/o Jurupa Av.         80.2         80.6         0.3         No         No           21         Rancho Av.         n/o Agua Mansa Rd.         74.9         75.1         0.2         No         No           22         Rancho Av.         s/o Agua Mansa Rd.         73.5         73.7         0.1         No         No           23         Slover Av.         w/o Cedar Av.         74.9         74.9         0.0         No         No           24         Slover Av.         w/o Riverside Av.         74.0         0.0         No         No           24         Slover Av.         w/o Riverside Av.         71.7         72.1         0.5         Yes         No           25         Santa Ana Av.         w/o Riverside Av.         71.7         72.1         0.5         Yes         No           26         Santa Ana Av.         w/o Riverside Av.         70.3         70.3         0.0         No         No <td></td> <td></td> <td>,</td> <td></td> <td></td> <td></td> <td></td> <td>_</td>			,					_
19         Riverside Av.         s/o Santa Ana Av.         79.6         80.0         0.4         No         No           20         Riverside Av.         s/o Jurupa Av.         80.2         80.6         0.3         No         No           21         Rancho Av.         n/o Agua Mansa Rd.         74.9         75.1         0.2         No         No           22         Rancho Av.         s/o Agua Mansa Rd.         73.5         73.7         0.1         No         No           23         Slover Av.         w/o Cedar Av.         74.9         74.9         0.0         No         No           24         Slover Av.         w/o Riverside Av.         74.0         74.0         0.0         No         No           25         Santa Ana Av.         w/o Riverside Av.         71.7         72.1         0.5         Yes         No           26         Santa Ana Av.         w/o Riverside Av.         69.7         69.7         0.0         No         No           27         Jurupa Av.         w/o Cedar Av.         70.3         70.3         0.0         Yes         No           28         El Rivino Rd.         e/o Cactus Av.         73.3         74.3         1.0         No			· · · · · · · · · · · · · · · · · · ·					
20         Riverside Av.         s/o Jurupa Av.         80.2         80.6         0.3         No         No           21         Rancho Av.         n/o Agua Mansa Rd.         74.9         75.1         0.2         No         No           22         Rancho Av.         s/o Agua Mansa Rd.         73.5         73.7         0.1         No         No           23         Slover Av.         w/o Cedar Av.         74.9         74.9         0.0         No         No           24         Slover Av.         w/o Riverside Av.         74.0         74.0         0.0         No         No           25         Santa Ana Av.         w/o Cedar Av.         71.7         72.1         0.5         Yes         No           26         Santa Ana Av.         w/o Riverside Av.         69.7         69.7         0.0         No         No           27         Jurupa Av.         w/o Cedar Av.         70.3         70.3         0.0         Yes         No           28         El Rivino Rd.         e/o Cedar Av.         73.3         74.3         1.0         No         No           29         El Rivino Rd.         e/o Hall Av.         69.4         69.8         0.4         Yes			· .					
21         Rancho Av.         n/o Agua Mansa Rd.         74.9         75.1         0.2         No         No           22         Rancho Av.         s/o Agua Mansa Rd.         73.5         73.7         0.1         No         No           23         Slover Av.         w/o Cedar Av.         74.9         74.9         0.0         No         No           24         Slover Av.         w/o Riverside Av.         74.0         74.0         0.0         No         No           25         Santa Ana Av.         w/o Cedar Av.         71.7         72.1         0.5         Yes         No           26         Santa Ana Av.         w/o Riverside Av.         69.7         69.7         0.0         No         No           27         Jurupa Av.         w/o Cedar Av.         70.3         70.3         0.0         Yes         No           28         El Rivino Rd.         e/o Cactus Av.         73.3         74.3         1.0         No         No           29         El Rivino Rd.         e/o Cactus Av.         71.1         73.4         2.3         Yes         No           30         El Rivino Rd.         e/o Hall Av.         69.4         69.8         0.4         Yes			•					
22         Rancho Av.         s/o Agua Mansa Rd.         73.5         73.7         0.1         No         No           23         Slover Av.         w/o Cedar Av.         74.9         74.9         0.0         No         No           24         Slover Av.         w/o Riverside Av.         74.0         74.0         0.0         No         No           25         Santa Ana Av.         w/o Cedar Av.         71.7         72.1         0.5         Yes         No           26         Santa Ana Av.         w/o Riverside Av.         69.7         69.7         0.0         No         No           27         Jurupa Av.         w/o Cedar Av.         70.3         70.3         0.0         Yes         No           28         El Rivino Rd.         e/o Cedar Av.         73.3         74.3         1.0         No         No           29         El Rivino Rd.         e/o Cactus Av.         71.1         73.4         2.3         Yes         No           30         El Rivino Rd.         e/o Hall Av.         69.4         69.8         0.4         Yes         No           31         Agua Mansa Rd.         e/o 20th St.         74.2         74.8         0.6         No         <	21	Rancho Av.	· · · · · · · · · · · · · · · · · · ·	74.9	75.1	0.2	No	No
24         Slover Av.         w/o Riverside Av.         74.0         74.0         0.0         No         No           25         Santa Ana Av.         w/o Cedar Av.         71.7         72.1         0.5         Yes         No           26         Santa Ana Av.         w/o Riverside Av.         69.7         69.7         0.0         No         No           27         Jurupa Av.         w/o Cedar Av.         70.3         70.3         0.0         Yes         No           28         El Rivino Rd.         e/o Cedar Av.         73.3         74.3         1.0         No         No           29         El Rivino Rd.         e/o Cactus Av.         71.1         73.4         2.3         Yes         No           30         El Rivino Rd.         e/o Hall Av.         69.4         69.8         0.4         Yes         No           31         Agua Mansa Rd.         e/o 20th St.         74.2         74.8         0.6         No         No           32         Agua Mansa Rd.         w/o Brown Av.         74.2         74.8         0.6         No         No           33         Agua Mansa Rd.         e/o Holly St.         74.4         75.0         0.6         No	22	Rancho Av.		73.5	73.7	0.1	No	No
25         Santa Ana Av.         w/o Cedar Av.         71.7         72.1         0.5         Yes         No           26         Santa Ana Av.         w/o Riverside Av.         69.7         69.7         0.0         No         No           27         Jurupa Av.         w/o Cedar Av.         70.3         70.3         0.0         Yes         No           28         El Rivino Rd.         e/o Cedar Av.         73.3         74.3         1.0         No         No           29         El Rivino Rd.         e/o Cactus Av.         71.1         73.4         2.3         Yes         No           30         El Rivino Rd.         e/o Hall Av.         69.4         69.8         0.4         Yes         No           31         Agua Mansa Rd.         e/o 20th St.         74.2         74.8         0.6         No         No           32         Agua Mansa Rd.         w/o Brown Av.         74.2         74.8         0.6         No         No           33         Agua Mansa Rd.         w/o Holly St.         74.4         75.0         0.6         No         No           34         Agua Mansa Rd.         e/o Holly St.         74.4         74.7         0.3         No	23	Slover Av.	w/o Cedar Av.	74.9	74.9	0.0	No	No
26         Santa Ana Av.         w/o Riverside Av.         69.7         69.7         0.0         No         No           27         Jurupa Av.         w/o Cedar Av.         70.3         70.3         0.0         Yes         No           28         El Rivino Rd.         e/o Cedar Av.         73.3         74.3         1.0         No         No           29         El Rivino Rd.         e/o Cactus Av.         71.1         73.4         2.3         Yes         No           30         El Rivino Rd.         e/o Hall Av.         69.4         69.8         0.4         Yes         No           31         Agua Mansa Rd.         e/o 20th St.         74.2         74.8         0.6         No         No           32         Agua Mansa Rd.         w/o Brown Av.         74.2         74.8         0.6         No         No           33         Agua Mansa Rd.         w/o Holly St.         74.4         75.0         0.6         No         No           34         Agua Mansa Rd.         e/o Holly St.         74.4         74.7         0.3         No         No           35         Agua Mansa Rd.         e/o El Rivino Rd.         75.6         76.6         1.0         No	24	Slover Av.	w/o Riverside Av.	74.0	74.0	0.0	No	No
27         Jurupa Av.         w/o Cedar Av.         70.3         70.3         0.0         Yes         No           28         El Rivino Rd.         e/o Cedar Av.         73.3         74.3         1.0         No         No           29         El Rivino Rd.         e/o Cactus Av.         71.1         73.4         2.3         Yes         No           30         El Rivino Rd.         e/o Hall Av.         69.4         69.8         0.4         Yes         No           31         Agua Mansa Rd.         e/o 20th St.         74.2         74.8         0.6         No         No           32         Agua Mansa Rd.         w/o Brown Av.         74.2         74.8         0.6         No         No           33         Agua Mansa Rd.         w/o Holly St.         74.4         75.0         0.6         No         No           34         Agua Mansa Rd.         e/o Holly St.         74.4         74.7         0.3         No         No           35         Agua Mansa Rd.         e/o El Rivino Rd.         75.6         76.6         1.0         No         No           36         Agua Mansa Rd.         e/o Riverside Av.         72.8         73.4         0.6         No	25	Santa Ana Av.	w/o Cedar Av.	71.7	72.1	0.5	Yes	No
28         El Rivino Rd.         e/o Cedar Av.         73.3         74.3         1.0         No         No           29         El Rivino Rd.         e/o Cactus Av.         71.1         73.4         2.3         Yes         No           30         El Rivino Rd.         e/o Hall Av.         69.4         69.8         0.4         Yes         No           31         Agua Mansa Rd.         e/o 20th St.         74.2         74.8         0.6         No         No           32         Agua Mansa Rd.         w/o Brown Av.         74.2         74.8         0.6         No         No           33         Agua Mansa Rd.         w/o Holly St.         74.4         75.0         0.6         No         No           34         Agua Mansa Rd.         e/o Holly St.         74.4         74.7         0.3         No         No           35         Agua Mansa Rd.         e/o El Rivino Rd.         75.6         76.6         1.0         No         No           36         Agua Mansa Rd.         e/o Riverside Av.         72.8         73.4         0.6         No         No           37         20th St.         e/o Rubidoux Bl.         77.0         77.9         0.8         No	26	Santa Ana Av.	w/o Riverside Av.	69.7	69.7	0.0	No	No
29       El Rivino Rd.       e/o Cactus Av.       71.1       73.4       2.3       Yes       No         30       El Rivino Rd.       e/o Hall Av.       69.4       69.8       0.4       Yes       No         31       Agua Mansa Rd.       e/o 20th St.       74.2       74.8       0.6       No       No         32       Agua Mansa Rd.       w/o Brown Av.       74.2       74.8       0.6       No       No         33       Agua Mansa Rd.       w/o Holly St.       74.4       75.0       0.6       No       No         34       Agua Mansa Rd.       e/o Holly St.       74.4       74.7       0.3       No       No         35       Agua Mansa Rd.       e/o El Rivino Rd.       75.6       76.6       1.0       No       No         36       Agua Mansa Rd.       e/o Riverside Av.       72.8       73.4       0.6       No       No         37       20th St.       e/o Rubidoux Bl.       77.0       77.9       0.8       No       No	27	Jurupa Av.	w/o Cedar Av.	70.3	70.3	0.0	Yes	No
30         El Rivino Rd.         e/o Hall Av.         69.4         69.8         0.4         Yes         No           31         Agua Mansa Rd.         e/o 20th St.         74.2         74.8         0.6         No         No           32         Agua Mansa Rd.         w/o Brown Av.         74.2         74.8         0.6         No         No           33         Agua Mansa Rd.         w/o Holly St.         74.4         75.0         0.6         No         No           34         Agua Mansa Rd.         e/o Holly St.         74.4         74.7         0.3         No         No           35         Agua Mansa Rd.         e/o El Rivino Rd.         75.6         76.6         1.0         No         No           36         Agua Mansa Rd.         e/o Riverside Av.         72.8         73.4         0.6         No         No           37         20th St.         e/o Rubidoux Bl.         77.0         77.9         0.8         No         No	-		e/o Cedar Av.				No	No
31       Agua Mansa Rd.       e/o 20th St.       74.2       74.8       0.6       No       No         32       Agua Mansa Rd.       w/o Brown Av.       74.2       74.8       0.6       No       No         33       Agua Mansa Rd.       w/o Holly St.       74.4       75.0       0.6       No       No         34       Agua Mansa Rd.       e/o Holly St.       74.4       74.7       0.3       No       No         35       Agua Mansa Rd.       e/o El Rivino Rd.       75.6       76.6       1.0       No       No         36       Agua Mansa Rd.       e/o Riverside Av.       72.8       73.4       0.6       No       No         37       20th St.       e/o Rubidoux Bl.       77.0       77.9       0.8       No       No	29	El Rivino Rd.	e/o Cactus Av.	71.1	73.4	2.3	Yes	No
32       Agua Mansa Rd.       w/o Brown Av.       74.2       74.8       0.6       No       No         33       Agua Mansa Rd.       w/o Holly St.       74.4       75.0       0.6       No       No         34       Agua Mansa Rd.       e/o Holly St.       74.4       74.7       0.3       No       No         35       Agua Mansa Rd.       e/o El Rivino Rd.       75.6       76.6       1.0       No       No         36       Agua Mansa Rd.       e/o Riverside Av.       72.8       73.4       0.6       No       No         37       20th St.       e/o Rubidoux Bl.       77.0       77.9       0.8       No       No			-					No
33         Agua Mansa Rd.         w/o Holly St.         74.4         75.0         0.6         No         No           34         Agua Mansa Rd.         e/o Holly St.         74.4         74.7         0.3         No         No           35         Agua Mansa Rd.         e/o El Rivino Rd.         75.6         76.6         1.0         No         No           36         Agua Mansa Rd.         e/o Riverside Av.         72.8         73.4         0.6         No         No           37         20th St.         e/o Rubidoux Bl.         77.0         77.9         0.8         No         No	-							
34       Agua Mansa Rd.       e/o Holly St.       74.4       74.7       0.3       No       No         35       Agua Mansa Rd.       e/o El Rivino Rd.       75.6       76.6       1.0       No       No         36       Agua Mansa Rd.       e/o Riverside Av.       72.8       73.4       0.6       No       No         37       20th St.       e/o Rubidoux Bl.       77.0       77.9       0.8       No       No			· .					
35         Agua Mansa Rd.         e/o El Rivino Rd.         75.6         76.6         1.0         No         No           36         Agua Mansa Rd.         e/o Riverside Av.         72.8         73.4         0.6         No         No           37         20th St.         e/o Rubidoux Bl.         77.0         77.9         0.8         No         No								
36       Agua Mansa Rd.       e/o Riverside Av.       72.8       73.4       0.6       No       No         37       20th St.       e/o Rubidoux Bl.       77.0       77.9       0.8       No       No			•					
37 20th St. e/o Rubidoux Bl. 77.0 77.9 0.8 No No								
			· .					
	38	20th St.	e/o Agua Mansa Rd.	76.4	77.6	1.2		
38       20th St.       e/o Agua Mansa Rd.       76.4       77.6       1.2       No       No         39       Market St.       e/o Hall Av.       77.8       78.7       0.9       No       No			, ,					
40 Market St. e/o Rivera St. 78.6 79.4 0.8 No No	-		•					

<sup>&</sup>lt;sup>1</sup> The CNEL is calculated at the boundary of the right-of-way of each roadway and the property line of the nearest adjacent land use. <sup>2</sup> Significance Criteria (Section 4).



TABLE 7-21: UNMITIGATED YEAR 2020 ALTERNATIVE 1A TRAFFIC NOISE IMPACTS

ID	Road	Segment		EL at Adja nd Use (d With Project		Noise- Sensitive Land Use?	Threshold Exceeded? <sup>2</sup>
1	Cedar Av.	n/o I-10 Fwy.	78.1	78.2	0.1	No	No
2	Cedar Av.	s/o I-10 Fwy.	77.5	77.9	0.4	No	No
3	Cedar Av.	s/o Slover Av.	76.6	77.1	0.5	No	No
4	Cedar Av.	s/o Santa Ana Av.	76.6	77.2	0.6	Yes	No
5	Cedar Av.	s/o Jurupa Av.	77.9	78.6	0.7	No	No
6	Rubidoux Bl.	s/o El Rivino Rd.	77.0	78.2	1.1	No	No
7	Rubidoux Bl.	s/o Production Circle	77.0	78.1	1.2	No	No
8	Rubidoux Bl.	s/o 20th St.	76.2	77.0	0.8	No	No
9	Rubidoux Bl.	s/o 24th St.	76.3	77.1	0.8	No	No
10	Rubidoux Bl.	s/o 26th St.	76.5	77.3	0.8	No	No
11	Rubidoux Bl.	s/o 28th St.	76.7	77.4	0.7	Yes	No
12	Rubidoux Bl.	s/o SR-60 Fwy.	76.8	76.9	0.1	Yes	No
13	Rubidoux Bl.	s/o 34th St.	75.6	75.7	0.1	Yes	No
14	Cactus Av.	n/o El Rivino Rd.	73.3	73.4	0.0	Yes	No
15	Rivera St.	n/o Market St.	71.9	71.9	0.0	No	No
16 17	Riverside Av.	n/o I-10 Fwy.	76.7 78.9	76.8 79.2	0.1	No No	No No
18	Riverside Av.	s/o I-10 Fwy. s/o Slover Av.	79.8	80.2	0.3	No	No
19	Riverside Av.	s/o Santa Ana Av.	79.6	80.2	0.3	No	No
20	Riverside Av.	s/o Jurupa Av.	80.2	80.6	0.3	No	No
21	Rancho Av.	n/o Agua Mansa Rd.	74.9	75.1	0.2	No	No
22	Rancho Av.	s/o Agua Mansa Rd.	73.5	73.7	0.1	No	No
23	Slover Av.	w/o Cedar Av.	74.9	74.9	0.0	No	No
24	Slover Av.	w/o Riverside Av.	74.0	74.0	0.0	No	No
25	Santa Ana Av.	w/o Cedar Av.	71.7	72.1	0.5	Yes	No
26	Santa Ana Av.	w/o Riverside Av.	69.7	69.7	0.0	No	No
27	Jurupa Av.	w/o Cedar Av.	70.3	70.3	0.0	Yes	No
28	El Rivino Rd.	e/o Cedar Av.	73.3	76.6	3.2	No	No
29	El Rivino Rd.	e/o Cactus Av.	71.1	73.4	2.3	Yes	No
30	El Rivino Rd.	e/o Hall Av.	69.4	69.8	0.4	Yes	No
31	Agua Mansa Rd.	e/o 20th St.	74.2	75.4	1.2	No	No
32	Agua Mansa Rd.	w/o Brown Av.	74.2	75.4	1.2	No	No
33	Agua Mansa Rd.	w/o Holly St.	74.4	74.8	0.4	No	No
34	Agua Mansa Rd.	e/o Holly St.	74.4	75.5	1.1	No	No
35	Agua Mansa Rd.	e/o El Rivino Rd.	75.6	76.6	1.0	No	No
36	Agua Mansa Rd.	e/o Riverside Av.	72.8	73.4	0.6	No	No
37	20th St.	e/o Rubidoux Bl.	77.0	77.8	0.7	No	No
38	20th St.	e/o Agua Mansa Rd.	76.4	77.6	1.2	No	No
39	Market St.	e/o Hall Av.	77.8	78.7	0.9	No	No
40	Market St.	e/o Rivera St.	78.6	79.4	0.8	No	No

 $<sup>^{1}</sup>$  The CNEL is calculated at the boundary of the right-of-way of each roadway and the property line of the nearest adjacent land use.



<sup>&</sup>lt;sup>2</sup> Significance Criteria (Section 4).

TABLE 7-22: UNMITIGATED YEAR 2020 ALTERNATIVE 2 TRAFFIC NOISE IMPACTS

ID	Road	Segment					Threshold Exceeded? <sup>2</sup>
1	Cedar Av.	n/o I-10 Fwy.	78.1	78.2	0.1	No	No
2	Cedar Av.	s/o I-10 Fwy.	77.5	77.8	0.4	No	No
3	Cedar Av.	s/o Slover Av.	76.6	77.0	0.5	No	No
4	Cedar Av.	s/o Santa Ana Av.	76.6	77.2	0.6	Yes	No
5	Cedar Av.	s/o Jurupa Av.	77.9	78.6	0.6	No	No
6	Rubidoux Bl.	s/o El Rivino Rd.	77.0	78.1	1.1	No	No
7	Rubidoux Bl.	s/o Production Circle	77.0	78.2	1.2	No	No
8	Rubidoux Bl.	s/o 20th St.	76.2	77.0	0.8	No	No
9	Rubidoux Bl.	s/o 24th St.	76.3	77.1	0.8	No	No
10	Rubidoux Bl.	s/o 26th St.	76.5	77.2	0.7	No	No
11	Rubidoux Bl.	s/o 28th St.	76.7	77.4	0.7	Yes	No
12	Rubidoux Bl.	s/o SR-60 Fwy.	76.8	76.9	0.1	Yes	No
13	Rubidoux Bl.	s/o 34th St.	75.6	75.7	0.1	Yes	No
14	Cactus Av.	n/o El Rivino Rd.	73.3	73.4	0.0	Yes	No
15	Rivera St.	n/o Market St.	71.9	71.9	0.0	No	No No
16 17	Riverside Av.	n/o I-10 Fwy. s/o I-10 Fwy.	76.7 78.9	76.8 79.2	0.1	No No	No No
18	Riverside Av.	s/o Slover Av.	79.8	80.1	0.3	No	No
19	Riverside Av.	s/o Santa Ana Av.	79.6	80.0	0.4	No	No
20	Riverside Av.	s/o Jurupa Av.	80.2	80.5	0.3	No	No
21	Rancho Av.	n/o Agua Mansa Rd.	74.9	75.1	0.2	No	No
22	Rancho Av.	s/o Agua Mansa Rd.	73.5	73.7	0.1	No	No
23	Slover Av.	w/o Cedar Av.	74.9	74.9	0.0	No	No
24	Slover Av.	w/o Riverside Av.	74.0	74.0	0.0	No	No
25	Santa Ana Av.	w/o Cedar Av.	71.7	72.1	0.4	Yes	No
26	Santa Ana Av.	w/o Riverside Av.	69.7	69.7	0.0	No	No
27	Jurupa Av.	w/o Cedar Av.	70.3	70.3	0.0	Yes	No
28	El Rivino Rd.	e/o Cedar Av.	73.3	74.4	1.1	No	No
29	El Rivino Rd.	e/o Cactus Av.	71.1	73.3	2.3	Yes	No
30	El Rivino Rd.	e/o Hall Av.	69.4	69.8	0.4	Yes	No
31	Agua Mansa Rd.	e/o 20th St.	74.2	75.0	0.7	No	No
32	Agua Mansa Rd.	w/o Brown Av.	74.2	75.0	0.7	No	No
33	Agua Mansa Rd.	w/o Holly St.	74.4	74.8	0.4	No	No
34	Agua Mansa Rd.	e/o Holly St.	74.4	75.4	1.0	No	No
35	Agua Mansa Rd.	e/o El Rivino Rd.	75.6	76.5	0.9	No	No
36	Agua Mansa Rd.	e/o Riverside Av.	72.8	73.3	0.5	No	No
37	20th St.	e/o Rubidoux Bl.	77.0	77.8	0.7	No	No
38	20th St.	e/o Agua Mansa Rd.	76.4	77.6	1.2	No	No No
39	Market St.	e/o Hall Av.	77.8	78.6	0.9	No No	No No
40	Market St.	e/o Rivera St.	78.6	79.4	0.8	No	No

 $<sup>^{1}</sup>$  The CNEL is calculated at the boundary of the right-of-way of each roadway and the property line of the nearest adjacent land use.



<sup>&</sup>lt;sup>2</sup> Significance Criteria (Section 4).

TABLE 7-23: UNMITIGATED YEAR 2020 ALTERNATIVE 2A TRAFFIC NOISE IMPACTS

ID	Road	Segment		EL at Adjand Use (d  With  Project		Noise- Sensitive Land Use?	Threshold Exceeded? <sup>2</sup>
1	Cedar Av.	n/o I-10 Fwy.	78.1	78.2	0.1	No	No
2	Cedar Av.	s/o I-10 Fwy.	77.5	77.8	0.4	No	No
3	Cedar Av.	s/o Slover Av.	76.6	77.0	0.5	No	No
4	Cedar Av.	s/o Santa Ana Av.	76.6	77.2	0.6	Yes	No
5	Cedar Av.	s/o Jurupa Av.	77.9	78.6	0.6	No	No
6	Rubidoux Bl.	s/o El Rivino Rd.	77.0	78.0	1.0	No	No
7	Rubidoux Bl.	s/o Production Circle	77.0	78.0	1.0	No	No
8	Rubidoux Bl.	s/o 20th St.	76.2	77.0	0.8	No	No
9	Rubidoux Bl.	s/o 24th St.	76.3	77.1	0.8	No	No
10	Rubidoux Bl.	s/o 26th St.	76.5	77.2	0.7	No	No
11	Rubidoux Bl.	s/o 28th St.	76.7	77.4	0.7	Yes	No
12	Rubidoux Bl.	s/o SR-60 Fwy.	76.8	76.9	0.1	Yes	No
13	Rubidoux Bl.	s/o 34th St.	75.6	75.7	0.1	Yes	No
14	Cactus Av.	n/o El Rivino Rd.	73.3	73.4	0.0	Yes	No
15	Rivera St.	n/o Market St.	71.9	71.9	0.0	No	No
16	Riverside Av.	n/o I-10 Fwy.	76.7	76.8	0.1	No	No
17	Riverside Av.	s/o I-10 Fwy.	78.9	79.2	0.3	No	No
18	Riverside Av.	s/o Slover Av.	79.8	80.1	0.3	No	No
19	Riverside Av.	s/o Santa Ana Av.	79.6	80.0	0.4	No	No
20	Riverside Av.	s/o Jurupa Av.	80.2	80.5	0.3	No	No
21	Rancho Av.	n/o Agua Mansa Rd.	74.9	75.1	0.2	No	No
22	Rancho Av.	s/o Agua Mansa Rd.	73.5	73.7	0.1	No	No
23	Slover Av.	w/o Cedar Av.	74.9	74.9	0.0	No	No
24	Slover Av.	w/o Riverside Av.	74.0	74.0	0.0	No	No
25	Santa Ana Av.	w/o Cedar Av.	71.7	72.1	0.4	Yes	No
26	Santa Ana Av.	w/o Riverside Av.	69.7	69.7	0.0	No	No
27	Jurupa Av.	w/o Cedar Av.	70.3	70.3	0.0	Yes	No
28	El Rivino Rd.	e/o Cedar Av.	73.3	76.8	3.5	No	No
29	El Rivino Rd.	e/o Cactus Av.	71.1	73.3	2.3	Yes	No
30	El Rivino Rd.	e/o Hall Av.	69.4	69.8	0.4	Yes	No
31	Agua Mansa Rd.	e/o 20th St.	74.2	75.5	1.3	No	No
32	Agua Mansa Rd.	w/o Brown Av.	74.2	75.5	1.3	No	No
33	Agua Mansa Rd.	w/o Holly St.	74.4	74.9	0.5	No	No
34	Agua Mansa Rd.	e/o Holly St.	74.4	75.4	1.0	No	No
35	Agua Mansa Rd.	e/o El Rivino Rd.	75.6	76.5	0.9	No	No
36	Agua Mansa Rd.	e/o Riverside Av.	72.8	73.3	0.5	No	No
37	20th St.	e/o Rubidoux Bl.	77.0	77.7	0.6	No	No No
38	20th St.	e/o Agua Mansa Rd.	76.4	77.6	1.2	No	No
39	Market St.	e/o Hall Av.	77.8	78.6	0.9	No	No No
40	Market St.	e/o Rivera St.	78.6	79.4	0.8	No	No

 $<sup>^{1}</sup>$  The CNEL is calculated at the boundary of the right-of-way of each roadway and the property line of the nearest adjacent land use.



<sup>&</sup>lt;sup>2</sup> Significance Criteria (Section 4).

## 7.4 YEAR 2035 PROJECT TRAFFIC NOISE LEVEL CONTRIBUTIONS

Table 7-11 presents the Year 2035 without Project conditions CNEL noise levels. The Year 2035 without Project exterior noise levels are expected to range from 69.4 to 80.8 dBA CNEL, without accounting for any noise attenuation features such as noise barriers or topography.

#### 7.4.1 YEAR 2035 WITH PROJECT ALTERNATIVE 1 OFF-SITE TRAFFIC NOISE LEVEL INCREASES

Table 7-12 shows the Year 2035 with Project Alternative 1 conditions will range from 69.7 to 81.1 dBA CNEL. Table 7-24 shows that the Project Alternative 1 off-site traffic noise level increases will range from 0.0 to 2.2 dBA CNEL. Based on the significance criteria in Section 4, land uses adjacent to the study-area roadway segments would experience *less than significant* noise level increases due to unmitigated Project-related traffic.

#### 7.4.2 YEAR 2035 WITH PROJECT ALTERNATIVE 1A OFF-SITE TRAFFIC NOISE LEVEL INCREASES

Table 7-13 shows the Year 2035 with Project Alternative 1A conditions will range from 69.7 to 81.1 dBA CNEL. Table 7-25 shows that the Project Alternative 1A off-site traffic noise level increases will range from 0.0 to 3.0 dBA CNEL. Based on the significance criteria in Section 4, land uses adjacent to the study-area roadway segments would experience *less than significant* noise level increases due to unmitigated Project-related traffic.

#### 7.4.3 YEAR 2035 WITH PROJECT ALTERNATIVE 2 OFF-SITE TRAFFIC NOISE LEVEL INCREASES

Table 7-14 shows the Year 2035 with Project Alternative 2 conditions will range from 69.7 to 81.1 dBA CNEL. Table 7-26 shows that the Project Alternative 2 off-site traffic noise level increases will range from 0.0 to 2.1 dBA CNEL. Based on the significance criteria in Section 4, land uses adjacent to the study-area roadway segments would experience *less than significant* noise level increases due to unmitigated Project-related traffic.

#### 7.4.4 YEAR 2035 WITH PROJECT ALTERNATIVE 2A OFF-SITE TRAFFIC NOISE LEVEL INCREASES

Table 7-15 shows the Year 2035 with Project Alternative 2A conditions will range from 69.7 to 81.1 dBA CNEL. Table 7-27 shows that the Project Alternative 2A off-site traffic noise level increases will range from 0.0 to 3.2 dBA CNEL. Based on the significance criteria in Section 4, land uses adjacent to the study-area roadway segments would experience *less than significant* noise level increases due to unmitigated Project-related traffic.



TABLE 7-24: UNMITIGATED YEAR 2035 ALTERNATIVE 1 TRAFFIC NOISE IMPACTS

ID	Road	Segment		EL at Adja nd Use (d With Project		Noise- Sensitive Land Use?	Threshold Exceeded? <sup>2</sup>
1	Cedar Av.	n/o I-10 Fwy.	78.4	78.4	0.1	No	No
2	Cedar Av.	s/o I-10 Fwy.	77.5	77.9	0.4	No	No
3	Cedar Av.	s/o Slover Av.	76.6	77.1	0.5	No	No
4	Cedar Av.	s/o Santa Ana Av.	76.6	77.2	0.6	Yes	No
5	Cedar Av.	s/o Jurupa Av.	77.9	78.6	0.7	No	No
6	Rubidoux Bl.	s/o El Rivino Rd.	77.0	78.3	1.3	No	No
7	Rubidoux Bl.	s/o Production Circle	77.0	78.3	1.3	No	No
8	Rubidoux Bl.	s/o 20th St.	76.2	77.0	0.8	No	No
9	Rubidoux Bl.	s/o 24th St.	76.3	77.1	0.8	No	No
10	Rubidoux Bl.	s/o 26th St.	76.5	77.3	0.8	No	No
11	Rubidoux Bl.	s/o 28th St.	76.8	77.6	0.7	Yes	No
12	Rubidoux Bl.	s/o SR-60 Fwy.	76.9	77.0	0.1	Yes	No
13	Rubidoux Bl.	s/o 34th St.	75.6	75.7	0.1	Yes	No
14	Cactus Av.	n/o El Rivino Rd.	73.3	73.4	0.0	Yes	No
15	Rivera St.	n/o Market St.	71.9	71.9	0.0	No	No
16 17	Riverside Av.	n/o I-10 Fwy.	77.6 79.8	77.6 80.0	0.1	No No	No No
18	Riverside Av.	s/o I-10 Fwy. s/o Slover Av.	80.7	81.0	0.2	No	No
19	Riverside Av.	s/o Santa Ana Av.	80.7	81.1	0.3	No	No
20	Riverside Av.	s/o Jurupa Av.	80.8	81.1	0.3	No	No
21	Rancho Av.	n/o Agua Mansa Rd.	75.5	75.7	0.2	No	No
22	Rancho Av.	s/o Agua Mansa Rd.	74.6	74.7	0.1	No	No
23	Slover Av.	w/o Cedar Av.	75.7	75.7	0.0	No	No
24	Slover Av.	w/o Riverside Av.	74.1	74.1	0.0	No	No
25	Santa Ana Av.	w/o Cedar Av.	72.0	72.5	0.4	Yes	No
26	Santa Ana Av.	w/o Riverside Av.	69.7	69.7	0.0	No	No
27	Jurupa Av.	w/o Cedar Av.	70.4	70.4	0.0	Yes	No
28	El Rivino Rd.	e/o Cedar Av.	73.9	74.8	0.9	No	No
29	El Rivino Rd.	e/o Cactus Av.	71.5	73.6	2.2	Yes	No
30	El Rivino Rd.	e/o Hall Av.	69.4	69.8	0.4	Yes	No
31	Agua Mansa Rd.	e/o 20th St.	75.3	75.8	0.5	No	No
32	Agua Mansa Rd.	w/o Brown Av.	75.3	75.8	0.5	No	No
33	Agua Mansa Rd.	w/o Holly St.	75.3	75.8	0.5	No	No
34	Agua Mansa Rd.	e/o Holly St.	75.3	75.5	0.2	No	No
35	Agua Mansa Rd.	e/o El Rivino Rd.	76.5	77.3	0.8	No	No
36	Agua Mansa Rd.	e/o Riverside Av.	73.1	73.7	0.5	No	No
37	20th St.	e/o Rubidoux Bl.	77.1	77.9	0.8	No	No
38	20th St.	e/o Agua Mansa Rd.	76.4	77.6	1.2	No	No
39	Market St.	e/o Hall Av.	77.8	78.7	0.9	No	No
40	Market St.	e/o Rivera St.	79.1	79.9	0.8	No	No

 $<sup>^{1}</sup>$  The CNEL is calculated at the boundary of the right-of-way of each roadway and the property line of the nearest adjacent land use.



<sup>&</sup>lt;sup>2</sup> Significance Criteria (Section 4).

TABLE 7-25: UNMITIGATED YEAR 2035 ALTERNATIVE 1A TRAFFIC NOISE IMPACTS

ID	Road	Segment		EL at Adja nd Use (d With Project		Noise- Sensitive Land Use?	Threshold Exceeded? <sup>2</sup>
1	Cedar Av.	n/o I-10 Fwy.	78.4	78.4	0.1	No	No
2	Cedar Av.	s/o I-10 Fwy.	77.5	77.9	0.4	No	No
3	Cedar Av.	s/o Slover Av.	76.6	77.1	0.5	No	No
4	Cedar Av.	s/o Santa Ana Av.	76.6	77.2	0.6	Yes	No
5	Cedar Av.	s/o Jurupa Av.	77.9	78.6	0.7	No	No
6	Rubidoux Bl.	s/o El Rivino Rd.	77.0	78.2	1.1	No	No
7	Rubidoux Bl.	s/o Production Circle	77.0	78.1	1.2	No	No
8	Rubidoux Bl.	s/o 20th St.	76.2	77.0	0.8	No	No
9	Rubidoux Bl.	s/o 24th St.	76.3	77.1	0.8	No	No
10	Rubidoux Bl.	s/o 26th St.	76.5	77.3	0.8	No	No
11	Rubidoux Bl.	s/o 28th St.	76.8	77.6	0.7	Yes	No
12	Rubidoux Bl.	s/o SR-60 Fwy.	76.9	77.0	0.1	Yes	No
13	Rubidoux Bl.	s/o 34th St.	75.6	75.7	0.1	Yes	No
14	Cactus Av.	n/o El Rivino Rd.	73.3	73.4	0.0	Yes	No
15	Rivera St.	n/o Market St.	71.9	71.9	0.0	No	No
16 17	Riverside Av.	n/o I-10 Fwy.	77.6 79.8	77.6 80.0	0.1	No No	No No
18	Riverside Av.	s/o I-10 Fwy. s/o Slover Av.	80.7	81.0	0.2	No	No
19	Riverside Av.	s/o Santa Ana Av.	80.7	81.1	0.3	No	No
20	Riverside Av.	s/o Jurupa Av.	80.8	81.1	0.3	No	No
21	Rancho Av.	n/o Agua Mansa Rd.	75.5	75.7	0.2	No	No
22	Rancho Av.	s/o Agua Mansa Rd.	74.6	74.7	0.1	No	No
23	Slover Av.	w/o Cedar Av.	75.7	75.7	0.0	No	No
24	Slover Av.	w/o Riverside Av.	74.1	74.1	0.0	No	No
25	Santa Ana Av.	w/o Cedar Av.	72.0	72.5	0.4	Yes	No
26	Santa Ana Av.	w/o Riverside Av.	69.7	69.7	0.0	No	No
27	Jurupa Av.	w/o Cedar Av.	70.4	70.4	0.0	Yes	No
28	El Rivino Rd.	e/o Cedar Av.	73.9	76.8	3.0	No	No
29	El Rivino Rd.	e/o Cactus Av.	71.5	73.6	2.2	Yes	No
30	El Rivino Rd.	e/o Hall Av.	69.4	69.8	0.4	Yes	No
31	Agua Mansa Rd.	e/o 20th St.	75.3	76.2	0.9	No	No
32	Agua Mansa Rd.	w/o Brown Av.	75.3	76.2	0.9	No	No
33	Agua Mansa Rd.	w/o Holly St.	75.3	75.6	0.3	No	No
34	Agua Mansa Rd.	e/o Holly St.	75.3	76.2	0.9	No	No
35	Agua Mansa Rd.	e/o El Rivino Rd.	76.5	77.3	0.8	No	No
36	Agua Mansa Rd.	e/o Riverside Av.	73.1	73.7	0.5	No	No
37	20th St.	e/o Rubidoux Bl.	77.1	77.8	0.7	No	No
38	20th St.	e/o Agua Mansa Rd.	76.4	77.6	1.2	No	No
39	Market St.	e/o Hall Av.	77.8	78.7	0.9	No	No
40	Market St.	e/o Rivera St.	79.1	79.9	0.8	No	No

 $<sup>^{1}</sup>$  The CNEL is calculated at the boundary of the right-of-way of each roadway and the property line of the nearest adjacent land use.



<sup>&</sup>lt;sup>2</sup> Significance Criteria (Section 4).

TABLE 7-26: UNMITIGATED YEAR 2035 ALTERNATIVE 2 TRAFFIC NOISE IMPACTS

ID	Road	Segment					Threshold Exceeded? <sup>2</sup>
1	Cedar Av.	n/o I-10 Fwy.	78.4	78.4	0.1	No	No
2	Cedar Av.	s/o I-10 Fwy.	77.5	77.8	0.4	No	No
3	Cedar Av.	s/o Slover Av.	76.6	77.0	0.5	No	No
4	Cedar Av.	s/o Santa Ana Av.	76.6	77.2	0.6	Yes	No
5	Cedar Av.	s/o Jurupa Av.	77.9	78.6	0.6	No	No
6	Rubidoux Bl.	s/o El Rivino Rd.	77.0	78.1	1.1	No	No
7	Rubidoux Bl.	s/o Production Circle	77.0	78.2	1.2	No	No
8	Rubidoux Bl.	s/o 20th St.	76.2	77.0	0.8	No	No
9	Rubidoux Bl.	s/o 24th St.	76.3	77.1	0.8	No	No
10	Rubidoux Bl.	s/o 26th St.	76.5	77.2	0.7	No	No
11	Rubidoux Bl.	s/o 28th St.	76.8	77.5	0.7	Yes	No
12	Rubidoux Bl.	s/o SR-60 Fwy.	76.9	77.0	0.1	Yes	No
13	Rubidoux Bl.	s/o 34th St.	75.6	75.7	0.1	Yes	No
14	Cactus Av.	n/o El Rivino Rd.	73.3	73.4	0.0	Yes	No
15 16	Rivera St. Riverside Av.	n/o Market St. n/o I-10 Fwy.	71.9 77.6	71.9	0.0	No No	No No
17	Riverside Av.	s/o I-10 Fwy.	79.8	77.6 80.0	0.1	No No	No No
18	Riverside Av.	s/o Slover Av.	80.7	80.9	0.2	No	No
19	Riverside Av.	s/o Santa Ana Av.	80.8	81.1	0.3	No	No
20	Riverside Av.	s/o Jurupa Av.	80.8	81.1	0.3	No	No
21	Rancho Av.	n/o Agua Mansa Rd.	75.5	75.7	0.2	No	No
22	Rancho Av.	s/o Agua Mansa Rd.	74.6	74.7	0.1	No	No
23	Slover Av.	w/o Cedar Av.	75.7	75.8	0.0	No	No
24	Slover Av.	w/o Riverside Av.	74.1	74.1	0.0	No	No
25	Santa Ana Av.	w/o Cedar Av.	72.0	72.4	0.4	Yes	No
26	Santa Ana Av.	w/o Riverside Av.	69.7	69.7	0.0	No	No
27	Jurupa Av.	w/o Cedar Av.	70.4	70.4	0.0	Yes	No
28	El Rivino Rd.	e/o Cedar Av.	73.9	74.8	1.0	No	No
29	El Rivino Rd.	e/o Cactus Av.	71.5	73.6	2.1	Yes	No
30	El Rivino Rd.	e/o Hall Av.	69.4	69.8	0.4	Yes	No
31	Agua Mansa Rd.	e/o 20th St.	75.3	75.9	0.6	No	No
32	Agua Mansa Rd.	w/o Brown Av.	75.3	75.9	0.6	No	No
33	Agua Mansa Rd.	w/o Holly St.	75.3	75.7	0.3	No	No
34	Agua Mansa Rd.	e/o Holly St.	75.3	76.1	0.8	No	No
35	Agua Mansa Rd.	e/o El Rivino Rd.	76.5	77.3	0.8	No	No
36	Agua Mansa Rd.	e/o Riverside Av.	73.1	73.6	0.5	No	No
37	20th St.	e/o Rubidoux Bl.	77.1	77.8	0.7	No	No
38	20th St.	e/o Agua Mansa Rd.	76.4	77.6	1.2	No	No
39	Market St.	e/o Hall Av.	77.8	78.6	0.9	No	No No
40	Market St.	e/o Rivera St.	79.1	79.8	0.7	No	No

 $<sup>^{1}</sup>$  The CNEL is calculated at the boundary of the right-of-way of each roadway and the property line of the nearest adjacent land use.



<sup>&</sup>lt;sup>2</sup> Significance Criteria (Section 4).

TABLE 7-27: UNMITIGATED YEAR 2035 ALTERNATIVE 2A TRAFFIC NOISE IMPACTS

1 Cedar Av. s/o I-10 Fwy. 78.4 78.4 0.1 No No No 2 Cedar Av. s/o I-10 Fwy. 77.5 77.8 0.4 No No No No No Average Section 1.5 No No No No No No Average Section 1.5 No	ID	Road	Segment		EL at Adja nd Use (d With Project		Noise- Sensitive Land Use?	Threshold Exceeded? <sup>2</sup>
3         Cedar Av.         s/o Slover Av.         76.6         77.0         0.5         No         No           4         Cedar Av.         s/o Santa Ana Av.         76.6         77.2         0.6         Yes         No           5         Cedar Av.         s/o Jurupa Av.         77.9         78.6         0.6         No         No           6         Rubidoux Bl.         s/o Jel Rivino Rd.         77.0         78.0         1.0         No         No           7         Rubidoux Bl.         s/o 20th St.         76.2         77.0         0.8         No         No           9         Rubidoux Bl.         s/o 26th St.         76.3         77.1         0.8         No         No           10         Rubidoux Bl.         s/o 26th St.         76.3         77.1         0.8         No         No           11         Rubidoux Bl.         s/o 26th St.         76.5         77.2         0.7         No         No           12         Rubidoux Bl.         s/o 28th St.         76.9         77.0         0.1         Yes         No           12         Rubidoux Bl.         s/o 34th St.         75.6         75.7         0.1         Yes         No	1	Cedar Av.	n/o I-10 Fwy.	78.4	78.4	0.1	No	No
4         Cedar Av.         s/o Santa Ana Av.         76.6         77.2         0.6         Yes         No           5         Cedar Av.         s/o Jurupa Av.         77.9         78.6         0.6         No         No           6         Rubidoux Bl.         s/o El Rivino Rd.         77.0         78.0         1.0         No         No           7         Rubidoux Bl.         s/o 20th St.         76.2         77.0         0.8         No         No           9         Rubidoux Bl.         s/o 26th St.         76.2         77.0         0.8         No         No           10         Rubidoux Bl.         s/o 26th St.         76.5         77.2         0.7         No         No           11         Rubidoux Bl.         s/o 28th St.         76.5         77.2         0.7         Yes         No           12         Rubidoux Bl.         s/o 28th St.         76.8         77.5         0.7         Yes         No           12         Rubidoux Bl.         s/o 28th St.         76.8         77.7         0.1         Yes         No           12         Rubidoux Bl.         s/o 24th St.         71.9         77.0         0.1         Yes         No <td>2</td> <td>Cedar Av.</td> <td>s/o I-10 Fwy.</td> <td>77.5</td> <td>77.8</td> <td>0.4</td> <td>No</td> <td>No</td>	2	Cedar Av.	s/o I-10 Fwy.	77.5	77.8	0.4	No	No
5         Cedar Av.         \$/o Jurupa Av.         77.9         78.6         0.6         No         No           6         Rubidoux Bl.         \$/o Production Circle         77.0         78.0         1.0         No         No           7         Rubidoux Bl.         \$/o Porduction Circle         77.0         78.0         1.0         No         No           8         Rubidoux Bl.         \$/o 20th St.         76.2         77.0         0.8         No         No           9         Rubidoux Bl.         \$/o 26th St.         76.5         77.2         0.7         No         No           10         Rubidoux Bl.         \$/o 28th St.         76.8         77.5         0.7         Yes         No           12         Rubidoux Bl.         \$/o 34th St.         75.6         75.7         0.1         Yes         No           14         Cactus Av.         n/o El Rivino Rd.         73.3         73.4         0.0         Yes         No           15         Rivera St.         n/o Hayrino Rd.         73.3         73.4         0.0         Yes         No           15         Riverside Av.         n/o El Rivino Rd.         73.3         73.4         0.0         Yes	3	Cedar Av.	s/o Slover Av.	76.6	77.0	0.5	No	No
6         Rubidoux BI.         s/o El Rivino Rd.         77.0         78.0         1.0         No         No           7         Rubidoux BI.         s/o Porduction Circle         77.0         78.0         1.0         No         No           8         Rubidoux BI.         s/o 26th St.         76.2         77.0         0.8         No         No           10         Rubidoux BI.         s/o 26th St.         76.3         77.1         0.8         No         No           10         Rubidoux BI.         s/o 28th St.         76.3         77.2         0.7         No         No           11         Rubidoux BI.         s/o 28th St.         76.8         77.5         0.7         Yes         No           12         Rubidoux BI.         s/o 84th St.         75.6         75.7         0.1         Yes         No           13         Rubidoux BI.         s/o 84th St.         75.6         75.7         0.1         Yes         No           14         Cactus Av.         n/o Hel Rivino Rd.         73.3         73.4         0.0         Yes         No           15         Riverside Av.         n/o Hel Rivino Rd.         77.6         77.6         0.1         No	4	Cedar Av.	s/o Santa Ana Av.	76.6	77.2	0.6	Yes	No
7         Rubidoux BI.         s/o Production Circle         77.0         78.0         1.0         No         No           8         Rubidoux BI.         s/o 20th St.         76.2         77.0         0.8         No         No           9         Rubidoux BI.         s/o 26th St.         76.5         77.2         0.7         No         No           10         Rubidoux BI.         s/o 28th St.         76.8         77.5         0.7         No         No           12         Rubidoux BI.         s/o 58r-60 Fwy.         76.9         77.0         0.1         Yes         No           13         Rubidoux BI.         s/o 58r-60 Fwy.         76.9         77.0         0.1         Yes         No           14         Cactus Av.         n/o El Rivino Rd.         73.3         73.4         0.0         Yes         No           15         Riverside Av.         n/o Harket St.         71.9         71.9         0.0         No         No           16         Riverside Av.         s/o I-10 Fwy.         77.6         77.6         0.1         No         No           17         Riverside Av.         s/o Slover Av.         80.7         80.9         0.2         No	5	Cedar Av.	s/o Jurupa Av.	77.9	78.6	0.6	No	No
8         Rubidoux Bl.         s/o 20th St.         76.2         77.0         0.8         No         No           9         Rubidoux Bl.         s/o 24th St.         76.3         77.1         0.8         No         No           10         Rubidoux Bl.         s/o 28th St.         76.5         77.2         0.7         No         No           11         Rubidoux Bl.         s/o 28th St.         76.8         77.5         0.7         Yes         No           12         Rubidoux Bl.         s/o 58r-60 Fwy.         76.9         77.0         0.1         Yes         No           13         Rubidoux Bl.         s/o 58r-60 Fwy.         75.6         75.7         0.1         Yes         No           14         Cactus Av.         n/o El Riverion Rd.         73.3         73.4         0.0         Yes         No           15         Riverside Av.         n/o Harket St.         71.9         71.9         0.0         No         No           16         Riverside Av.         s/o I-10 Fwy.         77.6         77.6         0.1         No         No           17         Riverside Av.         s/o Slover Av.         80.7         80.9         0.2         No         N	6	Rubidoux Bl.	s/o El Rivino Rd.	77.0	78.0	1.0	No	No
9 Rubidoux Bl. s/o 24th St. 76.3 77.1 0.8 No No 10 Rubidoux Bl. s/o 26th St. 76.5 77.2 0.7 No No 11 Rubidoux Bl. s/o 28th St. 76.8 77.5 0.7 Yes No 12 Rubidoux Bl. s/o 8th St. 76.9 77.0 0.1 Yes No 13 Rubidoux Bl. s/o 8th St. 76.9 77.0 0.1 Yes No 14 Cactus Av. n/o El Rivino Rd. 73.3 73.4 0.0 Yes No 15 Rivera St. n/o Market St. 71.9 71.9 0.0 No No 16 Riverside Av. n/o I-10 Fwy. 77.6 77.6 0.1 No No 17 Riverside Av. s/o I-10 Fwy. 77.6 77.6 0.1 No No 18 Riverside Av. s/o I-10 Fwy. 79.8 80.0 0.2 No No 18 Riverside Av. s/o Slover Av. 80.7 80.9 0.2 No No 19 Riverside Av. s/o Slover Av. 80.8 81.1 0.3 No No 20 Riverside Av. s/o Jurupa Av. 80.8 81.1 0.3 No No 21 Rancho Av. n/o Agua Mansa Rd. 75.5 75.7 0.2 No No 22 Rancho Av. s/o Agua Mansa Rd. 74.6 74.7 0.1 No No 23 Slover Av. W/o Cedar Av. 75.7 75.8 0.0 No No 24 Slover Av. W/o Riverside Av. 74.1 74.1 0.0 No No 25 Santa Ana Av. W/o Cedar Av. 72.0 72.4 0.4 Yes No 26 Santa Ana Av. W/o Cedar Av. 73.9 77.1 3.2 No No 27 Jurupa Av. W/o Cedar Av. 73.9 77.1 3.2 No No 28 El Rivino Rd. e/o Cactus Av. 73.9 77.1 3.2 No No 30 El Rivino Rd. e/o Cactus Av. 75.3 76.4 1.0 No No 31 Agua Mansa Rd. W/o Brown Av. 75.3 76.4 1.0 No No 32 Agua Mansa Rd. W/o Brown Av. 75.3 76.4 1.0 No No 33 Agua Mansa Rd. e/o Hall Av. 75.3 76.4 1.0 No No 34 Agua Mansa Rd. e/o Holly St. 75.3 75.7 0.8 No No 35 Agua Mansa Rd. e/o Holly St. 75.3 76.4 1.0 No No 36 Agua Mansa Rd. e/o El Rivino Rd. Po El	7	Rubidoux Bl.	s/o Production Circle	77.0	78.0	1.0	No	No
10         Rubidoux Bl.         \$/o 26th St.         76.5         77.2         0.7         No         No           11         Rubidoux Bl.         \$/o 28th St.         76.8         77.5         0.7         Yes         No           12         Rubidoux Bl.         \$/o SR-60 Fwy.         76.9         77.0         0.1         Yes         No           13         Rubidoux Bl.         \$/o S4th St.         75.6         75.7         0.1         Yes         No           14         Cactus Av.         n/o El Rivino Rd.         73.3         73.4         0.0         Yes         No           15         Rivers St.         n/o Market St.         71.9         71.9         0.0         No         No           16         Riverside Av.         n/o I-10 Fwy.         77.6         77.6         0.1         No         No           17         Riverside Av.         \$/o I-10 Fwy.         79.8         80.0         0.2         No         No           18         Riverside Av.         \$/o Santa Ana Av.         80.8         81.1         0.3         No         No           20         Riverside Av.         \$/o Squa Mansa Rd.         75.5         75.7         0.2         No	8	Rubidoux Bl.	s/o 20th St.	76.2	77.0	0.8	No	No
11         Rubidoux Bl.         \$/o 28th St.         76.8         77.5         0.7         Yes         No           12         Rubidoux Bl.         \$/o SR-60 Fwy.         76.9         77.0         0.1         Yes         No           13         Rubidoux Bl.         \$/o 34th St.         75.6         75.7         0.1         Yes         No           14         Cactus Av.         n/o El Rivino Rd.         73.3         73.4         0.0         Yes         No           15         Rivers St.         n/o Hol Fwy.         77.6         0.1         No         No           16         Riverside Av.         n/o I-10 Fwy.         77.6         0.1         No         No           17         Riverside Av.         \$/o I-10 Fwy.         77.6         0.1         No         No           18         Riverside Av.         \$/o Slover Av.         80.7         80.9         0.2         No         No           19         Riverside Av.         \$/o Surupa Av.         80.8         81.1         0.3         No         No           20         Riverside Av.         \$/o Jagua Mansa Rd.         75.5         75.7         0.2         No         No           21         Ranc	9	Rubidoux Bl.	s/o 24th St.	76.3	77.1	0.8	No	No
12         Rubidoux Bl.         \$\sigma \text{SR-60 Fwy.}\$         76.9         77.0         0.1         Yes         No           13         Rubidoux Bl.         \$\sigma \text{34th St.}\$         75.6         75.7         0.1         Yes         No           14         Cactus Av.         n/o El Rivino Rd.         73.3         73.4         0.0         Yes         No           15         Riverside.         n/o Harket St.         71.9         71.9         0.0         No         No           16         Riverside Av.         n/o 1-10 Fwy.         77.6         77.6         0.1         No         No           17         Riverside Av.         \$\sigma \text{Slover Av.}         80.8         80.0         0.2         No         No           18         Riverside Av.         \$\sigma \text{Slover Av.}         80.8         81.1         0.3         No         No           19         Riverside Av.         \$\sigma \text{Solata Ana Av.}         80.8         81.1         0.3         No         No           20         Riverside Av.         \$\sigma \text{Solata Ana Av.}         \$\sigma \text{Solata Ana Av.}         \$\sigma \text{Solata Ana Av.}         \$\sigma \text{Solata Ana Av.}         \$\sigma No         \$\sigma \text{No <t< td=""><td>10</td><td>Rubidoux Bl.</td><td>s/o 26th St.</td><td>76.5</td><td>77.2</td><td>0.7</td><td>No</td><td>No</td></t<>	10	Rubidoux Bl.	s/o 26th St.	76.5	77.2	0.7	No	No
13         Rubidoux Bl.         \$\gamma 0\$ 34th St.         75.6         75.7         0.1         Yes         No           14         Cactus Av.         n/o El Rivino Rd.         73.3         73.4         0.0         Yes         No           15         Rivera St.         n/o I-10 Fwy.         77.6         77.6         0.1         No         No           16         Riverside Av.         \$\gamma 0\$ I-10 Fwy.         77.6         77.6         0.1         No         No           17         Riverside Av.         \$\gamma 0\$ I-10 Fwy.         79.8         80.0         0.2         No         No           18         Riverside Av.         \$\gamma 0\$ Sol Slover Av.         80.7         80.9         0.2         No         No           19         Riverside Av.         \$\gamma 0\$ Sol Jurupa Av.         80.8         81.1         0.3         No         No           20         Riverside Av.         \$\gamma 0\$ Agua Mansa Rd.         75.5         75.7         0.2         No         No           21         Rancho Av.         \$\gamma 0\$ Agua Mansa Rd.         74.6         74.7         0.1         No         No           22         Rancho Av.         \$\gamma 0\$ Agua Mansa Rd.         74.6	11	Rubidoux Bl.	s/o 28th St.	76.8	77.5	0.7	Yes	No
14         Cactus Av.         n/o El Rivino Rd.         73.3         73.4         0.0         Yes         No           15         Rivera St.         n/o Market St.         71.9         71.9         0.0         No         No           16         Riverside Av.         n/o I-10 Fwy.         77.6         77.6         0.1         No         No           17         Riverside Av.         s/o Slover Av.         80.7         80.9         0.2         No         No           18         Riverside Av.         s/o Santa Ana Av.         80.8         81.1         0.3         No         No           20         Riverside Av.         s/o Jurupa Av.         80.8         81.1         0.3         No         No           21         Rancho Av.         n/o Agua Mansa Rd.         75.5         75.7         0.2         No         No           21         Rancho Av.         y/o Agua Mansa Rd.         74.6         74.7         0.1         No         No           22         Rancho Av.         y/o Agua Mansa Rd.         74.6         74.7         0.1         No         No           23         Slover Av.         w/o Riverside Av.         75.7         75.8         0.0         No	12	Rubidoux Bl.	s/o SR-60 Fwy.	76.9	77.0	0.1	Yes	No
15         Rivera St.         n/o Market St.         71.9         71.9         0.0         No         No           16         Riverside Av.         n/o I-10 Fwy.         77.6         77.6         0.1         No         No           17         Riverside Av.         s/o Slover Av.         80.7         80.9         0.2         No         No           18         Riverside Av.         s/o Santa Ana Av.         80.8         81.1         0.3         No         No           19         Riverside Av.         s/o Santa Ana Av.         80.8         81.1         0.3         No         No           20         Riverside Av.         s/o Agua Mansa Rd.         75.5         75.7         0.2         No         No           21         Rancho Av.         s/o Agua Mansa Rd.         74.6         74.7         0.1         No         No           22         Rancho Av.         s/o Agua Mansa Rd.         74.6         74.7         0.1         No         No           23         Slover Av.         w/o Edar Av.         75.7         75.8         0.0         No         No           24         Slover Av.         w/o Riverside Av.         72.0         72.4         0.4         Yes	13	Rubidoux Bl.	s/o 34th St.	75.6	75.7	0.1	Yes	No
16         Riverside Av.         n/o I-10 Fwy.         77.6         77.6         0.1         No         No           17         Riverside Av.         s/o I-10 Fwy.         79.8         80.0         0.2         No         No           18         Riverside Av.         s/o Slover Av.         80.7         80.9         0.2         No         No           19         Riverside Av.         s/o Santa Ana Av.         80.8         81.1         0.3         No         No           20         Riverside Av.         s/o Jurupa Av.         80.8         81.1         0.3         No         No           21         Rancho Av.         n/o Agua Mansa Rd.         75.5         75.7         0.2         No         No           22         Rancho Av.         s/o Agua Mansa Rd.         74.6         74.7         0.1         No         No           23         Slover Av.         w/o Cedar Av.         75.7         75.8         0.0         No         No           24         Slover Av.         w/o Riverside Av.         74.1         74.1         0.0         No         No           25         Santa Ana Av.         w/o Riverside Av.         72.0         72.4         0.4         Yes	14	Cactus Av.	n/o El Rivino Rd.	73.3	73.4	0.0	Yes	No
17         Riverside Av.         s/o I-10 Fwy.         79.8         80.0         0.2         No         No           18         Riverside Av.         s/o Slover Av.         80.7         80.9         0.2         No         No           19         Riverside Av.         s/o Santa Ana Av.         80.8         81.1         0.3         No         No           20         Riverside Av.         s/o Jurupa Av.         80.8         81.1         0.3         No         No           21         Rancho Av.         n/o Agua Mansa Rd.         75.5         75.7         0.2         No         No           22         Rancho Av.         s/o Agua Mansa Rd.         74.6         74.7         0.1         No         No           23         Slover Av.         w/o Cedar Av.         75.7         75.8         0.0         No         No           24         Slover Av.         w/o Riverside Av.         72.0         72.4         0.4         Yes         No           25         Santa Ana Av.         w/o Cedar Av.         72.0         72.4         0.4         Yes         No           26         Santa Ana Av.         w/o Riverside Av.         70.4         70.4         0.0         Yes	15	Rivera St.	n/o Market St.	71.9	71.9	0.0	No	No
18         Riverside Av.         s/o Slover Av.         80.7         80.9         0.2         No         No           19         Riverside Av.         s/o Santa Ana Av.         80.8         81.1         0.3         No         No           20         Riverside Av.         s/o Jurupa Av.         80.8         81.1         0.3         No         No           21         Rancho Av.         n/o Agua Mansa Rd.         75.5         75.7         0.2         No         No           22         Rancho Av.         s/o Agua Mansa Rd.         74.6         74.7         0.1         No         No           23         Slover Av.         w/o Cedar Av.         75.7         75.8         0.0         No         No           24         Slover Av.         w/o Riverside Av.         74.1         74.1         0.0         No         No           25         Santa Ana Av.         w/o Riverside Av.         72.0         72.4         0.4         Yes         No           26         Santa Ana Av.         w/o Riverside Av.         69.7         69.7         0.0         No         No           27         Jurupa Av.         w/o Cedar Av.         70.4         70.4         0.0         Yes	16	Riverside Av.	n/o I-10 Fwy.	77.6	77.6	0.1	No	No
19         Riverside Av.         s/o Santa Ana Av.         80.8         81.1         0.3         No         No           20         Riverside Av.         s/o Jurupa Av.         80.8         81.1         0.3         No         No           21         Rancho Av.         n/o Agua Mansa Rd.         75.5         75.7         0.2         No         No           22         Rancho Av.         s/o Agua Mansa Rd.         74.6         74.7         0.1         No         No           23         Slover Av.         w/o Cedar Av.         75.7         75.8         0.0         No         No           24         Slover Av.         w/o Riverside Av.         74.1         74.1         0.0         No         No           25         Santa Ana Av.         w/o Riverside Av.         72.0         72.4         0.4         Yes         No           26         Santa Ana Av.         w/o Riverside Av.         69.7         69.7         0.0         No         No           27         Jurupa Av.         w/o Cedar Av.         70.4         70.4         0.0         Yes         No           28         El Rivino Rd.         e/o Cedar Av.         73.9         77.1         3.2         No	17	Riverside Av.	s/o I-10 Fwy.	79.8	80.0	0.2	No	No
20         Riverside Av.         s/o Jurupa Av.         80.8         81.1         0.3         No         No           21         Rancho Av.         n/o Agua Mansa Rd.         75.5         75.7         0.2         No         No           22         Rancho Av.         s/o Agua Mansa Rd.         74.6         74.7         0.1         No         No           23         Slover Av.         w/o Cedar Av.         75.7         75.8         0.0         No         No           24         Slover Av.         w/o Riverside Av.         74.1         74.1         0.0         No         No           25         Santa Ana Av.         w/o Cedar Av.         72.0         72.4         0.4         Yes         No           26         Santa Ana Av.         w/o Riverside Av.         69.7         69.7         0.0         No         No           27         Jurupa Av.         w/o Cedar Av.         70.4         70.4         0.0         Yes         No           28         El Rivino Rd.         e/o Cedar Av.         73.9         77.1         3.2         No         No           29         El Rivino Rd.         e/o Cactus Av.         71.5         73.6         2.1         Yes	18	Riverside Av.	s/o Slover Av.	80.7	80.9	0.2	No	No
21         Rancho Av.         n/o Agua Mansa Rd.         75.5         75.7         0.2         No         No           22         Rancho Av.         s/o Agua Mansa Rd.         74.6         74.7         0.1         No         No           23         Slover Av.         w/o Cedar Av.         75.7         75.8         0.0         No         No           24         Slover Av.         w/o Riverside Av.         74.1         74.1         0.0         No         No           25         Santa Ana Av.         w/o Cedar Av.         72.0         72.4         0.4         Yes         No           26         Santa Ana Av.         w/o Riverside Av.         69.7         69.7         0.0         No         No           27         Jurupa Av.         w/o Cedar Av.         70.4         70.4         0.0         Yes         No           28         El Rivino Rd.         e/o Cedar Av.         73.9         77.1         3.2         No         No           29         El Rivino Rd.         e/o Cactus Av.         71.5         73.6         2.1         Yes         No           30         El Rivino Rd.         e/o B.4         69.8         0.4         Yes         No	19	Riverside Av.	s/o Santa Ana Av.	80.8	81.1	0.3	No	No
22         Rancho Av.         s/o Agua Mansa Rd.         74.6         74.7         0.1         No         No           23         Slover Av.         w/o Cedar Av.         75.7         75.8         0.0         No         No           24         Slover Av.         w/o Riverside Av.         74.1         74.1         0.0         No         No           25         Santa Ana Av.         w/o Cedar Av.         72.0         72.4         0.4         Yes         No           26         Santa Ana Av.         w/o Riverside Av.         69.7         69.7         0.0         No         No           27         Jurupa Av.         w/o Cedar Av.         70.4         70.4         0.0         Yes         No           28         El Rivino Rd.         e/o Cedar Av.         73.9         77.1         3.2         No         No           30         El Rivino Rd.         e/o Cactus Av.         71.5         73.6         2.1         Yes         No           30         El Rivino Rd.         e/o Hall Av.         69.4         69.8         0.4         Yes         No           31         Agua Mansa Rd.         e/o 20th St.         75.3         76.4         1.0         No         <	20	Riverside Av.	s/o Jurupa Av.	80.8	81.1	0.3	No	No
23         Slover Av.         w/o Cedar Av.         75.7         75.8         0.0         No         No           24         Slover Av.         w/o Riverside Av.         74.1         74.1         0.0         No         No           25         Santa Ana Av.         w/o Cedar Av.         72.0         72.4         0.4         Yes         No           26         Santa Ana Av.         w/o Riverside Av.         69.7         69.7         0.0         No         No           27         Jurupa Av.         w/o Cedar Av.         70.4         70.4         0.0         Yes         No           28         El Rivino Rd.         e/o Cedar Av.         73.9         77.1         3.2         No         No           29         El Rivino Rd.         e/o Cactus Av.         71.5         73.6         2.1         Yes         No           30         El Rivino Rd.         e/o Hall Av.         69.4         69.8         0.4         Yes         No           31         Agua Mansa Rd.         e/o 20th St.         75.3         76.4         1.0         No         No           32         Agua Mansa Rd.         w/o Holly St.         75.3         75.7         0.4         No <t< td=""><td>21</td><td>Rancho Av.</td><td>n/o Agua Mansa Rd.</td><td>75.5</td><td>75.7</td><td>0.2</td><td>No</td><td>No</td></t<>	21	Rancho Av.	n/o Agua Mansa Rd.	75.5	75.7	0.2	No	No
24         Slover Av.         w/o Riverside Av.         74.1         74.1         0.0         No         No           25         Santa Ana Av.         w/o Cedar Av.         72.0         72.4         0.4         Yes         No           26         Santa Ana Av.         w/o Riverside Av.         69.7         69.7         0.0         No         No           27         Jurupa Av.         w/o Cedar Av.         70.4         70.4         0.0         Yes         No           28         El Rivino Rd.         e/o Cedar Av.         73.9         77.1         3.2         No         No           29         El Rivino Rd.         e/o Cactus Av.         71.5         73.6         2.1         Yes         No           30         El Rivino Rd.         e/o Hall Av.         69.4         69.8         0.4         Yes         No           31         Agua Mansa Rd.         e/o 20th St.         75.3         76.4         1.0         No         No           32         Agua Mansa Rd.         w/o Holly St.         75.3         75.7         0.4         No         No           34         Agua Mansa Rd.         e/o Holly St.         75.3         76.1         0.8         No	22	Rancho Av.	s/o Agua Mansa Rd.	74.6	74.7	0.1	No	No
25         Santa Ana Av.         w/o Cedar Av.         72.0         72.4         0.4         Yes         No           26         Santa Ana Av.         w/o Riverside Av.         69.7         69.7         0.0         No         No           27         Jurupa Av.         w/o Cedar Av.         70.4         70.4         0.0         Yes         No           28         El Rivino Rd.         e/o Cedar Av.         73.9         77.1         3.2         No         No           29         El Rivino Rd.         e/o Cactus Av.         71.5         73.6         2.1         Yes         No           30         El Rivino Rd.         e/o Hall Av.         69.4         69.8         0.4         Yes         No           31         Agua Mansa Rd.         e/o 20th St.         75.3         76.4         1.0         No         No           32         Agua Mansa Rd.         w/o Brown Av.         75.3         76.4         1.0         No         No           33         Agua Mansa Rd.         e/o Holly St.         75.3         75.7         0.4         No         No           34         Agua Mansa Rd.         e/o Fl Rivino Rd.         76.5         77.3         0.8         No	23	Slover Av.	w/o Cedar Av.	75.7	75.8	0.0	No	No
26         Santa Ana Av.         w/o Riverside Av.         69.7         69.7         0.0         No         No           27         Jurupa Av.         w/o Cedar Av.         70.4         70.4         0.0         Yes         No           28         El Rivino Rd.         e/o Cedar Av.         73.9         77.1         3.2         No         No           29         El Rivino Rd.         e/o Cactus Av.         71.5         73.6         2.1         Yes         No           30         El Rivino Rd.         e/o Hall Av.         69.4         69.8         0.4         Yes         No           31         Agua Mansa Rd.         e/o 20th St.         75.3         76.4         1.0         No         No           32         Agua Mansa Rd.         e/o Brown Av.         75.3         76.4         1.0         No         No           33         Agua Mansa Rd.         w/o Holly St.         75.3         75.7         0.4         No         No           34         Agua Mansa Rd.         e/o Holly St.         75.3         76.1         0.8         No         No           35         Agua Mansa Rd.         e/o El Rivino Rd.         76.5         77.3         0.8         No	24	Slover Av.	w/o Riverside Av.	74.1	74.1	0.0	No	No
27         Jurupa Av.         w/o Cedar Av.         70.4         70.4         0.0         Yes         No           28         El Rivino Rd.         e/o Cedar Av.         73.9         77.1         3.2         No         No           29         El Rivino Rd.         e/o Cactus Av.         71.5         73.6         2.1         Yes         No           30         El Rivino Rd.         e/o Hall Av.         69.4         69.8         0.4         Yes         No           31         Agua Mansa Rd.         e/o 20th St.         75.3         76.4         1.0         No         No           32         Agua Mansa Rd.         w/o Brown Av.         75.3         76.4         1.0         No         No           33         Agua Mansa Rd.         w/o Holly St.         75.3         75.7         0.4         No         No           34         Agua Mansa Rd.         e/o Holly St.         75.3         76.1         0.8         No         No           35         Agua Mansa Rd.         e/o El Rivino Rd.         76.5         77.3         0.8         No         No           36         Agua Mansa Rd.         e/o Riverside Av.         73.1         73.6         0.5         No	25	Santa Ana Av.	w/o Cedar Av.	72.0	72.4	0.4	Yes	No
28         El Rivino Rd.         e/o Cedar Av.         73.9         77.1         3.2         No         No           29         El Rivino Rd.         e/o Cactus Av.         71.5         73.6         2.1         Yes         No           30         El Rivino Rd.         e/o Hall Av.         69.4         69.8         0.4         Yes         No           31         Agua Mansa Rd.         e/o 20th St.         75.3         76.4         1.0         No         No           32         Agua Mansa Rd.         w/o Brown Av.         75.3         76.4         1.0         No         No           33         Agua Mansa Rd.         w/o Holly St.         75.3         75.7         0.4         No         No           34         Agua Mansa Rd.         e/o Holly St.         75.3         76.1         0.8         No         No           35         Agua Mansa Rd.         e/o El Rivino Rd.         76.5         77.3         0.8         No         No           36         Agua Mansa Rd.         e/o Riverside Av.         73.1         73.6         0.5         No         No           37         20th St.         e/o Rubidoux Bl.         77.1         77.7         0.6         No	26	Santa Ana Av.	w/o Riverside Av.	69.7	69.7	0.0	No	No
29         El Rivino Rd.         e/o Cactus Av.         71.5         73.6         2.1         Yes         No           30         El Rivino Rd.         e/o Hall Av.         69.4         69.8         0.4         Yes         No           31         Agua Mansa Rd.         e/o 20th St.         75.3         76.4         1.0         No         No           32         Agua Mansa Rd.         w/o Brown Av.         75.3         76.4         1.0         No         No           33         Agua Mansa Rd.         w/o Holly St.         75.3         75.7         0.4         No         No           34         Agua Mansa Rd.         e/o Holly St.         75.3         76.1         0.8         No         No           35         Agua Mansa Rd.         e/o El Rivino Rd.         76.5         77.3         0.8         No         No           36         Agua Mansa Rd.         e/o Riverside Av.         73.1         73.6         0.5         No         No           37         20th St.         e/o Rubidoux Bl.         77.1         77.7         0.6         No         No           39         Market St.         e/o Hall Av.         77.8         78.6         0.9         No	27	Jurupa Av.	w/o Cedar Av.	70.4	70.4	0.0	Yes	No
30         El Rivino Rd.         e/o Hall Av.         69.4         69.8         0.4         Yes         No           31         Agua Mansa Rd.         e/o 20th St.         75.3         76.4         1.0         No         No           32         Agua Mansa Rd.         w/o Brown Av.         75.3         76.4         1.0         No         No           33         Agua Mansa Rd.         w/o Holly St.         75.3         75.7         0.4         No         No           34         Agua Mansa Rd.         e/o Holly St.         75.3         76.1         0.8         No         No           35         Agua Mansa Rd.         e/o El Rivino Rd.         76.5         77.3         0.8         No         No           36         Agua Mansa Rd.         e/o Riverside Av.         73.1         73.6         0.5         No         No           37         20th St.         e/o Rubidoux Bl.         77.1         77.7         0.6         No         No           38         20th St.         e/o Agua Mansa Rd.         76.4         77.6         1.2         No         No           39         Market St.         e/o Hall Av.         77.8         78.6         0.9         No	28	El Rivino Rd.	e/o Cedar Av.	73.9	77.1	3.2	No	No
31       Agua Mansa Rd.       e/o 20th St.       75.3       76.4       1.0       No       No         32       Agua Mansa Rd.       w/o Brown Av.       75.3       76.4       1.0       No       No         33       Agua Mansa Rd.       w/o Holly St.       75.3       75.7       0.4       No       No         34       Agua Mansa Rd.       e/o Holly St.       75.3       76.1       0.8       No       No         35       Agua Mansa Rd.       e/o El Rivino Rd.       76.5       77.3       0.8       No       No         36       Agua Mansa Rd.       e/o Riverside Av.       73.1       73.6       0.5       No       No         37       20th St.       e/o Rubidoux Bl.       77.1       77.7       0.6       No       No         38       20th St.       e/o Agua Mansa Rd.       76.4       77.6       1.2       No       No         39       Market St.       e/o Hall Av.       77.8       78.6       0.9       No       No	29	El Rivino Rd.	e/o Cactus Av.	71.5	73.6	2.1	Yes	No
32       Agua Mansa Rd.       w/o Brown Av.       75.3       76.4       1.0       No       No         33       Agua Mansa Rd.       w/o Holly St.       75.3       75.7       0.4       No       No         34       Agua Mansa Rd.       e/o Holly St.       75.3       76.1       0.8       No       No         35       Agua Mansa Rd.       e/o El Rivino Rd.       76.5       77.3       0.8       No       No         36       Agua Mansa Rd.       e/o Riverside Av.       73.1       73.6       0.5       No       No         37       20th St.       e/o Rubidoux Bl.       77.1       77.7       0.6       No       No         38       20th St.       e/o Agua Mansa Rd.       76.4       77.6       1.2       No       No         39       Market St.       e/o Hall Av.       77.8       78.6       0.9       No       No	30	El Rivino Rd.	e/o Hall Av.	69.4	69.8	0.4	Yes	No
32       Agua Mansa Rd.       w/o Brown Av.       75.3       76.4       1.0       No       No         33       Agua Mansa Rd.       w/o Holly St.       75.3       75.7       0.4       No       No         34       Agua Mansa Rd.       e/o Holly St.       75.3       76.1       0.8       No       No         35       Agua Mansa Rd.       e/o El Rivino Rd.       76.5       77.3       0.8       No       No         36       Agua Mansa Rd.       e/o Riverside Av.       73.1       73.6       0.5       No       No         37       20th St.       e/o Rubidoux Bl.       77.1       77.7       0.6       No       No         38       20th St.       e/o Agua Mansa Rd.       76.4       77.6       1.2       No       No         39       Market St.       e/o Hall Av.       77.8       78.6       0.9       No       No	31	Agua Mansa Rd.	e/o 20th St.	75.3	76.4	1.0	No	No
33         Agua Mansa Rd.         w/o Holly St.         75.3         75.7         0.4         No         No           34         Agua Mansa Rd.         e/o Holly St.         75.3         76.1         0.8         No         No           35         Agua Mansa Rd.         e/o El Rivino Rd.         76.5         77.3         0.8         No         No           36         Agua Mansa Rd.         e/o Riverside Av.         73.1         73.6         0.5         No         No           37         20th St.         e/o Rubidoux Bl.         77.1         77.7         0.6         No         No           38         20th St.         e/o Agua Mansa Rd.         76.4         77.6         1.2         No         No           39         Market St.         e/o Hall Av.         77.8         78.6         0.9         No         No	_	_		75.3				
34       Agua Mansa Rd.       e/o Holly St.       75.3       76.1       0.8       No       No         35       Agua Mansa Rd.       e/o El Rivino Rd.       76.5       77.3       0.8       No       No         36       Agua Mansa Rd.       e/o Riverside Av.       73.1       73.6       0.5       No       No         37       20th St.       e/o Rubidoux Bl.       77.1       77.7       0.6       No       No         38       20th St.       e/o Agua Mansa Rd.       76.4       77.6       1.2       No       No         39       Market St.       e/o Hall Av.       77.8       78.6       0.9       No       No	_		w/o Holly St.	75.3	75.7	0.4	No	No
35         Agua Mansa Rd.         e/o El Rivino Rd.         76.5         77.3         0.8         No         No           36         Agua Mansa Rd.         e/o Riverside Av.         73.1         73.6         0.5         No         No           37         20th St.         e/o Rubidoux Bl.         77.1         77.7         0.6         No         No           38         20th St.         e/o Agua Mansa Rd.         76.4         77.6         1.2         No         No           39         Market St.         e/o Hall Av.         77.8         78.6         0.9         No         No								
36       Agua Mansa Rd.       e/o Riverside Av.       73.1       73.6       0.5       No       No         37       20th St.       e/o Rubidoux Bl.       77.1       77.7       0.6       No       No         38       20th St.       e/o Agua Mansa Rd.       76.4       77.6       1.2       No       No         39       Market St.       e/o Hall Av.       77.8       78.6       0.9       No       No	_							
37     20th St.     e/o Rubidoux Bl.     77.1     77.7     0.6     No     No       38     20th St.     e/o Agua Mansa Rd.     76.4     77.6     1.2     No     No       39     Market St.     e/o Hall Av.     77.8     78.6     0.9     No     No	_		•					No
38       20th St.       e/o Agua Mansa Rd.       76.4       77.6       1.2       No       No         39       Market St.       e/o Hall Av.       77.8       78.6       0.9       No       No			,					
39 Market St. e/o Hall Av. 77.8 78.6 0.9 No No			,					
	$\vdash$							
40   IVIATREL 51.     E/O KIVETA 51.     79.1     79.8   U./   NO   NO	40	Market St.	e/o Rivera St.	79.1	79.8	0.7	No	No

 $<sup>^{1}</sup>$  The CNEL is calculated at the boundary of the right-of-way of each roadway and the property line of the nearest adjacent land use.



<sup>&</sup>lt;sup>2</sup> Significance Criteria (Section 4).

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## 8 SENSITIVE RECEIVER LOCATIONS

To assess the potential for long-term operational (stationary-source) and short-term construction noise impacts, the following sensitive receiver locations, as shown on Exhibit 8-A, were identified as representative locations for analysis. Sensitive receivers are generally defined as locations where people reside or where the presence of unwanted sound could otherwise adversely affect the use of the land. Noise-sensitive land uses are generally considered to include: schools, hospitals, single-family dwellings, mobile home parks, churches, libraries, and recreation areas. Moderately noise-sensitive land uses typically include: multi-family dwellings, hotels, motels, dormitories, out-patient clinics, cemeteries, golf courses, country clubs, athletic/tennis clubs, and equestrian clubs. Land uses that are considered relatively insensitive to noise include business, commercial, and professional developments. Land uses that are typically not affected by noise include: industrial, manufacturing, utilities, agriculture, natural open space, undeveloped land, parking lots, warehousing, liquid and solid waste facilities, salvage yards, and transit terminals.

Sensitive receiver locations in the Project study area include residential and park uses, as described below. Other sensitive land uses in the Project study area that are located at greater distances than those identified in this noise study will experience lower noise levels than those presented in this report due to the additional attenuation from distance and the shielding of intervening structures.

- R1: Located approximately 347 feet north of the Project site, R1 represents existing residential homes east of Cedar Avenue, north of El Rivino Road. A 24-hour noise measurement was taken near this location, L1, to describe the existing ambient noise environment.
- R2: Location R2 represents the existing residential homes located north of the Project site at roughly 133 feet across El Rivino Road. A 24-hour noise measurement was taken near this location, L2, to describe the existing ambient noise environment.
- R3: Location R3 represents the existing residential homes on El Rivino Road approximately 297 feet east of the Project site. A 24-hour noise measurement was taken near this location, L3, to describe the existing ambient noise environment.
- R4: Location R4 represents the existing residential homes east of the Project site, across the Hall Avenue, south of El Rivino Road.
- R5: Located approximately 2,232 feet southeast of the Project site, R5 represents an existing residential home on Wilson Street. A 24-hour noise measurement was taken near this location, L5, to describe the existing ambient noise environment.
- R6: Location R6 represents the existing residential homes located south of the Project site at roughly 3,018 feet on Hall Avenue. A 24-hour noise measurement was taken near this location, L7, to describe the existing ambient noise environment.
- R7: Location R7 represents the existing Avalon Park at approximately 2,172 feet southwest of the Project site. A 24-hour noise measurement was taken near this location, L8, to describe the existing ambient noise environment.



- R8: Location R8 represents the existing residential homes west of the Project site on Castellano Road. A 24-hour noise measurement was taken near this location, L9, to describe the existing ambient noise environment.
- R9: Location R9 represents the existing residential homes at approximately 585 feet west of the Project site on Castellano Road.
- R10: Location R10 represents the existing residential homes west of the Project site at roughly 111 feet across Cedar Avenue. A 24-hour noise measurement was taken near this location, L10, to describe the existing ambient noise environment.



RIALTO Residential Residential Future Industrial Use Residential Industrial Uses SITE Milestone MX Park Industrial Industrial Uses Uses Industrial Uses Down River Horse Ranch Avalon Park Residential LEGEND:

**EXHIBIT 8-A: SENSITIVE RECEIVER LOCATIONS** 



Receiver Locations —— Distance from receiver to Project site boundary (in feet)

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# 9 OPERATIONAL (STATIONARY-SOURCE) NOISE IMPACTS

This section analyzes the potential stationary-source operational noise impacts at the nearby receiver locations, identified in Section 8, resulting from operation of the proposed Agua Mansa Commerce Park Specific Plan Project. Exhibit 9-A identifies the representative receiver locations and noise source locations used to assess the operational (stationary-source) noise levels.

## 9.1 OPERATIONAL (STATIONARY-SOURCE) NOISE SOURCES

At the time this noise analysis was prepared, the future tenants of the proposed Project were unknown. The on-site Project-related noise sources are expected to include: roof-top air conditioning units, idling trucks, delivery truck activities, backup alarms, as well as loading and unloading of dry goods, parking lot vehicle movements, and regional park activities (playgrounds, a dog park, and trail activities). This noise analysis is intended to describe noise level impacts associated with the expected typical operational (stationary-source) activities at the Project site.

## 9.2 REFERENCE NOISE LEVELS

To estimate the Project operational (stationary-source) noise impacts, reference noise level measurements were collected from similar types of activities to represent the noise levels expected with the development of the proposed Project. This section provides a detailed description of the reference noise level measurements shown on Table 9-1 used to estimate the Project operational (stationary-source) noise impacts. It is important to note that the following projected noise levels assume the worst-case noise environment with the roof-top air conditioning units, idling trucks, delivery truck activities, backup alarms, as well as loading and unloading of dry goods, parking lot vehicle movements, and regional park activities (playgrounds, a dog park, and trail activities) all operating simultaneously. These noise level impacts will likely vary throughout the day.

## 9.2.1 ROOF-TOP AIR CONDITIONING UNITS

To assess the impacts created by the roof-top air conditioning units at the Project buildings, reference noise levels measurements were taken at the Santee Walmart on July 27, 2015. Located at 170 Town Center Parkway in the City of Santee, the noise level measurements describe a single mechanical roof-top air conditioning unit on the roof of an existing Walmart store. The reference noise level represents a Lennox SCA120 series 10-ton model packaged air conditioning unit. Using the uniform reference distance of 50 feet, the reference air conditioning unit noise level is 57.2 dBA L<sub>eq</sub>. The operating conditions of the reference noise level measurement reflect peak summer cooling requirements with measured temperatures approaching 96 degrees Fahrenheit (°F) with average daytime temperatures of 82°F. The roof-top air condition units were observed to operate the most during the daytime hours for a total of 39 minutes per hour. The noise attenuation provided by a parapet wall is not reflected in this reference noise level measurement.



#### 9.2.2 UNLOADING/DOCKING ACTIVITY

A short-term reference noise level measurement was collected on Wednesday, January 7, 2015, by Urban Crossroads, Inc. at the Motivational Fulfillment & Logistics Services distribution facility located at 6810 Bickmore Avenue in the City of Chino. The noise level measurement represents the typical weekday dry goods logistics warehouse operation in a single building, of roughly 285,000 square feet, with a loading dock area on the western side of the building façade. Up to ten trucks were observed in the loading dock area including a combination of track trailer semitrucks, two-axle delivery trucks, and background forklift operations.

The unloading/docking activity noise level measurement was taken over a fifteen-minute period and represents multiple noise sources taken from the center of loading dock activities generating a reference noise level of 62.8 dBA L<sub>eq</sub> at a uniform reference distance of 50 feet. At this measurement location, the noise sources associated with employees unloading a docked truck container included the squeaking of the truck's shocks when weight was removed from the truck, employees playing music over a radio, as well as a forklift horn and backup alarm. In addition, during the noise level measurement a truck entered the loading dock area and proceeded to reverse and dock in a nearby loading bay, adding truck engine and air brakes noise.

## 9.2.3 PARKING LOT VEHICLE MOVEMENTS (INDUSTRIAL & R&D USES)

To determine the noise levels associated with industrial and research and development use parking lot vehicle movements, Urban Crossroads collected reference noise level measurements over a 24-hour period on May 17, 2017 at the parking lot for the Panasonic Avionics Corporation in the City of Lake Forest. The peak hour of activity measured over the 24-hour noise level measurement period occurred between 12:00 p.m. to 1:00 p.m., or the typical lunch hour for employees working in the area. The measured reference noise level at 50 feet from parking lot vehicle movements was measured at 41.7 dBA Leq. The parking lot noise levels are mainly due to cars pulling in and out of spaces during peak lunch hour activity and employees talking. Noise associated with parking lot vehicle movements is expected to operate for the entire hour (60 minutes).

#### 9.2.4 Parking Lot Vehicle Movements (Commercial)

To determine the noise levels associated with commercial parking lot vehicle movements, Urban Crossroads collected reference noise level measurements at the Laguna Niguel Walmart located at 27470 Alicia Parkway on May 30, 2012. The 15-minute noise level measurement indicates that the parking lot vehicle movements generates noise levels of 45.1 dBA L<sub>eq</sub> at a normalized distance of 50 feet. The parking lot noise levels are mainly due to cars pulling in and out of spaces, car alarms sounding, and customers moving shopping carts. Noise associated with parking lot vehicle movements is expected during the typical daytime, and nighttime conditions for the entire hour (60 minutes).



## 9.2.5 PARKING LOT VEHICLE MOVEMENT ACTIVITIES (PARK)

To describe the potential noise level impacts associated with the Project's parking lot activities within the proposed park land uses, a reference noise level measurement was collected on Wednesday, October 8, 2014 at the Founders Park in the unincorporated community of Ladera Ranch in the County of Orange. The reference noise levels collected at the Founders Park are expected to reflect the noise level activities at the parking lot for the park use of the Project site, since the reference noise level measurement includes vehicles entering and exiting parking stalls, parents loading and unloading chairs and kids, closing of truck doors and minivan trunk lids, car horn beeps for car alarm arming, car stereos, kids laughing, playing, and dropping sports equipment into a truck bed. The reference noise level is 40.4 dBA Leq at the uniform distance of 50 feet from the source. The parking lot activities are estimated to occur for 60 minutes during the peak hour conditions.

## 9.2.6 DOG PARK ACTIVITIES

To describe the potential noise level impacts associated with the Agua Mansa Commerce Park Specific Plan park use with dog park, a reference noise level measurement was collected on Wednesday, October 8, 2014 at La Paws Dog Park in the City of Mission Viejo. The reference noise levels collected at the La Paws Dog Park are expected to reflect the noise level activities at the dog park within Project site. The reference noise level measurement at the dog park includes people talking, dogs running, playing fetch, chasing each other, growling, barking and dog owners talking on cell phones. As observed during the noise level measurement, the dual entry gate of the La Paws Dog Park was identified as a key source of noise when opened and closed due to metal hinges squeaking and the metal to metal contact with the gate and its closure. At the uniform reference distance of 50 feet from the noise source, a reference noise level of 42.8 dBA Leq was measured. The dog park activities are estimated to operate continuously for up to 60 minutes during the peak hour conditions.

#### 9.2.7 PLAYGROUND ACTIVITIES

To represent the potential noise level impacts associated with the Project's park and playground activities, a reference noise level measurement was collected on Wednesday, October 8, 2014 at the Founders Park in the unincorporated community of Ladera Ranch in the County of Orange. The reference noise levels collected at the Founders Park are expected to reflect the noise level activities within the recreation area of the Project site, since the reference noise level measurement includes girls' youth soccer games, coaches shouting instructions, parents speaking on cell phones, and background noise levels from kids playing on swing sets and people cheering and clapping. Using the uniform reference distance of 50 feet, the reference park activity noise level is 43.4 dBA Leq. The soccer field activities are estimated to occur for 60 minutes during the peak hour conditions.



#### 9.2.8 PARK TRAIL ACTIVITIES

Urban Crossroads, Inc. collected reference noise level measurements from similar trail and park uses on April 13, 2016 at the Rancho Santa Margarita Lake. The reference noise level measurement represents pedestrian and bike activities observed over a two-and-a-half-minute period at a trail adjacent to the lake. The noise sources included in the reference noise level measurement consist of multiple pedestrian pass-by events, people with strollers, groups talking while walking, children on scooters, people jogging, and bike pass-by events. In addition, the reference noise levels include pedestrians talking on cell phones, playing music, laughing, and walking their dogs. At a common distance of 50 feet from the source, a reference noise level of 47.2 dBA L<sub>eq</sub> was measured.

**TABLE 9-1: REFERENCE NOISE LEVEL MEASUREMENTS** 

			Dist.	Noise	Hourly	Hourly (dBA L <sub>eq</sub> )	
Land Use	Noise Source	Duration (hh:mm:ss)	From Source Source Height (Feet) (Feet)		Activity (Mins) <sup>1</sup>	Reference Noise Level	@ 50'
All	Roof-Top Air Conditioning Unit <sup>2</sup>	96:00:00	5	5	39	77.2	57.2
Industrial &	Unloading/Docking Activity <sup>2</sup>	00:15:00	30	8	60	67.2	62.8
R&D	Parking Lot Vehicle Movements <sup>3</sup>	01:00:00	10	5	60	52.2	41.7
Commercial Retail	Parking Lot Vehicle Movements <sup>4</sup>	00:15:00	5	5	60	60.1	45.1
	Parking Lot Vehicle Movements <sup>5</sup>	00:08:00	5	5	60	55.4	40.4
Doub	Dog Park Activities <sup>6</sup>	00:15:00	5	4	60	62.8	42.8
Park	Playground Activities <sup>7</sup>	00:15:00	5	4	60	63.4	43.4
	Park Trail Activities <sup>8</sup>	00:02:30	10	5	60	57.7	47.2

<sup>&</sup>lt;sup>1</sup> Anticipated duration (minutes within the hour) of noise activity during typical hourly conditions expected at the Project site based on the reference noise level measurement activity.



 $<sup>^2</sup>$  As measured by Urban Crossroads, Inc. on 7/27/2015 at the Santee Walmart located at 170 Town Center Parkway.

<sup>&</sup>lt;sup>3</sup> As measured by Urban Crossroads, Inc. on 5/17/2017 at the Panasonic Avionics Corporation parking lot in the City of Lake Forest at typical lunch hour (12:00 p.m. to 1:00 p.m.).

<sup>&</sup>lt;sup>4</sup> As measured by Urban Crossroads, Inc. on 5/30/2012 by Urban Crossroads, Inc. at the Laguna Niguel Walmart at 27470 Alicia Parkway.

<sup>&</sup>lt;sup>5</sup> As measured by Urban Crossroads, Inc. on 10/8/2014 by Urban Crossroads, Inc. at the Founder's Park in the unincorporated community of Ladera Ranch in the County of Orange.

<sup>&</sup>lt;sup>6</sup> As measured by Urban Crossroads, Inc. on 10/8/2014 by Urban Crossroads, Inc. at the La Paws Dog Park in the City of Mission Viejo.

<sup>&</sup>lt;sup>7</sup> As measured by Urban Crossroads, Inc. on 10/8/2014 by Urban Crossroads, Inc. at the Founder's Park in the unincorporated community of Ladera Ranch in the County of Orange.

<sup>&</sup>lt;sup>8</sup> As measured by Urban Crossroads, Inc. on 4/13/2016 by Urban Crossroads, Inc. at the Rancho Santa Margarita Lake.

<sup>&</sup>quot;R&D" = Research and development

## 9.3 Project Operational (Stationary-Source) Noise Levels

Using the reference noise levels to represent the proposed Project operations that include roof-top air conditioning units, idling trucks, delivery truck activities, backup alarms, as well as loading and unloading of dry goods, parking lot vehicle movements, and regional park activities (playgrounds, a dog park, and trail activities), Urban Crossroads, Inc. calculated the operational source noise levels that are expected to be generated at the Project site and the Project-related noise level increases that would be experienced at each of the sensitive receiver locations. The operational (stationary-source) noise level calculations, shown on Table 9-2, account for the distance attenuation provided due to geometric spreading when sound from a localized stationary source (i.e., a point source) propagates uniformly outward in a spherical pattern. Hard site conditions are used in the operational (stationary-source) noise analysis which result in noise levels that attenuate (or decrease) at a rate of 6 dBA for each doubling of distance from a point source. The basic noise attenuation equation shown below is used to calculate the distance attenuation based on a reference noise level (SPL<sub>1</sub>):

$$SPL_2 = SPL_1 - 20log(D_2/D_1)$$

Where  $SPL_2$  is the resulting noise level after attenuation,  $SPL_1$  is the source noise level,  $D_2$  is the distance to the reference sound pressure level ( $SPL_1$ ), and  $D_1$  is the distance to the receiver location. Table 9-2 shows the individual operational (stationary-source) noise levels of each noise source at each of the nearby sensitive receiver locations. As indicated on Table 9-2, the Project-only operational (stationary-source) noise levels will range from 27.6 to 44.6 dBA  $L_{eq}$  at the sensitive receiver locations.



INSET A RIALTO R10 1423 RETAIL ©1732 ACRE 584 3,897 JURUPA VALLEY Sources: Esri, USGS, NGA, NASA, CGIAR, N Robinson, NCEAS, NLS, OS, NMA, Geodatastyrelsen, Rijkswaterstaat, GSA, Geoland, FEMA, Intermap and the GIS use **LEGEND:** Receiver Locations Dog Park Activity Roof-Top Air Conditioning Unit Distribution/Warehouse Activity Playground Activity — Distance from receiver to center of noise source (in feet) Parking Lot Vehicle Movements 📁 Park Trails

EXHIBIT 9-A: OPERATIONAL (STATIONARY-SOURCE) NOISE SOURCE LOCATIONS



**TABLE 9-2: UNMITIGATED PROJECT-ONLY OPERATIONAL NOISE LEVELS** 

			Project C	Operational	Noise Leve	els (dBA)³	
Receiver Location <sup>1</sup>	Noise Source <sup>2</sup>	L <sub>eq</sub> (E. Avg.)	L <sub>50</sub> (30 mins)	L <sub>25</sub> (15 mins)	L <sub>8</sub> (5 mins)	L <sub>2</sub> (1 min)	L <sub>max</sub> (Anytime)
	Air Conditioning Unit (Roof-Top)	37.2	34.4	36.1	37.4	37.7	38.2
R1	Parking Lot Vehicle Movements (Commercial)	32.2	28.8	32.8	35.8	39.2	51.6
R1	Parking Lot Vehicle Movements (Industrial)	25	21.8	22.8	27.8	33.8	44.7
	Truck Unloading/Docking Activity	38.4	35.4	38.4	43	46.8	51.2
	Combined Noise Level:	41.5	38.5	41.2	44.7	48.1	54.9
	Air Conditioning Unit (Roof-Top)	34.9	32.1	33.8	35.1	35.4	35.9
R2	Parking Lot Vehicle Movements (Industrial)	33.9	30.7	31.7	36.7	42.7	53.6
NZ	Truck Unloading/Docking Activity	41.2	38.2	41.2	45.8	49.6	54
	Combined Noise Level:	42.7	39.7	42.3	46.6	50.5	56.8
_	Air Conditioning Unit (Roof-Top)	34.8	32	33.7	35	35.3	35.8
R3	Parking Lot Vehicle Movements (Industrial)	27	23.8	24.8	29.8	35.8	46.7
ν2	Truck Unloading/Docking Activity	44	41	44	48.6	52.4	56.8
	Combined Noise Level:	44.6	41.6	44.4	48.8	52.6	57.2
_	Air Conditioning Unit (Roof-Top)	31.5	28.7	30.4	31.7	32	32.5
R4	Parking Lot Vehicle Movements (Industrial)	23.8	20.6	21.6	26.6	32.6	43.5
114	Truck Unloading/Docking Activity	41.4	38.4	41.4	46	49.8	54.2
	Combined Noise Level:	41.9	38.9	41.8	46.2	50.0	54.6
_	Air Conditioning Unit (Roof-Top)	18.7	15.9	17.6	18.9	19.2	19.7
R5	Dog Park Activities	4.8	0.5	3	7.2	14.6	20.6
	Park Trail Activities	22	17	21.1	23.3	23.4	34.2
	Parking Lot Vehicle Movements (Industrial)	15.4	12.2	13.2	18.2	24.2	35.1
	Parking Lot Vehicle Movements (Park)	11.7	9.5	12.5	15.7	18.5	22.4
_	Playground Activities	5.6	3.9	6.3	9.2	11.9	16.1
	Truck Unloading/Docking Activity	26.3	23.3	26.3	30.9	34.7	39.1
	Combined Noise Level:	28.5	25.2	28.2	32.1	35.6	41.6
	Air Conditioning Unit (Roof-Top)	17.9	15.1	16.8	18.1	18.4	18.9
_	Dog Park Activities	5	0.7	3.2	7.4	14.8	20.8
-	Park Trail Activities	20.1	15.1	19.2	21.4	21.5	32.3
R6	Parking Lot Vehicle Movements (Industrial)	13.8	10.6	11.6	16.6	22.6	33.5
	Parking Lot Vehicle Movements (Park)	11.6	9.4	12.4	15.6	18.4	22.3
-	Playground Activities	4.9	3.2	5.6	8.5	11.2	15.4
-	Truck Unloading/Docking Activity	25.6	22.6	25.6	30.2	34	38.4
	Combined Noise Level:	27.6	24.3	27.3	31.3	34.8	40.5
 	Air Conditioning Unit (Roof-Top)	21.9	19.1	20.8	22.1	22.4	22.9
<u> </u>	Dog Park Activities	7.8	3.5	6	10.2	17.6	23.6
	Park Trail Activities	21.6	16.6	20.7	22.9	23	33.8
R7	Parking Lot Vehicle Movements (Industrial)	16.9	13.7	14.7	19.7	25.7	36.6
	Parking Lot Vehicle Movements (Park)	13.6	11.4	14.4	17.6	20.4	24.3
	Playground Activities	7.2	5.5	7.9	10.8	13.5	17.7
	Truck Unloading/Docking Activity	29.7	26.7	29.7	34.3	38.1	42.5
	Combined Noise Level:	31.2	28.0	30.9	35.1	38.7	44.1
  -	Air Conditioning Unit (Roof-Top)	29.9	27.1	28.8	30.1	30.4	30.9
R8	Dog Park Activities	9.8	5.5	8	12.2	19.6	25.6
	Park Trail Activities	23.1	18.1	22.2	24.4	24.5	35.3

			Project C	Operational	Noise Leve	els (dBA)³	
Receiver Location <sup>1</sup>	Noise Source <sup>2</sup>	L <sub>eq</sub> (E. Avg.)	L <sub>50</sub> (30 mins)	L <sub>25</sub> (15 mins)	L <sub>8</sub> (5 mins)	L <sub>2</sub> (1 min)	L <sub>max</sub> (Anytime)
	Parking Lot Vehicle Movements (Industrial)	22.7	19.5	20.5	25.5	31.5	42.4
	Parking Lot Vehicle Movements (Park)	16.6	14.4	17.4	20.6	23.4	27.3
	Playground Activities	10.7	9	11.4	14.3	17	21.2
	Truck Unloading/Docking Activity	37.4	34.4	37.4	42	45.8	50.2
	Combined Noise Level:	38.4	35.4	38.2	42.5	46.1	51.1
	Air Conditioning Unit (Roof-Top)	31.7	28.9	30.6	31.9	32.2	32.7
	Parking Lot Vehicle Movements (Commercial)	27.4	24	28	31	34.4	46.8
R9	Parking Lot Vehicle Movements (Industrial)	25.1	21.9	22.9	27.9	33.9	44.8
	Truck Unloading/Docking Activity	39.1	36.1	39.1	43.7	47.5	51.9
	Combined Noise Level:	40.2	37.2	40.0	44.3	48.0	53.7
	Air Conditioning Unit (Roof-Top)	37	34.2	35.9	37.2	37.5	38
	Parking Lot Vehicle Movements (Commercial)	39.2	35.8	39.8	42.8	46.2	58.6
R10	Parking Lot Vehicle Movements (Industrial)	29.2	26	27	32	38	48.9
	Truck Unloading/Docking Activity	41	38	41	45.6	49.4	53.8
	Combined Noise Level:	44.3	41.2	44.2	47.9	51.5	60.2

<sup>&</sup>lt;sup>1</sup> See Exhibit 9-A for the receiver and noise source locations.

Table 9-3 presents a summary of the combined total Project-only operational (stationary-source) noise level projections at the nearby sensitive receiver locations for a comparison with local jurisdiction exterior noise level standards. The Project operational (stationary-source) noise levels at the nearby sensitive receiver locations are shown to range from 27.6 to 44.6 dBA L<sub>eq</sub>. Based on the results of this analysis, the operational (stationary-source) noise levels associated with the Agua Mansa Commerce Park Specific Plan will satisfy the operational (stationary-source) exterior daytime and nighttime noise level standards at all nearby sensitive receiver locations. The operational (stationary-source) noise level calculations are included in Appendix 9.1.



<sup>&</sup>lt;sup>2</sup> Reference noise sources as shown on Table 9-1.

<sup>&</sup>lt;sup>3</sup> Operational noise level calculations are provided in Appendix 9.1.

TABLE 9-3: UNMITIGATED OPERATIONAL NOISE LEVEL COMPLIANCE

Receiver Location <sup>1</sup>	Jurisdiction	Land Use	Leq (E. Avg.)	L <sub>50</sub> (30 mins)	L <sub>25</sub> (15 mins)	L <sub>8</sub> (5 mins)	L <sub>2</sub> (1 min)	L <sub>max</sub> (Anytime)	Threshold Exceeded? <sup>3</sup>		
0	County of		55	55	60	65	70	75	-		
Operational Noise Level	San Bernardino	Residential	45	45	50	55	60	65	-		
Thresholds	Innue Vallen	Danidantial	65	-	-	-	-	-	-		
(Table 3-1)	Jurupa Valley	Jurupa Valley	) Jurupa Valley	y Residential	45	-	-	-	-	-	-
R1	County	Residential	41.5	38.5	41.2	44.7	48.1	54.9	No		
R2	County	Residential	42.7	39.7	42.3	46.6	50.5	56.8	No		
R3	Jurupa Valley	Residential	44.6						No		
R4	Jurupa Valley	Residential	41.9						No		
R5	County	Residential	28.5	25.2	28.2	32.1	35.6	41.6	No		
R6	Jurupa Valley	Residential	27.6	-	-	-	-	-	No		
R7	Jurupa Valley	Residential	31.2	-	-	-	-	-	No		
R8	Jurupa Valley	Residential	38.4	-	-	ı	ı	-	No		
R9	Jurupa Valley	Residential	40.2	-	-	-	-	-	No		
R10	Jurupa Valley	Residential	44.3	-	-	ı	1	-	No		

<sup>&</sup>lt;sup>1</sup> See Exhibit 9-A for the receiver and noise source locations.

# 9.4 Project Operational (Stationary-Source) Noise Level Contributions

To describe the Project operational (stationary-source) noise level contributions, the Project operational (stationary-source) noise levels are combined with the existing ambient noise levels measurements for the nearby receiver locations potentially impacted by Project operational (stationary-source) noise sources. Since the units used to measure noise, decibels (dB), are logarithmic units, the Project-operational (stationary-source) and existing ambient noise levels cannot be combined using standard arithmetic equations. (4) Instead, they must be logarithmically added using the following base equation:

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

Where "SPL1," "SPL2," etc. are equal to the sound pressure levels being combined, or in this case, the Project-operational (stationary-source) and existing ambient noise levels. The difference between the combined Project and ambient noise levels describe the Project noise level contributions to the existing ambient noise environment. Noise levels that would be experienced at receiver locations when Project-source noise is added to the daytime and nighttime ambient conditions are presented on Tables 9-4 and 9-5, respectively.



<sup>&</sup>lt;sup>2</sup> Estimated Project operational noise levels as shown on Table 9-2.

<sup>&</sup>lt;sup>3</sup> Do the estimated Project operational noise levels exceed the operational noise level standards (Table 3-1)?

<sup>&</sup>quot;E. Avg." = Logarithmic (energy) average

As indicated on Tables 9-4 and 9-5, the combined Project plus ambient noise levels are shown to remain below 65 dBA L<sub>eq</sub>, and the Project daytime operational (stationary-source) noise level increase of up to 0.3 dBA L<sub>eq</sub> and nighttime operational (stationary-source) noise level increase of up to 0.3 dBA L<sub>eq</sub> are below the 3 dBA L<sub>eq</sub> threshold. Since the Project-related operational (stationary-source) noise level contributions will satisfy the significance criteria discussed in Section 4, the increases at the sensitive receiver locations will be *less than significant*. On this basis, Project operational stationary-source noise would not result in a substantial temporary/periodic, or permanent increase in ambient noise levels in the Project vicinity above levels existing without the Project, and impacts in these regards will be *less than significant*.

**TABLE 9-4: PROJECT DAYTIME NOISE LEVEL CONTRIBUTIONS** 

Receiver Location <sup>1</sup>	Total Project Operational Noise Level <sup>2</sup>	Measurement Location <sup>3</sup>	Reference Ambient Noise Levels <sup>4</sup>	Combined Project and Ambient <sup>5</sup>	Project Contribution <sup>6</sup>	Threshold Exceeded? <sup>7</sup>
R1	41.5	L1	61.6	61.6	0.0	No
R2	42.7	L2	59.6	59.7	0.1	No
R3	44.6	L3	60.8	60.9	0.1	No
R4	41.9	L3	60.8	60.9	0.1	No
R5	28.5	L5	63.7	63.7	0.0	No
R6	27.6	L7	64.2	64.2	0.0	No
R7	31.2	L8	62.3	62.3	0.0	No
R8	38.4	L9	50.6	50.9	0.3	No
R9	40.2	L10	59.2	59.3	0.1	No
R10	44.3	L10	59.2	59.3	0.1	No

<sup>&</sup>lt;sup>1</sup> See Exhibit 9-A for the sensitive receiver locations.



<sup>&</sup>lt;sup>2</sup> Total Project operational noise levels as shown on Table 9-3.

<sup>&</sup>lt;sup>3</sup> Existing noise level measurement locations as shown on Exhibit 5-A.

<sup>&</sup>lt;sup>4</sup> Observed daytime ambient noise levels as shown on Table 5-1.

<sup>&</sup>lt;sup>5</sup> Represents the combined ambient conditions plus the Project activities.

<sup>&</sup>lt;sup>6</sup> The noise level increase expected with the addition of the proposed Project activities.

<sup>&</sup>lt;sup>7</sup> Significance Criteria as defined in Section 4.

**TABLE 9-5: PROJECT NIGHTTIME NOISE LEVEL CONTRIBUTIONS** 

Receiver Location <sup>1</sup>	Total Project Operational Noise Level <sup>2</sup>	Measurement Location <sup>3</sup>	Reference Ambient Noise Levels <sup>4</sup>	Combined Project and Ambient <sup>5</sup>	Project Contribution <sup>6</sup>	Threshold Exceeded? <sup>7</sup>
R1	41.5	L1	59.1	59.2	0.1	No
R2	42.7	L2	58.8	58.9	0.1	No
R3	44.6	L3	58.1	58.3	0.2	No
R4	41.9	L3	58.1	58.2	0.1	No
R5	28.5	L5	62.4	62.4	0.0	No
R6	27.6	L7	60.1	60.1	0.0	No
R7	31.2	L8	60.2	60.2	0.0	No
R8	38.4	L9	49.6	49.9	0.3	No
R9	40.2	L10	58.7	58.8	0.1	No
R10	44.3	L10	58.7	58.9	0.2	No

<sup>&</sup>lt;sup>1</sup> See Exhibit 9-A for the sensitive receiver locations.

## 9.5 OPERATIONAL VIBRATION IMPACTS

To assess the potential vibration impacts from truck haul trips associated with operational activities the City of Jurupa Valley threshold for vibration of 0.2 in/sec PPV is used. Truck vibration levels are dependent on vehicle characteristics, load, speed, and pavement conditions. Typical vibration levels for the Agua Mansa Commerce Park Specific Plan heavy truck activity at normal traffic speeds will approach 0.004 in/sec PPV and 0.003 in/sec RMS at 25 feet based on the FTA *Transit Noise Impact and Vibration Assessment.* (3) Trucks transiting on site will be travelling at very low speeds so it is expected that delivery truck vibration impacts at nearby homes will satisfy the 0.2 in/sec PPV threshold, and therefore, will be *less than significant*.



<sup>&</sup>lt;sup>2</sup> Total Project operational noise levels as shown on Table 9-3.

<sup>&</sup>lt;sup>3</sup> Existing noise level measurement locations as shown on Exhibit 5-A.

<sup>&</sup>lt;sup>4</sup> Observed nighttime ambient noise levels as shown on Table 5-1.

<sup>&</sup>lt;sup>5</sup> Represents the combined ambient conditions plus the Project activities.

<sup>&</sup>lt;sup>6</sup> The noise level increase expected with the addition of the proposed Project activities.

<sup>&</sup>lt;sup>7</sup> Significance Criteria as defined in Section 4.

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## 10 CONSTRUCTION IMPACTS

This section analyzes potential impacts resulting from the short-term construction activities associated with the development of the Project. Exhibit 10-A shows the construction noise source locations in relation to the nearby sensitive receiver locations previously described in Section 8.

## 10.1 CONSTRUCTION NOISE LEVELS

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

- Demolition/Remediation
- Site Preparation
- Grading/Remediation
- Building Construction
- Paving
- Architectural Coating

This construction noise analysis was prepared using reference noise level measurements taken by Urban Crossroads, Inc. to describe the typical construction activity noise levels for each stage of Project construction. The construction reference noise level measurements represent a list of typical construction activity noise levels. Noise levels generated by heavy construction equipment can range from approximately 68 dBA to more than 80 dBA when measured at 50 feet. However, these noise levels diminish with distance from the construction site at a rate of 6 dBA per doubling of distance. For example, a noise level of 80 dBA measured at 50 feet from the noise source to the receiver would be reduced to 74 dBA at 100 feet from the source to the receiver, and would be further reduced to 68 dBA at 200 feet from the source to the receiver. The construction stages used in this analysis are consistent with the *Agua Mansa Commerce Park Specific Plan Air Quality Impact Analysis* prepared by Urban Crossroads, Inc. (28)

#### **10.2** Construction Reference Noise Levels

To describe the Project construction noise levels, measurements were collected for similar activities at several construction sites. Table 10-1 provides a summary of the construction reference noise level measurements. Since the reference noise levels were collected at varying distances of 30 feet and 50 feet, all construction noise level measurements presented on Table 10-1 have been adjusted for consistency to describe a uniform reference distance of 50 feet.



RIALTO Residential Residential Future Industrial Use Residential Industrial Uses Milestone MX Park Industrial Industrial Uses Uses Industrial Uses Down River Horse Ranch JURUPA VALLE Avalon Park Note: Project construction may not occur throughout the entire park site, however to present a conservative analysis, Project construction is modeled in this noise study over the entire area. Residential **LEGEND:** Receiver Locations ■ Distance from receiver to construction activity (in feet) Construction Activity

**EXHIBIT 10-A: CONSTRUCTION NOISE SOURCE LOCATIONS** 



**TABLE 10-1: CONSTRUCTION REFERENCE NOISE LEVELS** 

ID	Noise Source	Duration (h:mm:ss)	Reference Distance From Source (Feet)	Reference Noise Levels @ Reference Distance (dBA L <sub>eq</sub> )	Reference Noise Levels @ 50 Feet (dBA L <sub>eq</sub> ) <sup>7</sup>
1	Truck Pass-Bys & Dozer Activity <sup>1</sup>	0:01:15	30'	63.6	59.2
2	Dozer Activity <sup>1</sup>	0:01:00	30'	68.6	64.2
3	Construction Vehicle Maintenance Activities <sup>2</sup>	0:01:00	30'	71.9	67.5
4	Foundation Trenching <sup>2</sup>	0:01:01	30'	72.6	68.2
5	Rough Grading Activities <sup>2</sup>	0:05:00	30'	77.9	73.5
6	Framing <sup>3</sup>	0:02:00	30'	66.7	62.3
7	Water Truck Pass-By & Backup Alarm <sup>4</sup>	0:00:45	30'	76.3	71.9
8	Dozer Pass-By <sup>4</sup>	0:00:32	30'	84.0	79.6
9	Two Scrapers & Water Truck Pass-By <sup>4</sup>	0:00:32	30'	83.4	79.0
10	Two Scrapers Pass-By <sup>4</sup>	0:00:30	30'	83.7	79.3
11	Scraper, Water Truck, & Dozer Activity <sup>4</sup>	0:30:00	30'	79.7	75.3
12	Concrete Mixer Truck Movements <sup>5</sup>	0:01:00	50'	71.2	71.2
13	Concrete Paver Activities <sup>5</sup>	0:01:00	30'	70.0	65.6
14	Concrete Mixer Pour & Paving Activities <sup>5</sup>	0:01:00	30'	70.3	65.9
15	Concrete Mixer Backup Alarms & Air Brakes <sup>5</sup>	0:00:20	50'	71.6	71.6
16	Concrete Mixer Pour Activities <sup>5</sup>	1:00:00	50'	67.7	67.7
17	Forklift, Jackhammer, & Metal Truck Bed <sup>6</sup>	0:02:06	50'	67.7	67.7

<sup>&</sup>lt;sup>1</sup>As measured by Urban Crossroads, Inc. on 10/14/15 at a business park construction site located at the northwest corner of Barranca Parkway and Alton Parkway in the City of Irvine.

The sample reference noise level measurements provided herein were taken by Urban Crossroads, Inc. in order to describe the noise levels from various construction activities at similar land use types. While other construction equipment reference noise levels are provided by the FTA and FHWA, each agency provides reference noise levels of outdated equipment, with the FTA (which cites Environmental Protection Agency noise levels) reference noise levels dating back to 1976, and the FHWA Roadway Construction Noise Model reference noise levels dating back to the early 1990s. (3) (29) As such, the FTA and FHWA reference noise levels represent construction equipment ranging from 20 to 40 years old that do not accurately reflect modern construction equipment noise level emissions. Therefore, Urban Crossroads collected the reference construction equipment and activity noise level measurements provided herein to



<sup>&</sup>lt;sup>2</sup> As measured by Urban Crossroads, Inc. on 10/20/15 at a construction site located in Rancho Mission Viejo.

<sup>&</sup>lt;sup>3</sup> As measured by Urban Crossroads, Inc. on 10/20/15 at a residential construction site located in Rancho Mission Viejo.

<sup>&</sup>lt;sup>4</sup> As measured by Urban Crossroads, Inc. on 10/30/15 during grading operations within an industrial construction site located in the City of Ontario.

<sup>&</sup>lt;sup>5</sup> Reference noise level measurements were collected from a nighttime concrete pour at an industrial construction site, located at 27334 San Bernardino Avenue in the City of Redlands, between 1:00 a.m. to 2:00 a.m. on 7/1/15.

<sup>&</sup>lt;sup>6</sup> As measured by Urban Crossroads, Inc. on 9/9/2016 during demolition activities of an existing parking lot in Irvine.

<sup>&</sup>lt;sup>7</sup> Reference noise levels are calculated at 50 feet using a drop off rate of 6 dBA per doubling of distance (point source).

reflect modern construction equipment noise levels, with the oldest reference noise level measurement collected in 2015.

#### **10.3** Construction Noise Analysis

Using the reference construction equipment noise levels, calculations of the Project construction noise level impacts at the nearby sensitive receiver locations were completed. Tables 10-2 to 10-7 present the short-term construction noise levels for each stage of construction. Table 10-8 provides a summary of the construction noise levels by stage at the nearby noise-sensitive receiver locations. Based on the stages of construction, the noise impacts associated with the proposed Project are expected to create temporarily high noise levels at the nearby receiver locations. To assess the worst-case construction noise levels, this analysis shows the highest noise impacts when the equipment with the highest reference noise level is operating at the closest point from primary construction activity to each receiver location.

**TABLE 10-2: DEMOLITION EQUIPMENT NOISE LEVELS** 

Reference Construction Activity <sup>1</sup>	Reference Noise Level @ 50 Feet (dBA L <sub>eq</sub> )
Truck Pass-Bys & Dozer Activity	59.2
Dozer Activity	64.2
Water Truck Pass-By & Backup Alarm	71.9
Dozer Pass-By	79.6
Forklift, Jackhammer, & Metal Truck Bed Loading	67.9
Highest Reference Noise Level at 50 Feet (dBA L <sub>eq</sub> ):	79.6

Receiver Location	Distance to Construction Activity (Feet) <sup>2</sup>	Distance Attenuation (dBA L <sub>eq</sub> ) <sup>3</sup>	Estimated Noise Barrier Attenuation (dBA L <sub>eq</sub> ) <sup>4</sup>	Construction Noise Level (dBA L <sub>eq</sub> )
R1	378	-17.6	0.0	62.0
R2	169	-10.6	0.0	69.0
R3	346	-16.8	0.0	62.8
R4	626	-22.0	0.0	57.6
R5	2,296	-33.2	0.0	46.3
R6	3,069	-35.8	0.0	43.8
R7	2,222	-33.0	0.0	46.6
R8	916	-25.3	0.0	54.3
R9	582	-21.3	0.0	58.2
R10	147	-9.4	0.0	70.2



**TABLE 10-3: SITE PREPARATION EQUIPMENT NOISE LEVELS** 

Reference Construction Activity <sup>1</sup>	Reference Noise Level @ 50 Feet (dBA L <sub>eq</sub> )
Truck Pass-Bys & Dozer Activity	59.2
Dozer Activity	64.2
Foundation Trenching	68.2
Water Truck Pass-By & Backup Alarm	71.9
Dozer Pass-By	79.6
Highest Reference Noise Level at 50 Feet (dBA L <sub>eq</sub> ):	79.6

Receiver Location	Distance to Construction Activity (Feet) <sup>2</sup>	Distance Attenuation (dBA L <sub>eq</sub> ) <sup>3</sup>	Estimated Noise Barrier Attenuation (dBA L <sub>eq</sub> ) <sup>4</sup>	Construction Noise Level (dBA L <sub>eq</sub> )
R1	378	-17.6	0.0	62.0
R2	169	-10.6	0.0	69.0
R3	346	-16.8	0.0	62.8
R4	626	-22.0	0.0	57.6
R5	2,296	-33.2	0.0	46.3
R6	3,069	-35.8	0.0	43.8
R7	2,222	-33.0	0.0	46.6
R8	916	-25.3	0.0	54.3
R9	582	-21.3	0.0	58.2
R10	147	-9.4	0.0	70.2

<sup>&</sup>lt;sup>1</sup> Reference construction noise level measurements taken by Urban Crossroads, Inc.



<sup>&</sup>lt;sup>1</sup> Reference construction noise level measurements taken by Urban Crossroads, Inc.

<sup>&</sup>lt;sup>2</sup> Distance from the nearest point of construction activity to the nearest receiver.

 $<sup>^{\</sup>rm 3}$  Point (stationary) source drop off rate of 6.0 dBA per doubling of distance.

<sup>&</sup>lt;sup>4</sup> No barrier attenuation from existing barriers is included in the analysis.

 $<sup>^{\</sup>rm 2}$  Distance from the nearest point of construction activity to the nearest receiver.

 $<sup>^{\</sup>rm 3}$  Point (stationary) source drop off rate of 6.0 dBA per doubling of distance.

<sup>&</sup>lt;sup>4</sup> No barrier attenuation from existing barriers is included in the analysis.

**TABLE 10-4: GRADING EQUIPMENT NOISE LEVELS** 

Reference Construction Activity <sup>1</sup>	Reference Noise Level @ 50 Feet (dBA L <sub>eq</sub> )
Truck Pass-Bys & Dozer Activity	59.2
Dozer Activity	64.2
Rough Grading Activities	73.5
Water Truck Pass-By & Backup Alarm	71.9
Dozer Pass-By	79.6
Two Scrapers & Water Truck Pass-By	79.0
Two Scrapers Pass-By	79.3
Scraper, Water Truck, & Dozer Activity	75.3
Highest Reference Noise Level at 50 Feet (dBA L <sub>eq</sub> ):	79.6

Receiver Location	Distance to Construction Activity (Feet) <sup>2</sup>	Distance Attenuation (dBA L <sub>eq</sub> ) <sup>3</sup>	Estimated Noise Barrier Attenuation (dBA L <sub>eq</sub> ) <sup>4</sup>	Construction Noise Level (dBA L <sub>eq</sub> )
R1	378	-17.6	0.0	62.0
R2	169	-10.6	0.0	69.0
R3	346	-16.8	0.0	62.8
R4	626	-22.0	0.0	57.6
R5	2,296	-33.2	0.0	46.3
R6	3,069	-35.8	0.0	43.8
R7	2,222	-33.0	0.0	46.6
R8	916	-25.3	0.0	54.3
R9	582	-21.3	0.0	58.2
R10	147	-9.4	0.0	70.2

 $<sup>^{\</sup>rm 1}$  Reference construction noise level measurements taken by Urban Crossroads, Inc.



<sup>&</sup>lt;sup>2</sup> Distance from the nearest point of construction activity to the nearest receiver.

 $<sup>^{\</sup>rm 3}$  Point (stationary) source drop off rate of 6.0 dBA per doubling of distance.

<sup>&</sup>lt;sup>4</sup> No barrier attenuation from existing barriers is included in the analysis.

**TABLE 10-5: BUILDING CONSTRUCTION EQUIPMENT NOISE LEVELS** 

Reference Construction Activity <sup>1</sup>	Reference Noise Level @ 50 Feet (dBA L <sub>eq</sub> )	
Construction Vehicle Maintenance Activities	67.5	
Foundation Trenching	68.2	
Framing	62.3	
Highest Reference Noise Level at 50 Feet (dBA Leq):	68.2	

Receiver Location	Distance to Construction Activity (Feet) <sup>2</sup>	Distance Attenuation (dBA L <sub>eq</sub> ) <sup>3</sup>	Estimated Noise Barrier Attenuation (dBA L <sub>eq</sub> ) <sup>4</sup>	Construction Noise Level (dBA L <sub>eq</sub> )
R1	378	-17.6	0.0	50.6
R2	169	-10.6	0.0	57.6
R3	346	-16.8	0.0	51.4
R4	626	-22.0	0.0	46.2
R5	2,296	-33.2	0.0	34.9
R6	3,069	-35.8	0.0	32.4
R7	2,222	-33.0	0.0	35.2
R8	916	-25.3	0.0	42.9
R9	582	-21.3	0.0	46.8
R10	147	-9.4	0.0	58.8

 $<sup>^{\</sup>rm 1}\,\mathrm{Reference}$  construction noise level measurements taken by Urban Crossroads, Inc.



 $<sup>^{\</sup>rm 2}$  Distance from the nearest point of construction activity to the nearest receiver.

<sup>&</sup>lt;sup>3</sup> Point (stationary) source drop off rate of 6.0 dBA per doubling of distance.

 $<sup>^{\</sup>rm 4}$  No barrier attenuation from existing barriers is included in the analysis.

**TABLE 10-6: PAVING EQUIPMENT NOISE LEVELS** 

Reference Construction Activity <sup>1</sup>	Reference Noise Level @ 50 Feet (dBA L <sub>eq</sub> )
Concrete Mixer Truck Movements	71.2
Concrete Paver Activities	65.6
Concrete Mixer Pour & Paving Activities	65.9
Concrete Mixer Backup Alarms & Air Brakes	71.6
Concrete Mixer Pour Activities	67.7
Highest Reference Noise Level at 50 Feet (dBA L <sub>eq</sub> ):	71.6

Receiver Location	Distance to Construction Activity (Feet) <sup>2</sup>	Distance Attenuation (dBA L <sub>eq</sub> ) <sup>3</sup>	Estimated Noise Barrier Attenuation (dBA L <sub>eq</sub> ) <sup>4</sup>	Construction Noise Level (dBA L <sub>eq</sub> )
R1	378	-17.6	0.0	54.0
R2	169	-10.6	0.0	61.0
R3	346	-16.8	0.0	54.8
R4	626	-22.0	0.0	49.6
R5	2,296	-33.2	0.0	38.4
R6	3,069	-35.8	0.0	35.8
R7	2,222	-33.0	0.0	38.6
R8	916	-25.3	0.0	46.3
R9	582	-21.3	0.0	50.3
R10	147	-9.4	0.0	62.2

<sup>&</sup>lt;sup>1</sup> Reference construction noise level measurements taken by Urban Crossroads, Inc.



<sup>&</sup>lt;sup>2</sup> Distance from the nearest point of construction activity to the nearest receiver.

 $<sup>^{\</sup>rm 3}$  Point (stationary) source drop off rate of 6.0 dBA per doubling of distance.

 $<sup>^{\</sup>rm 4}\,\mbox{No}$  barrier attenuation from existing barriers is included in the analysis.

**TABLE 10-7: ARCHITECTURAL COATING EQUIPMENT NOISE LEVELS** 

Reference Construction Activity <sup>1</sup>	Reference Noise Level @ 50 Feet (dBA L <sub>eq</sub> )	
Construction Vehicle Maintenance Activities	67.5	
Framing	62.3	
Highest Reference Noise Level at 50 Feet (dBA L <sub>eq</sub> ):	67.5	

Receiver Location	Distance to Construction Activity (Feet) <sup>2</sup>	Distance Attenuation (dBA L <sub>eq</sub> ) <sup>3</sup>	Estimated Noise Barrier Attenuation (dBA L <sub>eq</sub> ) <sup>4</sup>	Construction Noise Level (dBA L <sub>eq</sub> )
R1	378	-17.6	0.0	49.9
R2	169	-10.6	0.0	56.9
R3	346	-16.8	0.0	50.7
R4	626	-22.0	0.0	45.5
R5	2,296	-33.2	0.0	34.2
R6	3,069	-35.8	0.0	31.7
R7	2,222	-33.0	0.0	34.5
R8	916	-25.3	0.0	42.2
R9	582	-21.3	0.0	46.1
R10	147	-9.4	0.0	58.1

<sup>&</sup>lt;sup>1</sup> Reference construction noise level measurements taken by Urban Crossroads, Inc.

### 10.4 Construction Noise Thresholds of Significance

The construction noise analysis shows that the highest construction noise levels will occur when construction activities take place at the closest point from primary Project construction activity to each of the nearby receiver locations. As shown on Table 10-8, the unmitigated construction noise levels are expected to range from 43.8 to 70.2 dBA  $L_{eq}$  during the daytime hours and from 35.8 to 62.2 dBA  $L_{eq}$  during the nighttime hours at the nearby receiver locations. To evaluate whether the Project will generate potentially significant short-term noise levels at off-site sensitive receiver locations the City of Jurupa Valley 80 dBA  $L_{eq}$  daytime and 70 dBA  $L_{eq}$  nighttime thresholds for construction noise are used at the nearby sensitive receiver locations.



<sup>&</sup>lt;sup>2</sup> Distance from the nearest point of construction activity to the nearest receiver.

<sup>&</sup>lt;sup>3</sup> Point (stationary) source drop off rate of 6.0 dBA per doubling of distance.

<sup>&</sup>lt;sup>4</sup> No barrier attenuation from existing barriers is included in the analysis.

TABLE 10-8: UNMITIGATED CONSTRUCTION EQUIPMENT NOISE LEVEL SUMMARY (DBA LEQ)

	Construction Noise Levels by Stage (dBA Leq)								
Receiver Location <sup>1</sup>	Demolition	Site Preparation	Grading	Building Construction	Paving	Architectural Coating	Highest Construction Noise Level <sup>2</sup>		
R1	62.0	62.0	62.0	50.6	54.0	49.9	62.0		
R2	69.0	69.0	69.0	57.6	61.0	56.9	69.0		
R3	62.8	62.8	62.8	51.4	54.8	50.7	62.8		
R4	57.6	57.6	57.6	46.2	49.6	45.5	57.6		
R5	46.3	46.3	46.3	34.9	38.4	34.2	46.3		
R6	43.8	43.8	43.8	32.4	35.8	31.7	43.8		
R7	46.6	46.6	46.6	35.2	38.6	34.5	46.6		
R8	54.3	54.3	54.3	42.9	46.3	42.2	54.3		
R9	58.2	58.2	58.2	46.8	50.3	46.1	58.2		
R10	70.2	70.2	70.2	58.8	62.2	58.1	70.2		

<sup>&</sup>lt;sup>1</sup>Noise receiver locations are shown on Exhibit 10-A.

Table 10-9 shows the highest construction noise levels at the potentially impacted receiver locations will satisfy the City of Jurupa Valley 80 dBA  $L_{\rm eq}$  daytime and 70 dBA  $L_{\rm eq}$  nighttime thresholds during temporary Project construction activities. The noise impact due to unmitigated Project construction noise levels is, therefore, considered a *less than significant* impact at all nearby sensitive receiver locations.



 $<sup>^{\</sup>rm 2}$  Estimated construction noise levels during peak operating conditions.

TABLE 10-9: CONSTRUCTION EQUIPMENT NOISE LEVEL COMPLIANCE (DBA LEQ)

	Construction Noise Levels (dBA L <sub>eq</sub> )							
Receiver Location <sup>1</sup>	Highest Daytime	Nighttime Construction	Threshold <sup>3</sup>		Threshold Exceeded? <sup>4</sup>			
Location	Construction Noise Levels <sup>2</sup>	Noise Levels (Concrete Pours)	Daytime	Nighttime	Daytime	Nighttime		
R1	62.0	54.0	80	70	No	No		
R2	69.0	61.0	80	70	No	No		
R3	62.8	54.8	80	70	No	No		
R4	57.6	49.6	80	70	No	No		
R5	46.3	38.4	80	70	No	No		
R6	43.8	35.8	80	70	No	No		
R7	46.6	38.6	80	70	No	No		
R8	54.3	46.3	80	70	No	No		
R9	58.2	50.3	80	70	No	No		
R10	70.2	62.2	80	70	No	No		

<sup>&</sup>lt;sup>1</sup>Noise receiver locations are shown on Exhibit 10-A.

### **NIGHTTIME CONCRETE POUR NOISE LEVELS**

The Project may require nighttime concrete pouring activities as a part of Project construction. The reference paving equipment activity noise levels, previously shown on Table 10-6, were collected during a nighttime concrete pour at an industrial construction site to represent these activities. As previously shown on Table 10-8, the concrete pouring equipment noise levels are expected to range from 35.8 to 62.2 dBA L<sub>eq</sub> when equipment is operating at the closest point from the edge of Project construction activities to the nearby sensitive receiver locations. Based on the reference concrete pour equipment noise levels ranging from 35.8 to 62.2 dBA L<sub>eq</sub>, Project nighttime concrete pour noise levels would satisfy the 70 dBA L<sub>eq</sub> nighttime construction noise level threshold.

#### **SOIL EXPORT TRUCK HAUL TRIPS**

The soil export associated with Project construction is anticipated to require up to 18 truck haul trips per day. A doubling of the existing traffic volumes would be required to generate a 3 dBA CNEL increase and potentially exceed the City's off-site traffic noise level increase thresholds. However, the 18 daily Project construction soil export truck haul trips are not high enough to double the existing volumes on the study area roadway segments, and therefore, will not generate a barely perceptible noise level increase of 3 dBA CNEL at nearby sensitive land uses adjacent to study area roadways. (6) This is evident in the existing volumes previously shown on Table 6-2 for the study area roadway segments which are all in the thousands. As such, due to



<sup>&</sup>lt;sup>2</sup> Estimated construction noise levels during worst-case operating conditions, as shown on Table 10-8. Nighttime construction noise levels based on reference concrete pour noise levels (Paving stage) shown on Table 10-8.

<sup>&</sup>lt;sup>3</sup> Construction noise level threshold as shown on Table 4-1.

<sup>&</sup>lt;sup>4</sup> Do the estimated Project construction noise levels exceed the construction noise level threshold?

the low traffic volumes generated by the Project truck haul activities, the off-site traffic noise level impacts during soil export are considered to be *less than significant* and no further analysis is required.

#### 10.5 CONSTRUCTION VIBRATION IMPACTS

Construction activity can result in varying degrees of ground vibration, depending on the equipment and methods used, distance to the affected structures and soil type. It is expected that ground-borne vibration from Project construction activities would cause only intermittent, localized intrusion. The proposed Project's construction activities most likely to cause vibration impacts are:

- Heavy Construction Equipment: Although all heavy mobile construction equipment has the
  potential of causing at least some perceptible vibration while operating close to buildings, the
  vibration is usually short-term and is not of sufficient magnitude to cause building damage.
- Trucks: Trucks hauling building materials to construction sites can be sources of vibration intrusion if the haul routes pass through residential neighborhoods on streets with bumps or potholes. Repairing the bumps and potholes generally eliminates the problem.

Ground-borne vibration levels resulting from construction activities occurring within the Project site were estimated by data published by the Federal Transit Administration. Construction activities that would have the potential to generate low levels of ground-borne vibration within the Project site include grading. Using the vibration source level of construction equipment provided on Table 6-13 and the construction vibration assessment methodology published by the FTA, it is possible to estimate the Project vibration impacts. Table 10-12 presents the expected Project related vibration levels at the nearby receiver locations.

Based on the reference vibration levels provided by the FTA, a vibratory roller represents the peak source of vibration with a reference velocity of 0.21 in/sec PPV at 25 feet. At distances ranging from 147 to 3,069 feet from Project construction activities, construction vibration velocity levels are expected to approach 0.015 in/sec PPV, which is below the vibration standard of 0.2 in/sec PPV at all receiver locations. Therefore, the Project-related vibration impacts are considered *less than significant* during the construction activities at the Project site.

Moreover, the impacts at the site of the closest sensitive receivers are unlikely to be sustained during the entire construction period, but will occur rather only during the times that heavy construction equipment is operating adjacent to the Project site perimeter. In addition, at the time of this analysis, no pile driving activity was planned as part of Project construction.



#### **SOIL EXPORT TRUCK HAUL TRIPS**

The Project site will require up to 20,000 cubic yards of soil export during the construction process and up to 18 daily truck haul trips. Truck vibration levels are dependent on vehicle characteristics, load, speed, and pavement conditions. Typical vibration levels for the Agua Mansa Commerce Park Specific Plan heavy truck activity at normal traffic speeds will approach 0.004 in/sec PPV and 0.003 in/sec RMS at 25 feet based on the FTA *Transit Noise Impact and Vibration Assessment.* (3) Truck deliveries transiting on site will be travelling at very low speeds so it is expected that delivery truck vibration levels at nearby homes will remain below the 0.2 in/sec PPV threshold.



TABLE 10-12: PROJECT CONSTRUCTION VIBRATION LEVELS

	Distance to		~	Receiver PPV Levels (in/sec) <sup>2</sup>	evels (in/sec)	2		Thresh Jurisd	Thresholds by Jurisdiction
Receiver <sup>1</sup>	Const. Activity (Feet)	Small Bulldozer	Jack- hammer	Loaded Trucks	Large Bulldozer	Vibratory Roller	Highest Vibration Level	Vibration Level	Exceeded? <sup>3</sup>
R1	378'	0.000	0.001	0.001	0.002	0.004	0.004	0.2	No
R2	169'	0.000	0.002	0.004	0.005	0.012	0.012	0.2	No
R3	346'	000'0	0.001	0.001	0.002	0.004	0.004	0.2	ON
R4	626'	0.000	0000	0.001	0.001	0.002	0.002	0.2	No
R5	2,296'	0.000	0000	0.000	0.000	0000	0.000	0.2	No
R6	3,069'	0.000	0000	0.000	0.000	0000	0.000	0.2	No
R7	2,222'	000'0	000'0	0.000	000'0	000'0	0.000	0.2	No
R8	916'	0.000	0000	0.000	0.000	0.001	0.001	0.2	No
R9	585'	0.000	0000	0.001	0.001	0.002	0.002	0.2	No
R10	147'	0.000	0.002	0.005	900'0	0.015	0.015	0.2	No

<sup>1</sup>Receiver locations are shown on Exhibit 10-A.
<sup>2</sup> Based on the Vibration Source Levels of Construction Equipment included on Table 6-13.
<sup>3</sup> Does the peak vibration exceed the acceptable vibration threshold?

"PpV" = Peak Particle Velocity

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- 22. Counties of San Bernardino & Riverside, and the Cities of Colton and Rialto. *Agua Mansa Industrial Corridor Specific Plan.* July 1986.
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## 12 CERTIFICATION

The contents of this noise study report represent an accurate depiction of the noise environment and impacts associated with the proposed Agua Mansa Commerce Park Specific Plan Project. The information contained in this noise study report is based on the best available data at the time of preparation. If you have any questions, please contact me directly at (949) 336-5979.

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#### **EDUCATION**

Master of Science in Civil and Environmental Engineering California Polytechnic State University, San Luis Obispo • December, 1993

Bachelor of Science in City and Regional Planning California Polytechnic State University, San Luis Obispo • June, 1992

### **PROFESSIONAL REGISTRATIONS**

PE – Registered Professional Traffic Engineer – TR 2537 • January, 2009

AICP – American Institute of Certified Planners – 013011 • June, 1997–January 1, 2012

PTP – Professional Transportation Planner • May, 2007 – May, 2013

INCE – Institute of Noise Control Engineering • March, 2004

#### **PROFESSIONAL AFFILIATIONS**

ASA – Acoustical Society of America ITE – Institute of Transportation Engineers

#### **PROFESSIONAL CERTIFICATIONS**

Certified Acoustical Consultant – County of Orange • February, 2011 FHWA-NHI-142051 Highway Traffic Noise Certificate of Training • February, 2013



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## **APPENDIX 3.1:**

CITY OF JURUPA VALLEY CEQA THRESHOLDS GUIDANCE



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	se Impact Analysis October 30, 2018	Comment		
		increase and, if appropriate, the project's contribution to a potentially significant cumulative traffic noise increase.		
2	Global	Sec. 11.05.010 of the Municipal Code states in part: "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"		
		Please use the following standards for CEQA significance thresholds and revise report throughout:		
		<ul> <li>Construction Noise: For sensitive residential land uses nearby, the daytime and nighttime 8-hour standards are 80 dBA Leq and 70 dBA Leq, respectively (FTA Transit Noise and Vibration Impact Assessment).</li> </ul>		
		<ul> <li>Operational Noise (stationary): During operation of the Project, a significant noise-related impact would occur if Project operational noise at a noise-sensitive receptor exceeds:         <ul> <li>65 dBA Leq (10 minutes) between 7:00 a.m. and 10:00 p.m., or</li> <li>45 dBA Leq (10 min) between 10:00 p.m. and 7:00 a.m.</li> </ul> </li> </ul>		
		Operational Noise (traffic): Project-related traffic increases the noise level at a:		
		<ul> <li>Residential land use by 3 dBA or more to 65 dBA CNEL or above; or</li> <li>Commercial land use by 3 dBA or more to 70 dBA CNEL or above.</li> </ul>		
		Vibration: A significant vibration-related impact would occur if the Project would expose a vibration-sensitive receptor to vibration levels that exceed 0.2 in/sec PPV during either long-term operation or construction of the Project		
		Note: The Municipal Code noise standards may be used for planning purposes only (i.e. to demonstrate that the project meets the City code requirements for site plan approval).		
3	Page 23	Construction exemptions for San Bernardino County are not discussed and are contained in Section 83.01.080(g) (3), i.e., 7 am – 7pm, except Sundays and federal holidays.		
4	Page 24 and global	Policy NE 4.4 is intended for train operation but is being used to assess projects. Please convert this RMS level to VdB so that it can		

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# APPENDIX 3.2:

**COUNTY OF SAN BERNARDINO DEVELOPMENT CODE** 



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## San Bernardino County, CA Code of Ordinances

## **DIVISION 3: COUNTYWIDE DEVELOPMENT STANDARDS**

## **CHAPTER 83.01: GENERAL PERFORMANCE STANDARDS**

### Section

83.01.010 Purpose.
83.01.020 Applicability.
83.01.030 Modification of Standards.
83.01.040 Air Quality.
83.01.050 Electrical Disturbances.
83.01.060 Fire Hazards.
83.01.070 Heat.
83.01.080 Noise.
83.01.090 Vibration.
83.01.100 Waste Disposal.
83.01.110 External Commercial or Industrial Activity on Private Property.

# § 83.01.010 Purpose.

The purpose of this Chapter is to establish uniform performance standards for development within the County that promotes compatibility with surrounding areas and land uses.

Performance standards are designed to mitigate the environmental impacts of existing and proposed land uses within a community. Environmental impacts include air quality, glare, heat, noise, runoff control, and waste disposal. These general performance standards are intended to protect the health and safety of businesses, nearby residents, and workers and to prevent damaging effects to surrounding properties.

(Ord. 4011, passed - -2007)

# **§ 83.01.020** Applicability.

- (a) New and Existing Uses in All Land Use Zoning Districts. The provisions of this Chapter apply to all new and existing uses in all land use zoning districts. The standards of this Chapter elaborate upon and otherwise augment the development standards specified for individual land use zoning districts in Division 2 (Land Use Zoning Districts and Allowed Land Uses) and in Division 4 (Standards for Specific Land Uses and Activities).
- (b) Compliance of Alterations or Modifications. Uses of the land that existed on the effective date of this Division shall not be altered or modified so as to conflict with, or further conflict with, these standards.

(c) *Evidence of Compliance with Standards*. If requested by the Director or the Review Authority, applicants shall provide evidence to the Director that the proposed development is in compliance with the standards in this Division and other applicable standards in this Development Code before the issuance of a Building Permit or business license.

(Ord. 4011, passed - -2007)

## § 83.01.030 Modification of Standards.

- (a) *Modification by Specific Reference*. The provisions of this Division shall prevail should they conflict with the provisions of a land use zoning district or specific plan, unless the land use zoning district or plan standard specifically overrides or modifies the provisions of this Division by specific reference.
- (b) Modification by Establishment of Overlay or Approval of Planned Development or Variance. An overlay, approved Planned Development, or approved Variance may modify the provisions of this Division.

(Ord. 4011, passed - -2007)

## § 83.01.040 Air Quality.

- (a) Equipment Permit and Inspection Requirements. Required permits shall be obtained from either the Mojave Air Pollution Management District or the South Coast Air Quality Management District depending on the location of the subject property and equipment for equipment that may cause air pollution. Before the equipment may be constructed, plans and specifications shall be submitted to the appropriate District for approval
- (b) Permits from Air Quality Management Districts. Permits shall be obtained from either the Mojave Air Pollution Management District or the South Coast Air Quality Management District depending on the location of the subject property and equipment. If requested by the Director, uses, activities, or processes that require Air Quality Management District approval to operate shall file a copy of the permit with the Department within 30 days of its approval.
- (c) *Diesel Exhaust Emissions Control Measures*. The following emissions control measures shall apply to all discretionary land use projects approved by the County on or after January 15, 2009:
- (1) On-Road Diesel Vehicles. On-road diesel vehicles are regulated by the State of California Air Resources Board.
- (2) Off-Road Diesel Vehicle/Equipment Operations. All business establishments and contractors that use off-road diesel vehicle/equipment as part of their normal business operations shall adhere to the following measures during their operations in order to reduce diesel particulate matter emissions from diesel-fueled engines:
- (A) Off-road vehicles/equipment shall not be left idling on site for periods in excess of five minutes. The idling limit does not apply to:
  - (I) Idling when queuing;
  - (II) Idling to verify that the vehicle is in safe operating condition;
  - (III) Idling for testing, servicing, repairing or diagnostic purposes;
- (IV) Idling necessary to accomplish work for which the vehicle was designed (such as operating a crane);

- (V) Idling required to bring the machine system to operating temperature; and
- (VI) Idling necessary to ensure safe operation of the vehicle.
- (B) Use reformulated ultra low-sulfur diesel fuel in equipment and use equipment certified by the U.S. Environmental Protection Agency (EPA) or that pre-dates EPA regulations.
  - (C) Maintain engines in good working order to reduce emissions.
  - (D) Signs shall be posted requiring vehicle drivers to turn off engines when parked.
- (E) Any requirements or standards subsequently adopted by the South Coast Air Quality Management District, the Mojave Desert Air Quality Management District or the California Air Resources Board.
  - (F) Provide temporary traffic control during all phases of construction.
- (G) On-site electrical power connections shall be provided for electric construction tools to eliminate the need for diesel-powered electric generators, where feasible.
- (H) Maintain construction equipment engines in good working order to reduce emissions. The developer shall have each contractor certify that all construction equipment is properly serviced and maintained in good operating condition.
- (I) Contractors shall use ultra low sulfur diesel fuel for stationary construction equipment as required by Air Quality Management District (AQMD) Rules 431.1 and 431.2 to reduce the release of undesirable emissions.
- (J) Substitute electric and gasoline-powered equipment for diesel-powered equipment, where feasible.
- (3) *Project Design*. Distribution centers, warehouses, truck stops and other facilities with loading docks where diesel trucks may reside overnight or for periods in excess of three hours shall be designed to enable any vehicle using these facilities to utilize on-site electrical connections to power the heating and air conditioning of the cabs of such trucks, and any refrigeration unit(s) of any trailer being pulled by the trucks, instead of operating the diesel engines and diesel refrigeration units of such trucks and trailers for these purposes. This requirement shall also apply to Recreational Vehicle Parks (as defined in § 810.01.200(k) of this title) and other development projects where diesel engines may reasonably be expected to operate on other than an occasional basis.

(Ord. 4011, passed - -2007; Am. Ord. 4065, passed - -2008)

# § 83.01.050 Electrical Disturbances.

No activity, land use, or process shall cause electrical disturbance that adversely affects persons or the operation of equipment across lot lines and that does not conform to the regulations of the Federal Communications Commission. Existing or proposed uses that generate electrical disturbances that are be considered hazardous or a public nuisance shall be contained, modified, or shielded to prevent disturbances.

(Ord. 4011, passed - -2007)

## § 83.01.060 Fire Hazards.

This Section establishes standards for storage of solid materials susceptible to fire hazards and flammable liquids and gases where allowed in compliance with Division 2 (Land Use Zoning Districts and Allowed

Land Uses).

- (a) *Combustible Solids*. Land uses that include the storage of solid materials susceptible to fire hazards shall be subject to the following storage standards in the indicated land use zoning districts.
  - (1) Regional Industrial (IR) Land Use Zoning District.
- (A) *Inside Storage*. A structure utilized for the storage, manufacture, or use of flammable solid materials shall be located no less than 40 feet from any lot line and any other on-site structures or shall adhere to standards specified in Subdivision (2) below.
- (B) *Outdoor Storage*. Outdoor storage of flammable solid materials shall be no less than 50 feet from any lot line and any other on-site structures.
- (2) All Other Manufacturing or Industrial Uses Legally Established Within Any Other Land Use Zoning District. The storage, manufacture, or use of highly flammable solid materials shall take place in enclosed spaces having fire resistance of no less than two hours and protected with an automatic fire extinguishing system.
- (b) Flammable Liquids and Gases. Land uses that involve the storage of flammable liquids and gases shall be subject to the following standards when established within the land use zoning districts indicated.
- (1) *Setbacks*. County Code Title 2, Division 3 (Fire Protection and Explosives and Hazardous Materials) shall establish setback requirements for flammable liquids and gases.
- (2) *Storage capacity*. The total storage capacity of flammable liquids and gases on a parcel shall not exceed the quantities indicated in Table 83-1 (Storage Standards for Flammable Liquids and Gases).

Table 83-1						
Storage Standards for Flammable Liquids and Gases						
Stored Substance	Land Use Zoning District	Maximum Capacity				
SCF = Standard cubic feet at 6	0°F and 29.92" Hg (i.e., mercury)					
Liquids	Regional Industrial District (IR)	120,000 gallons				
	All other manufacturing or industrial uses legally established within any other land use zoning district	60,000 gallons				
Liquefied Petroleum Gas (LPG)	All manufacturing or industrial uses established in any land zoning use district	Per County Code Title 2, Division 3 (Fire Protection and Explosives and Hazardous Materials)				
	All commercial uses legally established in any land use zoning district	15,000 gal./tank 20,000 gallons maximum aggregate total				
	All agricultural uses legally established in any land use zoning district and aggregate total	15,000 gal./tank and aggregate total				
Gases other than liquefied petroleum gas	Regional Industrial District (IR)	300,000 SCF above ground 600,000 SCF below ground				
	All other manufacturing or industrial uses legally	150,000 SCF above ground 300,000 SCF below ground				

established within any other land use zoning district

- (c) Liquefied Petroleum Gas (LPG).
  - (1) General Requirements.
- (A) Agricultural, Commercial, Industrial, or Manufacturing Uses and Land Use Zoning Districts. Liquefied petroleum gas (LPG) storage and distribution facilities for agricultural, commercial, industrial, or manufacturing uses shall be allowed subject to a Use Permit in compliance with Division 2 (Land Use Zoning Districts and Allowed Land Uses). The location, installation, operation, and maintenance of LPG storage and distribution facilities shall be subject to:
  - (I) The standards in this Subdivision.
- (II) The conditions, requirements, and standards imposed by the Review Authority in compliance with this Chapter.
- (B) Residential Uses and Land Use Zoning Districts. County Code Title 2, Division 3 (Fire Protection and Explosives and Hazardous Materials) shall establish standards for residential uses and residential land use zoning districts for LPG storage.
- (C) Conflict Between Land Use District and Use Permit Requirements. In the event of a conflict between the provisions of this § 83.01.060(c) (Liquefied Petroleum Gas [LPG]) and the provisions of a land use zoning district, including the requirement for Use Permit, the provisions of this Section shall prevail and control.
  - (2) Fire Protection Requirements for All Parcels.
- (A) Setbacks for LPG storage and distribution facilities from structures and property lines shall be those specified by County Code Title 2, Division 3 (Fire Protection and Explosives and Hazardous Materials).
- (B) LPG storage tanks shall be centrally located on the parcel to the satisfaction of the Fire Department.
- (3) Additional Fire Protection Requirements for Specific Types of Parcels. For parcels that have no more than one occupied structure less than 5,000 square feet in size and where the water system provides substandard flows per International Standards Organization (ISO) standards for structure protection, additional fire protection requirements shall be as follows:
- (A) Where Parcel Size Is Ten Acres or More. Fire flow shall be calculated for exposures only in compliance with County Code Title 2, Division 3 (Fire Protection and Explosives and Hazardous Materials).
  - (B) Where Parcel Size Is at Least Five Acres but less than Ten Acres.
    - (I) A one hour approved protective coating shall be applied to the LPG storage tank.
- (II) Fire flow shall be calculated for exposures only, in compliance with County Code Title 2, Division 3 (Fire Protection and Explosives and Hazardous Materials).
  - (C) Where Parcel Size Is at Least Two and One-half Acres, but less than Five Acres.
    - (I) A two hour approved protective coating shall be applied to the tank.
- (II) Fire flow shall be calculated for exposures only, in compliance with County Code Title 2, Division 3 (Fire Protection and Explosives and Hazardous Materials).

- (4) Additional Fire Protection Requirements for Any Parcel with Adequate Fire Flow Available per ISO Standards.
- (A) Fire hydrant(s) shall serve the parcel in compliance with County Code Title 2, Division 3 (Fire Protection and Explosives and Hazardous Materials).
- (B) Fire flow shall provide for exposure protection (ISO Calculation) and LPG storage tank protection/suppression.
- (I) Sprinklers shall use calculations, as adopted by County Code Title 2, Division 3 (Fire Protection and Explosives and Hazardous Materials).
  - (II) Hose lines shall use the formula: GPM = five times the square root of the tank capacity.
  - (C) Additional protection.
- (I) Where the Fire Chief determines that water can be applied to the tank or exposures by the Fire Department in required amounts in eight minutes or less, no additional protection shall be required.
- (II) Where the Fire Chief determines that water cannot be applied to the tank or exposures by the Fire Department in required amounts in eight minutes or less, one of the following protection measures shall be required:
  - (i) One hour approved protective coating shall be applied to the LPG storage tank; or
  - (ii) A fixed spray water system shall be installed as approved by the Fire Department.
- (5) Additional fire protection requirements for any parcel not included in either Subdivisions (C)(III) or (C)(IV), above:
- (A) Either a one-hour or more protective coating shall be applied to the LPG storage tank, as required by the Fire Department, or a fixed spray water system shall be installed instead of coating the tank.
- (B) Fire flow shall be calculated for exposure only, in compliance with the San Bernardino Code Title 2, Division 3 (Fire Protection and Explosives and Hazardous Materials).

(Ord. 4011, passed - -2007)

# § 83.01.070 Heat.

Land uses in industrial districts shall not emit heat that would cause a temperature increase on any adjacent property in excess of ten degrees Fahrenheit, whether the change is in the air, on the ground, or in a structure.

(Ord. 4011, passed - -2007)

## § 83.01.080 Noise.

This Section establishes standards concerning acceptable noise levels for both noise-sensitive land uses and for noise-generating land uses.

- (a) *Noise Measurement*. Noise shall be measured:
- (1) At the property line of the nearest site that is occupied by, and/or zoned or designated to allow the development of noise-sensitive land uses;

- (2) With a sound level meter that meets the standards of the American National Standards Institute (ANSI § SI4 1979, Type 1 or Type 2);
- (3) Using the "A" weighted sound pressure level scale in decibels (ref. pressure = 20 micronewtons per meter squared). The unit of measure shall be designated as dB(A).
- (b) *Noise Impacted Areas*. Areas within the County shall be designated as "noise-impacted" if exposed to existing or projected future exterior noise levels from mobile or stationary sources exceeding the standards listed in Subdivision (d) (Noise Standards for Stationary Noise Sources) and Subdivision (e) (Noise Standards for Adjacent Mobile Noise Sources), below. New development of residential or other noise-sensitive land uses shall not be allowed in noise-impacted areas unless effective mitigation measures are incorporated into the project design to reduce noise levels to these standards. Noise-sensitive land uses shall include residential uses, schools, hospitals, nursing homes, religious institutions, libraries, and similar uses.
  - (c) Noise Standards for Stationary Noise Sources.
- (1) *Noise Standards*. Table 83-2 (Noise Standards for Stationary Noise Sources) describes the noise standard for emanations from a stationary noise source, as it affects adjacent properties:

Table 83-2						
Noise St	tandards for Stationary Noise	Sources				
Affected Land Uses (Receiving Noise)	7:00 a.m 10:00 p.m. Leq	10:00 p.m 7:00 a.m. Leq				
Residential	55 dB(A)	45 dB(A)				
Professional Services	55 dB(A)	55 dB(A)				
Other Commercial	60 dB(A)	60 dB(A)				
Industrial	70 dB(A)	70 dB(A)				

Leq = (Equivalent Energy Level). The sound level corresponding to a steady-state sound level containing the same total energy as a time-varying signal over a given sample period, typically one, eight or 24 hours.

dB(A) = (A-weighted Sound Pressure Level). The sound pressure level, in decibels, 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, placing greater emphasis on those frequencies within the sensitivity range of the human ear.

Ldn = (Day-Night Noise Level). The average equivalent A-weighted sound level during a 24-hour day obtained by adding 10 decibels to the hourly noise levels measured during the night (from 10:00 p.m. to 7:00 a.m.). In this way Ldn takes into account the lower tolerance of people for noise during nighttime periods.

- (2) *Noise Limit Categories*. No person shall operate or cause to be operated a source of sound at a location or allow the creation of noise on property owned, leased, occupied, or otherwise controlled by the person, which causes the noise level, when measured on another property, either incorporated or unincorporated, to exceed any one of the following:
- (A) The noise standard for the receiving land use as specified in Subdivision (b) (Noise-Impacted Areas), above, for a cumulative period of more than 30 minutes in any hour.

- (B) The noise standard plus five dB(A) for a cumulative period of more than 15 minutes in any hour.
- (C) The noise standard plus ten dB(A) for a cumulative period of more than five minutes in any hour.
  - (D) The noise standard plus 15 dB(A) for a cumulative period of more than one minute in any hour.
  - (E) The noise standard plus 20 dB(A) for any period of time.
- (d) *Noise Standards for Adjacent Mobile Noise Sources*. Noise from mobile sources may affect adjacent properties adversely. When it does, the noise shall be mitigated for any new development to a level that shall not exceed the standards described in the following Table 83-3 (Noise Standards for Adjacent Mobile Noise Sources).

Table 83-3							
Noise Standards for Adjacent Mobile Noise Sources							
Land Use	Ldi	n (or CN	VEL) d	B(A)			
Uses	Inter	rior (1)	Exte	rior (2)			
Single and multi-family, duplex, mob homes	ile	45	,	60 <sup>(3)</sup>			
Hotel, motel, transient housing		45	;	60 <sup>(3)</sup>			
Commercial retail, bank, restaurant		50	)	N/A			
Office building, research and development, professional offices		45	;	65			
Amphitheater, concert hall, auditorium, movie theater			45				
Institutional/Public Hospital, nursing home, school classroom, religious institution, library			,	65			
Open Space Park N/A 6				65			
	Land Use  Uses  Single and multi-family, duplex, mob homes  Hotel, motel, transient housing  Commercial retail, bank, restaurant  Office building, research and development, professional offices  Amphitheater, concert hall, auditorium movie theater  Hospital, nursing home, school classr religious institution, library	Land Use  Uses  Inter  Single and multi-family, duplex, mobile homes  Hotel, motel, transient housing  Commercial retail, bank, restaurant  Office building, research and development, professional offices  Amphitheater, concert hall, auditorium, movie theater  Hospital, nursing home, school classroom, religious institution, library	Land Use  Land Use  Land Use  Land Use  Interior (1)  Single and multi-family, duplex, mobile homes  Hotel, motel, transient housing  Commercial retail, bank, restaurant  Office building, research and development, professional offices  Amphitheater, concert hall, auditorium, movie theater  Hospital, nursing home, school classroom, religious institution, library  Land Use  Land (or CN  150  450  450  450  450  450  450  450	Land Use  Land Use  Land Use  Interior (1)  Single and multi-family, duplex, mobile homes  Hotel, motel, transient housing  Commercial retail, bank, restaurant  Office building, research and development, professional offices  Amphitheater, concert hall, auditorium, movie theater  Hospital, nursing home, school classroom, religious institution, library  Land Use  Land (or CNEL) description  External Single and multi-family, duplex, mobile at 45  45  Assuming the search and development, professional offices  45  45  45  45			

### **Notes:**

- (1) The indoor environment shall exclude bathrooms, kitchens, toilets, closets and corridors.
- (2) The outdoor environment shall be limited to:
  - · Hospital/office building patios
  - · Hotel and motel recreation areas
  - · Mobile home parks
  - · Multi-family private patios or balconies
  - · Park picnic areas
  - · Private yard of single-family dwellings
  - · School playgrounds
- (3) An exterior noise level of up to 65 dB(A) (or CNEL) shall be allowed provided exterior noise levels have been substantially mitigated through a reasonable application of the best available noise reduction technology, and interior noise exposure does not exceed 45 dB(A) (or CNEL) with windows and doors closed. Requiring that windows and doors remain closed to achieve an acceptable interior noise level shall necessitate the use of air conditioning or mechanical ventilation.

CNEL = (Community Noise Equivalent Level). The average equivalent A-weighted sound level during a 24-hour day, obtained after addition of approximately five decibels to sound

levels in the evening from 7:00 p.m. to 10:00 p.m. and ten decibels to sound levels in the night from 10:00 p.m. to 7:00 a.m.

- (e) *Increases in Allowable Noise Levels.* If the measured ambient level exceeds any of the first four noise limit categories in Subdivision (d)(2), above, the allowable noise exposure standard shall be increased to reflect the ambient noise level. If the ambient noise level exceeds the fifth noise limit category in Subdivision (d)(2), above, the maximum allowable noise level under this category shall be increased to reflect the maximum ambient noise level.
- (f) Reductions in Allowable Noise Levels. If the alleged offense consists entirely of impact noise or simple tone noise, each of the noise levels in Table 83-2 (Noise Standards for Stationary Noise Sources) shall be reduced by five dB(A).
  - (g) Exempt Noise. The following sources of noise shall be exempt from the regulations of this Section:
    - (1) Motor vehicles not under the control of the commercial or industrial use.
    - (2) Emergency equipment, vehicles, and devices.
- (3) Temporary construction, maintenance, repair, or demolition activities between 7:00 a.m. and 7:00 p.m., except Sundays and Federal holidays.
- (h) *Noise Standards for Other Structures*. All other structures shall be sound attenuated against the combined input of all present and projected exterior noise to not exceed the criteria.

Table 83-4				
Noise Standards for Other Stri	uctures			
Typical Uses	12-Hour Equivalent Sound Level (Interior) in dBA Ldn			
Educational, institutions, libraries, meeting facilities, etc.	45			
General office, reception, etc.	50			
Retail stores, restaurants, etc.	55			
Other areas for manufacturing, assembly, testing, warehousing, etc.	65			

In addition, the average of the maximum levels on the loudest of intrusive sounds occurring during a 24-hour period shall not exceed 65 dBA interior.

(Ord. 4011, passed - -2007; Am. Ord. 4245, passed - -2014)

## § 83.01.090 Vibration.

(a) *Vibration Standard*. No ground vibration shall be allowed that can be felt without the aid of instruments at or beyond the lot line, nor shall any vibration be allowed which produces a particle velocity greater than or equal to two-tenths inches per second measured at or beyond the lot line.

- (b) *Vibration Measurement*. Vibration velocity shall be measured with a seismograph or other instrument capable of measuring and recording displacement and frequency, particle velocity, or acceleration. Readings shall be made at points of maximum vibration along any lot line next to a parcel within a residential, commercial and industrial land use zoning district.
- (c) *Exempt Vibrations*. The following sources of vibration shall be exempt from the regulations of this Section.
  - (1) Motor vehicles not under the control of the subject use.
- (2) Temporary construction, maintenance, repair, or demolition activities between 7:00 a.m. and 7:00 p.m., except Sundays and Federal holidays.

(Ord. 4011, passed - -2007)

## § 83.01.100 Waste Disposal.

- (a) Liquid Waste Disposal and Runoff Control. No liquids of any kind shall be discharged into a public or private sewage or drainage system, watercourse, body of water, or into the ground, except in compliance with applicable regulations of the County Code, Title 23 (Waters) of the California Code of Regulations, the California Water Code, and related Federal regulations.
- (b) *Hazardous Waste*. Refer to Chapter 84.11 (Hazardous Waste Facilities) for regulations relative to hazardous waste facilities.
- (c) *Solid Waste Disposal*. Refer to Chapter 84.24 (Solid Waste/Recyclable Materials Storage) for regulations relative to solid waste disposal.

(Ord. 4011, passed - -2007)

# § 83.01.110 External Commercial or Industrial Activity on Private Property.

There shall be no unpermitted external or industrial activity on properties subject to the County's jurisdiction between the hours of 9:00 p.m. and 7:00 a.m. that shall at any time impair the quiet enjoyment of neighboring property owners or residents or in any manner disturb the public peace.

(Ord. 4245, passed - -2014)

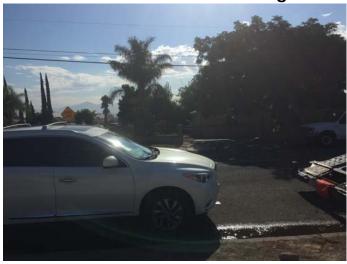
# **APPENDIX 5.1:**

**STUDY AREA PHOTOS** 



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11\_E 34, 2' 10.130000", 117, 23' 39.650000"



L1\_N 34, 2' 10.110000", 117, 23' 39.650000"



L1\_S 34, 2' 10.340000", 117, 23' 39.710000"



L1\_W 34, 2' 10.160000", 117, 23' 39.650000"



34, 2' 1.480000", 117, 22' 49.280000"



L2\_N 34, 2' 1.390000", 117, 22' 49.120000"



L2\_S 34, 2' 1.470000", 117, 22' 49.280000"



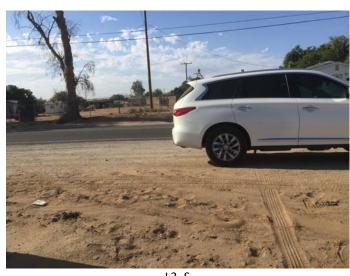
L2\_W 34, 2' 1.390000", 117, 22' 49.120000"



L3\_E 34, 2' 2.140000", 117, 22' 29.670000"



34, 2' 2.140000", 117, 22' 29.670000"



13\_5 34, 2' 2.170000", 117, 22' 29.700000"



13-w 34, 2' 2.150000", 117, 22' 29.730000"



L4\_N 34, 1' 29.480000", 117, 22' 45.410000"



14\_5 34, 1' 29.480000", 117, 22' 45.440000"



L4\_W 34, 1' 29.480000", 117, 22' 45.440000"



34, 1' 29.480000", 117, 22' 45.440000"



34, 1' 9.430000", 117, 22' 31.870000"



L5\_N 34, 1' 9.430000", 117, 22' 31.870000"



L5\_S 34, 1' 9.420000", 117, 22' 31.900000"



L5\_W 34, 1' 9.470000", 117, 22' 31.840000"



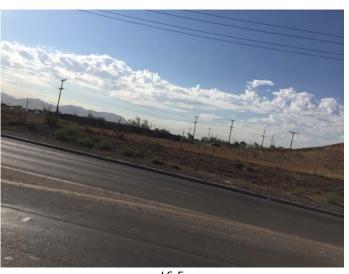
L6\_N 34, 1' 16.680000", 117, 23' 6.720000"



34, 1' 16.630000", 117, 23' 6.470000"



34, 1' 16.680000", 117, 23' 6.720000"



L6-E 34, 1' 16.600000", 117, 23' 6.390000"

# JN:11215 Agua Mansa Study Area Photos



L7\_E 34, 0' 45.370000", 117, 23' 11.470000"



L7\_N 34, 0' 45.410000", 117, 23' 11.500000"



L7\_S 34, 0' 45.390000", 117, 23' 11.470000"



L7\_W 34, 0' 45.410000", 117, 23' 11.500000"



34, 1' 1.110000", 117, 23' 29.190000"



18\_N 34, 1' 1.080000", 117, 23' 29.190000"

### **JN:11215 Agua Mansa Study Area Photos**



L8\_S 34, 1' 1.110000", 117, 23' 29.130000"



L8\_W 34, 1' 1.110000", 117, 23' 29.190000"



L9\_E 34, 1' 40.870000", 117, 23' 35.400000"



L9\_N 34, 1' 40.910000", 117, 23' 35.400000"



19\_5 34, 1' 40.790000", 117, 23' 35.450000"



19\_W 34, 1' 40.800000", 117, 23' 35.370000"

### JN:11215 Agua Mansa Study Area Photos



L10\_E 34, 1' 54.240000", 117, 23' 33.780000"



L10\_N 34, 1' 54.150000", 117, 23' 33.670000"



L10\_S 34, 1' 54.230000", 117, 23' 33.780000"



L10\_W 34, 1' 54.290000", 117, 23' 33.780000"

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### **APPENDIX 5.2:**

**NOISE LEVEL MEASUREMENT WORKSHEETS** 



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	24-Hour	CNEL	66.2					$\pm$	5.99	+	22		%661	41.0	41.0 48.0	44.8	44.0	51.0	46.6		44.0	44.0	45.0	47.0	51.0	51.0	48.0	43.0	42.0	45.0	43.0	45.0	45.0	46.0	44.0	45.0	45.0	46.0 46.0	45.0	44.0
	rage Leq	Night	59.1		(SE			$\exists$	Z.72	$\perp$	7,		195%	43.0	43.0 50.0	47.5	44.0	53.0	47.7		45.0	44.0	45.0	48.0	53.0	53.0	49.0	47.0	45.0	48.0	46.0	49.0	49.0 50.0	49.0	48.0	47.0	47.0	48.0 48.0	46.0	45.0
	Energy Average Leq	Dαу	61.6		L50% (30 Minutes)			-	09		01		%U61	47.0	45.0 52.0	49.4	45.0	54.0	48.4		45.0	45.0	46.0	49.0	54.0	53.0	50.0	46.0	48.0	51.0	49.0	51.0	52.0	51.0	50.0	49.0	49.0	49.0	47.0	46.0
	1215	. Wolfe	Date: 8/30/2017		L50			<b>z</b> .	709 T9		17 18		750%	20.00	53.0 61.0	56.3	47.0	59.0	52.3		48.0	47.0	50.0	53.0	29.0	58.0	57.0	53.0	54.0	61.0	57.0	57.0	59.0	58.0	57.0	56.0	55.0	54.0 53.0	51.0	49.0
λ	JN: 11215	Analyst: A. Wolfe	Date: 8,				6	<b>t</b> .	τ9		15 16		125%	25.0	55.0 64.0	59.9	50.0	62.0	55.4		51.0	20.0	54.0	56.0	62.0	61.0	60.0	57.0	58.0	64.0	61.0	61.0	64.0	61.0	0.09	59.0	59.0	57.0	54.0	52.0
t Summar					L2% (1 Minute)			8.2	<b>79</b>		12		%87	600	24.0	64.2	26.0	0.99	59.7		56.0	56.0	58.0	59.0	0.50	64.0	64.0	61.0	62.0	65.0	65.0	64.0	66.0	65.0	65.0	64.0	63.0	62.0	59.0	57.0
-Hour Noise Level Measurement Summary			o.		——L2% (1			6.	09	<del> </del>	;	12 Beginning	15%	62.0	74.0	65.4	59.0	67.0	61.8	nmary	29.0	29.0	61.0	60.0	67.0	0.99	66.0	63.0	63.0	0.99	0.99	65.0	67.0	0.99	0.99	65.0	65.0	64.0	61.0	59.0
e Level Me			tne Project sit					2.8	2.82 3		10		1.2%	0.10	02.0	68.2	62.0	70.0	65.0	Hourly Summary	62.0	62.0	64.0	62.0	70.0	0.69	68.0	66.0	65.0	70.0	68.0	0.89	69.0 75.0	0.89	0.69	0.69	67.0	69.0 65.0	0.99	63.0
Hour Noise		. J	nortnwest or 1						.ez		α		11%	0.77	67.0	6.69	64.0	72.0	67.8		65.0	65.0	67.0	20.0	72.0	72.0	0.69	0.00	67.0	72.0	0.69	69.0	75.0	70.0	70.0	70.0	69.0	/3.0	0.69	0.99
24-	pecific Plan		ential nomes					p. 4	$\blacksquare$		7		Imin	200	39.3 46.2		43.4		::		43.9	43.4	44.7	47.0	50.5	50.7	46.2	393	39.3	43.9	42.1	43.9	43.5 44.0	44.1	43.4	43.6	44.1	44.8	44.7	44.1
	nmerce Park S	1	existing resid					E.E	9				lmax	אסוווים	85.0	Average	71.8	85.4	Average		71.8	74.9	75.7	75.8	85.4	83.1	81.5	7.77	72.4	85.0	80.7	80.6	80.3	76.3	81.9	79.5	81.5	78.4	82.5	84.5
	Project Name: Agua Mansa Commerce Park Specific Plan	-	L1- Located near existing residential nomes nortnwest of the Project site.	(djusted)				$\perp$	6.23 4.83	+	,		log	22.3	5.75	61.6	53.6	63.3	59.1		53.6	53.7	55.9	56.4	63.3	62.4	61.4	58.0	58.2	63.8	6.09	60.7	66.9	61.4	61.2	60.4	60.2	60.5 57.2	57.9	56.5
	ect Name: Ag		Location: LI-	Readings (uno					7.8		-		Hour	NOW.	Max	age:	Min	Max	age:		0	1	5	m <	t 10	9	7	ο σ	10	11	12	13	14 15	16	17	18	19	20 21	22	23
	Proje	-	7	Hourly Leg dBA Readings (unadiusted)						40.0	-		Time Period		Day	Energy Average:	Night	311911	Energy Average:				1111	Night								ž	) Da						Night	ואוקוור
				H													-	.14	9																					

	24-Hour	CNEL	65.5				/	S	ES	23		%667	40.0	47.0	43.3	42.0	45.4		42.0	43.0	45.0	47.0	49.0	49.0	43.0	40.0	41.0	40.0	41.0	45.0	46.0	43.0	43.0	44.0	44.0	45.0	43.0	
	rage Leq	Night	58.8		(s:			6.98	i	21 22		%567	41.0	48.0	44.3	43.0	46.1		43.0	43.0	46.0	47.0	50.0	49.0	44.0	41.0	41.0	41.0	42.0	46.0	48.0	45.0	45.0	45.0	45.0	46.0	44.0	•
	Energy Average Leq	Dαу	59.6		L50% (30 Minutes)			0.82		19 20		%067	41.0	48.0	44.7	43.0	46.6		43.0	43.0	47.0	48.0	50.0	50.0	45.0	41.0	42.0	41.0	42.0	46.0	48.0	46.0	45.0	45.0	46.0	46.0	44.0	
	1215	. Wolfe	Date: 8/30/2017					8.62		17 18		<i>%057</i>	45.0	54.0	48.7	45.0 54.0	48.4		45.0	45.0	48.0	51.0	52.0	54.0	49.0	45.0	46.0	46.0	46.0	51.0	54.0	51.0	49.0	47.0	49.0	48.0	45.0	
λ	JN: 11215	Analyst: A. Wolfe	Date: 8				$\perp$	S'09		15 16		752%	20.0	60.0	54.7	46.0	51.0		46.0	46.0	49.0	52.0	56.0	56.0	55.0	51.0	53.0	55.0	56.0	58.0	0.09	58.0	54.0	52.0	51.0	49.0	47.0	
it Summar					L2% (1 Minute)		9	8.6 <b>2</b> 9.2 <b>9</b>		13 14		<i>%87</i>	57.0	65.0	62.6	49.0	57.8		51.0	49.0	56.0	60.0	64.0	64.0	63.0	62.0	62.0	63.0	62.0	65.0	65.0	65.0	62.0	62.0	59.0	59.0	51.0	
asuremen		he Project			L2% (1			1.82		12	Hour Beginning	<b>72%</b>	0.09	67.0	64.6	52.0	61.0	nmary	55.0	52.0	60.0	63.0	67.0	66.0	66.0	64.0	64.0	64.0	65.0	67.0	0.79	0.99	64.0	64.0	62.0	63.0	55.0	
e Level Me		oad north of t						2.82		10 11	Hour	75%	65.0	70.0	67.9	58.0	65.6	Hourly Summary	61.0	58.0	65.0	0.89	69.0	/I.0	0.69	67.0	67.0	68.0	0.79	70.0	70.0	0.69	67.0	67.0	66.0	67.0	62.0	
Hour Noise Level Measurement Summary		on El Rivino Road north of the Project						Z.e2		6 - 8		71%	67.0	73.0	70.2	61.0	68.4		65.0	61.0	68.0	72.0	71.0	71.0	71.0	0.69	70.0	71.0	69.0	73.0	73.0	71.0	0.17	0.69	68.0	70.0	0.99	
24-	Specific Plan						$\pm$	8.09		. 9		Lmin	40.0	47.0		42.2			42.2	42.2	44.9	46.4	49.1	48.1	42.4	40.0	40.1	40.2	40.2	43.7	45.2	42.2	43.1	42.9	44.2	44.8	43.3	
	mmerce Park	r existing resic	1				$\pm$	£.09		. 4		Lmax	78.4	87.0	Average	70.4	Average		76.5	70.4	80.2	88.6	85.3	86.3	79.3	83.4	79.4	86.7	79.2	87.0	82.5	82.8	80.7	79.4	78.4	87.2	75.6	
	gua Mansa Co	L2- Located near existing residential homes	site.	adjusted)				7.2 8.62	S	2 3		bəŢ	56.3	62.6	59.6	49.8	58.8		52.9	49.8	55.7	59.8	60.7	60.5	59.2	58.1	58.2	60.4	59.8	62.6	61.8	60.5	58.5	58.0	56.3	59.6	53.5	
	Project Name: Agua Mansa Commerce Park Specific Plan		<i>Location:</i> sit	Readings (un				8.		. 0		Hour	Min	Max	rage:	Min	rage:		0	Н	7	w 4	. го с	9	. ∞	6	10	11	13	14	15	16	18	19	20	22	23	
	Pro			Hourly Leq dBA Readings (unadjusted)	o L			555.0 45.00 750.00		2		Time Period	Dav	,	Energy Average:	Night	Energy Average:				111111111111111111111111111111111111111	Nignt								Day							Night	
				Ţ	_											I-1	50																					1

	24-Hour	CNEL	65.3					3	75	+	23		%667	40.0	48.0	43.9	43.0	49.0	45.9		43.0	44.0	44.0	46.0	49.0	49.0	46.0	43.0	40.0	41.0	43.0	46.0	48.0	46.0	45.0	0.44.0	43.0	43.0	47.0	46.0	43.0
	age Lea	Night	58.1		(3			8.7		+	21 22		<b>%567</b>	41.0	51.0	45.3	43.0	50.0	46.6		43.0	44.0	45.0	47.0	50.0	49.0	47.0	45.0	41.0	42.0	44.0	49.0	51.0	48.0	46.0	45.0	45.0	44.0	47.0	47.0	40.0
	Energy Average Leq	Dαу	8.09		L50% (30 Minutes)		$\exists$	6.8 2.8	H	+	19 20		%067	42.0	55.0	46.3	44.0	50.0	46.9		44.0	45.0	45.0	48.0	50.0	50.0	48.0	45.0	42.0	43.0	45.0	49.0	55.0	49.0	47.0	46.0	45.0	44.0	48.0	47.0	40.0
	1215	Wolfe	/30/2017				Н	6.08	H	+	17 18		<i>%057</i>	47.0	61.0	51.5	46.0	55.0	49.I		46.0	46.0	0.74	50.0	52.0	55.0	51.0	49.0	0.74	0.05	50.0	57.0	61.0	57.0	52.0	51.0	48.0	49.0	50.0	49.0	40.0
,	JN: 11215	Analyst: A. Wolfe	Date: 8/30/2017				$\prod$	<b>E9</b>		+	15 16		772	52.0	65.0	56.9	47.0	60.0	51.4		47.0	47.0	49.0	52.0	57.0	0.09	56.0	55.0	56.0	52.0	55.0	63.0	65.0	62.0	58.0	58.0	53.0	52.0	53.0	51.0	49.0
t Summary					Minute)		8't	79			13 14		%87	29.0	0.89	64.5	51.0	1.96.I	57.6		51.0	51.0	53.0	0.86	0.99	66.1	65.0	64.0	03.0	65.0	64.0	0.89	0.89	0.79	66.0	0.09	63.0	61.0	59.0	57.0	0.00
Hour Noise Level Measurement Summary		of the			L2% (1 Minute)			8.8	$\prod$			Hour Beginning	<b>72%</b>	62.0	0.69	66.3	54.0	0.80	60.4	ımary	54.0	54.0	57.0	65.0	67.0	0.89	67.0	0.79	03.0	66.0	65.0	0.69	0.69	0.69	67.0	67.0	65.0	64.0	62.0	60.09	20.0
Level Me		ad northeast						۵.9.	$\mathbf{H}$	+	10 11	Hour	75%	0.59	71.0	68.7	59.0	70.0	5.7	Hourly Summary	61.0	59.0	64.0	0.79	70.0	70.0	0.69	0.69	0.80	68.0	68.0	71.0	70.0	71.0	69.0	0.69	0.89	68.0	65.0	66.0	0.20
our Noise		on El Rivino Road northeast of the					$oxed{\Box}$	Z.08	$\blacksquare$	-	8		71%	0.79	73.0	70.3	63.0	0.27	58.3		0.59	63.0	0.89	71.0	72.0	72.0	71.0	70.0	70.0	0.69	0.69	73.0	72.0	73.0	71.0	70.0	0.07	70.0	67.0	68.0	0.00
24-H	becific Plan						$\blacksquare$	09		-	2 9		Lmin	39.6	46.0		42.5	48.I			42.5	43.8	43.9	46.9	48.0	48.1	45.3	42.7	39.0	41.0	42.4	45.3	46.0	45.0	44.0	42.7	42.7	42.6	45.8	45.4	44.0
	merce Park Sp	existing reside	)				Н	£.8	<b>S</b>	+	4 5		Lmax	75.1	85.7	Average:	70.6	<b>.</b>	Average		77.1	70.6	8.//	77.5	84.5	81.4	78.6	81.9	75.5	79.8	76.8	78.7	85.6	84.0	78.0	83./	73.1	78.6	85.7	76.9	11.11
	Project Name: Agua Mansa Commerce Park Specific Plan	L3- Located near existing residential homes	Project site.	ljusted)			9	9.69	t 5	-	2 3		pa7	57.8	64.8	8.09	51.0	62.1	28.I		53.3	51.0	54.8	58.3	61.3	62.1	60.2	60.2	59.7 59.4	59.7	58.8	63.3	64.8	63.1	60.5	60.6	58.6	58.2	57.8	55.9	24.3
	<i>ct Name:</i> Agu		<i>Location:</i> Proj	eadings (una				C	TS		7		Hour	Min	Max	lge:	Min	INIax	.agi		0	ਜ਼ (	7 0	o 4	. 2	9	7	∞ c	ر د	1 5	12	13	14	15	16	1/	19	20	21	22	67
	Projec	•	07	Hourly Leq dBA Readings (unadjusted)	c L	75.0 70.0 70.0		20:00	но 45.0 40.0	1	0		Time Period	Day	<u> </u>	Energy Average:	Night		Eller gy Average.				Night	1118111									Day							Night	
				Ho		 	 						Ţ				I-1	151																							1

	24-Hour	CNET	77.3				2.89	23		%667	50.0	55.4	47.0	61.0	53.1		53.0	47.0	52.0	61.0 59.0	59.0	57.0	55.0	55.0	55.0	53.0	53.0	52.0	62.0	61.0	53.0	61.0	50.0
	erage Leq	Night	70.7		(Se		6.89	21 22		<b>%567</b>	52.0	56.5	47.0	63.0	54.6		54.0	47.0	55.0	62.0 60.0	63.0	57.0	56.0	55.0	55.0 57.0	55.0	54.0	54.0	62.0	61.0	54.0	61.0	51.0
	Energy Average Leq	Бау	9.02		L50% (30 Minutes)		2.83 2.07	19 20		%067	52.0	57.8	48.0	64.0	57.3		54.0	48.0	63.0	62.0 62.0	64.0	58.0	56.0	56.0	96.0	57.0	56.0	56.0	62.0	62.0	58.0	61.0	55.0
	1215	Wolfe	Date: 8/30/2017				2.27 E.07	17 18		<b>%057</b>	61.0	64.5	53.0	0.89	61.8		60.0	53.0	64.0	65.0	68.0	65.0	61.0	61.0	64.0	0.99	67.0	68.0	0.79	62.0	63.0	63.0	62.0 61.0
λ	JN: 11215	Analyst: A. Wolfe	Date: 8				2.87 8.27	15 16		752	65.0	69.3	63.0	73.0	67.3		64.0	63.0	0.69	71.0	73.0	70.0	67.0	67.0	0.17	72.0	72.0	73.0	73.0	65.0	0.99	65.0	63.0
it Summar					L2% (1 Minute)		8.17	13 14		%87	72.0	74.5	72.0	78.0	75.0		76.0	74.0	75.0	77.0	78.0	74.0	72.0	72.0	75.0	76.0	76.0	77.0	77.0	75.0	74.0	73.0	72.0
asuremen		ndustrial			L2% (1		<b>2.0</b> 7	12	Hour Beginning	<b>72%</b>	73.0	75.8	75.0	79.0	76.9	nmary	77.0	76.0	77.0	78.0	79.0	75.0	74.0	73.0	76.0	78.0	77.0	78.0	78.0	76.0	76.0	75.0	75.0
e Level Me		near existing i					<b>p.</b> 73	10 11		75%	75.0	77.9	78.0	81.0	79.2	Hourly Summary	78.0	78.0	80.0	80.0	81.0	76.0	76.0	75.0	78.0	80.0	79.0	80.0	80.0	79.0	79.0	78.0	78.0
-Hour Noise Level Measurement Summary		L4- Located on Agua Mansa Road east of the Project site near existing industrial					6.73	6 - 8		71%	77.0	79.5	79.0	82.0	80.7		79.0	81.0	81.0	82.0 82.0	82.0	77.0	78.0	77.0	79.0	82.0	81.0	82.0	81.0	80.0	81.0	80.0	80.0
24-	Specific Plan	oad east of th					Z.E7	2 9		Lmin	48.4		45.8		e:		53.4	45.8	51.1	61.1 58.1	58.2	56.4	55.0	54.6	54.8	51.8	51.7	51.8	61.5	59.2	52.5	59.7	49.8 49.4
	mmerce Park	Agua Mansa R					8.27	4 5		Lmax	81.8	Average	83.9		Average		84.6	83.9	86.3	86.1 88.6	89.9	83.1	82.8	82.1	89.7	91.3	84.7	86.7	88.5	88.4	90.5	86.9	88.0
	gua Mansa Co	- Located on	uses.	adjusted)			6.89 6.07	2 3		pa1	67.4	70.6	68.5	73.2	70.7		6.89	68.9	70.9	71.9	73.2	69.4	67.9	67.4	70.2	72.3	71.8	72.8	72.5	70.3	70.2	6.89	68.5
	Project Name: Agua Mansa Commerce Park Specific Plan		Location: us	Readings (un			6.89 2.69	0 1		Hour	Min	erage:	Min	Max	erage:		0	1 2	cc	4 7	9	۰ م	) თ	10	12	13	14	16	17	18	50	21	23
	Pro			ourly Leq dBA	0 10		<b>y Leq (d</b>	2		ime Period	Day	Energy Ave	Night	31.9.1.	Energy Ave				Night								Day						Night
	Project No	-	Locatic	Hourly Leq dBA Readings (unadjusted)	0		70.0 65.0 65.0 55.0	-				Energy Average:	Night		Energy Average:		0	1 2	Night 3	4 4	9	7	0 6	10	12			16	17	18	20	21	

CNEL	69.1									%667	44.0	48.0	47.0	50.0	48.2		47.0	47.0	48.0	50.0 50.0	50.0	48.0	43.0	45.0	46.0	45.0	47.0	47.0	46.0	46.0	47.0	47.0	47.0	47.0
Night	62.4		(Si							%567	45.0	49.0	47.0	51.0	48.8		47.0	47.0	49.0	51.0 51.0	50.0	49.0	46.0 45.0	46.0	47.0	46.0	48.0	48.0	47.0	47.0	47.0	47.0	48.0	47.0
Дαу	63.7		% (30 Minute				9.0 <mark>9</mark>			%067	45.0	49.0	48.0	51.0	49.2		48.0	48.0	20.0	51.0	50.0	49.0	45.0	46.0	48.0	47.0	48.0	49.0	47.0	47.0	48.0	48.0	48.0	48.0
. Wolfe	/30/2017		—— L50			$H \equiv$				720%	48.0	53.0	49.0	53.0	51.0		49.0	50.0	52.0	53.0	53.0	51.0	30.0 49.0	50.0	51.0	51.0	52.0	52.0	50.0	48.0	49.0	49.0	49.0	50.0
Analyst: A	Date: 8,					$\coprod$				752	50.0	58.0	51.0	57.0	53.2		51.0	52.0	53.0	57.0 55.0	56.0	55.0	53.0	54.0	56.0	56.0	57.0	57.0	53.0	51.0	51.0	51.0	51.0	51.0
			Minute)			$\blacksquare$		$\Box$		<i>%8</i> 7	54.0	67.0	53.0	64.0	57.8		53.0	57.0	58.0	63.0	64.0	62.0	61.0	63.0	65.0	65.0	0.99	65.0	62.0	59.0	56.0	55.0	53.0	55.0
-	ustrial uses.		——L2% (1			S	:69	, ,		72%	56.0	70.0	54.0	0.99	60.1	nmary	55.0	59.0	0.09	66.0	0.99	65.0	64.0	0.99	68.0	0.89	0.69	0.89	65.0	63.0	0.09	57.0	54.0	57.0
:	ome and indi									75%	62.0	74.0	58.0	70.0	65.1	Hourly Sur	0.09	64.0	65.0	70.0	70.0	70.0	0.69	71.0	72.0	71.0	72.0	74.0	71.0	0.69	65.0	64.0	58.0	63.0
:	ig residential l					+				71%	65.0	77.0	62.0	73.0	9.89		65.0	69.0	0.89	73.0	73.0	72.0	72.0	76.0	76.0	75.0	74.0	76.0	74.0	72.0	0.89	67.0	62.0	67.0
•	near an existir									Lmin	45.1	٠.		51.4	:e:		47.0	46.3	47.6	48.8 50.6	51.4	48.4	45.9	45.1	45.3	45.4	48.0	47.8	45.9	46.7	46.8	47.2	46.7	47.4
	Wilson Street					+				Lmax	83.2			94.1	Averag		81.2	83.5	78.4	85.0	87.9	86.8	86.3	83.5	86.7	85.3	83.9	90.5	84.7	85.9	85.1	83.4	85.6	94.1
-	- Located on \	adjusted)					6.62 1.82			Fed	57.0	67.6	58.1	64.9	62.4		58.1	59.9	58.1	63.1 62.4	64.9	65.3	63.8	63.9	64.3	63.5	66.2	9.79	62.2	62.4	9.09	57.0	64.7	64.5
		Readings (un					p.82			Hour	Min	Max rage:	Min	Max	rage:		0	7	3	4 2	9	7	o 0	10	11	12	14	15	16	18	19	20	22	23
	-	ourly Leq dBA	85.0				0.055 0.005 0.000			ime Period	Day	Fneray Ave	Nizht	INIGNT	Energy Ave				Night								Day						Night	)
	Analyst: A. Wolfe Day Night	Day Night (7 63.7 62.4	L5- Located on Wilson Street near an existing residential home and industrial uses.  Date: 8/30/2017 63.7 62.4	on Wilson Street near an existing residential home and industrial uses.  Date: 8/30/2017 63.7 62.4  ——L2% (1 Minute) ——L50% (30 Minutes)	on Wilson Street near an existing residential home and industrial uses.  Date: 8/30/2017 63.7 62.4	on Wilson Street near an existing residential home and industrial uses.  Date: 8/30/2017 63.7 62.4  —L2% (1 Minute) —L50% (30 Minutes)	on Wilson Street near an existing residential home and industrial uses.  Date: 8/30/2017 63.7 62.4  L2% (1 Minute)  L50% (30 Minutes)	On Wilson Street near an existing residential home and industrial uses.  Date: 8/30/2017  63.7  62.4  64.9  66.2  66.2  66.2  66.2  66.2  66.2  66.2  66.2  66.3  66.3  66.3  66.3  66.3  66.4	On Wilson Street near an existing residential home and industrial uses.  Analyst: A. Wolfe  Day Night  Night  Day Night  64.9  64.9  64.9  64.9  64.9  64.9  64.9  64.9  64.9  64.9  64.9	On Wilson Street near an existing residential home and industrial uses.    Analyst: A. Wolfe   Day   Night	On Wilson Street near an existing residential home and industrial uses.    Analyst: A. Wolfe   Day   Night	On Wilson Street near an existing residential home and industrial uses.    Analyst: A. Wolfe   Day   Night	On Wilson Street near an existing residential home and industrial uses.    Analyst: A. Wolfe   Day   Night	Analyst: A. Wolfe    Analyst: A. Wolfe    Date: 8/30/2017	on Wilson Street near an existing residential home and industrial uses.  □ 12% (1 Minute)  □ 13% (1 Minute)  □ 14% (1 Minutes)  □ 15% (1	on Wilson Street near an existing residential home and industrial uses.  □ 12% (1 Minute)  □ 12% (1 M	on Wilson Street near an existing residential home and industrial uses.  Date: 8/30/2017  Date: 8/30/2017  Carrier Residential home and industrial uses.  Carrier Residential home and industrial uses.  Date: 8/30/2017  Carrier Residential home and industrial uses.  Carrier Residential home and industrial uses.  Date: 8/30/2017  Carrier Residential home and industrial uses.  Carrier Residential	Analyst: A. Wolfe Day Night  Analyst: A. Wolfe Day Night  Date: 8/30/2017 63.7 62.4  Bate Beginning Train 11% 12 13 14 15 16 17 18 19 20 21 22  Hour Beginning Train 12% 63.0 64.0 65.0 64.0 65.0 65.0 65.0 65.0 65.0 65.0 65.0 65	Analyst: A. Wolfe Doy Night  On Wilson Street near an existing residential home and industrial uses.  Light Res	Anolyst: A. Wolfe Day Night  LL2% (1 Minute)  Anolyst: A. Wolfe Day Night  LL2% (1 Minute)  LL2% (1 Minute)	Analyst: A. Wolfe Day Night  Analyst: A. Wolfe Day Night  Light Analyst: A. Wolfe Day Night  Analyst: A. Wolfe Day Night  Light Analyst: A. Wolfe Day Night	Analyst: A Wolfe near an existing residential home and industrial uses.	Continue   Continue	Analyst: A. Wolfe Day Night  On Wilson Street near an existing residential home and industrial uses.  Date: 8/30/2017 G3.7 G2.4  Date: 8/30/2017 G3.7 G3.4  Date: 8/30/2017 G3.4	Committee   Comm	Column   C	Continue   Continue	Analyser rear an existing residential home and industrial uses.  -L2% (1 Minute)  -L2% (1 M	on Wilson Street near an existing residential home and industrial uses.    Analyst: A. Wolfe   Doy   Night	Comparison of the control of the c	Anolysis A. Wolfe on Wilson Street near an existing residential home and industrial uses.	Anolysis A knolled rear an existing residential home and industrial uses.    Anolysis A knolled   Dopy   Night	Anolysts A worlden and industrial uses.  Anolysts A worlden and existing residential home and industrial uses.  Another another an	Analyst: A Wolfe   Doy   Wight   Doy   Wight   Doy   Wight   Doy   Wight   Doy   Wight   Doy   Wight   Dot   Wight   Doy   Doy

	24-Hour	CNET	6.97				1.73		2 23		%667	43.0	90.00	41.0	52.0	45.6		43.0	43.0	43.0	49.0	52.0 50.0	48.0	47.0	48.0	46.0	47.0	49.0	20:0	48.0	48.0	45.0 45.0	43.0	44.0	41.0
	Energy Average Leq	Night	70.1		es)		7.2a		21 22		%567	45.0	93.0	42.0	53.0	46.7		44.0	43.0	44.0	51.0	53.0 52.0	50.0	49.0	50.0	50.0	51.0	52.0	53.0	51.0	50.0	47.0	45.0	43.0	42.0
	Energy Av	Бау	71.4		L50% (30 Minutes)		6.99		19 20		<i>%061</i>	46.0	51.3	43.0	54.0	47.7		44.0	44.0	49.0	52.0	54.0 53.0	52.0	50.0	52.0	52.0	53.0	55.0	56.0	53.0	52.0	48.0	46.0	44.0	43.0
	JN: 11215	۱. Wolfe	Date: 8/30/2017		L5(		6.07 7.73		17 18		<i>%</i> 057	51.0	07.0	49.0	64.0	55.8		50.0	51.0	57.0	62.0	64.0 64.0	64.0	63.0	65.0	64.0	65.0	66.0	62.0	65.0	62.0	53.0	53.0	51.0	49.0
Α,	JN: 1	Analyst: A. Wolfe	Date: 8				T.17		15 16		752	59.0	67.9	57.0	71.0	63.2		57.0	59.0	65.0	0.69	71.0	70.0	69.0	71.0	70.0	71.0	72.0	71.0	70.0	69.0	60.0	61.0	59.0	57.0
nt Summai					L2% (1 Minute)		Z.ET		13 14		<i>%8</i> 7	70.0	74.8	69.0	77.0	72.6		0.69	71.0	73.0	77.0	77.0	75.0	76.0	77.0	77.0	77.0	77.0	77.0	75.0	75.0	70.0	71.0	71.0	70.0
easuremer		gindustrial			L2% (:	H	8. <u>2</u> 7 9. <u>2</u> 7		11 12	Hour Beginning	<b>72%</b>	72.0	7.87	73.0	79.0	75.0	nmary	73.0	73.0	75.0	79.0	79.0	77.0	78.0	79.0	79.0	78.0	79.0	78.0	77.0	77.0	73.0	74.0	73.0	73.0
Hour Noise Level Measurement Summary		the Project site near existing industrial					T'EZ		10		75%	76.0	79.7	77.0	82.0	78.8	Hourly Summary	78.0	77.0	78.0	82.0	82.0 81.0	79.0	80.0	81.0	82.0	81.0	81.0	81.0	80.0	80.0	77.0	78.0	77.0	77.0
-Hour Nois							8.17 0.ET		8		71%	78.0	81.7	79.0	85.0	81.2		80.0	80.0	80.0	84.0	85.0 84.0	81.0	82.0	84.0	84.0	83.0	84.0	83.0	82.0	81.0	79.0	80.0	79.0	80.0
24-	Specific Plan	Road south of					72.3 1.17		2 9		Lmin	42.8	٠.	.	51.1	ge:		42.3	42.4	42.4	46.5	51.1 49.5	47.7	44.5	44.0	44.8	44.8	47.3	46.0	47.1	45.8	43.8	42.8	43.4	39.4
	ommerce Park	Agua Mansa F				Н	E.ET 2.ET		4 5		Lmax	87.1	Average	•	95.4	Average		87.0	92.1	89.0	95.4	91.0	91.8	93.6	90.7	92.3	90.1	93.0	90.4	89.3	89.9	89.7	88.5	90.1	9.68
	gua Mansa Co	L6- Located on Agua Mansa Road south of	uses.	nadjusted)			8.88 7.88		2 3		ted Ted	65.7	71.4	66.8	73.3	70.1		0.79	62.9	68.7	73.3	73.2	71.1	71.8	73.1	72.8	72.6	73.2	72.7	71.1	70.9	/·/9 6.99	67.8	67.0	67.1
	Project Name: Agua Mansa Commerce Park Specific Plan		n Tocation:	A Readings (ui			6.79		0 1		Hour	Min	IVIAX Prage:	Min	Max	rerage:		0	<b>н</b> с	3 8	4	ი დ	7	∞ (	01	11	12	133	15 15	16	17	19	20	22	23
	Prc			Hourly Leq dBA Readings (unadjusted)	0 38		y Leq (o	Hourl 4550 3500 3500 1			Time Period	Day	Fnerøy Av	Min	Night	Energy Average:				Night								)a/	Ć g					+4×:14	Nignt

CNEL	67.8							$\blacksquare$	95	73		%667	44.0	53.0	48.9	45.0	78.0 78.0	46.0	0.47	45.0	46.0	50.0	51.0	53.0	50.0	47.0	44.0	47.0	49.0	51.0	53.0	51.0	20.0	50.0	46.0	49.0	47.0	47.U
Night	60.1		(sa							+		<b>%567</b>	46.0	54.0	49.9	46.0	34.0	1.0+	0.87	46.0	47.0	51.0	52.0 54.0	53.0	51.0	48.0	46.0	48.0	50.0	52.0	54.0 54.0	52.0	50.0	51.0	49.0	50.0	48.0	48.0
Dαу	64.2		% (30 Minute				<b>L</b> '	+	9	+		%067	46.0	54.0	50.2	46.0	50.2	20.5	19.0	46.0	49.0	51.0	53.0	54.0	51.0	49.0	46.0	48.0	51.0	52.0	54.0	52.0	51.0	52.0	47.0	50.0	49.0	48.U
. Wolfe	/30/2017		)SI ——				$oxed{1}$			}		720%	49.0	58.0	53.6	48.0	52.8	72.0	60.0	48.0	53.0	54.0	56.0 56.0	56.0	55.0	52.0	49.0	52.0	54.0	55.0	58.0	57.0	54.0	56.0	51.0	52.0	51.0	51.0
Analyst: A	Date: 8							$\mathbb{H}$		+		772	53.0	63.0	57.9	50.0	29.0	7:40	0 13	50.0	54.0	56.0	58.0	59.0	58.0	55.0	55.0	57.0	58.0	58.0	63.0	63.0	58.0	0.09	53.0	55.0	53.0	53.0
			L Minute)				H			+		<b>%87</b>	0.09	0.89	65.3	51.0	58.6	28.0	62.0	53.0	56.0	60.0	65.0	65.0	65.0	65.0	66.0	66.0	0.99	0.99	08.0	68.0	67.0	65.0	62.0	0.09	57.0	57.0
ie Project	•		L2% (:							12		72%	63.0	70.0	67.5	53.0	0.70	mmarv	0 7 2	53.0	57.0	64.0	67.0	67.0	67.0	68.0	0.89	68.0	0.89	0.89	70.0	70.0	0.69	67.0	64.0	63.0	0.09	59.0
nes south of th								9.E9		10	)	75%	68.0	75.0	71.6	59.0	7.T.0	Hourly Su	60.0	61.0	63.0	68.0	71.0	70.0	70.0	74.0	72.0	72.0	73.0	72.0	75.0	72.0	72.0	70.0	0.07	68.0	65.0	p4.0
estdential hom								$\blacksquare$				11%	71.0	78.0	74.4	65.0	69.0	03:00	0 39	65.0	67.0	71.0	73.0	73.0	72.0	78.0	75.0	74.0	76.0	75.0	78.0	74.0	74.0	73.0	72.0	71.0	0.79	0.79
ear existing re	)						$\exists$			-		Lmin	44.2	51.8		44.9		, ,	76.7	44.9	45.5	50.2	49.8 52.9	52.3	49.5	46.5	44.2	46.7	48.6	49.9	51.7	50.6	49.2	49.4	45.8	47.4	46.9	46.6
Hall Avenue n							$\blacksquare$			-		Lmax	79.2	9.66	_	75.0	٠l	n in it is i	75.3	86.7	75.0	79.4	87.7	87.2	90.9	88.5	86.9	83.4	93.6	84.2	90.2	83.4	82.2	85.2	73.5 99.6	82.9	78.0	77.8
7- Located on	ite.	nadjusted)								-		bəŢ	59.6	66.7	64.2	53.9	60.1	1.00	62.0	56.1	55.8	59.4	63.0	63.4	64.1	65.5	63.6	62.3	65.3	63.1	66.7	64.2	62.8	62.5	66.7	59.6	56.3	56.3
		A Readings (ur								-		Hour	Min	Max	erage:	Min	IVIAA		C	р н	2	m ·	4 7	9	7	∞ c	10	11	12	13	14 7.	16	17	18	20	21	22	73
		lourly Leq dBA	0							35.0 +		ime Period		Day	Energy Av	Night	Fnergy Av	2112187 75				Night									Day						Night	
	L7- Located on Hall Avenue near existing restdential homes south of the Project	Day Night .7 64.2 60.1	L7-Located on Hall Avenue near existing restdential homes south of the Project Analyst: A. Wolfe Day Night Site.  Date: 8/30/2017 64.2 60.1	on Hall Avenue near existing restdential homes south of the Project  Date: 8/30/2017  Date: 8/30/2017  E4.2  60.1  —L2% (1 Minute)  L50% (30 Minutes)	on Hall Avenue near existing restdential homes south of the Project  Analyst: A. Wolfe  Day Night  E4.2 60.1	on Hall Avenue near existing restdential homes south of the Project  Analyst: A. Wolfe  Day Night  F4.2 60.1	on Hall Avenue near existing restdential homes south of the Project  Analyst: A. Wolfe  Day Night  E4.2 60.1	on Hall Avenue near existing restdential homes south of the Project  Analyst: A. Wolfe  Day Night  Date: 8/30/2017 64.2 60.1	on Hall Avenue near existing restdential homes south of the Project  Analyst: A. Wolfe  Date: 8/30/2017  64.2  60.1  Day Night  Night  Date: 8/30/2017  64.2  66.5	on Hall Avenue near existing restdential homes south of the Project  Analyst: A. Wolfe  Date: 8/30/2017  Dat	on Hall Avenue near existing restdential homes south of the Project  Analyst: A. Wolfe  Day Night  Date: 8/30/2017 64.2 60.1  Date: 8/30/2017 64.2 60.1	On Hall Avenue near existing restdential homes south of the Project  Analyst: A. Wolfe  Date: 8/30/2017  64.2  60.1  L2% (1 Minute)  L50% (30 Minutes)  L50% (30 Minutes)	On Hall Avenue near existing restdential homes south of the Project    Analyst: A. Wolfe	On Hall Avenue near existing restdential homes south of the Project    Analyst: A. Wolfe   Day   Night	On Hall Avenue near existing restdential homes south of the Project	on Hall Avenue near existing restdential homes south of the Project	Tourty seq BAA Readings (unadjusted)   Tourty seq BAA R	Cocation: site.   LO-Located on Hall Avenue near existing restdential homes south of the Project   Analyst: A Wolfe   Doy   Night	On Hall Avenue near existing restdential homes south of the Project	Floorated on Hall Avenue near existing restdential homes south of the Project   Analyst: A. Wolfe   Day   Night	Hourly Leg dish Readings (unolijusted)   Site.   Hourly Leg dish Readings (unolijusted)   Site.   Si	Figure   F	Function   Steel   Function   Steel   Function   Steel   Function   Steel   Function   Steel   Function   Steel   St	17   17   18   19   19   19   19   19   19   19	Figure   F	Cocation: Steel   Cocation:	Figure   Control   Contr	Control   Cont	Flority Leg dis According : 17-Located on Hall Avenue mear existing residential homes south of the Project	County   Locations   Care   Locations   Care   Locations   Care   Care	County Leg classed on Hall Avenue rear evisting residential homes south of the Project	Figure   Compone   Compo	The Proof of State   Control o	Court   Cour	Figure   Control   Contr	Coloration   Colorated   Col	State   Control   Contro	Figure   Contract   Contract

	24-Hour	CNEL	67.1						23.	- 23		%667	47.0	70.70	45.0	54.0	49.0		46.0	45.0	50.0	52.0	53.0	51.0	49.0	47.0	47.0	50.0	20.0	50.0	49.0	57.0	49.0 48.0	49.0	48.0
	rage Leq	Night	60.2		(Si			$\blacksquare$	SS	21 22		%567	48.0	50.4	46.0	56.0	50.0		47.0	46.0	50.0	53.0	56.0 54.0	52.0	30.0 49.0	49.0	48.0	51.0	51.0	51.0	50.0	57.0	50.0 49.0	50.0	49.0 48.0
	Energy Average Leg	Dαу	62.3		L50% (30 Minutes)			9.8 7.8		19 20		%067	48.0	27.75 8.05	46.0	56.0	50.4		47.0	46.0	51.0	54.0	56.0	53.0	49.0	49.0	48.0	52.0	52.0	51.0	50.0	57.0	50.0	50.0	49.0
	1215	. Wolfe	8/30/2017		L50			6.8 0.08		17 18		<b>%057</b>	51.0	28.0	50.0	59.0	53.6		20.0	50.0	54.0	57.0	57.0	55.0	54.0	52.0	51.0	57.0	54.0	54.0	54.0	58.0	57.0	53.0	52.0
	JN: 11215	Analyst: A. Wolfe	Date: 8					5.03 1.13		15 16		772	54.0	56.6	52.0	61.0	56.1		52.0	53.0	57.0	59.0	59.0	57.0	92.0 57.0	55.0	54.0	58.0	56.0	56.0	58.0	59.0	58.0 55.0	55.0	55.0
nt Summar					L2% (1 Minute)		$\coprod$	1.69		13 14		%87	58.0	2.60	56.0	64.0	59.6		57.0	57.0	0.09	63.0	63.0	61.0	61.0	0.09	59.0	64.0	0.09	59.0	0.09	60.0	60.0 58.0	58.0	58.0
easuremer					——L2% (:		8	8.09		11 12	Hour Beginning	<b>72%</b>	59.0	62 9	57.0	0.99	61.0	mmary	58.0	59.0	61.0	64.0	0.09	63.0	, T.O 64.0	63.0	61.0	67.0	64.0	62.0	62.0	61.0	61.0 59.0	59.0	59.0
se Level M			e Project site.				$\prod$	·S9		10	Hou	77%	61.0	74.0	58.0	73.0	65.0	Hourly Summary	61.0	61.0	66.0	71.0	73.0	70.0	0.4.0	72.0	69.0	72.0	70.0	68.0	67.0	65.0	65.0 63.0	61.0	61.0
-Hour Noise Level Measurement Summary			rk soutn of the Project site.				0	1.29		6 - 8		71%	63.0	71.8	59.0	76.0	9.79		62.0	63.0	70.0	75.0	76.0	75.0	74.0	77.0	72.0	76.0	74.0	72.0	70.0	67.0	67.0	63.0	63.0
24	Specific Plan		ear Avaion Pa				$\coprod$			- 9		Lmin	46.2			53.9	ge:		45.5	44.8	49.4	51.0	52.9	50.3	46.9	46.7	46.2	48.8	49.2	49.2	47.7	56.5	48.2	48.4	46.6
	ommerce Park	0	24th Street n					5.29		4 5		Lmax	73.0	Average	70.9		Average		73.0	77.8	81.2	86.0	89.1	86.4	88.5	92.0	88.8	90.4	88.0	84.1	78.6	78.0	76.7	73.0	73.4
	Agua Mansa C	-	L8- Located on 24th Street near Avalon Pa	nadjusted)				£.:		2 3		paŢ	55.5	62.3	53.4	64.3	60.2		53.6	54.1	59.2	62.5	64.3	63.1	62.1	65.1	60.8	64.6	63.1	61.1	58.9	0.09	58.6	55.5	55.2
	Project Name: Agua Mansa Commerce Park Specific Plan		Γοςατιου: Γ	Hourly Leq dBA Readings (unadjusted)				Н	.53.	0 1		Hour	Min	Werage.	Min	Max	verage:		0	7 1	1 m	4 -	ი 9	7	o o	10	11 5	13	14	15	17	18	19 20	21	22
	Pr			Hourly Leq dB	L			1 <b>/h</b> 20:05 20:00	HOH 45:0 75:0 75:0	2		Time Period	Day	Fnerøy Average:	Ni~b+	Nignt	Energy Average:				Night								Day						Night

I-156

	Project Name:	<b>24</b> . Project Name: Agua Mansa Commerce Park Specific Plan	ommerce Pa	Z rk Specific Pla		Hour Noise Level Measurement Summary	<b>Aeasurem</b>	ent Summa		JN: 11215	Energy Av	Energy Average Leq	24-Hour
		L9- Located o	n Andalusia A	venue west o	f the Project s	L9- Located on Andalusia Avenue west of the Project site near existing residential	g residential		Analyst:	<i>Analyst:</i> A. Wolfe	Dαу	Night	CNEL
	Location:	homes.							Date:	Date: 8/30/2017	9.05	49.6	56.5
Hourly Leg a	Hourly Leq dBA Readings (unadjusted)	unadjusted)											
0 7 8							L2%	L2% (1 Minute)		1	L50% (30 Minutes)	tes)	
	+		H				4		H		+		+
noH 245.0 36.0	E.84 9.94	2.74 8.84	6.64	7.22	5.02 48.6	T.74	1.52 8.74	S'TS	6.64 8.12	£.84 5.84	6 <mark>.</mark> 84.9	T:05	7.64 2.84
9	0 1	2 3	4 - 5	- 9 -	- 8 - 2	9 10	11 12	13 14	15 16	17 18	19 20	21	22 23
						유	Hour Beginning	<b>50</b>					
Time Period	l Hour	pay	Lmax	Lmin	717	75%	<b>72%</b>	<b>%87</b>	772	<b>%057</b>	%067	%567	<b>%667</b>
Dav	Min	46.1	65.7	37.6	52.0	51.0	47.0	46.0	44.0	42.0	40.0	40.0	39.0
3000	Max	55.5	86.1	43.7	64.0	61.0	58.0	55.0	51.0	49.0	46.0	46.0	45.0
בוובו	crier gy Average:	50.6	-	Average:	57.5	55.2	51.8	50.3	47.3	45.6	43.5	42.9	42.1
Night	Max	46.9 52.7	63.0 75.3	42.7	52.0 61.0	59.0	48.0 55.0	47.0 54.0	46.0 52.0	45.0 51.0	44.0	44.0	43.0 48.0
	Energy Average:	49.6	Ave	Average:	55.4	53.6	51.2	50.3	49.0	47.8	46.2	45.8	45.2
						Hourly S	Hourly Summary						
	0	48.3	68.6	43.0	58.0	55.0	50.0	48.0	47.0	46.0	45.0	44.0	44.0
	7	46.9 47.5	63.0	42.7	56.0 52.0	52.0	48.0 49.0	47.0	46.0 47.0	45.0 46.0	44.0	44.0 44.0	43.0 44.0
Night	8	48.8	68.4	44.7	53.0	52.0	51.0	50.0	49.0	48.0	46.0	46.0	46.0
	4 70	49.9 51.1	66.0 68.0	45.0 46.1	54.0	53.0 55.0	51.0 53.0	51.0 52.0	50.0 51.0	49.0 50.0	47.0 48.0	47.0 48.0	46.0 47.0
	9	52.7	70.4	46.8	61.0	59.0	55.0	54.0	52.0	51.0	49.0	49.0	48.0
	۲ ٥	50.3	69.4	43.3	58.0	56.0	53.0	52.0	50.0	48.0	46.0	46.0	45.0
	ა თ	46.1	72.0	38.9	56.0	52.0	47.0	46.0	44.0	43.0	43.0	41.0	40.0
	10	47.1	70.0	38.1	59.0	56.0	50.0	47.0	44.0	42.0	41.0	40.0	39.0
	1 1	53.1 47.8	84.1 68.9	38.7	63.0	61.0 55.0	58.0	50.0	48.0 46.0	0.44	40.0	40.0	39.0 40.0
	13	55.5	86.1	41.1	64.0	60.0	56.0	53.0	49.0	47.0	44.0	43.0	42.0
Day	14	51.5	78.1	42.2	58.0	56.0	54.0	53.0	50.0	49.0	46.0	45.0	44.0
	15 16	51.3 49.9	73.1	42.7	59.0	56.0	52.0	50.0	51.0 47.0	49.0 46.0	45.0	45.0	44.0
	17	46.3	68.3	39.7	54.0	52.0	49.0	47.0	44.0	43.0	42.0	41.0	41.0
	18	48.5	74.6	41.3	26.0	53.0	49.0	48.0	46.0	44.0	43.0	42.0	42.0
	19	46.9	67.5	42.2	52.0	51.0	49.0	48.0	46.0	45.0	44.0	44.0	43.0
	20 21	52.8 50.1	84.2	43.7	54.0 55.0	53.0 54.0	50.0 53.0	49.0 52.0	47.0 51.0	46.0 49.0	45.0 46.0	45.0 46.0	44.0 45.0
Night	22	49.7	64.4	43.7	55.0	54.0	53.0	52.0	50.0	48.0	46.0	45.0	45.0
)	23	48.5	75.3	43.6	53.0	52.0	51.0	50.0	49.0	47.0	46.0	45.0	44.0

	24-Hour	CNET	65.4					6.52	23		%667	42.0	48.0	45.0	42.0	46.3		44.0	42.0	45.0	47.0	51.0	51.0	47.0 44.0	44.0	42.0	45.0	43.0	46.0	48.0 48.0	47.0	44.0	45.0	44.0	44.0 47.0	45.0	44.0
	rage Leq	Night	58.7		(s)			6.82 2.62	21 22		<b>767</b>	45.0	51.0	48.0	43.0	47.3		44.0	43.0	45.0	48.0	53.0	53.0	50.0 48.0	47.0	46.0	45.0	46.0	49.0	50.0	50.0	48.0	48.0	46.0	47.0	46.0	45.0
	Energy Average Leq	Dαу	59.2		L50% (30 Minutes)		H	0.82	19 20		%067	48.0	52.0	49.9	43.0	48.6		45.0	43.0	46.0	49.0	54.0	55.0	51.0	49.0	48.0	48.0	48.0	50.9	52.0	52.0	50.0	50.0	48.0	49.0	48.0	46.0
	1215	Wolfe	Date: 8/30/2017					2.62 8.82	17 18		720%	55.0	58.0	56.4	47.0	53.7		48.0	47.0	51.0	55.0	60.0	0.09	52.0	56.0	56.0	55.0	55.0	56.0	57.0	58.0	57.0	57.0	56.0	55.0	53.0	51.0
λ.	JN: 11215	Analyst: A. Wolfe	Date: 8					0.62 0.09	15 16		125%	57.0	61.0	59.0	52.0	57.1	4	53.0	52.0	56.0	58.0	62.0	62.0	59.0	59.0	29.0	58.0	58.0	59.0	60.0	0.09	0.09	29.0	58.0	58.0	56.0	54.0
nt Summar					L2% (1 Minute)		Н	£:65	13 14		%87	0.09	64.0	61.9	57.0	2:09		58.0	57.0	0.09	63.0	64.0	65.0	62.0	61.0	62.0	61.0	62.0	62.0	62.0	63.0	63.0	61.0	61.0	61.0	60.0	58.0
easuremer		residential			L2% (:			1.82 p.82	11 12	Hour Beginning	72%	61.0	64.0	62.7	59.0	61.9	mmary	0.09	59.0	61.0	62.0	65.0	66.0	63.0	62.0	63.0	62.0	63.0	64.0	63.0	63.0	63.0	62.0	62.0	62.0	61.0	59.0
Hour Noise Level Measurement Summary		le Project site near existing residential	1				S	0.09	10		77%	63.0	0.99	64.6	67.0	63.9	Hourly Summary	62.0	62.0	63.0	64.0	67.0	67.0	66.U	64.0	65.0	64.0	65.0	66.0	65.0	65.0	65.0	64.0	64.0	64.0	63.0	61.0
-Hour Nois		ne Project site					H	8.82	6 8		71%	64.0	70.0	66.1	62.0	65.2		64.0	64.0	64.0	65.0	67.0	69.0	65.0	65.0	67.0	0.99	0.99	70.0	66.0	66.0	0.99	65.0	66.0	65.0	65.0	62.0
24-	Specific Plan	L10- Located on Castellano Road west of th					H	779	2 9		Lmin	40.5			42.1	٠.		43.5	42.1	44.3	45.7	48.9	50.2	44.8	41.9	40.6	40.5	40.5	43.0	46.0	44.0	41.8	42.2	42.1	42.7	44.6	43.4
	ommerce Park	n Castellano F						09	4 5		Lmax	70.1		Average	68.9	Average		6.89	73.0	8.69	72.3	74.5	77.6	84. / 73. 0	78.8	88.2	80.0	78.5	82.4	76.3	81.5	71.8	79.4	74.0	77.1	86.6	68.9
	Agua Mansa Co	.10- Located o	homes.	nadjusted)				6.72 7.22	2 3		pa7	56.9	61.0	59.2	53.6	58.7		54.1	53.6	55.7	57.9	61.4	62.2	0.1.0	58.3	9.09	58.1	58.4	60.7	59.3 59.6	60.1	59.2	58.8	58.0	58.1	59.2	53.9
	Project Name: Agua Mansa Commerce Park Specific Plan		Location:	A Readings (u				9.52	0 1		Hour	Min	Max	verage:	Min	verage:		0	1	7	m <	t rv .	9	\ «	, o	10	11	12	13	14 14	16	17	18	19	20 7.	22	23
	Pre			Hourly Leq dBA Readings (unadjusted)	C			<b>ViruoH</b> 000444	- 0:00		Time Period	Day	Day	Energy Average:	Night	Energy Average:				:	Night								ě	Day						Night	0
				Ţ											I-1	58																					

### **APPENDIX 6.1:**

**PCE TO ACTUAL VEHICLE TRAFFIC VOLUMES** 



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## **Existing Without**

				PCE	PM	Peak Hour N	∕lix	100.00%	Peak Split		PCE Fa	actors		Actual
SegmentID	Roadway	Segment	PCE from	Segment	Auto	2 Axle	3 Axle	4 Axle	Back to	Auto	2 Axle	3 Axle	4 Axle	ADT
J	ŕ		TIA	Vols	0.899	0.025	0.023	0.053	PCE Check	1.00	1.50	2.00	3.00	Volumes
1	Cedar Av.	n/o I-10 Fwy.	42.7	42,700	38,387	1,068	982	2,263	42,700	38,387	712	491	754	40,344
2	Cedar Av.	s/o I-10 Fwy.	29.5	29,500	26,521	738	679	1,564	29,500	26,521	492	339	521	27,873
3	Cedar Av.	s/o Slover Av.	24.9	24,900	22,385	623	573	1,320	24,900	22,385	415	286	440	23,526
4	Cedar Av.	s/o Santa Ana Av.	25.1	25,100	22,565	628	577	1,330	25,100	22,565	418	289	443	23,715
5	Cedar Av.	s/o Jurupa Av.	22.1	22,100	19,868	553	508	1,171	22,100	19,868	368	254	390	20,881
6	Rubidoux Bl.	s/o El Rivino Rd.	22.3	22,300	20,048	558	513	1,182	22,300	20,048	372	256	394	21,070
7	Rubidoux Bl.	s/o Production Cir.	22.0	22,000	19,778	550	506	1,166	22,000	19,778	367	253	389	20,786
8	Rubidoux Bl.	s/o 20th St.	18.6	18,600	16,721	465	428	986	18,600	16,721	310	214	329	17,574
9	Rubidoux Bl.	s/o 24th St.	19.6	19,600	17,620	490	451	1,039	19,600	17,620	327	225	346	18,519
10	Rubidoux Bl.	s/o 26th St.	20.2	20,200	18,160	505	465	1,071	20,200	18,160	337	232	357	19,086
11	Rubidoux Bl.	s/o 28th St.	21.8	21,800	19,598	545	501	1,155	21,800	19,598	363	251	385	20,597
12	Rubidoux Bl.	s/o SR-60 Fwy.	25.2	25,200	22,655	630	580	1,336	25,200	22,655	420	290	445	23,810
13	Rubidoux Bl.	s/o 34th St.	19.2	19,200	17,261	480	442	1,018	19,200	17,261	320	221	339	18,141
14	Cactus Av.	n/o El Rivino Rd.	3.1	3,100	2,787	78	71	164	3,100	2,787	52	36	55	2,929
15	Rivera St.	n/o Market St.	9.2	9,200	8,271	230	212	488	9,200	8,271	153	106	163	8,692
16	Riverside Av.	n/o I-10 Fwy.	39.8	39,800	35,780	995	915	2,109	39,800	35,780	663	458	703	37,604
17	Riverside Av.	s/o I-10 Fwy.	41.0	41,000	36,859	1,025	943	2,173	41,000	36,859	683	472	724	38,738
18	Riverside Av.	s/o Slover Av.	38.2	38,200	34,342	955	879	2,025	38,200	34,342	637	439	675	36,093
19	Riverside Av.	s/o Santa Ana Av.	29.6	29,600	26,610	740	681	1,569	29,600	26,610	493	340	523	27,967
20	Riverside Av.	s/o Jurupa Av.	34.6	34,600	31,105	865	796	1,834	34,600	31,105	577	398	611	32,691
21	Rancho Av.	n/o Agua Mansa Rd.	18.8	18,800	16,901	470	432	996	18,800	16,901	313	216	332	17,763
22	Rancho Av.	s/o Agua Mansa Rd.	13.4	13,400	12,047	335	308	710	13,400	12,047	223	154	237	12,661
23	Slover Av.	w/o Cedar Av.	11.6	11,600	10,428	290	267	615	11,600	10,428	193	133	205	10,960
24	Slover Av.	w/o Riverside Av.	10.6	10,600	9,529	265	244	562	10,600	9,529	177	122	187	10,015
25	Santa Ana Av.	w/o Cedar Av.	6.7	6,700	6,023	168	154	355	6,700	6,023	112	77	118	6,330
26	Santa Ana Av.	w/o Riverside Av.	4.2	4,200	3,776	105	97	223	4,200	3,776	70	48	74	3,968
27	Jurupa Av.	w/o Cedar Av.	5.4	5,400	4,855	135	124	286	5,400	4,855	90	62	95	5,102
	El Rivino Rd.	e/o Cedar Av.	4.3	4,300	3,866	108	99	228	4,300	3,866	72	49	76	4,063
29	El Rivino Rd.	e/o Cactus Av.	4.0	4,000	3,596	100	92	212	4,000	3,596	67	46	71	3,779
30	El Rivino Rd.	e/o Hall Av.	3.1	3,100	2,787	78	71	164	3,100	2,787	52	36	55	2,929
31	Agua Mansa Rd.	e/o 20th St.	11.3	11,300	10,159	283	260	599	11,300	10,159	188	130	200	10,677
32	Agua Mansa Rd.	w/o Brown Av.	11.3	11,300	10,159	283	260	599	11,300	10,159	188	130	200	10,677
33	Agua Mansa Rd.	w/o Holly St.	12.8	12,800	11,507	320	294	678	12,800	11,507	213	147	226	12,094
34	Agua Mansa Rd.	e/o Holly St.	12.8	12,800	11,507	320	294	678	12,800	11,507	213	147	226	12,094
	Agua Mansa Rd.	e/o El Rivino Rd.	15.2	15,200	13,665	380	350	806	15,200	13,665	253	175	269	14,361
	Agua Mansa Rd.	e/o Riverside Av.	7.7	7,700	6,922	193	177	408	7,700	6,922	128	89	136	
	20th St.	e/o Rubidoux Bl.	22.2	22,200	19,958	555		1,177	22,200	19,958	370	-	392	20,975
	20th St.	e/o Agua Mansa Rd.	17.0	17,000	15,283	425		901	17,000	15,283	283	196	300	16,062
	Market St.	e/o Hall Av.	23.6	23,600	21,216	590			23,600	21,216	393	271	417	22,298
	Market St.	e/o Rivera St.	28.3		25,442	708			28,300	25,442	472	325	500	





## **Opening Year 2020 Without**

				PCE	PM	l Peak Hour N	/lix	100.00%	Peak Split		PCE Fa	actors		Actual
SegmentID	Roadway	Segment	PCE from	Segment	Auto	2 Axle	3 Axle	4 Axle	Back to	Auto	2 Axle	3 Axle	4 Axle	ADT
J	·		TIA	Vols	0.899	0.025	0.023	0.053	PCE Check	1.00	1.50	2.00	3.00	Volumes
1	Cedar Av.	n/o I-10 Fwy.	46.6	46,600	41,893	1,165	1,072	2,470	46,600	41,893	777	536	823	44,029
2	Cedar Av.	s/o I-10 Fwy.	39.9	39,900	35,870	998	918	2,115	39,900	35,870	665	459	705	37,699
3	Cedar Av.	s/o Slover Av.	32.3	32,300	29,038	808	743	1,712	32,300	29,038	538	371	571	30,518
4	Cedar Av.	s/o Santa Ana Av.	32.5	32,500	29,218	813	748	1,723	32,500	29,218	542	374	574	30,707
5	Cedar Av.	s/o Jurupa Av.	29.5	29,500	26,521	738	679	1,564	29,500	26,521	492	339	521	27,873
6	Rubidoux Bl.	s/o El Rivino Rd.	30.1	30,100	27,060	753	692	1,595	30,100	27,060	502	346	532	28,439
7	Rubidoux Bl.	s/o Production Cir.	29.8	29,800	26,790	745	685	1,579	29,800	26,790	497	343	526	28,156
8	Rubidoux Bl.	s/o 20th St.	25.0	25,000	22,475	625	575	1,325	25,000	22,475	417	288	442	23,621
9	Rubidoux Bl.	s/o 24th St.	25.8	25,800	23,194	645	593	1,367	25,800	23,194	430	297	456	24,377
10	Rubidoux Bl.	s/o 26th St.	26.7	26,700	24,003	668	614	1,415	26,700	24,003	445	307	472	25,227
11	Rubidoux Bl.	s/o 28th St.	28.1	28,100	25,262	703	646	1,489	28,100	25,262	468	323	496	26,550
12	Rubidoux Bl.	s/o SR-60 Fwy.	28.9	28,900	25,981	723	665	1,532	28,900	25,981	482	332	511	27,306
13	Rubidoux Bl.	s/o 34th St.	21.7	21,700	19,508	543	499	1,150	21,700	19,508	362	250	383	20,503
14	Cactus Av.	n/o El Rivino Rd.	7.9	7,900	7,102	198	182	419	7,900	7,102	132	91	140	7,464
15	Rivera St.	n/o Market St.	10.7	10,700	9,619	268	246	567	10,700	9,619	178	123	189	10,110
16	Riverside Av.	n/o I-10 Fwy.	42.8	42,800	38,477	1,070	984	2,268	42,800	38,477	713	492	756	40,439
17	Riverside Av.	s/o I-10 Fwy.	47.8	47,800	42,972	1,195	1,099	2,533	47,800	42,972	797	550	844	45,163
18	Riverside Av.	s/o Slover Av.	44.2	44,200	39,736	1,105	1,017	2,343	44,200	39,736	737	508	781	41,762
19	Riverside Av.	s/o Santa Ana Av.	35.3	35,300	31,735	883	812	1,871	35,300	31,735	588	406	624	33,353
20	Riverside Av.	s/o Jurupa Av.	40.4	40,400	36,320	1,010	929	2,141	40,400	36,320	673	465	714	38,171
21	Rancho Av.	n/o Agua Mansa Rd.	21.4	21,400	19,239	535	492	1,134	21,400	19,239	357	246	378	20,219
22	Rancho Av.	s/o Agua Mansa Rd.	15.5	15,500	13,935	388	357	822	15,500	13,935	258	178	274	14,645
23	Slover Av.	w/o Cedar Av.	14.6	14,600	13,125	365	336	774	14,600	13,125	243	168	258	13,795
24	Slover Av.	w/o Riverside Av.	12.0	12,000	10,788	300	276	636	12,000	10,788	200	138	212	11,338
25	Santa Ana Av.	w/o Cedar Av.	8.5	8,500	7,642	213	196	451	8,500	7,642	142	98	150	8,031
26	Santa Ana Av.	w/o Riverside Av.	5.4	5,400	4,855	135	124	286	5,400	4,855	90	62	95	5,102
27	Jurupa Av.	w/o Cedar Av.	7.6	7,600	6,832	190	175	403	7,600	6,832	127	87	134	7,181
28	El Rivino Rd.	e/o Cedar Av.	10.1	10,100	9,080	253	232	535	10,100	9,080	168	116	178	9,543
29	El Rivino Rd.	e/o Cactus Av.	6.0	6,000	5,394	150	138	318	6,000	5,394	100	69	106	5,669
30	El Rivino Rd.	e/o Hall Av.	4.1	4,100	3,686	103	94	217	4,100	3,686	68	47	72	3,874
31	Agua Mansa Rd.	e/o 20th St.	15.6	15,600	14,024	390	359	827	15,600	14,024	260	179	276	14,739
32	Agua Mansa Rd.	w/o Brown Av.	15.6	15,600	14,024	390	359	827	15,600	14,024	260	179	276	14,739
33	Agua Mansa Rd.	w/o Holly St.	15.9	15,900	14,294	398	366	843	15,900	14,294	265	183	281	15,023
34	Agua Mansa Rd.	e/o Holly St.	15.9	15,900	14,294	398	366	843	15,900	14,294	265	183	281	15,023
35	Agua Mansa Rd.	e/o El Rivino Rd.	19.4	19,400	17,441	485	446	1,028	19,400	17,441	323	223	343	18,330
36	Agua Mansa Rd.	e/o Riverside Av.	10.2	10,200	9,170	255	235	541	10,200	9,170	170	117	180	9,637
37	20th St.	e/o Rubidoux Bl.	29.7	29,700	26,700	743	683	1,574	29,700	26,700	495	342	525	28,062
38	20th St.	e/o Agua Mansa Rd.	25.7	25,700	23,104	643	591	1,362	25,700	23,104	428	296	454	24,282
39	Market St.	e/o Hall Av.	35.0	35,000	31,465	875	805	1,855	35,000	31,465	583	403	618	33,069
40	Market St.	e/o Rivera St.	38.9	38,900	34,971	973	895	2,062	38,900	34,971	648	447	687	36,754





#### **Year 2035 Without**

				PCE	PM	Peak Hour N	Лix	100.00%	Peak Split		PCE Fa	actors		Actual
SegmentID	Roadway	Segment	PCE from	Segment	Auto	2 Axle	3 Axle	4 Axle	Back to	Auto	2 Axle	3 Axle	4 Axle	ADT
			TIA	Vols	0.899	0.025	0.023	0.053	PCE Check	1.00	1.50	2.00	3.00	Volumes
1	Cedar Av.	n/o I-10 Fwy.	49.0	49,000	44,051	1,225	1,127	2,597	49,000	44,051	817	564	866	46,297
2	Cedar Av.	s/o I-10 Fwy.	39.9	39,900	35,870	998	918	2,115	39,900	35,870	665	459	705	37,699
3	Cedar Av.	s/o Slover Av.	32.3	32,300	29,038	808	743	1,712	32,300	29,038	538	371	571	30,518
4	Cedar Av.	s/o Santa Ana Av.	32.5	32,500	29,218	813	748	1,723	32,500	29,218	542	374	574	30,707
5	Cedar Av.	s/o Jurupa Av.	29.5	29,500	26,521	738	679	1,564	29,500	26,521	492	339	521	27,873
6	Rubidoux Bl.	s/o El Rivino Rd.	30.1	30,100	27,060	753	692	1,595	30,100	27,060	502	346	532	28,439
7	Rubidoux Bl.	s/o Production Cir.	29.8	29,800	26,790	745	685	1,579	29,800	26,790	497	343	526	28,156
8	Rubidoux Bl.	s/o 20th St.	25.0	25,000	22,475	625	575	1,325	25,000	22,475	417	288	442	23,621
9	Rubidoux Bl.	s/o 24th St.	25.8	25,800	23,194	645	593	1,367	25,800	23,194	430	297	456	24,377
10	Rubidoux Bl.	s/o 26th St.	26.7	26,700	24,003	668	614	1,415	26,700	24,003	445	307	472	25,227
11	Rubidoux Bl.	s/o 28th St.	29.0	29,000	26,071	725	667	1,537	29,000	26,071	483	334	512	27,400
12	Rubidoux Bl.	s/o SR-60 Fwy.	29.4	29,400	26,431	735	676	1,558	29,400	26,431	490	338	519	27,778
13	Rubidoux Bl.	s/o 34th St.	21.7	21,700	19,508	543	499	1,150	21,700	19,508	362	250	383	20,503
14	Cactus Av.	n/o El Rivino Rd.	7.9	7,900	7,102	198	182	419	7,900	7,102	132	91	140	7,464
15	Rivera St.	n/o Market St.	10.7	10,700	9,619	268	246	567	10,700	9,619	178	123	189	10,110
16	Riverside Av.	n/o I-10 Fwy.	52.5	52,500	47,198	1,313	1,208	2,783	52,500	47,198	875	604	928	49,604
17	Riverside Av.	s/o I-10 Fwy.	58.2	58,200	52,322	1,455	1,339	3,085	58,200	52,322	970	669	1,028	54,989
18	Riverside Av.	s/o Slover Av.	54.0	54,000	48,546	1,350	1,242	2,862	54,000	48,546	900	621	954	51,021
19	Riverside Av.	s/o Santa Ana Av.	46.2	46,200	41,534	1,155	1,063	2,449	46,200	41,534	770	531	816	43,651
20	Riverside Av.	s/o Jurupa Av.	46.2	46,200	41,534	1,155	1,063	2,449	46,200	41,534	770	531	816	43,651
21	Rancho Av.	n/o Agua Mansa Rd.	24.5	24,500	22,026	613	564	1,299	24,500	22,026	408	282	433	23,148
22	Rancho Av.	s/o Agua Mansa Rd.	19.9	19,900	17,890	498	458	1,055	19,900	17,890	332	229	352	18,802
23	Slover Av.	w/o Cedar Av.	17.8	17,800	16,002	445	409	943	17,800	16,002	297	205	314	16,818
24	Slover Av.	w/o Riverside Av.	12.3	12,300	11,058	308	283	652	12,300	11,058	205	141	217	11,621
25	Santa Ana Av.	w/o Cedar Av.	9.3	9,300	8,361	233	214	493	9,300	8,361	155	107	164	8,787
26	Santa Ana Av.	w/o Riverside Av.	5.4	5,400	4,855	135	124	286	5,400	4,855	90	62	95	5,102
27	Jurupa Av.	w/o Cedar Av.	7.8	7,800	7,012	195	179	413	7,800	7,012	130	90	138	7,370
28	El Rivino Rd.	e/o Cedar Av.	11.4	11,400	10,249	285	262	604	11,400	10,249	190	131	201	10,771
29	El Rivino Rd.	e/o Cactus Av.	6.6	6,600	5,933	165	152	350	6,600	5,933	110	76	117	6,236
30	El Rivino Rd.	e/o Hall Av.	4.1	4,100	3,686	103	94	217	4,100	3,686	68	47	72	3,874
31	Agua Mansa Rd.	e/o 20th St.	19.9	19,900	17,890	498	458	1,055	19,900	17,890	332	229	352	18,802
32	Agua Mansa Rd.	w/o Brown Av.	19.9	19,900	17,890	498	458	1,055	19,900	17,890	332	229	352	18,802
33	Agua Mansa Rd.	w/o Holly St.	19.6	19,600	17,620	490	451	1,039	19,600	17,620	327	225	346	18,519
34	Agua Mansa Rd.	e/o Holly St.	19.6	19,600	17,620	490	451	1,039	19,600	17,620	327	225	346	18,519
35	Agua Mansa Rd.	e/o El Rivino Rd.	23.9	23,900	21,486	598	550	1,267	23,900	21,486	398	275	422	22,582
36	Agua Mansa Rd.	e/o Riverside Av.	11.0	11,000	9,889	275	253	583	11,000	9,889	183	127	194	10,393
37	20th St.	e/o Rubidoux Bl.	29.8	29,800	26,790	745	685	1,579	29,800	26,790	497	343	526	28,156
38	20th St.	e/o Agua Mansa Rd.	25.7	25,700	23,104	643	591	1,362	25,700	23,104	428	296	454	24,282
39	Market St.	e/o Hall Av.	35.0	35,000	31,465	875	805	1,855	35,000	31,465	583	403	618	33,069
40	Market St.	e/o Rivera St.	43.6	43,600	39,196	1,090	1,003	2,311	43,600	39,196	727	501	770	41,195





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#### **APPENDIX 7.1:**

**OFF-SITE TRAFFIC NOISE CONTOURS** 



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	FH	WA-RD-77-108	HIGHV	WAY NO	ISE PF	REDICTIO	N MO	DEL			
	e: Cedar Av.	ithout Project				Project N Job Nu			Mansa		
	SPECIFIC IN	NPUT DATA							L INPUT	S	
Highway Data				S	ite Con	ditions (l	Hard =	10, S	oft = 15)		
Average Daily	Traffic (Adt):	40,344 vehicle	es					Autos:	15		
Peak Hour I	Percentage:	10%			Me	dium Truc	ks (2 A	Axles):	15		
Peak He	our Volume:	4,034 vehicle	S		He	avy Truck	s (3+ A	(xles	15		
	hicle Speed:	40 mph		V	ehicle l	Mix					
Near/Far Lar	ne Distance:	48 feet			Vehi	cleType		Day	Evening	Night	Daily
Site Data						AL	itos:	73.2%	8.1%	18.69	89.90%
Rar	rier Height:	0.0 feet			Me	edium Tru	cks:	82.2%	3.9%	14.09	2.50%
Barrier Type (0-Wa	all, 1-Berm):	0.0			F	łeavy Tru	cks:	76.5%	4.0%	19.5%	7.60%
Centerline Dis		52.0 feet		N	oise Sc	urce Ele	vation	s (in f	eet)		
Centerline Dist. t		52.0 feet				Autos:	0.0	000			
Barrier Distance t		0.0 feet			Mediur	n Trucks:	2.2	297			
Observer Height (/		5.0 feet			Heav	y Trucks:	8.0	004	Grade Adj	ustmen	t: 0.0
	d Elevation:	0.0 feet		-							
	d Elevation:	0.0 feet		Li	ane Equ	uivalent l			reet)		
F	Road Grade:	0.0%				Autos:					
	Left View:	-90.0 degre				n Trucks:					
	Right View:	90.0 degre	es		Heav	y Trucks:	46.	228			
FHWA Noise Mode	el Calculation	ıs									
VehicleType	REMEL	Traffic Flow	Dista		Finite	Road	Fresn		Barrier Atte		rm Atten
Autos:	66.51			0.38		-1.20		-4.66	0.0		0.000
Medium Trucks:	77.72			0.41		-1.20		-4.87	0.0		0.000
Heavy Trucks:	82.99			0.41		-1.20		-5.41	0.0	100	0.000
Unmitigated Noise	•									,	
	Leq Peak Ho			Leq Eve		Leq N			Ldn		NEL
Autos:			67.8		64.3		63.1		70.4		70.7
Medium Trucks:			64.0		56.7		57.5		65.4		65.5
Heavy Trucks:			73.8		67.0		69.1		76.3		76.5
Vehicle Noise:			75.1		69.1		70.3	3	77.6	5	77.8
Centerline Distance	e to Noise C	ontour (in feet	)	70 dE	24	65 di	DΛ		SO dBA	E.	5 dBA
			I dn:	167		360			776	1	.671
			Lan: NFI :	171		369			795		.714
		Ci	VLL.	171		308	,		1 33		,7 14

	FH	WA-RD-77-108	HIGHV	VAY N	OISE P	REDICT	ION MODEL			
Road Nam	io: Existing W ne: Cedar Av. nt: s/o Slover	,,,,,,					t Name: Agua lumber: 1121			
SITE	SPECIFIC IN	NPUT DATA				I I	NOISE MOD	EL INPUT	s	
Highway Data				S	ite Cor	ditions	(Hard = 10, \$	Soft = 15)		
Average Daily	Traffic (Adt):	23,526 vehic	les				Auto	s: 15		
Peak Hour	Percentage:	10%			Me	dium Tr	ucks (2 Axles	): 15		
Peak H	lour Volume:	2,353 vehicle	es		He	avy Tru	cks (3+ Axles	): 15		
Ve	hicle Speed:	40 mph			/ehicle	Miv				
Near/Far La	ne Distance:	48 feet		۲,		icleType	e Dav	Evening	Night	Daily
Site Data				-	VC//		Autos: 73.2		18.6	,
					М	edium T			14.0	
Barrier Type (0-W	rrier Height:	0.0 feet 0.0				Heavy T		,,.	19.5	
Centerline Di	. ,	52.0 feet								, , , , , , , ,
Centerline Dist.		52.0 feet		٨	loise S		levations (in	feet)		
Barrier Distance		0.0 feet				Auto				
Observer Height		5.0 feet				m Truck				
	ad Elevation:	0.0 feet			Heav	ry Truck	s: 8.004	Grade Ad	justme	nt: 0.0
	ad Elevation:	0.0 feet		L	ane Eq	uivalen	t Distance (ii	r feet)		
	Road Grade:	0.0%				Auto	s: 46.400			
	Left View:	-90.0 degre	es		Mediu	m Truck	s: 46.209			
	Right View:	90.0 degre	es		Heav	y Truck	s: 46.228			
FHWA Noise Mod	el Calculation	18								
VehicleType	REMEL	Traffic Flow	Dista	ance	Finite	Road	Fresnel	Barrier Att	en B	erm Atten
Autos:	66.51			0.38		-1.20	-4.66	0.0	000	0.000
Medium Trucks:	77.72			0.41		-1.20	-4.87		000	0.000
Heavy Trucks:	82.99			0.41		-1.20	-5.4	0.0	000	0.000
Unmitigated Nois							1			
VehicleType	Leq Peak Ho		_	Leq Ev		Leq	Night	Ldn		CNEL
Autos:		7.6	65.5		61.9		60.8	68.		68.4
Medium Trucks:		3.3	61.7		54.4		55.2	63.0		63.2
Heavy Trucks:		3.4	71.4		64.6		66.8	74.		74.1
Vehicle Noise:		1.7	72.8		66.8		68.0	75.3	3	75.4
Centerline Distan	ce to Noise C	ontour (in fee	t)	70 d	'BA	65	dBA	60 dBA		55 dBA
			Ldn:	11			51	541		1.167
		C	NEL:	12			58	555		1.196
		_	-		-	_				,

	FH\	VA-RD-77-108	HIGHW	AY NO	ISE PF	REDICT	ION M	ODEL			
	o: Existing Wi e: Cedar Av. t: s/o I-10 Fw	,						: Agua   : 11215			
	SPECIFIC IN	PUT DATA							L INPUT	'S	
Average Daily i Peak Hour I Peak Ho	Percentage: our Volume:	10%			Me He	dium Tr avy Tru	ucks (2	Autos: Axles):	15 15		
Near/Far Lar	e Distance:	48 feet		V			.	Day	Evenina	Night	Daily
Site Data	Peak Hour Percentage: 10%   Medium Trucks (2 Axles): 15										
Barrier Type (0-Wa	all, 1-Berm):	0.0									
Centerline Dist. t Barrier Distance t Observer Height (/	o Observer: o Observer: Above Pad):	52.0 feet 0.0 feet 5.0 feet		N	Mediur	Auto m Truck	s: (	0.000 2.297		djustmen	t: 0.0
Roa	d Elevation:	0.0 feet		Li	ne Eq				feet)		
F	Road Grade: 0.0%					n Truck	s: 4				
FHWA Noise Mode	l Calculation	s									
VehicleType	REMEL	Traffic Flow	Distar		Finite	Road	Fre	snel	Barrier At		rm Atter
Autos:	66.51	2.66		0.38		-1.20		-4.66		000	0.00
Medium Trucks: Heavy Trucks:	77.72 82.99	-12.89 -8.07		0.41		-1.20 -1.20		-4.87 -5.41		000	0.00
Unmitigated Noise		out Topo and	harrior :	ottonu	ation)						
	Leg Peak Hou		_	eq Eve		l ea	Night		Ldn		NEL
Autos:	68		66.2		62.7		61	.5	68.		69
Medium Trucks:	64	.0	62.4		55.1		55	i.9	63.	8	63
Heavy Trucks:	74	.1	72.2		65.4		67	.5	74.	7	74.
Vehicle Noise:	75	.5	73.5		67.5		68	3.7	76.	0	76.
Centerline Distanc	e to Noise Co	ontour (in feet	)								
				70 dE			dBA	-	60 dBA	55	5 dBA
			Ldn: VFI:	131			81		606 622		,306
				134			89				

Wednesday, October 17, 2018

	FH\	WA-RD-77-108	HIGH	HWAY	NOISE P	REDICTI	ON M	IODEL			
Road Nan	rio: Existing Wine: Cedar Av. ent: s/o Santa A	,						e: Agua r: 11215			
	SPECIFIC IN	IPUT DATA							L INPUT	s	
Highway Data					Site Con	ditions	(Hard	= 10, S	oft = 15)		
Average Daily	Traffic (Adt):	23,715 vehicl	es					Autos:	15		
Peak Hour	Percentage:	10%			Me	dium Tru	icks (2	2 Axles).	15		
Peak I	lour Volume:	2,372 vehicle	S		He	avy Truc	ks (3-	+ Axles).	15		
Ve	ehicle Speed:	40 mph			Vehicle I	Miv					
Near/Far La	ane Distance:	48 feet				icleType	T	Dav	Evening	Night	Daily
Site Data							utos:		-	18.6%	,
D.	rrier Height:	0.0 feet			Me	edium Tr	ucks:	82.2%	3.9%	14.0%	2.50%
Barrier Type (0-V		0.0			F	leavy Tr	ucks:	76.5%	4.0%	19.5%	7.60%
	ist. to Barrier:	52.0 feet									
Centerline Dist.	to Observer:	52.0 feet			Noise So			_ •	eet)		
Barrier Distance	to Observer:	0.0 feet				Autos		0.000			
Observer Height	(Above Pad):	5.0 feet				m Trucks		2.297	0		
	ad Elevation:	0.0 feet			Heav	y Trucks	E.	8.004	Grade Ad	yustment	: 0.0
Ro	ad Elevation:	0.0 feet			Lane Eq	uivalent	Dista	nce (in	feet)		
	Road Grade:	0.0%				Autos	: 4	6.400			
	Left View:	-90.0 degre	es		Mediui	n Trucks	: 4	6.209			
	Right View:	90.0 degre	es		Heav	y Trucks	:: 4	6.228			
FHWA Noise Mod	lel Calculation	ıs									
VehicleType	REMEL	Traffic Flow	Dis	stance	Finite	Road	Fre	snel	Barrier At	ten Ber	m Atten
Autos:		1.96		0.3	38	-1.20		-4.66		000	0.000
Medium Trucks:				0.4		-1.20		-4.87		000	0.000
Heavy Trucks:	82.99	-8.77		0.4	<b>1</b> 1	-1.20		-5.41	0.0	000	0.000
Unmitigated Nois											
VehicleType	Leq Peak Hou			Leq E	vening	Leq I			Ldn		NEL
Autos:			65.5		62.0		-	0.8	68.		68.4
Medium Trucks:			61.7		54.4		-	5.2	63.		63.2
Heavy Trucks:			71.5		64.7			6.8	74.	-	74.2
Vehicle Noise:	74	1.8	72.8		66.8		68	3.0	75.	3	75.5
Centerline Distan	ce to Noise C	ontour (in feet	)								
			L		dBA	65 (			60 dBA		dBA
			Ldn:		17	25			544	,	173
		C	VEL:	1	20	25	59		558	1,	202

	FHW	VA-RD-77-108	HIGH	WAY I	NOISE PE	REDICT	ION MO	DEL			
Road Nam	io: Existing Wit ne: Cedar Av. nt: s/o Jurupa	,					Name: i				
SITE	SPECIFIC IN	PUT DATA				N	IOISE N	/IODE	L INPUTS	;	
Highway Data					Site Con	ditions	(Hard =	10, S	oft = 15)		
Average Daily	Traffic (Adt):	20,881 vehicle	es				,	Autos.	15		
Peak Hour	Percentage:	10%			Me	dium Tr	ucks (2 A	(xles	15		
Peak H	lour Volume:	2,088 vehicle	S		He	avy Tru	cks (3+ A	(xles	15		
Ve	hicle Speed:	50 mph		ŀ	Vehicle I	Wiv					
Near/Far La	ne Distance:	48 feet		ŀ		icleType		Dav	Evening	Night	Daily
Site Data	Average Daily Traffic (Adt): Peak Hour Percentage: Peak Hour Volume: Quality Traffic (Adt): Peak Hour Percentage: 10% Peak Hour Volume: Quality Traffic (Adt): 10% Quality Traffic (Adt): Quality Traffic (Adt							73.29		18.6%	
Ra	rrior Hoiaht	0.0 feet			Me	edium T	rucks:	82.29	3.9%	14.0%	2.50%
					F	leavy T	rucks:	76.5%	4.0%	19.5%	7.60%
		52.0 feet			M-1 0-	5		- (! 1	41		
Centerline Dist.	to Observer:	52.0 feet			Noise So				eet)		
Barrier Distance	to Observer:	0.0 feet			A desertion	Auto n Truck		000			
Observer Height (	(Above Pad):	5.0 feet						297	Grade Adju	ictmon	- 00
Pa	ad Elevation:	0.0 feet			Heav	y Truck	s: 8.0	004	Grade Aujo	Journerin	- 0.0
Roa	ad Elevation:	0.0 feet			Lane Eq	uivalen	t Distand	ce (in	feet)		
	Road Grade:	0.0%				Auto	s: 46.4	400			
	Left View:	-90.0 degree	es		Mediur	n Truck	s: 46.2	209			
	Right View:	90.0 degree	es		Heav	y Truck	s: 46.2	228			
FHWA Noise Mod	el Calculations	S									
VehicleType	REMEL	Traffic Flow	Dis	tance	Finite	Road	Fresn	el	Barrier Atte	n Bei	rm Atten
Autos:	70.20	0.44		0.3	88	-1.20		-4.66	0.0	00	0.000
Medium Trucks:	81.00	-15.12		0.4	11	-1.20		-4.87	0.0	00	0.000
Heavy Trucks:	85.38	-10.29		0.4	11	-1.20		-5.41	0.0	00	0.000
Unmitigated Noise	e Levels (witho	out Topo and	barrie	er atter	nuation)						
VehicleType	Leq Peak Hou	r Leq Day	′	Leq E	vening	Leq	Night		Ldn	С	NEL
Autos:	69.	.8	67.7		64.2		63.0		70.3		70.6
Medium Trucks:	65.		63.4		56.2		57.0		64.8		65.0
Heavy Trucks:	74.	.3	72.3		65.5		67.7		74.9		75.0
Vehicle Noise:	76.	.0	74.0		68.2		69.2		76.5		76.7
Centerline Distant	ce to Noise Co	ntour (in feet	)								
			L		dBA		dBA		60 dBA		dBA
			Ldn:		41	-	04		655		410
		CI	VEL:	1	45	3	12		672	1,	448

	FH\	WA-RD-77-108	HIGHW	AY N	OISE PI	REDICT	ION M	DDEL			
	o: Existing W e: Rubidoux E nt: s/o Produc	3I. ,				Project Job N	Name: umber:				
	SPECIFIC IN	IPUT DATA							L INPUT	S	
Highway Data				S	Site Con	ditions	(Hard :		oft = 15)		
Average Daily	. ,	20,786 vehicle	es					Autos.			
	Percentage:	10%				dium Tri					
	our Volume:	2,079 vehicle	S		He	avy Truc	cks (3+	Axles).	15		
	hicle Speed:	50 mph		ν	/ehicle	Mix					
Near/Far Lai	ne Distance:	48 feet			Veh	icleType		Day	Evening	Night	Daily
Site Data							Autos:	73.29	8.1%	18.6%	89.90%
Rai	rier Heiaht:	0.0 feet			M	edium Ti	rucks:	82.29	3.9%	14.0%	2.50%
Barrier Type (0-W		0.0			F	leavy T	rucks:	76.5%	4.0%	19.5%	7.60%
Centerline Dis	st. to Barrier:	59.0 feet		^	Voise So	ource E	levatio	ns (in t	eet)		
Centerline Dist.	to Observer:	59.0 feet		- 1	10/30 00	Auto		.000	<i>cci)</i>		
Barrier Distance	to Observer:			Modiu	m Truck		.297				
Observer Height (.	Above Pad):	5.0 feet				y Truck		.004	Grade Ad	iuetman	t: 0.0
Pa	ad Elevation:	0.0 feet			Heav	y ITUCK	s. u	.004	Orade Adj	usuncn	i. 0.0
Ros	ad Elevation:	0.0 feet		L	.ane Eq	uivalen	t Distai	nce (in	feet)		
I	Road Grade:	0.0%				Auto	s: 54	.129			
	Left View:	-90.0 degre	es		Mediu	m Truck	s: 53	3.966			
	Right View:	90.0 degre	es		Heav	y Truck	s: 53	3.982			
FHWA Noise Mode	el Calculation	ıs									
VehicleType	REMEL	Traffic Flow	Dista	nce	Finite	Road	Fres	inel	Barrier Att	en Be	rm Atten
Autos:	70.20	0.42		-0.62	2	-1.20		-4.69	0.0	000	0.000
Medium Trucks:	81.00	-15.14		-0.60	)	-1.20		-4.88	0.0	000	0.000
Heavy Trucks:	85.38	-10.31		-0.60	)	-1.20		-5.35	0.0	000	0.000
Unmitigated Noise			barrier	atteni	uation)						
VehicleType	Leq Peak Ho			eq Ev	ening	Leq	Night		Ldn	_	NEL
Autos:	68		66.7		63.1		62		69.3		69.6
Medium Trucks:	64		62.4		55.1		56	-	63.8		64.0
Heavy Trucks: Vehicle Noise:	73 75		71.3 73.0		64.5		66 68		73.9 75.5		74.0 75.6
					07.2		00		75.0	,	75.
Centerline Distanc	e to Noise C	ontour (in feet	)	70 d	IBA .	65	dBA	1	60 dBA	5.6	5 dBA
			Ldn:	13	7	2:	94		634	1	.366

	FHV	VA-RD-77-108	HIG	HWAY	NOISE P	REDIC	TION M	ODEL			
	rio: Existing Win							: Agua			
	nt: s/o El Rivin					JOD I	vuilibei	. 11210			
SITE	SPECIFIC IN	PUT DATA					NOISE	MODE	L INPUT	S	
Highway Data					Site Co					_	
Average Daily	Traffic (Adt):	21,070 vehicl	es					Autos:	15		
Peak Hour	Percentage:	10%			Me	edium T	rucks (2	Axles).	15		
Peak H	Hour Volume:	2,107 vehicle	:S		He	eavy Tru	icks (3+	- Axles).	15		
Ve	ehicle Speed:	50 mph			Vehicle	Miv					
Near/Far La	ne Distance:	48 feet				nicleTyp	е	Day	Evening	Night	Daily
Site Data							Autos:	73.2%	8.1%	18.6%	89.90%
Ra	rrier Height:	0.0 feet			M	ledium 1	rucks:	82.2%	3.9%	14.0%	2.50%
Barrier Type (0-V		0.0				Heavy 1	rucks:	76.5%	4.0%	19.5%	7.60%
	ist. to Barrier:	59.0 feet			M-1 0		-1	/ /	4		
Centerline Dist.	to Observer:	59.0 feet			Noise S				eet)		
Barrier Distance	to Observer:	0.0 feet			14	Auto im Truci		0.000			
Observer Height	(Above Pad):	5.0 feet						2.297 3.004	Grade Ad	iustmont	
P	ad Elevation:	0.0 feet			неа	vy Truci	KS: 0	3.004	Grade Au	justinent	. 0.0
Ro	ad Elevation:	0.0 feet			Lane Eq	juivaler	nt Dista	nce (in	feet)		
	Road Grade:	0.0%				Auto	os: 5	4.129			
	Left View:	-90.0 degre	es		Mediu	ım Truci	ks: 5	3.966			
	Right View:	90.0 degre	es		Hea	vy Truci	ks: 5	3.982			
FHWA Noise Mod	lel Calculation:	s									
VehicleType	REMEL	Traffic Flow	Di	istance	Finite	Road	Fre	snel	Barrier Att	en Bei	m Atten
Autos:	70.20	0.48		-0.0	62	-1.20		-4.69	0.0	000	0.000
Medium Trucks:	81.00	-15.08		-0.0	60	-1.20		-4.88	0.0	000	0.000
Heavy Trucks:	85.38	-10.25		-0.0	60	-1.20		-5.35	0.0	000	0.000
Unmitigated Nois	e Levels (with	out Topo and	barr	ier atte	nuation)						
VehicleType	Leq Peak Hou			Leq I	Evening		Night		Ldn		NEL
Autos:			66.7		63.2		62		69.3		69.6
Medium Trucks:			62.5		55.2		56		63.9		64.0
Heavy Trucks:			71.4		64.6		66		73.9		74.1
Vehicle Noise:	75.	.0	73.0		67.2		68	3.2	75.	5	75.7
Centerline Distan	ce to Noise Co	ontour (in feet	t)								
				70	dRA	1 65	dRA	1 1	60 dBA	55	dBA

Wednesday, October 17, 2018

	FH	WA-RD-	77-108	HIGHW	AY N	DISE PI	REDICTION	ON MO	DDEL							
Road Nan	rio: Existing W ne: Rubidoux E nt: s/o 20th St	31.	roject				Project I Job Nu									
SITE	SPECIFIC IN	IPUT D	ATA				N	OISE	MODE	L INPUT	S					
Highway Data					S	ite Con	ditions (	Hard:	= 10, S	oft = 15)						
Average Daily	Traffic (Adt):	17,574	vehicle	s					Autos:	15						
Peak Hour	Percentage:	109	6			Me	dium Tru	cks (2	Axles).	15						
Peak H	Hour Volume:	1,757	vehicles			He	avy Truci	ks (3+	Axles).	15						
Ve	ehicle Speed:	50	mph		1/	ehicle	Miv									
Near/Far La	ne Distance:	48	feet		۲		icleType	Т	Dav	Evening	Night	Daily				
Site Data						****		utos:	73.2%		18.6	,				
Do.	rrier Height:	0.0	feet			М	edium Tru	ucks:	82.2%		14.0					
Barrier Type (0-V		0.0				I	Heavy Tru	ucks:	76.5%	4.0%	19.5	% 7.60%				
Centerline Di	. ,		feet				· <b>-</b>	41-	/! /	41						
Centerline Dist.	to Observer:	59.0	feet		N	orse so	ource Ele		_	eet)						
Barrier Distance	to Observer:	0.0	feet						.000							
Observer Height	(Above Pad):	5.0	feet				m Trucks		.297	Crada Ad	iiiiotmo	m4: 0 0				
P	ad Elevation:	0.0	feet			Heav	y Trucks	: 8	.004	Grade Ad,	djustment: 0.0					
Ro	ad Elevation:	0.0	feet		L	ane Eq	uivalent	Dista	nce (in	feet)						
	Road Grade:	0.0	%				Autos	: 54	.129							
	Left View:	-90.0	degree	s		Mediu	m Trucks	: 53	.966							
	Right View:	90.0	degree	·S		Heav	y Trucks	: 53	.982							
FHWA Noise Mod	lel Calculation	ıs														
VehicleType	REMEL	Traffic	Flow	Dista	nce	Finite	Road	Fres	nel	Barrier Att	en B	erm Atten				
Autos:	70.20		-0.31		-0.62		-1.20		-4.69	0.0	000	0.000				
Medium Trucks:	81.00		-15.87		-0.60		-1.20		-4.88	0.0	000	0.000				
Heavy Trucks:	85.38		-11.04		-0.60		-1.20		-5.35	0.0	000	0.000				
Unmitigated Nois	e Levels (with	out Top	oo and l	barrier	attenu	ıation)										
VehicleType	Leq Peak Hot	ur L	.eq Day	L	.eq Ev	ening	Leq N	Vight		Ldn		CNEL				
Autos:		3.1		35.9		62.4		61		68.5		68.8				
Medium Trucks:		3.3		31.7		54.4		55		63.1		63.2				
Heavy Trucks:		2.5		70.6		63.8		65		73.1		73.3				
Vehicle Noise:	74	1.2	7	72.3		66.4		67	.4	74.7	7	74.9				
Centerline Distan	ce to Noise C	ontour (	(in feet)		==0											
			,		70 di		65 a			60 dBA 567		55 dBA				
				_dn: IFI :	122	-	26	-		567 582		1,222 1,254				
			CN	ICL.	12	)	21	U		302		1,204				

	FHW	/A-RD-77-108	HIGH	1 YAW	NOISE PE	REDICT	ION MO	DEL			-
Road Nam	rio: Existing Wit ne: Rubidoux B nt: s/o 24th St.						Name: . lumber:				
SITE	SPECIFIC IN	PUT DATA				N	IOISE N	/IODE	L INPUTS	5	
Highway Data					Site Con	ditions	(Hard =	10, S	oft = 15)		
Average Daily	Traffic (Adt):	18,519 vehicle	es					Autos.	15		
Peak Hour	Percentage:	10%			Me	dium Tr	ucks (2 A	(xles	: 15		
Peak F	lour Volume:	1,852 vehicle	S		He	avy Tru	cks (3+ A	(xles	: 15		
Ve	hicle Speed:	50 mph		F	Vehicle I	Miv					
Near/Far La	ne Distance:	48 feet		F		cleType	,	Dav	Evening	Night	Daily
Site Data	Average Daily Traffic (Adt): Peak Hour Percentage: Peak Hour Volume: Vehicle Speed: Near/Far Lane Distance: 1,852 vehicles 50 mph 48 feet  te Data  Barrier Height: Barrier Type (0-Wall, 1-Berm): Centerline Dist. to Barrier: Centerline Dist. to Observer: Diserver Height (Above Pad): Pad Elevation: Road Elevation: Road Elevation: Road Grade: Left View: Right View: 90.0 degrees 4WA Noise Model Calculations							73.29		18.6%	,
Ra	rrior Hoiaht	0.0 feet			Me	edium T	rucks:	82.29	6 3.9%	14.0%	2.50%
					F	leavy T	rucks:	76.5%	6 4.0%	19.5%	7.60%
		59.0 feet		-	Naisa Ca	uraa E	lovotion	o (in t	io o 4 l		
Centerline Dist.	to Observer:	59.0 feet			Noise So	Auto			eet)		
Barrier Distance	to Observer:	0.0 feet			A desertion	Auto n Truck		000			
Observer Height	(Above Pad):	5.0 feet						297 104	Grade Adj	iictmon	+ 00
P	ad Elevation:	0.0 feet			Heav	y Truck	S: 8.0	JU4	Grade Auj	usunen	L. U.U
Ro	ad Elevation:	0.0 feet			Lane Eq	uivalen	t Distan	ce (in	feet)		
	Road Grade:	0.0%				Auto	s: 54.	129			
	Left View:	-90.0 degree	es		Mediur	n Truck	s: 53.	966			
	Right View:	90.0 degree	es		Heav	y Truck	s: 53.	982			
FHWA Noise Mod	el Calculations	;									
VehicleType	REMEL	Traffic Flow	Dist	tance	Finite	Road	Fresn	el	Barrier Atte	en Be	rm Atten
Autos:	70.20	-0.08		-0.6	62	-1.20		-4.69	0.0	00	0.000
Medium Trucks:	81.00	-15.64		-0.6	60	-1.20		-4.88	0.0	00	0.000
Heavy Trucks:	85.38	-10.81		-0.6	0	-1.20		-5.35	0.0	00	0.000
<b>Unmitigated Nois</b>	e Levels (witho	out Topo and	barrie	er atter	nuation)						
VehicleType	Leq Peak Hou			Leq E	vening	Leq	Night		Ldn		NEL
Autos:	68.		66.2		62.6		61.5		68.8		69.1
Medium Trucks:		-	61.9		54.6		55.5		63.3		63.5
Heavy Trucks:			70.8		64.0		66.1		73.4		73.5
Vehicle Noise:	74.	5	72.5		66.7		67.7		75.0		75.1
Centerline Distan	ce to Noise Co	ntour (in feet	)					_			
			L		dBA		dBA		60 dBA		5 dBA
			Ldn:		27	_	73		587		,265
		CI	VEL:	1:	30	2	80		603	1	,299

		WA-RD-77-108	HIG	A YAWH	IOISE P						
	o: Existing Wi e: Rubidoux E nt: s/o 28th St	BI.						: Agua I : 11215	Vlansa		
SITE S	SPECIFIC IN	IPUT DATA				ı	IOISE	MODE	L INPUT	s	
Highway Data					Site Cor	nditions	(Hard	= 10, Sc	oft = 15)		
Average Daily	Traffic (Adt):	20,597 vehicl	es					Autos:	15		
Peak Hour I	Percentage:	10%			Me	edium Tr	ucks (2	Axles):	15		
Peak He	our Volume:	2,060 vehicle	s		He	avy Tru	cks (3+	Axles):	15		
Vel	hicle Speed:	50 mph			Vehicle	Mix					
Near/Far Lar	ne Distance:	48 feet		F		icleType		Day	Evening	Night	Daily
Site Data							Autos:	73.2%	8.1%	18.6%	89.90%
Rar	rier Height:	0.0 feet			М	edium T	rucks:	82.2%	3.9%	14.0%	2.50%
Barrier Type (0-Wa		0.0				Heavy T	rucks:	76.5%	4.0%	19.5%	7.60%
Centerline Dis	st. to Barrier:	59.0 feet		-	Noise S	ource F	levatio	ns (in f	eet)		
Centerline Dist. t	to Observer:	59.0 feet		F.		Auto		0.000	001)		
Barrier Distance t	to Observer:	0.0 feet			Mediu	m Truck		2.297			
Observer Height (/	Above Pad):	5.0 feet				vv Truck		3.004	Grade Ad	iustment	0.0
Pa	L		,								
Roa	ad Elevation:	0.0 feet			Lane Eq				feet)		
F	Road Grade:	0.0%				Auto		1.129			
	Left View:	-90.0 degre	es			m Truck		3.966			
	Right View:	90.0 degre	es		Hear	vy Truck	s: 50	3.982			
FHWA Noise Mode	el Calculation	s									
VehicleType	REMEL	Traffic Flow		stance		Road	Fres		Barrier Att		m Atten
Autos:	70.20	0.38		-0.6	_	-1.20		-4.69		000	0.00
Medium Trucks:	81.00	-15.18		-0.6		-1.20		-4.88		000	0.00
Heavy Trucks:	85.38	-10.35		-0.6	0	-1.20		-5.35	0.0	000	0.00
Unmitigated Noise											
	Leq Peak Hou			Leq E	vening		Night		Ldn		NEL
Autos:	68		66.6		63.1		61		69.2		69.
Medium Trucks:	64		62.4		55.1		55		63.8		63.9
Heavy Trucks: Vehicle Noise:	73 74		71.3 72.9		64.5 67.1		66 68		73.8 75.4		74.0 75.0
					07.1		00		10.4	•	13.
Centerline Distanc	e to Noise C	ontour (in fee	t)	70.0	dBA	65	dBA	-	60 dBA	55	dBA
			Ldn:	13			93		630		358

	FHV	/A-RD-77-108	HIGHW	AY NO	DISE PF	REDICT	ION MO	DEL							
Scenario: Ex Road Name: Ru Road Segment: s/o	bidoux B						t Name: lumber:								
SITE SPEC	IFIC IN	PUT DATA								S					
Average Daily Traffic Peak Hour Perce Peak Hour Vo	ntage:	19,086 vehicle 10% 1,909 vehicle		3	Me	dium Tı	•	Autos: Axles):	15 15						
Vehicle S	,	50 mph		V	ehicle l	Mix									
Near/Far Lane Dis	tance:	48 feet			Vehi	icleType	9	Day	5  Set INPUTS  Soft = 15)  S: 15  S): 15  S:						
Site Data					Autos:	73.2%	8.1%	18.6%	89.90%						
Barrier H Barrier Type (0-Wall, 1-I		0.0 feet 0.0				edium T Heavy T		82.2% 76.5%							
Centerline Dist. to E		59.0 feet		-											
Centerline Dist. to Obs		59.0 feet		N	oise Sc				eet)						
Barrier Distance to Obs	server:	0.0 feet				Auto		000							
Observer Height (Above	server Height (Above Pad): 5.0 feet					n Truck v Truck		297 004	Grado Ad	iustmon					
Pad Ele	Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet						S: 8.	004	Grade Au	jusurierii	. 0.0				
Road Ele	vation:	0.0 feet		L	ane Eq	uivalen	t Distan	ce (in	feet)						
Road (	Grade:	0.0%				Auto	s: 54.	129							
Left	t View:	-90.0 degree	es		Mediur	n Truck	s: 53.	966							
Right	t View:	90.0 degree	es		Heav	y Truck	s: 53.	982							
FHWA Noise Model Cale	culations														
	MEL	Traffic Flow	Dista		Finite	Road	Fresr								
Autos:	70.20	0.05		-0.62		-1.20		-4.69			0.00				
Medium Trucks:	81.00	-15.51		-0.60		-1.20		-4.88			0.00				
Heavy Trucks:	85.38	-10.68		-0.60		-1.20		-5.35	0.0	000	0.00				
Unmitigated Noise Leve	_														
VehicleType Leq F	Peak Hou 68.		66.3	eq Eve	ening 62.8	Leq	Night 61.6				NEL 69.:				
Medium Trucks:	63.	-	62.0		54.8		55.6	-	63.4	-	63.				
Heavy Trucks:	72.	-	70.9		64.1		66.3		73.5		73.				
Vehicle Noise:	74.	•	72.6		66.8		67.8		75.		75.				
Centerline Distance to I	Voise Co	ntour (in feet	)												
	00			70 dl	BA	65	dBA		60 dBA	55	dBA				
			Ldn:	400			70		F00		.291				
			LUII.	129	,	2	78		599	1,	,291				

Wednesday, October 17, 2018

	FH'	WA-RD-77-108	HIGHWA	Y NC	ISE PREDIC	TION N	MODEL						
Road Nan	rio: Existing W ne: Rubidoux I nt: s/o SR-60	BI.					e: Agua l r: 11215						
	SPECIFIC II	NPUT DATA						L INPUT	S				
Highway Data				Si	te Condition	s (Haro	$I = 10, S_0$	oft = 15)					
Average Daily	Traffic (Adt):	23,810 vehicle	es				Autos:	15					
Peak Hour	Percentage:	10%			Medium 7								
Peak F	Hour Volume:	2,381 vehicle	s		Heavy Tr	ucks (3	+ Axles):	15					
Ve	ehicle Speed:	50 mph		V	ehicle Mix								
Near/Far La	ne Distance:	48 feet		F	VehicleTyp	е	Dav	Evening	Night	Daily			
Site Data					Autos: 73.2% 8.1% 18.6% 89								
Pa	rrier Height:	0.0 feet			Medium Trucks: 82.2% 3.9% 14.0% 2.50%								
Barrier Type (0-V		0.0			Heavy	Trucks.	76.5%	4.0%	19.5%	7.60%			
,,,,,	ist. to Barrier:	59.0 feet		١.	Noise Source Elevations (in feet)								
Centerline Dist.	to Observer:	59.0 feet		N				eet)					
Barrier Distance	to Observer:	0.0 feet			Aut Medium Truc		0.000						
Observer Height	(Above Pad):	5.0 feet					2.297	Crada As	livotmont				
P	ad Elevation:	0.0 feet			Heavy Truc	KS:	8.004	Grade Ad	jusimeni.	0.0			
Ro	ad Elevation:	0.0 feet		Lá	ane Equivale	nt Dist	ance (in	feet)					
	Road Grade:	0.0%			Aut	os: t	54.129						
	Left View:	-90.0 degree	es		Medium Truc	ks:	3.966						
	Right View:	90.0 degree	es		Heavy Truc	ks:	53.982						
FHWA Noise Mod													
VehicleType	REMEL	Traffic Flow	Distan		Finite Road		esnel	Barrier At		m Atten			
Autos:				0.62	-1.20		-4.69		000	0.000			
Medium Trucks:				0.60	-1.20		-4.88		000	0.000			
Heavy Trucks:				0.60	-1.20	)	-5.35	0.0	000	0.000			
Unmitigated Nois													
VehicleType	Leq Peak Ho	, ,		q Eve		q Night		Ldn		VEL			
Autos:			67.3		63.7	-	2.6	69.		70.1			
Medium Trucks:	-		63.0		55.7	-	6.6	64.		64.5			
Heavy Trucks:			71.9		65.1		7.2	74.	_	74.6			
Vehicle Noise:			73.6		67.8	6	8.8	76.	1	76.2			
Centerline Distan	ce to Noise C	ontour (in feet		70 dE	2Δ 6	5 dRA		SO dBA	EE.	dRΔ			
			I dn:	150	70 dBA 65 dBA 60 dBA 55 d 150 322 694 1.49			496					
			VFI:	154		331		713	,	535			

Wednesday, October 17, 2018

	FH\	WA-RD-77-108	HIGHV	1 YAV	NOISE P	REDICT	ION MC	DEL				
Road Nai	rio: Existing W me: Rubidoux E ent: s/o 34th St	3I.					t Name: lumber:		Mansa			
	SPECIFIC IN	NPUT DATA							L INPUT	s		
Highway Data					Site Cor	ditions	(Hard =	= 10, S	oft = 15)			
Average Daily	Traffic (Adt):	18,141 vehicle	es					Autos:	15			
Peak Hou	r Percentage:	10%			Me	dium Tr	ucks (2	Axles):	15			
Peak	Hour Volume:	1,814 vehicle	s		He	avy Tru	cks (3+	Axles):	15			
V	ehicle Speed:	50 mph		H	Vehicle	Mix						
Near/Far L	ane Distance:	48 feet		F		icleType	9	Dav	Evening	Night	Daily	
Site Data					Autos: 73.2% 8.1% 18.6% 89.9							
R:	arrier Height:	0.0 feet			Medium Trucks: 82.2% 3.9% 14.0% 2.50							
Barrier Type (0-1		0.0			1	Heavy T	rucks:	76.5%	4.0%	19.5%	6 7.60%	
	ist. to Barrier:	59.0 feet		-	Noise Source Elevations (in feet)							
Centerline Dist	to Observer:		-	Noise Source Elevations (in feet)  Autos: 0.000								
Barrier Distance	to Observer:	0.0 feet										
Observer Height	(Above Pad):	5.0 feet			Medium Trucks: 2.297 Heavy Trucks: 8.004 Grade Adjustment: 0.0							
F	Pad Elevation:	0.0 feet			Heav	ry Truck	s: 8.	.004	Grade Adj	usunen	u. 0.0	
Ro	ad Elevation:	0.0 feet			Lane Eq	uivalen	t Distan	ce (in	feet)			
	Road Grade:	0.0%				Auto	s: 54	.129				
	Left View:	-90.0 degre	es		Mediu	m Truck	s: 53	.966				
	Right View:	90.0 degre	es		Heavy Trucks: 53.982							
FHWA Noise Mod	del Calculation	ıs										
VehicleType	REMEL	Traffic Flow	Dista			Road	Fres		Barrier Att	_	erm Atten	
Autos				-0.6		-1.20		-4.69		000	0.000	
Medium Trucks				-0.6	-	-1.20		-4.88		000	0.000	
Heavy Trucks	85.38	-10.90		-0.6	0	-1.20		-5.35	0.0	000	0.000	
Unmitigated Nois	e Levels (with	out Topo and	barrier	atter	nuation)							
VehicleType	Leq Peak Hou			Leq E	vening	Leq	Night		Ldn		CNEL	
Autos			66.1		62.5		61.		68.7		69.0	
Medium Trucks			61.8		54.6		55.		63.2	-	63.4	
Heavy Trucks Vehicle Noise			70.7 72.4		63.9 66.6		66. 67.		73.3 74.9		73.4 75.0	
		•••			00.0		67.	ь	74.8	,	75.0	
Centerline Distar	ice to Noise C	ontour (in feet	,	70	dRΔ	6E	dBA		50 dBA	5	5 dBA	
			I dn:				.248					
			VEL:					.281				
		C	VLL.	1.	128 276 595					,201		

	FH	WA-RD-77-108	HIGH	IWAY N	IOISE P	REDICT	ION MOD	EL					
	e: Rivera St.	ithout Project St.					t Name: A lumber: 1		nsa				
SITE S	SPECIFIC IN	IPUT DATA				1	NOISE M	ODEL	INPUTS				
Highway Data					Site Cor	nditions	(Hard = 1	0, Soft	= 15)				
Average Daily	Traffic (Adt):	8,692 vehicl	es				A	ıtos:	15				
Peak Hour I	Percentage:	10%			Me	edium Tr	ucks (2 Ax	les):	15				
Peak He	our Volume:	869 vehicle	s		He	avy Tru	cks (3+ Ax	les):	15				
Vel	nicle Speed:	30 mph			Vehicle	Miss							
Near/Far Lar	ne Distance:	12 feet				iviix nicleType	) [	ay E	vening Ni	ght	Daily		
Site Data				-	Veri			ay L		B.6%	89.90%		
		0.0 feet			М	edium T		2.2%		4.0%	2.50%		
Barrier Type (0-Wa	rier Height:	0.0 reet			Heavy Trucks: 76.5% 4.0% 19.5% 7.60°								
Centerline Dis		33.0 feet			,								
Centerline Dist. t		33.0 feet		1	Noise Source Elevations (in feet)								
		0.0 feet		Autos: 0.000									
	Barrier Distance to Observer: 0.0 feet bserver Height (Above Pad): 5.0 feet						s: 2.29	7					
	d Flevation:	0.0 feet			Heav	vy Truck	s: 8.00	4 G	rade Adjust	ment:	0.0		
	d Elevation:	0.0 feet		-	Lane Ed	uivalen	t Distance	(in fee	et)				
	Road Grade:	0.0%		F		Auto		•	/				
,	Left View:	-90.0 degre	00		Mediu	m Truck							
	Right View:	90.0 degre				vy Truck							
FHWA Noise Mode	l Calculation	IS											
VehicleType	REMEL	Traffic Flow	Dis	tance	Finite	Road	Fresne	l Ba	arrier Atten	Berr	n Atten		
Autos:	61.75	-1.15		2.64	4	-1.20	-4	1.52	0.000		0.000		
Medium Trucks:	73.48	-16.71		2.69	9	-1.20	-4	1.86	0.000		0.000		
Heavy Trucks:	79.92	-11.88		2.69	9	-1.20		5.69	0.000		0.000		
Unmitigated Noise	Levels (with	out Topo and	barrie	er atten	uation)								
VehicleType	Leq Peak Ho	ur Leq Daj	/	Leg E	vening .	Leq	Night	L	dn	C٨	EL		
Autos:	62	2.0	59.9		56.4		55.2		62.5		62.8		
Medium Trucks:	Medium Trucks: 58.3 56.6						50.2		58.0		58.2		
Heavy Trucks:							62.9		70.1		70.3		
Vehicle Noise:	70	).5	68.5		62.3		63.8		71.0		71.2		
Centerline Distanc	e to Noise C	ontour (in fee	t)	700	10.4						10.4		
				70 c		65 dBA 60 dBA 55 dB 83 180 388							
	Ldn:												
		C	NEL:	40	U		36	18	84	39	17		

	FHW	A-RD-77-108 H	HIGHWAY	NOISE P	REDICTION	ON MODE	L		
Road Nan	io: Existing With ne: Cactus Av. nt: n/o El Rivino	,				Name: Agu umber: 112			
	SPECIFIC INF	PUT DATA					DEL INPUT	S	
Highway Data				Site Con	ditions (	Hard = 10,	Soft = 15)		
Average Daily	Traffic (Adt):	2,929 vehicles	S			Aut	os: 15		
Peak Hour	Percentage:	10%		Me	dium Tru	icks (2 Axle	s): 15		
Peak F	lour Volume:	293 vehicles		He	avy Truc	ks (3+ Axle	s): 15		
Ve	hicle Speed:	40 mph		Vehicle I	Mix				
Near/Far La	ne Distance:	11 feet			icleType	Da	y Evening	Night	Daily
Site Data					Α	utos: 73.	2% 8.1%	18.6%	89.90%
Ra	rrier Height:	0.0 feet		Me	edium Tri	ucks: 82.	2% 3.9%	14.0%	2.50%
Barrier Type (0-W		0.0		F	leavy Tri	ucks: 76.	5% 4.0%	19.5%	7.60%
Centerline Di	st. to Barrier:	30.0 feet		Noiso Sa	urco Ek	evations (i	n foot)		
Centerline Dist.	to Observer:	30.0 feet		NOISE SC	Autos				
Barrier Distance	to Observer:	0.0 feet		Modiu	n Trucks				
Observer Height	(Above Pad):	5.0 feet			v Trucks			diustment	. 0.0
P	ad Elevation:	0.0 feet						, ao am	. 0.0
Ro	ad Elevation:	0.0 feet		Lane Eq	uivalent	Distance (	in feet)		
	Road Grade:	0.0%			Autos	: 29.912			
	Left View:	-90.0 degrees	S	Mediui	m Trucks	29.615			
	Right View:	90.0 degrees	S	Heav	y Trucks	29.644			
FHWA Noise Mod	el Calculations			l					
VehicleType	REMEL	Traffic Flow	Distance	Finite	Road	Fresnel	Barrier At	ten Bei	m Atten
Autos:	66.51	-7.12	3.	24	-1.20	-4.4	<i>19</i> 0.	000	0.000
Medium Trucks:	77.72	-22.68	3.	31	-1.20	-4.8	36 0.	000	0.000
Heavy Trucks:	82.99	-17.85	3.	30	-1.20	-5.7	77 0.	000	0.000
<b>Unmitigated Nois</b>	e Levels (witho	ut Topo and b	arrier atte	nuation)					
VehicleType	Leq Peak Hour			Evening	Leq 1		Ldn		NEL
Autos:	61.4		9.3	55.8		54.6	61.	-	62.2
Medium Trucks:	57.1		5.5	48.2		49.1	56.		57.0
Heavy Trucks:	67.2	2 6	5.3	58.5		60.6	67.	8	68.0
Vehicle Noise:	68.6	6	6.6	60.6		61.8	69.	1	69.3
Centerline Distan	ce to Noise Co	ntour (in feet)							

Wednesday, October 17, 2018

	FH\	WA-RD-77-108	HIGH	HWAY	NOISE PI	REDICT	ION M	ODEL				
Road Nan	rio: Existing Wine: Riverside Ant: n/o I-10 Fw	۸v.						: Agua I : 11215				
SITE	SPECIFIC IN	IPUT DATA							L INPUT	S		
Highway Data					Site Con	ditions	(Hard	= 10, S	oft = 15)			
Average Daily	Traffic (Adt):	37,604 vehicle	es					Autos:	15			
Peak Hour	Percentage:	10%			Me	dium Tru	icks (2	Axles):	15			
Peak I	Hour Volume:	3,760 vehicle	S		He	avy Truc	cks (3+	Axles):	15			
Ve	ehicle Speed:	40 mph			Vehicle	Miss						
Near/Far La	ane Distance:	50 feet				icleType	. 1	Day	Evening	Night	Daily	
Site Data							Autos:	73.2%	-	18.6%	,	
	rrier Heiaht:	0.0 feet			М	edium Tı		82.2%		14.0%		
Barrier Type (0-V		0.0 feet			- 1	Heavy Ti	ucks:	76.5%	4.0%	19.5%	7.60%	
	ist. to Barrier:	60.0 feet										
Centerline Dist.	to Observer:	60.0 feet			Noise Source Elevations (in feet)							
Barrier Distance				Auto		0.000						
Observer Height	(Above Pad):	5.0 feet			Medium Trucks: 2.297 Heavy Trucks: 8.004 Grade Adjustment: 0.0							
	ad Flevation:	0.0 feet			Heav	y Truck	S: 8	3.004	Grade Ad	justment	: 0.0	
Ro	ad Elevation:	0.0 feet			Lane Eq	uivalent	Dista	nce (in	feet)			
	Road Grade:	0.0%				Auto	s: 5	1.772				
	Left View:	-90.0 degree	es		Mediu	m Truck	s: 5	4.610				
	Right View:	90.0 degree	es		Heavy Trucks: 54.626							
FHWA Noise Mod												
VehicleType	REMEL	Traffic Flow	Dis	stance		Road	Fre.	snel	Barrier Att		m Atten	
Autos:		3.96		-0.7	-	-1.20		-4.69		000	0.000	
Medium Trucks:				-0.6		-1.20		-4.88		000	0.000	
Heavy Trucks:	82.99	-6.77		-0.6	88	-1.20		-5.34	0.0	000	0.000	
Unmitigated Nois	e Levels (with	out Topo and	barri	er atte	nuation)							
VehicleType	Leq Peak Hou	ur Leq Day	′	Leq E	vening	Leq	Night		Ldn	C	NEL	
Autos:			66.4 62.6		62.9		61		69.	•	69.3	
Medium Trucks:		55.3		56	-	64.0	-	64.1				
Heavy Trucks:	74	1.3	72.4							75.1		
Vehicle Noise:	75	5.7	73.7		67.7		68	.9	76.2	2	76.4	
Centerline Distan	ce to Noise C	ontour (in feet	)									
	-	-			dBA		dBA	(	60 dBA	55	dBA	
	Ldn:					336 723 1,557						
		Ci	VEL:	1	60	34	44		741	1,	597	

	FHW	/A-RD-77-108	HIGHWA	AY N	IOISE P	REDICT	ION MO	DEL			
Road Nam	io: Existing With ne: Riverside Av nt: s/o I-10 Fwy	<i>'</i> .					Name: lumber:				
SITE	SPECIFIC IN	PUT DATA				1	IOISE I	иоdi	L INPUT	S	
Highway Data					Site Cor	ditions	(Hard =	10, S	oft = 15)		
Average Daily	Traffic (Adt):	38,738 vehicle	es					Autos	: 15		
Peak Hour	Percentage:	10%			Me	dium Tr	ucks (2 /	Axles)	: 15		
Peak F	lour Volume:	3,874 vehicle	S		He	avy Tru	cks (3+ /	Axles)	: 15		
Ve	hicle Speed:	50 mph		H	Vehicle	Miv					
Near/Far La	ne Distance:	50 feet		H		icleType		Dav	Evening	Night	Daily
Site Data							Autos:	73.29		18.69	
Pa	rrier Height:	0.0 feet			М	edium T	rucks:	82.29	6 3.9%	14.09	6 2.50%
Barrier Type (0-W		0.0 feet				Heavy T	rucks:	76.59	6 4.0%	19.59	6 7.60%
Centerline Di		60.0 feet		-  -							
Centerline Dist.	to Observer:	60.0 feet		1	Noise S				eet)		
Barrier Distance	to Observer:	0.0 feet				Auto		000			
Observer Height	(Above Pad):	5.0 feet				m Truck		297	0		4.00
	ad Elevation:	0.0 feet			Heav	y Truck	s: 8.	004	Grade Adj	ustmer	t: 0.0
Ro	ad Elevation:	0.0 feet			Lane Eq	uivalen	t Distan	ce (in	feet)		
	Road Grade:	0.0%		Ī		Auto	s: 54.	772			
	Left View:	-90.0 degree	es		Mediu	m Truck	s: 54.	610			
	Right View:	90.0 degree			Heav	y Truck	s: 54.	626			
FHWA Noise Mod	el Calculations	;									
VehicleType	REMEL	Traffic Flow	Distan	се	Finite	Road	Fresr	nel	Barrier Atte	en Be	erm Atten
Autos:	70.20	3.12		-0.7	0	-1.20		-4.69	0.0	000	0.000
Medium Trucks:	81.00	-12.43		-0.6	8	-1.20		-4.88	0.0	000	0.000
Heavy Trucks:	85.38	-7.61		-0.6	8	-1.20		-5.34	0.0	000	0.000
Unmitigated Nois	e Levels (witho	ut Topo and	barrier a	tten	uation)						
VehicleType	Leq Peak Hour	Leq Day	Le	eq E	vening	Leq	Night		Ldn	(	CNEL
Autos:	71.	4	69.3		65.8		64.6	6	71.9	)	72.2
Medium Trucks:	66.	7	65.0		57.8		58.6	6	66.4	ļ	66.6
Heavy Trucks:	75.	9	73.9		67.1		69.3	3	76.5	5	76.6
Vehicle Noise:	77.	6	75.6		69.8		70.8	3	78.1		78.3
Centerline Distan	ce to Noise Co	ntour (in feet	)								
				70 0	dBA	65	dBA		60 dBA	5.	5 dBA
			Ldn:	20	08	4	48		965	2	2,080
		CI	VEL:	21	13	4	60		991	2	2,135

	FHV	VA-RD-77-108	HIGH	1 YAWH	NOISE P	REDICT	ION M	ODEL					
	o: Existing Wi e: Riverside A nt: s/o Santa A	٧.						: Agua   : 11215					
SITE S	SPECIFIC IN	PUT DATA				N	IOISE	MODE	L INPUT	S			
Highway Data					Site Cor	nditions	(Hard	= 10, S	oft = 15)				
Average Daily	Traffic (Adt):	27,967 vehicl	es					Autos:	15				
Peak Hour	Percentage:	10%			Me	edium Tr	ucks (2	Axles):	15				
Peak H	our Volume:	2,797 vehicle	s		He	avy Tru	cks (3+	Axles):	15				
Vei	hicle Speed:	55 mph		H	Vehicle	Mix							
Near/Far Lar	ne Distance:	52 feet		-		icleType	9	Day	Evening	Night	Daily		
Site Data					Autos: 73.2% 8.1% 18.6% 8								
Ran	rier Heiaht:	0.0 feet			Medium Trucks: 82.2% 3.9% 14.0% 2.50								
Barrier Type (0-W	all, 1-Berm):	0.0			Heavy Trucks: 76.5% 4.0% 19.5% 7.60%								
Centerline Dis		52.0 feet 52.0 feet		Ī	Noise Source Elevations (in feet)								
Centerline Dist.			Autos: 0.000										
Barrier Distance			Medium Trucks: 2.297										
Observer Height (	,	5.0 feet			Hear	vy Truck	s: 8	3.004	Grade Ad	iustmen	t: 0.0		
	d Elevation:	0.0 feet		ŀ	Lane Eq	ialan	4 Dioto	naa (in	foot)				
	ad Elevation:	0.0 feet			Lane Eq	Auto			ieei)				
ŀ	Road Grade:	0.0%			A 4 45 -	Auto m Truck		5.310 5.114					
	Left View:	-90.0 degre				m rruck vy Truck		5.114					
	Right View:	90.0 degre	es		пеа	vy Truck	8. 40	0.100					
FHWA Noise Mode													
VehicleType	REMEL	Traffic Flow	Dis	stance		Road	Fres				rm Atten		
Autos:	71.78	1.30		0.5		-1.20					0.000		
Medium Trucks:	82.40	-14.26		0.5		-1.20 -1.20					0.000		
Heavy Trucks:	86.40	-9.43		0.5	-	-1.20		-5.41	0.0	000	0.000		
Unmitigated Noise			_			10-	Ninh	-	I do		NE		
VehicleType Autos:	Leq Peak Hou		70.3	Leq E	vening 66.7	,	Night	6	-		;NEL 73.2		
Medium Trucks:	67		65.9		58.6						73.2 67.4		
Heavy Trucks:	76		74.4		67.6						77.1		
Vehicle Noise:	78		76.2		70.5						78.9		
Centerline Distance	e to Noise Co	ontour (in fee	t)										
				70	dBA	65	dBA		60 dBA	55	5 dBA		
	Ldn:				98	426 917 1,9			,976				
		C	NEL:	2	03	4	37	-4.66 0.000 -4.87 0.000 -5.41 0.000  t Lan CNE 55.6 72.9 59.4 67.2 99.7 76.9 71.4 78.7			,029		

	FHW	A-RD-77-108	HIGH	WAY N	OISE P	REDIC	TION MO	DDEL			
Road Name	o: Existing With e: Riverside Av t: s/o Slover Av						t Name: Number:		Mansa		
	SPECIFIC INF	PUT DATA							L INPUT	S	
Highway Data				5	Site Cor	nditions	(Hard:	= 10, S	oft = 15)		
Average Daily 1	Fraffic (Adt): 3	36,093 vehicle	es					Autos:	15		
Peak Hour I	Percentage:	10%			Me	dium T	rucks (2	Axles):	15		
Peak Ho	our Volume: 3	3,609 vehicles	3		He	avy Tru	ıcks (3+	Axles):	15		
Vel	nicle Speed:	50 mph		1	/ehicle	Mix					
Near/Far Lar	e Distance:	52 feet				icleTyp	е	Day	Evening	Night	Daily
Site Data							Autos:	73.2%	8.1%	18.6%	89.909
Ran	rier Height:	0.0 feet			М	edium 1	rucks:	82.2%	3.9%	14.0%	2.50%
Barrier Type (0-Wa	all, 1-Berm):	0.0			1	Heavy T	rucks:	76.5%	4.0%	19.5%	7.609
Centerline Dis		52.0 feet		1	Voise S	ource E	levatio	ns (in f	eet)		
Centerline Dist. t		52.0 feet				Auto	os: 0	.000			
Barrier Distance t		0.0 feet			Mediu	m Truci	ks: 2	.297			
Observer Height (/	,	5.0 feet			Heavy Trucks: 8.004 Grade Adjustment: 0.0						
	d Elevation:	0.0 feet		ļ.,		•					
	d Elevation:	0.0 feet		1	.ane Eq				reet)		
F	Road Grade:	0.0%				Auto		.310			
	Left View:	-90.0 degree				m Truci		.114			
	Right View:	90.0 degree	es		Heal	y Truci	ks: 45	.133			
FHWA Noise Mode											
VehicleType		Traffic Flow	Dis	tance		Road	Fres		Barrier Att		m Atten
Autos:	70.20	2.82		0.54		-1.20		-4.66		000	0.00
Medium Trucks:	81.00	-12.74		0.57		-1.20		-4.87		000	0.00
Heavy Trucks:	85.38	-7.91		0.56		-1.20		-5.41	0.0	000	0.00
Unmitigated Noise VehicleType	Levels (witho Leg Peak Hour					100	. Nicolat	1	Ldn		NEL
Autos:	22.4 72.4		70.2	Leq Ev	66.7	Lec	Night 65	5	72.8		73.
Medium Trucks:	67.6		66.0		58.7		59	-	67.4	-	67.
Heavy Trucks:	76.8	-	74.9		68.1		70.	-	77.4	•	77.
Vehicle Noise:	78.5		76.5		70.7		71.		79.0		79.
Centerline Distanc	e to Noise Cor	ntour (in feet	)								
				70 a	IBA	65	dBA	- (	60 dBA	55	dBA
	La				208 448 966		2,	080			
	CNFI:					214 460 991 2,					

Wednesday, October 17, 2018

	FH\	WA-RD-77-108	HIGH	IWAY	NOISE PI	REDICT	ION M	ODEL				
Road Nan	rio: Existing Wine: Riverside Ant: s/o Jurupa	۱v.						: Agua : 11215				
SITE	SPECIFIC IN	IPUT DATA							L INPUT	s		
Highway Data					Site Con	ditions	(Hard	= 10, S	oft = 15)			
Average Daily	Traffic (Adt):	32,691 vehicle	es					Autos	15			
Peak Hour	Percentage:	10%			Me	dium Tr	ucks (2	Axles).	15			
Peak F	Hour Volume:	3,269 vehicle	s		He	avy Tru	cks (3+	Axles).	15			
Ve	hicle Speed:	55 mph			Vehicle	Miss						
Near/Far La	ne Distance:	52 feet				icleType		Day	Evening	Night	Daily	
Site Data					VEII		Autos:	73.2%		18.6%	,	
					14	, edium T		82.2%		14.0%		
	rrier Height:	0.0 feet				Heavy T		76.5%		19.5%		
Barrier Type (0-V	. ,	0.0 52.0 feet				icavy i	rucns.	10.07	U 4.070	13.570	7.0070	
Centerline Dist.		52.0 feet			Noise Source Elevations (in feet)							
Barrier Distance			Autos: 0.000									
		0.0 feet			Medium Trucks: 2.297							
Observer Height	(Above Pad): ad Flevation:	5.0 feet 0.0 feet			Heav	y Truck	s: 8	3.004	Grade Ad	justment	0.0	
	ad Elevation: ad Flevation:	0.0 feet			Lane Eq	uivalon	t Nieta	nce (in	foot)			
	aa Elevation: Road Grade:	0.0 reet 0.0%			Lane Ly	Auto		5.310	icci)			
	l eft View:				Modiu	m Truck		5.114				
		-90.0 degree			Heavy Trucks: 45.113							
	Right View:	90.0 degree	es		пеач	ry Truck	8. 4	5.133				
HWA Noise Mod	lel Calculation	s										
VehicleType	REMEL	Traffic Flow	Dis	stance		Road	Fre	snel	Barrier Att		m Atten	
Autos:		1.97		0.5		-1.20		-4.66		000	0.000	
Medium Trucks:				0.5		-1.20		-4.87		000	0.000	
Heavy Trucks:	86.40	-8.76		0.5	56	-1.20		-5.41	0.0	000	0.000	
Unmitigated Nois	e Levels (with	out Topo and	barri	er atte	nuation)							
VehicleType	Leq Peak Hou	, ,		Leq E	vening	Leq	Night		Ldn		NEL	
Autos:			70.9 66.5		67.4		66		73.6	-	73.8	
Medium Trucks:		59.3		60		67.9	-	68.1				
Heavy Trucks:	77	.0	75.0		68.2		70	.4	77.6	6	77.7	
Vehicle Noise:	78	1.9	76.9		71.2		72	.1	79.4	4	79.5	
Centerline Distan	ce to Noise C	ontour (in feet	)					,				
			L		dBA		dBA		60 dBA		dBA	
			Ldn:		19	472 1,018 2,192						
		CI	VEL:	2	25	4	85		1,045	2,	251	

	FHW	/A-RD-77-108	HIGHV	NAY 1	NOISE PE	REDICT	ION MO	DEL			
Road Nam	rio: Existing Wit ne: Rancho Av. nt: n/o Agua M	•					Name: . umber:				
	SPECIFIC IN	PUT DATA							L INPUTS	;	
Highway Data					Site Con	ditions	(Hard =	10, S	oft = 15)		
Average Daily	Traffic (Adt):	17,763 vehicle	es					Autos.	15		
Peak Hour	Percentage:	10%			Me	dium Tri	ucks (2 A	Axles).	: 15		
Peak F	lour Volume:	1,776 vehicle	S		He	avy Truc	cks (3+ A	Axles).	: 15		
Ve	hicle Speed:	40 mph		H	Vehicle I	Miv					
Near/Far La	ne Distance:	52 feet		F		cleType		Dav	Evening	Night	Daily
Site Data								73.29		18.6%	
Ra	rrier Height:	0.0 feet			Me	edium Ti	rucks:	82.29	6 3.9%	14.0%	2.50%
Barrier Type (0-W		0.0			F	leavy Ti	rucks:	76.5%	4.0%	19.5%	7.60%
Centerline Di		52.0 feet		-	M-1 0-			- /! /	41		
Centerline Dist.	to Observer:	52.0 feet		-	Noise So				eet)		
Barrier Distance	to Observer:	0.0 feet			A desertion	Auto: n Truck		000			
Observer Height	(Above Pad):	5.0 feet						297	Grade Adj	uetmon	
P	ad Elevation:	0.0 feet			Heav	y Truck	S: 8.0	JU4	Grade Auj	usunem	- 0.0
Ro	ad Elevation:	0.0 feet			Lane Eq	uivalen	t Distan	ce (in	feet)		
	Road Grade:	0.0%				Auto	s: 45.	310			
	Left View:	-90.0 degree	es		Mediur	n Truck	s: 45.	114			
	Right View:	90.0 degree	es		Heav	y Truck	s: 45.	133			
FHWA Noise Mod	el Calculations	3									
VehicleType	REMEL	Traffic Flow	Dista	ance	Finite	Road	Fresn	nel .	Barrier Atte	en Be	rm Atten
Autos:	66.51	0.71		0.5	4	-1.20		-4.66	0.0	00	0.000
Medium Trucks:	77.72	-14.85		0.5	7	-1.20		-4.87	0.0	00	0.000
Heavy Trucks:	82.99	-10.02		0.5	6	-1.20		-5.41	0.0	00	0.000
<b>Unmitigated Nois</b>	e Levels (witho	out Topo and	barrier	r atter	nuation)						
VehicleType	Leq Peak Hou			Leq E	vening	Leq	Night		Ldn	_	NEL
Autos:	66.		64.4		60.9		59.7		67.0		67.3
Medium Trucks:		_	60.6		53.3		54.1		62.0		62.1
Heavy Trucks:			70.4		63.6		65.7		72.9		73.1
Vehicle Noise:		-	71.7		65.7		66.9	)	74.2		74.4
Centerline Distan	ce to Noise Co	ntour (in feet	)								
			L		dBA		dBA		60 dBA		dBA
			Ldn:	-	19	_	13		460		991
		CI	VEL:	1	02	2	19		471	1	,016

	FHV	VA-RD-77-108	HIGH	WAY N	IOISE PI	REDICT	ION M	ODEL						
Road Nam	io: Existing Wi e: Slover Av. nt: w/o Cedar	,				Project Job N		Agua 11215						
	SPECIFIC IN	IPUT DATA				ı	IOISE	MODE	L INPUT	s				
Highway Data				,	Site Cor	ditions	(Hard	= 10, S	oft = 15)					
Average Daily	Traffic (Adt):	10,960 vehicl	es					Autos.	15					
Peak Hour	Percentage:	10%			Me	dium Tr	ucks (2	Axles).	: 15					
Peak H	our Volume:	1,096 vehicle	s		He	avy Tru	cks (3+	Axles).	: 15					
Ve	hicle Speed:	50 mph		Η,	Vehicle	Miss								
Near/Far Lai	ne Distance:	48 feet		F		icleType		Day	Evening	Night	Daily			
Site Data					VC//		Autos:	73.29		18.6%	-			
					Medium Trucks: 82.2% 3.9% 14.0% 2.5									
	rier Height:	0.0 feet 0.0			Heavy Trucks: 76.5% 4.0% 19.5% 7.60%									
Barrier Type (0-W Centerline Dis		52.0 feet		L										
Centerline Dist		52.0 feet		1	Noise Source Elevations (in feet)									
	Barrier Distance to Observer: 0.0 feet						Autos: 0.000 Medium Trucks: 2.297							
	Distance to Observer: 0.0 feet Distance to Observer: 5.0 feet							2.297						
	ad Flevation:	0.0 feet			Heav	ry Truck	s: 8	3.004	Grade Ad	justment	: 0.0			
	ad Elevation:	0.0 feet		h	Lane Eq	uivalen	t Dista	nce (in	feet)					
	Road Grade:	0.0%		-		Auto		3.400	,					
	Left View:	-90.0 degre	29		Mediu	m Truck		3.209						
	Right View:	90.0 degre			Heav	y Truck	s: 46	3.228						
FHWA Noise Mode	el Calculation	s												
VehicleType	REMEL	Traffic Flow	Dis	tance	Finite	Road	Fres	snel	Barrier Att	en Bei	rm Atten			
Autos:	70.20	-2.36		0.38	3	-1.20		-4.66	0.0	000	0.000			
Medium Trucks:	81.00	-17.92		0.4	1	-1.20		-4.87	0.0	000	0.000			
Heavy Trucks:	85.38	-13.09		0.4	1	-1.20		-5.41	0.0	000	0.000			
Unmitigated Noise			barrie											
VehicleType	Leq Peak Hou			Leq E	/ening	Leq	Night		Ldn		NEL			
Autos:	67 62		64.9 60.6		61.4		60	-	67.5	-	67.8			
Medium Trucks:		53.4		54	-	62.0		62.2						
Heavy Trucks:	71		69.5		62.7		64		72.1		72.2			
Vehicle Noise:	73		71.2		65.4		66	.4	73.7	7	73.9			
Centerline Distanc	ce to Noise Co	ontour (in fee	t)	70	JD A	65	dD A		60 dBA		dD1			
I dn:								118						
		_	NFI:	9.	_		03		426		910			
		C	VLL.	9	-		00		-31		774			

	FHV	VA-RD-77-108	HIGH	HWAY	NOISE P	REDICT	ION M	ODEL			
Road Nan	io: Existing Wine: Rancho Av.							: Agua l :: 11215			
	SPECIFIC IN					-	NOISE	MODE	L INPUT	s	
Highway Data					Site Cor	nditions	(Hard	= 10, Se	oft = 15)		
Average Daily	Traffic (Adt):	12,661 vehicle	es					Autos:	15		
Peak Hour	Percentage:	10%			Me	dium Tr	ucks (2	2 Axles):	15		
Peak F	lour Volume:	1,266 vehicles	3		He	avy Tru	cks (3	Axles):	15		
Ve	hicle Speed:	40 mph			Vehicle	Miss					
Near/Far La	ne Distance:	52 feet		1		icleType	_	Dav	Evening	Night	Daily
Site Data							Autos:	73.2%	-		89.90%
	rrier Heiaht:	0.0 feet			М	edium T	rucks:	82.2%	3.9%	14.0%	
Barrier Type (0-V		0.0 reet				Heavy T	rucks:	76.5%	4.0%	19.5%	7.60%
Centerline Di		52.0 feet									
Centerline Dist.		52.0 feet			Noise S				eet)		
Barrier Distance	to Observer:	0.0 feet				Auto		0.000			
Observer Height	(Above Pad):	5.0 feet				m Truck		2.297	0		
	ad Elevation:	0.0 feet			Heav	/y Truck	is:	8.004	Grade Ad	justmeni	: 0.0
Ro	ad Elevation:	0.0 feet		ĺ	Lane Eq	uivalen	t Dista	nce (in	feet)		
	Road Grade:	0.0%		ĺ		Auto	s: 4	5.310			
	Left View:	-90.0 degree	es		Mediu	m Truck	s: 4	5.114			
	Right View:	90.0 degree	es		Heav	y Truck	is: 4	5.133			
FHWA Noise Mod	el Calculation	s									
VehicleType	REMEL	Traffic Flow	Dis	stance	Finite	Road	Fre	snel	Barrier Att	en Be	m Atten
Autos:	66.51	-0.76		0.5	54	-1.20		-4.66	0.0	000	0.000
Medium Trucks:	77.72	-16.32		0.5	57	-1.20		-4.87	0.0	000	0.000
Heavy Trucks:	82.99	-11.49		0.5	66	-1.20		-5.41	0.0	000	0.00
Unmitigated Nois	e Levels (with	out Topo and	barri	er atte	nuation)						
VehicleType	Leq Peak Hou			Leq E	vening		Night		Ldn		NEL
Autos:	65		62.9		59.4			3.2	65.6		65.8
Medium Trucks:	60		59.1		51.8			2.7	60.	-	60.7
Heavy Trucks:	70		68.9		62.1			1.2	71.5		71.
Vehicle Noise:			70.2		64.2		65	5.4	72.	7	72.9
Centerline Distan	ce to Noise Co	ontour (in feet,	)								
				70	dRA	1 65	dRA	1 /	SO dRA	55	dRA

Wednesday, October 17, 2018

FH	WA-RD-77-108 HI	GHWAY	NOISE PI	REDICTIO	ON MODEL		
Scenario: Existing V Road Name: Slover Av. Road Segment: w/o Rivers					lame: Agua mber: 1121		
SITE SPECIFIC I	NPUT DATA			NO	DISE MOD	EL INPUTS	
Highway Data			Site Con	ditions (i	Hard = 10,	Soft = 15)	
Average Daily Traffic (Adt):	10,015 vehicles				Auto	s: 15	
Peak Hour Percentage:	10%		Me	dium Truc	cks (2 Axles	:): 15	
Peak Hour Volume:	1,002 vehicles		He	avy Truck	s (3+ Axles	:): 15	
Vehicle Speed:	50 mph		Vehicle	Miv			
Near/Far Lane Distance:	48 feet			icleType	Day	Evening N	light Daily
Site Data					tos: 73.2		18.6% 89.90%
Barrier Height:	0.0 feet		М	edium Tru	icks: 82.2	% 3.9%	14.0% 2.50%
Barrier Type (0-Wall, 1-Berm):	0.0		1	Heavy Tru	icks: 76.5	% 4.0%	19.5% 7.60%
Centerline Dist. to Barrier:	52.0 feet		M-1 0		vations (in	f4)	
Centerline Dist. to Observer:	52.0 feet		Noise 3	Autos:		reet)	
Barrier Distance to Observer:	0.0 feet		Modiu	Autos: m Trucks:			
Observer Height (Above Pad):	5.0 feet			vy Trucks:		Grade Adjus	tment: 0.0
Pad Elevation:	0.0 feet		ricas	y Trucks.	0.004	Orado Adjus	ament. 0.0
Road Elevation:	0.0 feet		Lane Eq	uivalent l	Distance (i	n feet)	
Road Grade:	0.0%			Autos:			
Left View:	-90.0 degrees		Mediu	m Trucks:	46.209		
Right View:	90.0 degrees		Heav	y Trucks:	46.228		
FHWA Noise Model Calculation	ns						
VehicleType REMEL	Traffic Flow	Distance	Finite	Road	Fresnel	Barrier Atten	Berm Atten
Autos: 70.20	-2.75	0.3	38	-1.20	-4.6	6 0.000	0.000
Medium Trucks: 81.00	-18.31	0.4	11	-1.20	-4.8	7 0.000	0.000
Heavy Trucks: 85.38	-13.48	0.4	11	-1.20	-5.4	1 0.000	0.000
Unmitigated Noise Levels (wit	hout Topo and bar	rrier atte	nuation)				
VehicleType Leq Peak Ho	our Leq Day	Leq E	vening	Leq N	light	Ldn	CNEL
Autos: 6	6.6 64.	5	61.0		59.8	67.1	67.4
	1.9 60.3	-	53.0		53.8	61.6	61.8
	1.1 69.		62.3		64.5	71.7	71.8
Vehicle Noise: 7	2.8 70.	8	65.0		66.0	73.3	73.5
Centerline Distance to Noise (	Contour (in feet)						
			dBA	65 d		60 dBA	55 dBA
	Ldr		36	180	-	401	864
	CNEL		39	19	1	412	887

	F	HWA-	RD-77-108	HIGH	HWAY	NOISE P	REDICT	ION MO	DDEL				
Road Na	ario: Existing vario: Santa Ar nent: w/o Ceda	a Av.	ut Project					t Name: lumber:		Mansa			
SITI	E SPECIFIC	INPL	JT DATA							L INPUT	s		
Highway Data						Site Cor	nditions	(Hard:	= 10, S	oft = 15)			
Average Dail	ly Traffic (Adt):	6	,330 vehicle	es					Autos:	15			
Peak Ho	ur Percentage:		10%			Me	edium Tr	ucks (2	Axles):	15			
Peak	Hour Volume:	. 6	33 vehicles	3		He	eavy Tru	cks (3+	Axles):	15			
1	/ehicle Speed:		40 mph			Vehicle	Miv						
Near/Far I	ane Distance:		36 feet				nicleType	9	Dav	Evening	Niah	t I	Dailv
Site Data								Autos:	73.2%	-	18.6		9.90%
F	Barrier Height:		0.0 feet			M	ledium T	rucks:	82.2%	3.9%	14.0	1%	2.50%
Barrier Type (0-			0.0				Heavy T	rucks:	76.5%	4.0%	19.5	%	7.60%
	Dist. to Barrier		44.0 feet										
	t to Observer		44.0 feet			Noise S				eet)			
Barrier Distance	e to Observer		0.0 feet				Auto		.000				
Observer Heigh	t (Above Pad)		5.0 feet				m Truck		.297	0	·		
	Pad Elevation.		0.0 feet			Hea	vy Truck	s: 8	.004	Grade Ad	Justme	ent: O	.0
F	oad Elevation.		0.0 feet			Lane Eq	uivalen	t Distar	nce (in	feet)			
	Road Grade.		0.0%				Auto	s: 40	.460				
	Left View.		90.0 degree	es		Mediu	m Truck	s: 40	.241				
	Right View		90.0 degree			Hea	vy Truck	s: 40	.262				
FHWA Noise Mo	del Calculation	ons											
VehicleType	REMEL		affic Flow	Dis	stance		Road	Fres		Barrier Att		Berm /	
Auto			-3.77		1.:		-1.20		-4.61		000		0.000
Medium Truck		_	-19.33		1.3		-1.20		-4.87		000		0.000
Heavy Truck	s: 82.9	19	-14.50		1.3	31	-1.20		-5.50	0.0	000		0.000
Unmitigated No.	ise Levels (wi	thout	Topo and	barri	er atte	nuation)							
VehicleType	Leq Peak H	our	Leq Day		Leq I	Evening	Leq	Night		Ldn		CNE	
Auto	s:	62.8		60.7		57.1		56.	0	63.3	3		63.6
Medium Truck		58.5		56.8		49.6		50.		58.2	_		58.4
Heavy Truck	_	68.6		6.6		59.8		62.	-	69.2			69.3
Vehicle Noise	9:	69.9	(	0.86		62.0		63.	2	70.5	5		70.6
Centerline Dista	nce to Noise	Cont	our (in feet,	)									
				L		dBA		dBA	1	60 dBA		55 dB	Α
				Ldn:		47		02		219		472	
			CI	VEL:		48	1	04		225		484	

	FH\	WA-RD-77-108	HIGH	WAY N	OISE P	REDICT	ION MODE				
Road Nam	io: Existing W e: Jurupa Av. nt: w/o Cedar	,					t Name: Agu lumber: 112				
SITE S	SPECIFIC IN	IPUT DATA				1	NOISE MO	DEL INPU	гs		
Highway Data					Site Cor	ditions	(Hard = 10,	Soft = 15)			
Average Daily	Traffic (Adt):	5,102 vehicle	es				Aut	os: 15			
Peak Hour	Percentage:	10%			Me	dium Tr	ucks (2 Axle	s): 15			
Peak H	our Volume:	510 vehicle	s		He	avy Tru	cks (3+ Axle	s): 15			
Ve	hicle Speed:	40 mph		١.	Vehicle	Miss					
Near/Far Lai	ne Distance:	48 feet				icleType	e Da	y Evening	- Nii	ght	Daily
Site Data					Veri		Autos: 73.		1 .	_	89.90%
		0.0 feet			M	edium T		2% 3.9%		4.0%	2.50%
Barrier Type (0-W	rier Height:	0.0 reet 0.0				Heavy T	rucks: 76.	5% 4.0%	. 19	9.5%	7.60%
Centerline Dis	. ,	52.0 feet									
Centerline Dist.		52.0 feet		I	Voise S		levations (i				
Barrier Distance		0.0 feet				Auto					
Observer Height (		5.0 feet				m Truck					
	ad Flevation:	0.0 feet			Heav	ry Truck	s: 8.004	Grade A	djusti	ment:	0.0
	ad Elevation:	0.0 feet		1	Lane Eq	uivalen	t Distance (	in feet)			
	Road Grade:	0.0%				Auto					
	Left View:	-90.0 degre	es		Mediu	m Truck					
	Right View:	90.0 degre			Heav	y Truck	s: 46.228				
FHWA Noise Mode	el Calculation	ıs									
VehicleType	REMEL	Traffic Flow	Dist	ance	Finite	Road	Fresnel	Barrier A	tten	Berm	Atten
Autos:	66.51	-4.71		0.38	3	-1.20	-4.0	66 0	.000		0.00
Medium Trucks:	77.72	-20.27		0.41	I	-1.20	-4.8	37 0	.000		0.00
Heavy Trucks:	82.99	-15.44		0.41	I	-1.20	-5.4	41 0	.000		0.00
Unmitigated Noise	e Levels (with	out Topo and	barrie	r atten	uation)						
VehicleType	Leq Peak Hou			Leg E			Night	Ldn		CN	
Autos:	61		58.8		55.3		54.1	61			61.
Medium Trucks:	56		55.0		47.7		48.6	56			56.
Heavy Trucks:	66		64.8		58.0		60.1	67			67.5
Vehicle Noise:	68		66.1		60.1		61.3	68	٥.		68.
Centerline Distanc	ce to Noise C	ontour (in feet	)	70 c	IRΔ	65	dBA	60 dBA	_	55 d	IRΔ
			Ldn:	4:			91	195		42	
		C			43 93 200			432			
	CNE				,	93		200		432	

Autos: 73.2% 8.1% 18.6% 89.5	Average Daily Traffic (Adt):	Road Nam	io: Existing Wit ne: Santa Ana / nt: w/o Riversio	Av.			Name: lumber:		Mansa		
Average Daily Traffic (Adt):	Average Daily Traffic (Adt): 3,968 vehicles		SPECIFIC IN	PUT DATA	Site Cor					S	
Near/Far Lane Distance:   36 feet   VehicleType   Day   Evening   Night   Day   Evening   Evenin	Near/Far Lane Distance: 36 feet   Vehicle Mix   Vehicle Type   Day   Evening   Night   Daily	Average Daily Peak Hour	Percentage:	10%	Ме	edium Tro	ucks (2 i	Autos: Axles):	15 15		
Site Data   Barrier Height:   0.0 feet   Medium Trucks: 82.2%   3.9%   14.0%   2.5	Autos: 73.2% 8.1% 18.6% 89.90							_	I I		
Barrier Height:   0.0 feet   Medium Trucks: 8.2.2%   3.9%   14.0%   2.5	Barrier Height:   0.0   feet   Medium Trucks:   82.2%   3.9%   14.0%   2.50   Heavy Trucks:   7.6.5%   4.0%   19.5%   7.60   Heavy Trucks:   8.004   Grade Adjustment:   0.0   Heavy Trucks:   8.004   Grade Adjustment:   0.0   Heavy Trucks:   40.460   Heavy Trucks:   40.262   Heavy Trucks:   40.26	Cita Data			ven						. ,
Heavy Trucks: 76.5% 4.0% 19.5% 7.6   September 1.0   September 2.0   Septemb	Heavy Trucks: 76.5% 4.0% 19.5% 7.60										
Centerline Dist. to Observer: Barrier Distance to Observer: 0.0 feet   Content of Distance to Observer: 0.0	Noise Source Elevations (In Teet)	Barrier Type (0-W	/all, 1-Berm):	0.0							
Barrier Distance to Observer: 0.0 feet   Autos: 0.000	Barrier Distance to Observer: 0.0 feet   Autos: 0.000				Noise S	ource El	levation	s (in fe	eet)		
Diserver Height (Above Pad):   5.0 feet Pad Elevation:   0.0 feet Road Elevation:   0.0 feet Road Grade:   0.0 feet Road Grade:   0.0 feet Pad Elevation:   0.0 feet Road Grade:   0.0 feet Road Frace:   0.0 feet Road Grade:   0.	Diserver Height (Above Pad):   5.0 feet Pad Elevation:   0.0 feet Road Elevation:   0.0 feet Road Grade:   0.0 f					Auto	s: 0.	000			
Pad Elevation:   0.0   feet	Pad Elevation:				Mediu	m Truck	s: 2.	297			
Road Elevation: Road Grade: 0.0%	Road Elevation:		,		Heav	y Truck	s: 8.	004	Grade Ad	justment.	0.0
Road Grade:	Road Grade:				1 5		1 Di-1	//	£4\		
Left View:	Left View:				Lane Eq				reet)		
Right View: 90.0 degrees   Heavy Trucks: 40.262   Heavy Trucks: 40	Right View: 90.0 degrees   Heavy Trucks: 40.262				Modiu						
VehicleType	Vehicle Type         REMEL         Traffic Flow         Distance         Finite Road         Fresnel         Barrier Atten         Berm Atter           Autos:         66.51         -5.80         1.28         -1.20         -4.61         0.000         0.00           Medium Trucks:         77.72         -21.36         1.31         -1.20         -4.87         0.000         0.00           Heavy Trucks:         82.99         -16.53         1.31         -1.20         -5.50         0.000         0.00           Unmitigated Noise Levels (without Topo and barrier attenuation)         Vehicle Type         Leq Peak Hour         Leq Day         Leq Evening         Leq Night         Loh         CNEL           Autos:         60.8         58.6         55.1         53.9         61.3         61           Medium Trucks:         56.5         54.8         47.5         48.4         56.2         56           Heavy Trucks:         66.6         64.6         57.8         59.9         67.2         67           Vehicle Noise:         67.9         65.9         59.9         61.1         68.4         68										
Autos: 66.51   -5.80   1.28   -1.20   -4.61   0.000   0.000   0.00000   0.0000   0.0000   0.0000   0.0000   0.0000   0.0000   0.00000   0.0000   0.0000   0.0000   0.0000   0.0000   0.0000   0.00000   0.0000   0.0000   0.0000   0.0000   0.0000   0.0000   0.00000   0.0000   0.0000   0.0000   0.0000   0.0000   0.0000   0.00000   0.0000   0.0000   0.0000   0.0000   0.0000   0.0000   0.00000   0.0000   0.0000   0.0000   0.0000   0.0000   0.0000   0.00000   0.0000   0.0000   0.0000   0.0000   0.0000   0.0000   0.00000   0.0000   0.0000   0.0000   0.0000   0.0000   0.0000   0.00000   0.0000   0.0000   0.0000   0.0000   0.0000   0.0000   0.00000   0.00000   0.00000   0.0000   0.00000   0.00000   0.0000   0.0000   0.0000   0.0000   0.0000	Autos: 66.51   -5.80   1.28   -1.20   -4.61   0.000   0.00				1	T					
Medium Trucks:         77.72         -21.36         1.31         -1.20         -4.87         0.000	Medium Trucks:         77.72         -21.36         1.31         -1.20         -4.87         0.000         0.00           Unmitigated Moise Levels (without Topo and barrier attenuation)         VehicleType         Leq Pask Hour         Leq Day         Leq Evening         Leq Night         Lth         CNEL           Auros:         60.8         58.6         55.1         53.9         61.3         61           Medium Trucks:         56.5         54.8         47.5         48.4         56.2         56           Heavy Trucks:         66.6         64.6         57.8         59.9         67.2         67           Vehicle Noise:         67.9         65.9         59.9         61.1         68.4         66	,,					Fresi	_		_	
Heavy Trucks:   82.99   -16.53   1.31   -1.20   -5.50   0.000   0.	Heavy Trucks:   82.99   -16.53   1.31   -1.20   -5.50   0.000   0.00				 						
Unmitigated Noise   Levels (without Topo and barrier attenuation)   VehicleType   Leq Peak Hour   Leq Day   Leq Evening   Leq Night   Ldn   CNEL	Unmitigated Noise   Levels (without Topo and barrier attenuation)   VehicleType   Leq Peak Hour   Leq Day   Leq Evening   Leq Night   Ldn   CNEL				 						
VehicleType         Leq Peak Hour         Leq Day         Leq Evening         Leq Night         Ldn         CNEL           Autos:         60.8         58.6         55.1         53.9         61.3         64.8         66.2         64.8         66.2         65.2         66.2	VehicleType         Leq Peak Hour         Leq Day         Leq Evening         Leq Night         Ldn         CNEL           Autos:         60.8         58.6         55.1         53.9         61.3         61.3         61.8         66.8         65.9         65.9         55.9         67.2					-1.20		-5.50	0.0	JUU	0.000
Autos:     60.8     58.6     55.1     53.9     61.3     6       Medium Trucks:     56.5     54.8     47.5     48.4     56.2     5       Heavy Trucks:     66.6     64.6     57.8     59.9     67.2     6	Autos:         60.8         58.6         55.1         53.9         61.3         61           Medium Trucks:         56.5         54.8         47.5         48.4         56.2         56           Heavy Trucks:         66.6         64.6         57.8         59.9         67.2         67           Vehicle Noise:         67.9         65.9         59.9         61.1         68.4         68				 			1			
Medium Trucks:         56.5         54.8         47.5         48.4         56.2         5           Heavy Trucks:         66.6         64.6         57.8         59.9         67.2         6	Medium Trucks:         56.5         54.8         47.5         48.4         56.2         56           Heavy Trucks:         66.6         64.6         57.8         59.9         67.2         67           Vehicle Noise:         67.9         65.9         59.9         61.1         68.4         66	,,									
Heavy Trucks: 66.6 64.6 57.8 59.9 67.2 6	Heavy Trucks:         66.6         64.6         57.8         59.9         67.2         67           Vehicle Noise:         67.9         65.9         59.9         61.1         68.4         66				 			-		-	56.
,	Vehicle Noise: 67.9 65.9 59.9 61.1 68.4 68				 					_	67.
verifice Noise. 07.9 05.9 59.9 61.1 68.4 6				•	 0			_			
	Centerline Distance to Noise Contour (in feet)				 59.9		<b>υ</b> 1.'	ı	68.4	+	08.

Wednesday, October 17, 2018

	FHV	VA-RD-77	-108 HIG	HWAY	NOISE P	REDICTION	ON MC	DEL			
Scenario: Ex Road Name: El Road Segment: e/e	Rivino R	d.	ect			Project I Job Nu					
SITE SPEC	CIFIC IN	IPUT DA	TA			N	OISE	MODE	L INPUT	S	
Highway Data					Site Cor	nditions (	Hard =	= 10, S	oft = 15)		
Average Daily Traffi	c (Adt):	4,063 ve	ehicles					Autos	15		
Peak Hour Perce	entage:	10%			Me	dium Tru	cks (2	Axles).	15		
Peak Hour V	olume:	406 ve	hicles		He	avy Truci	ks (3+	Axles).	15		
Vehicle	Speed:	45 mp	h		Vehicle	Miss					
Near/Far Lane Di	stance:	36 fee	et	-		icleType		Day	Evening	Night	Daily
Site Data					V C//		utos:	73.2%		18.6%	
	Interlet.	006			М	edium Tri		82.2%		14.0%	
Barrier Type (0-Wall, 1-		0.0 fe	eet			Heavy Tru		76.5%		19.5%	
Centerline Dist. to	,	44.0 fe	ot								
Centerline Dist. to Ob		44.0 fe			Noise S	ource Ele			eet)		
Barrier Distance to Ob		0.0 fe				Autos		.000			
Observer Height (Abov		5.0 fe				m Trucks	_	.297			
Pad Ele		0.0 fe			Heav	y Trucks	: 8	.004	Grade Ad	ljustment	: 0.0
Road Fle		0.0 fe			Lane Eq	uivalent	Distar	ce (in	feet)		
	Grade:	0.0%				Autos		460	,		
	ft View:	-90.0 de	earees		Mediu	m Trucks	: 40	.241			
	t View:	90.0 d			Heav	y Trucks	: 40	.262			
FHWA Noise Model Car	culation	s									
VehicleType RE	MEL	Traffic FI	ow D	istance	Finite	Road	Fres	nel	Barrier Att	ten Bei	m Atten
Autos:	68.46	-1	6.21	1.2	18	-1.20		-4.61	0.0	000	0.000
Medium Trucks:	79.45	-2	1.77	1.3	11	-1.20		-4.87	0.0	000	0.000
Heavy Trucks:	84.25	-10	6.94	1.3	11	-1.20		-5.50	0.0	000	0.000
Unmitigated Noise Lev	els (with	out Topo	and barr	ier atte	nuation)						
VehicleType Leq i	Peak Hou	ır Leq	Day Day	Leq E	vening	Leq N	light		Ldn	С	NEL
Autos:	62	.3	60.2		56.7		55.	5	62.8	В	63.1
Medium Trucks:	57	.8	56.1		48.9		49.	7	57.5	5	57.7
Heavy Trucks:	67	.4	65.5		58.7		60.	8	68.0	0	68.2
Vehicle Noise:	68	.9	67.0		61.1		62.	2	69.	5	69.6
Centerline Distance to	Noise Co	ontour (in	feet)								
					dBA	65 a			60 dBA		dBA
			Ldn:		10	87			188		104
			CNEL:		11	89	9		193	4	115

Wednesday, October 17, 2018

	FH\	WA-RD-77-108	HIGH	WAY	NOISE PE	REDICT	ON M	DDEL			
Road Nam	io: Existing W ne: El Rivino R nt: e/o Cactus	d.				Project Job N		Agua 11215			
	SPECIFIC IN	IPUT DATA							L INPUT	s	
Highway Data					Site Con	ditions	(Hard	= 10, S	oft = 15)		
Average Daily	Traffic (Adt):	3,779 vehicle	es					Autos.	15		
Peak Hour	Percentage:	10%			Me	dium Tri	ıcks (2	Axles).	15		
Peak H	lour Volume:	378 vehicles	3		He	avy Truc	cks (3+	Axles).	15		
Ve	hicle Speed:	45 mph		ŀ	Vehicle I	Mix					
Near/Far La	ne Distance:	36 feet		ŀ		cleType		Dav	Evening	Night	Daily
Site Data							lutos:	73.29	Ü	18.69	6 89.90%
Rai	rrier Height:	0.0 feet			Me	edium Ti	ucks:	82.29	3.9%	14.09	6 2.50%
Barrier Type (0-W		0.0			F	leavy Ti	ucks:	76.5%	4.0%	19.59	6 7.60%
Centerline Dis		44.0 feet		-	M-1 0-			/! /	41		
Centerline Dist.	to Observer:	44.0 feet		-	Noise So				eet)		
Barrier Distance	to Observer:	0.0 feet				Auto: n Truck		.000			
Observer Height (	Above Pad):	5.0 feet						.297	Grade Ad	livotmov	4 0 0
Pa	ad Elevation:	0.0 feet			Heav	y Truck	s: 8	.004	Grade Ad	jusuner	n. 0.0
Roa	ad Elevation:	0.0 feet			Lane Eq	uivalen	Dista	nce (in	feet)		
ı	Road Grade:	0.0%				Auto	s: 40	.460			
	Left View:	-90.0 degree	es		Mediur	n Truck	s: 40	.241			
	Right View:	90.0 degree	es		Heav	y Truck	s: 40	.262			
FHWA Noise Mode	el Calculation	ıs									
VehicleType	REMEL	Traffic Flow	Dis	stance	Finite	Road	Fres	nel	Barrier Att	en Be	erm Atten
Autos:	68.46	-6.53		1.2	28	-1.20		-4.61	0.0	000	0.000
Medium Trucks:	79.45	-22.08		1.3	31	-1.20		-4.87	0.0	000	0.000
Heavy Trucks:	84.25	-17.26		1.3	31	-1.20		-5.50	0.0	000	0.000
Unmitigated Noise	e Levels (with	out Topo and	barrie	er atte	nuation)						
VehicleType	Leq Peak Hou			Leq E	vening	Leq	Night		Ldn		CNEL
Autos:	62		59.9		56.3		55		62.		62.8
Medium Trucks:	57		55.8		48.6		49		57.:	_	57.4
Heavy Trucks:	67	'.1	35.1		58.3		60	.5	67.	7	67.8
Vehicle Noise:	68		66.7		60.7		61	.8	69.	1	69.3
Centerline Distant	ce to Noise C	ontour (in feet	)						-		
			L		dBA		dBA		60 dBA	_	5 dBA
			Ldn:		39	-	3		179		385
		CI	VEL:	4	40	8	5		184		395

	FIII	WA-RD-77-108	IIIGII	WAII	VOISE FI	\LDICTIC	/IV IVI	JULL			
Road Nam	io: Existing Wine: Agua Mans nt: e/o 20th St	a Rd.				Project N Job Nu					
	SPECIFIC IN					N	NEE	MODE	L INPUT		
Highway Data	SPECIFIC III	PUIDAIA			Site Con	ditions (i				<u> </u>	
Average Daily	Traffic (Adt):	10.677 vehicle	es			,		Autos:			
,	Percentage:	10%			Me	dium Truc	ks (2	Axles):	15		
Peak H	lour Volume:	1,068 vehicle	s		He	avy Truck	s (3+	Axles):	15		
Ve	hicle Speed:	45 mph			Vehicle I	Miss					
Near/Far La	ne Distance:	36 feet				icleType	Т	Day	Evening	Night	Daily
Site Data							ıtos:	73.2%		18.6%	
Par	rrier Height:	0.0 feet			Me	edium Tru	cks:	82.2%	3.9%	14.0%	2.50%
Barrier Type (0-W		0.0			F	Heavy Tru	cks:	76.5%	4.0%	19.5%	7.60%
Centerline Dis		50.0 feet		-	M-1 0-			/! #	41		
Centerline Dist.	to Observer:	50.0 feet			Noise Sc	Autos:		.000	eet)		
Barrier Distance	to Observer:	0.0 feet			Modiu	Autos: m Trucks:	-	.297			
Observer Height (	Above Pad):	5.0 feet				v Trucks:		.004	Grade Ad	liuetmant	
Pa	Pad Elevation: 0.0 feet				Heav	y ITUCKS.	0	.004	Orade Ad	justinoni	0.0
Roa	ad Elevation:	0.0 feet			Lane Eq	uivalent l	Distai	nce (in	feet)		
I	Road Grade:	0.0%				Autos:	46	.915			
	Left View:	-90.0 degree	es			m Trucks:		.726			
	Right View:	90.0 degree	es		Heav	y Trucks:	46	5.744			
FHWA Noise Mode	el Calculation	s									
VehicleType	REMEL	Traffic Flow	Dist	tance		Road	Fres		Barrier Att		m Atten
Autos:	68.46	-2.02		0.3		-1.20		-4.65		000	0.00
Medium Trucks:	79.45	-17.57		0.3		-1.20		-4.87		000	0.000
Heavy Trucks:	84.25	-12.75		0.3	4	-1.20		-5.43	0.0	000	0.000
Unmitigated Noise											
VehicleType	Leq Peak Hou			Leq E	vening	Leq N	_		Ldn		NEL
Autos:	65		63.4		59.9		58		66.0		66.3
Medium Trucks:	61		59.4		52.1		52 64		60.		60.9
Heavy Trucks: Vehicle Noise:	70 72		68.7 70.2		61.9 64.3		65		71.: 72.:		71.4
Centerline Distant	ce to Noise Co	ontour (in feet	)								
		(111 1000	<u> </u>	70	dBA	65 d	BA	(	60 dBA	55	dBA
			Ldn:	7	5	162	2		350	7	54
			VEL:	_	7	16			359	-	74

	FHV	VA-RD-77-108	HIGHW	AY NO	DISE PI	REDICT	ION M	ODEL			
Road Nan	rio: Existing Wine: El Rivino Rent: e/o Hall Av.	d.						Agua 11215			
	SPECIFIC IN	PUT DATA							L INPUT	s	
lighway Data				S	ite Cor	aitions	(Hard		oft = 15)		
Average Daily		2,929 vehicle	S					Autos			
Peak Hour	Percentage:	10%				dium Ti					
Peak H	Hour Volume:	293 vehicles			He	avy Tru	icks (3+	Axles).	15		
Ve	ehicle Speed:	45 mph		V	ehicle	Mix					
Near/Far La	ne Distance:	36 feet				icleType	е	Day	Evening	Night	Daily
ite Data							Autos:	73.2%	8.1%	18.6%	89.909
Ba	rrier Height:	0.0 feet		1	M	edium T	rucks:	82.2%	3.9%	14.0%	2.509
Barrier Type (0-V	Vall, 1-Berm):	0.0			I	Heavy T	rucks:	76.5%	4.0%	19.5%	7.609
Centerline Di	ist. to Barrier:	44.0 feet			-: 0	ource E		(! (	4		
Centerline Dist.	to Observer:	44.0 feet		N	orse S				eet)		
Barrier Distance	to Observer:	0.0 feet				Auto		0.000			
Observer Height	(Above Pad):	5.0 feet				m Truck		2.297	Grade Ad	ii rotmon	4. 0.0
P	ad Elevation:	0.0 feet			Heav	ry Truck	ss: e	3.004	Grade Adj	jusunen	. 0.0
Ro	ad Elevation:	0.0 feet		Li	ane Eq	uivalen	t Dista	nce (in	feet)		
	Road Grade:	0.0%				Auto	s: 40	0.460			
	Left View:	-90.0 degree	s		Mediu	m Truck	ks: 40	0.241			
	Right View:	90.0 degree	s		Heav	y Truck	(s: 4(	0.262			
HWA Noise Mod	lel Calculation	s									
VehicleType	REMEL	Traffic Flow	Dista	nce	Finite	Road	Fre	snel	Barrier Att	en Be	rm Atten
Autos:	68.46	-7.63		1.28		-1.20		-4.61	0.0	000	0.00
Medium Trucks:	79.45	-23.19		1.31		-1.20		-4.87	0.0	000	0.00
Heavy Trucks:	84.25	-18.36		1.31		-1.20		-5.50	0.0	000	0.00
Inmitigated Nois	e Levels (with	out Topo and I	arrier	attenu	ation)						
VehicleType	Leq Peak Hou	ır Leq Day	L	eq Eve	ening	Leq	Night		Ldn	С	NEL
Autos:	60		8.8		55.2		54	.1	61.4	4	61.
Medium Trucks:			4.7		47.5		48		56.1		56.
Heavy Trucks:	66	.0 ε	4.0		57.2		59	.4	66.6	6	66.
Vehicle Noise:	67	.5 6	5.5		59.6	,	60	.7	68.0	)	68.
Centerline Distan	ce to Noise Co	ontour (in feet)									
				70 dE	3A	65	dBA		60 dBA	55	dBA

Wednesday, October 17, 2018

	FH\	WA-RD-77-108	HIGHV	NAY N	IOISE PR	REDICTION	ON M	ODEL			
	: Agua Mans					Project I Job Nu		: Agua I : 11215			
	PECIFIC IN	IPUT DATA							L INPUT	S	
Highway Data					Site Con	ditions (	Hard	= 10, Sc	oft = 15)		
Average Daily T	raffic (Adt):	10,677 vehicle	es					Autos:	15		
Peak Hour F	Percentage:	10%				dium Tru					
Peak Ho	our Volume:	1,068 vehicle	S		Hea	avy Truci	ks (3+	- Axles):	15		
Veh	icle Speed:	45 mph			Vehicle N	Mix					
Near/Far Lan	e Distance:	36 feet				cleType		Day	Evening	Night	Daily
Site Data						A	utos:	73.2%	8.1%	18.6%	89.90%
Ran	ier Height:	0.0 feet			Me	edium Tru	ıcks:	82.2%	3.9%	14.0%	2.50%
Barrier Type (0-Wa		0.0			H	leavy Tru	icks:	76.5%	4.0%	19.5%	7.60%
Centerline Dis	. ,	50.0 feet		H	Voise So			(:- 6	41		
Centerline Dist. to	Observer:	50.0 feet		H.	voise 50	Autos		0.000	eet)		
Barrier Distance to	Observer:	0.0 feet			14	Autos n Trucks		2.297			
Observer Height (A	Above Pad):	5.0 feet				n Trucks y Trucks		2.297 3.004	Grade Ad	liustmont	. 0.0
Pa	d Elevation:	0.0 feet			neav,	y Trucks		5.004	Grade Ad	justin <del>e</del> nt.	0.0
Road	d Elevation:	0.0 feet		1	Lane Equ	uivalent	Dista	nce (in	feet)		
R	oad Grade:	0.0%				Autos	4	6.915			
	Left View:	-90.0 degree	es		Mediun	n Trucks	4	6.726			
	Right View:	90.0 degree	es		Heav	y Trucks	4	6.744			
FHWA Noise Mode											
VehicleType	REMEL	Traffic Flow	Dista		Finite		Fre	snel	Barrier At		m Atten
Autos:	68.46	-2.02		0.3		-1.20		-4.65		000	0.000
Medium Trucks:	79.45	-17.57		0.3		-1.20		-4.87		000	0.000
Heavy Trucks:	84.25	-12.75		0.3	-	-1.20		-5.43	0.0	000	0.000
Unmitigated Noise								_			
VehicleType I	Leq Peak Hou	, ,		Leq E	ening	Leq N	lignt 58	. 7	Ldn		VEL
Medium Trucks:	61		63.4 59.4		59.9		52		66.0 60.1		66.3
	70		59.4 68.7		61.9		64		71.:		71.4
Heavy Trucks: Vehicle Noise:	70		70.2		64.3		_	5.4	71.		71.4
Centerline Distance	e to Noise C	ontour (in feet	)								
		,		70 d	IBA	65 a	BA	(	60 dBA	55	dBA
			Ldn:	7	5	16	2	'	350	7	54
		CI	NEL:	7	7	16	7		359	7	74

	FHV	VA-RD-77-108	HIGH	WAY	NOISE P	REDICT	ION MC	DEL			
Road Nan	rio: Existing Wi ne: Agua Mans ent: w/o Holly S	a Rd.					t Name: lumber:				
	SPECIFIC IN	IPUT DATA							L INPUT	s	
Highway Data					Site Cor	nditions	(Hard =	= 10, S	oft = 15)		
Average Daily	Traffic (Adt):	12,094 vehicle	es					Autos:	15		
Peak Hour	Percentage:	10%			Me	edium Tr	ucks (2	Axles):	15		
Peak F	Hour Volume:	1,209 vehicle	S		He	eavy Tru	cks (3+	Axles):	15		
Ve	ehicle Speed:	45 mph		ŀ	Vehicle	Mix					
Near/Far La	ane Distance:	48 feet				icleType	9	Dav	Evening	Night	Daily
Site Data							Autos:	73.2%		18.69	_
Ra	rrier Height:	0.0 feet			М	edium T	rucks:	82.2%	3.9%	14.09	6 2.50%
Barrier Type (0-W		0.0				Heavy T	rucks:	76.5%	4.0%	19.59	6 7.60%
	ist. to Barrier:	52.0 feet		-	M-/ 0			/! 4			
Centerline Dist.	to Observer:	52.0 feet		}	Noise S				eet)		
Barrier Distance	to Observer:	0.0 feet				Auto		.000			
Observer Height	(Above Pad):	5.0 feet				m Truck		.297	Grade Ad	ii rotmor	4 0 0
P	ad Elevation:	0.0 feet			Hear	vy Truck	s: 8.	.004	Grade Ad	jusuner	n. 0.0
Ro	ad Elevation:	0.0 feet		ĺ	Lane Eq	uivalen	t Distan	ce (in	feet)		
	Road Grade:	0.0%		ĺ		Auto	s: 46	.400			
	Left View:	-90.0 degre	es		Mediu	m Truck	s: 46	.209			
	Right View:	90.0 degre	es		Hear	vy Truck	s: 46	.228			
FHWA Noise Mod	lel Calculation	s									
VehicleType	REMEL	Traffic Flow	Dis	tance		Road	Fres		Barrier Att		erm Atten
Autos:		-1.47		0.3		-1.20		-4.66		000	0.000
Medium Trucks:		-17.03		0.4		-1.20		-4.87		000	0.000
Heavy Trucks:	84.25	-12.20		0.4	11	-1.20		-5.41	0.0	000	0.000
Unmitigated Nois	e Levels (with	out Topo and	barrie	er atte	nuation)						
VehicleType	Leq Peak Hou			Leq E	vening		Night		Ldn		CNEL
Autos:			64.0		60.5		59.		66.6		66.9
Medium Trucks:			60.0		52.7		53.	-	61.4	-	61.5
Heavy Trucks: Vehicle Noise:			69.3 70.8		62.5 64.9		64. 66.		71.9 73.3		72.0 73.5
					64.9		66.	U	73.	3	73.5
Centerline Distan	ce to Noise Co	ontour (in feet	)	70	dBA	6E	dBA	Τ.	60 dBA	E	5 dBA
			I dn:		86		86	1 '	400	_	862
			NEL:		B8		90		410		884
		C		,	-	,			. 10		JJ-

Wednesday, October 17, 2018

	FHV	WA-RD-77-108	HIGI	1 YAWH	NOISE P	REDICT	ION M	ODEL			
	o: Existing Wi e: Agua Mans nt: e/o El Rivin	a Rd.					t Name lumber				
	SPECIFIC IN	IPUT DATA							L INPUT	S	
Highway Data					Site Cor	nditions	(Hard	= 10, S	oft = 15)		
Average Daily	Traffic (Adt):	14,361 vehicl	es					Autos	15		
Peak Hour	Percentage:	10%			Me	edium Tr	ucks (2	Axles)	: 15		
Peak H	our Volume:	1,436 vehicle	s		He	eavy Tru	cks (3+	- Axles)	: 15		
Vel	hicle Speed:	45 mph		F	Vehicle	Mix					
Near/Far Lar	ne Distance:	82 feet				icleТур	9	Day	Evening	Night	Daily
Site Data							Autos:	73.29	6 8.1%	18.6%	89.90%
Bar	rier Height:	0.0 feet			М	edium 7	rucks:	82.29	6 3.9%	14.0%	2.50%
Barrier Type (0-W		0.0				Heavy T	rucks:	76.5%	4.0%	19.5%	7.60%
Centerline Dis	st. to Barrier:	60.0 feet		+	Noise S	ource F	levatio	ns (in i	eet)		
Centerline Dist.	to Observer:	60.0 feet		F		Auto		0.000	001)		
Barrier Distance	to Observer:	0.0 feet			Mediu	m Truck		2.297			
Observer Height (	Above Pad):	5.0 feet				vy Truck	-	3.004	Grade Ad	iustmen	t: 0.0
Pa	ad Elevation:	0.0 feet									
Roa	ad Elevation:	0.0 feet		L	Lane Eq				feet)		
F	Road Grade:	0.0%				Auto		4.091			
	Left View:	-90.0 degre				m Truck		3.890			
	Right View:	90.0 degre	es		Hear	vy Truck	s: 40	3.909			
FHWA Noise Mode	el Calculation	s		- 1							
VehicleType	REMEL	Traffic Flow		stance		Road	Fres		Barrier Att		rm Atten
Autos:	68.46	-0.73		0.7		-1.20		-4.69		000	0.00
Medium Trucks:	79.45	-16.29		0.7		-1.20		-4.88		000	0.000
Heavy Trucks:	84.25	-11.46		0.7	4	-1.20		-5.34	0.0	000	0.000
Unmitigated Noise											
,,	Leq Peak Hou	.,.,		Leq E	vening		Night	4	Ldn	_	NEL
Autos:	67		65.1		61.6		60		67.7		68.0
Medium Trucks:	62		61.1		53.8		54		62.4		62.6
Heavy Trucks: Vehicle Noise:	72 73		70.4		63.6 66.0		65 67	••	72.9		73.
Centerline Distance					55.0		- 57				, 7.
Centernine Distant	e to Noise Co	ontour (In ree	'	70	dBA	65	dBA		60 dBA	55	5 dBA
			Ldn:	1	17	2	:53		545	1	,174

Site Data   Autos: 73.2% 8.1% 18.6% 89.		FHWA-RD-77-	108 HIGHW	AY NOISE	PREDICTIO	N MODEL		
Site Conditions (Hard = 10, Soft = 15)	Road Name: Agua	Mansa Rd.	ct					
Average Daily Traffic (Adt): 12,094 vehicles   Peak Hour Percentage: 10%   Medium Trucks: (2 Axles): 15   Heavy Trucks (3 Axles): 15	SITE SPECIF	C INPUT DAT	ГА		NO	ISE MODE	L INPUTS	i
Peak Hour Percentage:	Highway Data			Site C	onditions (H	ard = 10, S	oft = 15)	
Vehicle Speed:         45 mph         Vehicle Mix         Vehicle I/IX         Day         Evening         Night         D           Site Data         Vehicle Type         Day         Evening         Night         D           Barrier Height:         0.0 feet         Autos:         7.3.2%         8.1%         18.6%         89.           Barrier Type (0-Wall, 1-Berm):         0.0         Medium Trucks:         82.2%         3.9%         14.0%         2.           Centerline Dist. to Deserver:         2.0 feet         Heavy Trucks:         76.5%         4.0%         19.5%         7.           Centerline Dist. to Observer:         0.0 feet         Autos:         6.0         4.0%         19.5%         7.           Barrier Distance to Observer:         0.0 feet         Autos:         8.004         Grade Adjustment:         0.0           Pad Elevation:         0.0 feet         Autos:         46.40         Medium Trucks:         46.209         Medium Trucks:         46.209         Medium Trucks:         46.209         Medium Trucks:         46.228         Medium Trucks:<	Peak Hour Percenta	ge: 10%				ks (2 Axles)	: 15	
Near/Far Lane Distance:		. ,			Heavy Trucks	(3+ Axles)	: 15	
Site Data	,			Vehic	le Mix			
Barrier Height:   0.0 feet   Medium Trucks:   82.2%   3.9%   14.0%   2.5	Near/Far Lane Distar	ce: 48 fee	t	V	ehicleType	Day	Evening	Night Da
Barrier Teight:   U.0 feet	Site Data				Aut	tos: 73.29	6 8.1%	18.6% 89.9
Barrier Type (0-Wall, 1-Berm): 0.0   Heavy Trucks: 76.5% 4.0% 19.5% 7.	Rarrier Hei	ht. 00 fe	et		Medium Truc	ks: 82.29	6 3.9%	14.0% 2.5
Centerline Dist. to Observer: 52.0 feet	Barrier Type (0-Wall, 1-Be	m): 0.0			Heavy Truc	ks: 76.5%	6 4.0%	19.5% 7.6
Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0%				Noise	Source Elev	ations (in t	eet)	
Medium Trucks: 2.297		02.0 10			Autos:	0.000		
Pad Elevation:		0.0 10		Med	dium Trucks:	2.297		
Road Elevation: 0.0 feet   Road Grade: 0.0%   Autos: 46.400   Autos: 46.228	• ,	,		He	eavy Trucks:	8.004	Grade Adju	ustment: 0.0
Road Grade: 0.0%		0.0 10		I ano	Fauivalent D	istanco (in	foot)	
Left View: -9.0.0 degrees   Medium Trucks: 46.209		0.0 10	et	Lanc	•		1001)	
Right View: 90.0 degrees   Heavy Trucks: 46.228			arooc	Med				
VehicleType         REMEL         Traffic Flow         Distance         Finite Road         Fresnel         Barrier Atten         Bern Atten           Autos:         68.46         -1.47         0.38         -1.20         -4.66         0.000         0           Medium Trucks:         79.45         -17.03         0.41         -1.20         -4.87         0.000         0           Heavy Trucks:         84.25         -12.20         0.41         -1.20         -5.41         0.000         0           Unmitigated Noise Levels (without Topo and barrier attenuation)         Leq Peak Hour         Leq Day         Leq Evening         Leq Night         Ldn         CNEL		00.0 00	•					
Autos: 68.46	FHWA Noise Model Calcul	ations						
Medium Trucks:         79.45         -17.03         0.41         -1.20         -4.87         0.000         0.00           Heavy Trucks:         84.25         -12.20         0.41         -1.20         -5.41         0.000         0.00           Unmitigated Noise Levels (without Topo and barrier attenuation)         Leq Peak Hour         Leq Day         Leq Evening         Leq Night         Ldn         CNEL	VehicleType REMI	L Traffic Flo	ow Distan	ice Fin	ite Road	Fresnel	Barrier Atte	n Berm Att
Heavy Trucks:         84.25         -12.20         0.41         -1.20         -5.41         0.000         0           Unmitigated Noise Levels (without Topo and barrier attenuation)         VehicleType         Leq Peak Hour         Leq Day         Leq Evening         Leq Night         Ldn         CNEL								
Unmittigated Noise Levels (without Topo and barrier attenuation)  VehicleType   Leq Peak Hour   Leq Day   Leq Evening   Leq Night   Ldn   CNEL								
VehicleType Leq Peak Hour Leq Day Leq Evening Leq Night Ldn CNEL				****		-5.41	0.0	00 0.
	•							01/5/
Autos. 00.2 04.0 00.0 09.0 00.0	., ., .,							CNEL
Medium Trucks: 61.6 60.0 52.7 53.5 61.4								
Heavy Trucks: 71.3 69.3 62.5 64.6 71.9								7
Vehicle Noise:         72.8         70.8         64.9         66.0         73.3	· -							
Centerline Distance to Noise Contour (in feet)	Centerline Distance to No.	se Contour (in	feet)					
. , ,			,	70 dBA	65 dB	A	60 dBA	55 dBA
Ldn: 86 186 400 862			Ldn:					
CNEL: 88 190 410 884								

Wednesday, October 17, 2018

FH	WA-RD-77-108	HIGHWA	Y NOISE P	REDICTION	ON MC	DEL					
Scenario: Existing W Road Name: Agua Man: Road Segment: e/o Riversi	sa Rd.			Project I Job Nu							
SITE SPECIFIC IN	NPUT DATA			N	OISE	MODE	L INPUT	S			
Highway Data			Site Cor	nditions (	Hard =	= 10, S	oft = 15)				
Average Daily Traffic (Adt):	7,275 vehicle	es				Autos:	15				
Peak Hour Percentage:	10%		Me	dium Tru	cks (2	Axles):	15				
Peak Hour Volume:	728 vehicles	S	He	avy Truci	ks (3+	Axles):	15				
Vehicle Speed:	45 mph		Vehicle	Miv							
Near/Far Lane Distance:	82 feet			icleType	Т	Day	Evening	Night	Daily		
Site Data					utos:	73.2%		18.6%	,		
Barrier Height:	0.0 feet		M	edium Tru		82.2%	3.9%	14.0%			
Barrier Type (0-Wall, 1-Berm):	0.0 reet			Heavy Tru	icks:	76.5%	4.0%	19.5%	7.60%		
Centerline Dist. to Barrier:	60.0 feet										
Centerline Dist. to Observer:	60.0 feet		Noise S	Noise Source Elevations (in feet)							
Barrier Distance to Observer:	0.0 feet			Autos	-	.000					
Observer Height (Above Pad):	5.0 feet			m Trucks	_	.297					
Pad Elevation:	0.0 feet		Hea	y Trucks	8	.004	Grade Ad	justment	: 0.0		
Road Elevation:	0.0 feet		Lane Eq	uivalent	Distar	ice (in	feet)				
Road Grade:	0.0%			Autos	44	.091					
Left View:	-90.0 degree	es	Mediu	m Trucks	43	.890					
Right View:	90.0 degree	es	Hea	y Trucks	43	.909					
FHWA Noise Model Calculation	าร										
VehicleType REMEL	Traffic Flow	Distanc		Road	Fres		Barrier Att		m Atten		
Autos: 68.46			0.72	-1.20		-4.69		000	0.000		
Medium Trucks: 79.45			0.75	-1.20		-4.88		000	0.000		
Heavy Trucks: 84.25	-14.41		0.74	-1.20		-5.34	0.0	000	0.000		
Unmitigated Noise Levels (with			,								
		/ / / /	g Evening	Leg N	light		l dn	1 C	NEL		
VehicleType Leq Peak Ho			, ,		_			1			
Autos: 64	4.3	62.2	58.6		57.	-	64.8	-			
Autos: 64 Medium Trucks: 59	4.3 9.8	62.2 58.1	50.8		51.	7	59.5	5	59.6		
Autos: 62 Medium Trucks: 59 Heavy Trucks: 69	4.3 9.8 9.4	62.2 58.1 67.4	50.8 60.6		51. 62.	7 8	59.5 70.0	5	59.6 70.1		
Autos: 64 Medium Trucks: 55 Heavy Trucks: 65 Vehicle Noise: 70	4.3 9.8 9.4 0.9	62.2 58.1 67.4 68.9	50.8		51.	7 8	59.5	5	59.6 70.1		
Autos: 64 Medium Trucks: 55 Heavy Trucks: 65 Vehicle Noise: 70	4.3 9.8 9.4 0.9	62.2 58.1 67.4 68.9	50.8 60.6		51. 62. 64.	7 8 1	59.5 70.0	1	65.0 59.6 70.1 71.6		
Autos: 62 Medium Trucks: 59 Heavy Trucks: 69	4.3 9.8 9.4 0.9 Contour (in feet)	62.2 58.1 67.4 68.9	50.8 60.6 63.0		51. 62. 64.	7 8 1	59.5 70.0 71.4	55	59.6 70.1 71.6		

	FHV	VA-RD-77-108	HIGHV	NAY N	IOISE PE	REDICT	ION MC	DEL			
Road Nan	rio: Existing Wine: 20th St.	thout Project				Project	Name: umber:	Agua			
SITE	SPECIFIC IN	PUT DATA				N	IOISE	MODE	L INPUT	5	
Highway Data					Site Con	ditions	(Hard =	: 10, S	oft = 15)		
Average Daily	Traffic (Adt):	20,975 vehicle	es					Autos	: 15		
Peak Hour	Percentage:	10%			Me	dium Tri	ucks (2	Axles)	: 15		
Peak F	Hour Volume:	2,098 vehicle	S		He	avy Truc	cks (3+ .	Axles)	: 15		
Ve	ehicle Speed:	45 mph		F	Vehicle I	Miv					
Near/Far La	ane Distance:	36 feet		H		cleType		Dav	Evening	Night	Dailv
Site Data					VCIII		Autos:	73.29		18.69	. ,
	rrier Height:	0.0 feet			Me	edium Ti		82.29		14.09	
Barrier Type (0-W		0.0 1661			F	leavy Ti	rucks:	76.59	6 4.0%	19.5%	6 7.60%
Centerline Di		50.0 feet		L							
Centerline Dist.		50.0 feet		Ľ	Noise Sc				feet)		
Barrier Distance		0.0 feet				Auto		000			
Observer Height	(Above Pad):	5.0 feet				n Truck		297			
	ad Elevation:	0.0 feet			Heav	y Truck	s: 8.	004	Grade Adj	ustmen	t: 0.0
	ad Elevation:	0.0 feet			Lane Equ	uivalen	t Distan	ce (in	feet)		
	Road Grade:	0.0%				Auto	s: 46.	.915			
	Left View:	-90.0 degree	es		Mediur	n Truck	s: 46.	726			
	Right View:	90.0 degree			Heav	y Truck	s: 46	744			
FHWA Noise Mod	lel Calculation:	S									
VehicleType	REMEL	Traffic Flow	Dista	ance	Finite	Road	Fresi	nel	Barrier Atte	en Be	erm Atten
Autos:	68.46	0.92		0.3	1	-1.20		-4.65	0.0	00	0.000
Medium Trucks:	79.45	-14.64		0.3	4	-1.20		-4.87	0.0	00	0.000
Heavy Trucks:	84.25	-9.81		0.3	4	-1.20		-5.43	0.0	00	0.000
Unmitigated Nois	e Levels (with	out Topo and	barrier	r atten	uation)						
VehicleType	Leq Peak Hou	r Leq Day		Leq E	vening	Leq	Night		Ldn	(	CNEL
Autos:	68.	5	66.3		62.8		61.0	6	69.0		69.2
Medium Trucks:	63.	9	62.3		55.0		55.9	9	63.7		63.8
Heavy Trucks:	73.	.6	71.6		64.8		66.	9	74.2	!	74.3
Vehicle Noise:	75.	.1	73.1		67.2		68.3	3	75.6	i	75.8
Centerline Distan	ce to Noise Co	ntour (in feet	)								
				70 (	dBA	65	dBA		60 dBA	5	5 dBA
			Ldn:		18	_	55		549		,183
		CI	VEL:	12	21	2	61		563	1	,214

	FHV	VA-RD-77-108	HIGI	1 YAWH	NOISE P	REDICT	ION M	ODEL				
	o: Existing Wi e: Market St. nt: e/o Hall Av.	,						: Agua   : 11215				
SITE S	SPECIFIC IN	IPUT DATA				ı	IOISE	MODE	L INPUT	S		
Highway Data					Site Cor	nditions	(Hard	= 10, S	oft = 15)			
Average Daily	Traffic (Adt):	22,298 vehicl	es					Autos:	15			
Peak Hour	Percentage:	10%			Me	edium Tr	ucks (2	Axles):	15			
Peak H	our Volume:	2,230 vehicle	s		He	avy Tru	cks (3+	Axles):	15			
Vel	hicle Speed:	45 mph		H	Vehicle	Miv						
Near/Far Lar	ne Distance:	36 feet		+		icleType	9	Day	Evening	Night	Daily	
Site Data							Autos:	73.2%	-	18.6%		
Par	rier Heiaht:	0.0 feet			М	edium T	rucks:	82.2%	3.9%	14.0%	2.50%	
Barrier Type (0-W	all, 1-Berm):	0.0				Heavy T	rucks:	76.5%	4.0%	19.5%	7.60%	
Centerline Dis		50.0 feet 50.0 feet			Noise Source Elevations (in feet)							
Centerline Dist.			Autos: 0.000									
Barrier Distance			Medium Trucks: 2,297									
Observer Height (	,	5.0 feet			Heavy Trucks: 8.004 Grade Adjustment: 0.0							
	d Elevation:	0.0 feet		-	F.		4 Di-4-	//	f4\			
	d Elevation:	0.0 feet		-	Lane Eq				reet)			
ŀ	Road Grade:	0.0%				Auto		5.915				
	Left View:	-90.0 degre				m Truck		5.726				
	Right View:	90.0 degre	es		неа	vy Truck	S: 4t	6.744				
FHWA Noise Mode												
VehicleType	REMEL	Traffic Flow		stance		Road	Fres		Barrier Att		rm Atten	
Autos:	68.46	1.18		0.3		-1.20		-4.65		000	0.000	
Medium Trucks:	79.45	-14.38		0.3		-1.20		-4.87		000	0.000	
Heavy Trucks:	84.25	-9.55		0.3		-1.20		-5.43	0.0	000	0.000	
Unmitigated Noise								1				
	Leq Peak Hou	- 1		Leq E	vening		Night		Ldn		NEL	
Autos:	68		66.6		63.1		61		69.2	-	69.5	
Medium Trucks: Heavy Trucks:	64 73		62.6 71.9		55.3 65.1		56 67		63.9 74.4		64.1 74.6	
Vehicle Noise:	73		73.4		67.5		68		75.9		76.0	
Centerline Distance	e to Noise Co	ontour (in fee	t)									
		(	_	70	dBA	65	dBA	- (	60 dBA	55	5 dBA	
			Ldn:	1:	123 265 572		572	1	,232			
		С	NEL:	1:				,264				

	FH\	VA-RD-77-108	HIGH	WAY N	OISE P	REDICT	TION MO	DDEL			
Road Nar	rio: Existing Wi ne: 20th St. ent: e/o Agua W	,					t Name: Number:		Mansa		
	SPECIFIC IN	PUT DATA							L INPUT	S	
Highway Data				S	Site Cor	nditions	(Hard:		oft = 15)		
Average Daily	Traffic (Adt):	16,062 vehicle	s					Autos:			
	Percentage:	10%					rucks (2	,			
Peak I	Hour Volume:	1,606 vehicles			He	avy Tru	icks (3+	Axles):	15		
Ve	ehicle Speed:	45 mph		ı	/ehicle	Mix					
Near/Far La	ane Distance:	36 feet		F	Veh	icleTyp	е	Day	Evening	Night	Daily
Site Data							Autos:	73.2%	8.1%	18.6%	89.90%
Ba	rrier Height:	0.0 feet			М	edium 7	rucks:	82.2%	3.9%	14.0%	2.50%
Barrier Type (0-V		0.0			1	Heavy 7	rucks:	76.5%	4.0%	19.5%	7.60%
Centerline D	ist. to Barrier:	50.0 feet			laina C	E	levatio	no (in f	0.041		
Centerline Dist.	to Observer:	50.0 feet		,	VUISE S	Auto		.000	cei)		
Barrier Distance	to Observer:	0.0 feet			Modiu	m Truck		.297			
Observer Height	(Above Pad):	5.0 feet				/y Truck		.004	Grade Ad	iustment	. 0.0
P	ad Elevation:	0.0 feet			rical	ry ITUCE	13. 0	.004	Orado ria,	juoumom	. 0.0
Ro	ad Elevation:	0.0 feet		L	.ane Eq	uivaler	t Distar	nce (in	feet)		
	Road Grade:	0.0%				Auto	os: 46	.915			
	Left View:	-90.0 degree	s		Mediu	m Truck	ks: 46	.726			
	Right View:	90.0 degree	s		Heav	y Truck	rs: 46	.744			
FHWA Noise Mod	lel Calculation	S									
VehicleType	REMEL	Traffic Flow	Dist	ance	Finite	Road	Fres	nel	Barrier Att	en Bei	m Atten
Autos:	68.46	-0.24		0.31		-1.20		-4.65	0.0	000	0.00
Medium Trucks:	79.45	-15.80		0.34		-1.20		-4.87	0.0	000	0.000
Heavy Trucks:	84.25	-10.97		0.34		-1.20		-5.43	0.0	000	0.00
Unmitigated Nois	e Levels (with	out Topo and I	barrie	r atteni	uation)						
VehicleType	Leq Peak Hou	- 1 - 7		Leq Ev			Night		Ldn		NEL
Autos:			35.2		61.7		60.	-	67.8	-	68.
Medium Trucks:			31.1		53.9		54.		62.5	-	62.
Heavy Trucks:			70.5		63.7		65.	-	73.0	_	73.:
Vehicle Noise:	73	.9 7	72.0		66.1		67.	.2	74.5	5	74.
Centerline Distan	ce to Noise Co	ontour (in feet)	1					,			
				70 d	BA .	65	dBA	1 6	60 dBA	55	dBA

990 1,016

Wednesday, October 17, 2018

	FH	WA-RD-77-108	HIGI	HWAY	NOISE P	REDICTI	ON M	ODEL			
Road Nan	rio: Existing W ne: Market St. ent: e/o Rivera	,				Project Job No		: Agua I : 11215			
	SPECIFIC IN	NPUT DATA							L INPUT	S	
Highway Data					Site Con	ditions (	Hard	= 10, S	oft = 15)		
Average Daily	Traffic (Adt):	26,739 vehicl	es					Autos:	15		
Peak Hour	Percentage:	10%			Me	dium Tru	cks (2	Axles):	15		
Peak F	Hour Volume:	2,674 vehicle	S		He	avy Truc	ks (3+	- Axles):	15		
Ve	ehicle Speed:	45 mph			Vehicle I	Miv					
Near/Far La	ane Distance:	48 feet				icleType		Dav	Evening	Night	Daily
Site Data							utos:	73.2%	-	18.6%	
- Po	rrier Height:	0.0 feet			Me	edium Tr	ucks:	82.2%	3.9%	14.0%	2.50%
Barrier Type (0-V		0.0			F	leavy Tr	ucks:	76.5%	4.0%	19.5%	7.60%
,,,,,	ist. to Barrier:	50.0 feet									
Centerline Dist.	to Observer:	50.0 feet			Noise So				eet)		
Barrier Distance	to Observer:	0.0 feet				Autos		0.000			
Observer Height	(Above Pad):	5.0 feet				m Trucks		2.297			
	ad Flevation:	0.0 feet			Heav	y Trucks	: 1	3.004	Grade Ad	ijustment	0.0
Ro	ad Elevation:	0.0 feet			Lane Eq	uivalent	Dista	nce (in	feet)		
	Road Grade:	0.0%				Autos	: 4	4.147			
	Left View:	-90.0 degre	es		Mediui	m Trucks	: 4	3.947			
	Right View:	90.0 degre	es		Heav	y Trucks	: 4	3.966			
FHWA Noise Mod	lel Calculation	ıs									
VehicleType	REMEL	Traffic Flow	Di	stance		Road	Fre	snel	Barrier At		m Atten
Autos:				0.7		-1.20		-4.65		000	0.000
Medium Trucks:				0.7		-1.20		-4.87		000	0.000
Heavy Trucks:	84.25	-8.76		0.7	73	-1.20		-5.43	0.0	000	0.000
Unmitigated Nois	e Levels (with	out Topo and	barri	er atte	nuation)						
VehicleType	Leq Peak Ho	ur Leq Day	/	Leq E	vening	Leq I	Vight		Ldn	C	VEL
Autos:	69	9.9	67.8		64.3		63	.1	70.	4	70.7
Medium Trucks:	65	5.4	63.8		56.5		57	.3	65.	1	65.3
Heavy Trucks:			73.1		66.3		68	.4	75.	6	75.8
Vehicle Noise:	76	6.5	74.6		68.7		69	.8	77.	1	77.2
Centerline Distan	ce to Noise C	ontour (in feet	)								
				70	dBA	65 c	IBA	(	60 dBA	55	dBA
			Ldn:		48	31	-		686	1,	478
		C	NEL:	1	52	32	7		704	1,	517

Wednesday, October 17, 2018

	EU\	WA-RD-77-108	піспм	AVA	IOISE DE	EDICT	ION MO	DEI			
Road Nam	io: Existing Wine: Cedar Av.	ith Alt 1	TIIGTW.	AII		Project	Name: lumber:	Agua			
SITE	SPECIFIC IN	IPUT DATA				N	IOISE	MODE	L INPUT	s	
Highway Data					Site Cond	ditions	(Hard =	= 10, S	oft = 15)		
Average Daily	Traffic (Adt):	40,822 vehicle	es					Autos	: 15		
Peak Hour	Percentage:	10%			Med	dium Tri	ucks (2	Axles)	: 15		
Peak H	lour Volume:	4,082 vehicle	s		Hea	avy Truc	cks (3+	Axles)	: 15		
Ve	hicle Speed:	40 mph		H	Vehicle N	Niv					
Near/Far La	ne Distance:	48 feet		H		cleType		Day	Evening	Night	Dailv
Site Data				_	*0111		Autos:	73.29		18.69	
	rrier Height:	0.0 feet		$\neg$	Me	dium Ti		82.29		14.09	
Barrier Type (0-W	-	0.0			Н	leavy Ti	rucks:	76.59	6 4.0%	19.59	6 7.66%
Centerline Di		52.0 feet		L							
Centerline Dist.		52.0 feet		L	Noise So			٠,	feet)		
Barrier Distance		0.0 feet				Auto		.000			
Observer Height		5.0 feet			Mediun			.297			
	ad Flevation:	0.0 feet			Heav	y Truck	s: 8.	.004	Grade Ad	ustmer	nt: 0.0
	ad Elevation:	0.0 feet		F	Lane Equ	iivalen	t Distan	ce (in	feet)		
	Road Grade:	0.0%		ı		Auto		400	,		
	Left View:	-90.0 degree	20		Mediun	n Truck	s: 46	209			
	Right View:	90.0 degree			Heav	y Truck	s: 46	.228			
FHWA Noise Mod											
VehicleType	RFMFI	Traffic Flow	Distar		Finite	Dood	Fres	nol	Barrier Att	on D	erm Atten
Autos:	66.51	4.32	Distai	0.3		-1.20	ries	-4.66	0.0		0.000
Medium Trucks:	77.72	-11.23		0.3	-	-1.20		-4.87			0.000
Heavy Trucks:	82.99	-6.37		0.4		-1.20		-5.41	0.0		0.000
Unmitigated Noise	a Lavala (with	aut Tana and	harriar a	24401	viotion)						
VehicleType	Leg Peak Hou				vening	Loa	Night	1	Ldn		ONEL
Autos:	70		67.9	cy L	64.3	Ley	63.	2	70.5		70.8
Medium Trucks:	65		64.0		56.8		57.	_	65.4		65.6
Heavy Trucks:	75		73.9		67.1		69.		76.4		76.6
Vehicle Noise:	77		75.2		69.2		70.		77.7		77.8
Centerline Distant	ce to Noise Co	ontour (in feet	)								
		(111 1001		70	dBA	65	dBA		60 dBA	5	5 dBA
			Ldn:	16	69	3	64	-	785		1,691
		CI	VEL:	17	73	3	74		805		1,734

	FH	WA-RD-77-108	HIGH	WAY N	OISE P	REDICT	ION MODE	-			
	o: Existing W e: Cedar Av. t: s/o Slover						t Name: Agu lumber: 112		1		
SITE S	SPECIFIC II	NPUT DATA				1	NOISE MOI	DEL IN	PUTS		
Highway Data				5	Site Cor	ditions	(Hard = 10,	Soft = 1	5)		
Average Daily 1	Traffic (Adt):	25,285 vehicl	es				Auto	s: 15			
Peak Hour I	Percentage:	10%			Me	dium Tr	ucks (2 Axle	s): 15			
Peak Ho	our Volume:	2,529 vehicle	S		He	avy Tru	cks (3+ Axle	s): 15			
	nicle Speed:	40 mph		1	/ehicle	Mix					
Near/Far Lar	ne Distance:	48 feet				icleType	e Day	/ Ever	ning Ni	ght L	Daily
Site Data							Autos: 73.	2% 8	.1% 18	8.6% 88	3.95%
Ban	rier Heiaht:	0.0 feet			М	edium T	rucks: 82.	2% 3	.9% 1	4.0% 2	2.62%
Barrier Type (0-Wa		0.0			1	Heavy T	rucks: 76.	5% 4	.0% 1	9.5% 8	3.43%
Centerline Dis	t. to Barrier:	52.0 feet		,	Voise S	ource E	levations (ii	r feet)			
Centerline Dist. t	o Observer:	52.0 feet		Ė		Auto		,			
Barrier Distance t	o Observer:	0.0 feet			Mediu	m Truck	s: 2.297				
Observer Height (A	,	5.0 feet			Heav	y Truck	s: 8.004	Grad	e Adjust	ment: 0.	0
	d Elevation:	0.0 feet		١.			4 Di-4 (	·- 64\			
	d Elevation:	0.0 feet		-	ane Eq		t Distance (	iii ieet)			
F	Road Grade:	0.0%			Modiu	Auto m Truck					
	Right View:	-90.0 degre 90.0 degre				y Truck					
FHWA Noise Mode	l Calculation	15									
VehicleType	REMEL	Traffic Flow	Dist	tance	Finite	Road	Fresnel	Barrie	er Atten	Berm A	Atten
Autos:	66.51	2.19		0.38	3	-1.20	-4.6	6	0.000		0.000
Medium Trucks:	77.72			0.41		-1.20	-4.8		0.000		0.000
Heavy Trucks:	82.99	-8.04		0.41		-1.20	-5.4	11	0.000		0.000
Unmitigated Noise	Levels (with	out Topo and	barrie	r atten	uation)						
,,	Leq Peak Ho			Leg Ev			Night	Ldn		CNEL	
Autos:		7.9	65.7		62.2		61.0		68.4		68.6
Medium Trucks:			62.2		54.9		55.7		63.5		63.7
Heavy Trucks:			72.2		65.4		67.5		74.8		74.9
Vehicle Noise:		5.4	73.4		67.4		68.6		75.9		76.1
Centerline Distanc	e to Noise C	ontour (in fee	)	70 c	ID A	C.F	dBA	60 dB/		55 dB.	Λ
			I dn:					599	4		
		C	NEL:	129 278 599 1,290 132 285 614 1,322							
		C		13	-			014		1,022	

	FHV	VA-RD-77-108	HIGHW	AY NO	ISE P	REDICTIO	ом мо	DEL			
	c: Existing Wi	th Alt 1				Project N					
Road Seamen		,				JOD NU	mber.	11215			
		<u> </u>				B16	NCE I	1000	LINDUT	_	
Highway Data	PECIFIC IN	PUIDAIA		S	ite Con	ditions (I			L INPUT	5	
Average Daily	Froffic (Adt):	29,346 vehicle		-	10 0011	4140110 (1		Autos:			
Peak Hour I	. ,	10%	:5		Mo	dium Truc					
	our Volume:	2.935 vehicles				avy Truck		,			
	icle Speed:	40 mph		_			- (				
Near/Far Lar	,	48 feet		V	ehicle I				1 1		
					Veh	icleType		Day	Evening	Night	Daily
Site Data				_		AL edium Tru	itos:	73.2%		18.6% 14.0%	
	rier Height:	0.0 feet				eaium i ru Heavy Tru		76.5%		19.5%	
Barrier Type (0-Wa		0.0			,	neavy IIu	CKS.	70.5%	4.0%	19.5%	0.32
Centerline Dis		52.0 feet		N	oise Sc	ource Ele	vation	s (in f	eet)		
Centerline Dist. t Barrier Distance t		52.0 feet				Autos:	0.	000			
Observer Height (		0.0 feet 5.0 feet			Mediu	m Trucks:	2.	297			
	d Flevation:	0.0 feet			Heav	y Trucks:	8.	004	Grade Ad	ljustmeni	0.0
	d Elevation:	0.0 feet		Li	ne Ea	uivalent l	Distan	ce (in	feet)		
	nad Grade:	0.0%				Autos:		400	,		
	Left View:	-90.0 degree	20		Mediu	m Trucks:	46.	209			
	Right View:	90.0 degree			Heav	y Trucks:	46.	228			
FHWA Noise Mode	I Calculation:	s									
VehicleType	REMEL	Traffic Flow	Dista	nce	Finite	Road	Fresr	nel	Barrier Att	ten Be	rm Atte
Autos:	66.51	2.85		0.38		-1.20		-4.66		000	0.0
Medium Trucks:	77.72	-12.48		0.41		-1.20		-4.87		000	0.0
Heavy Trucks:	82.99	-7.45		0.41		-1.20		-5.41	0.0	000	0.0
Unmitigated Noise VehicleType	•	-				l og N	liosh 4		Ldn		NEL
Autos:	Leq Peak Hou 68.		66.4	eq Eve	ening 62.9	Leq N	1gnt 61.7	7	69.1		NEL 69
Medium Trucks:	64	-	62.8		55.5		56.4		64.	-	64
Heavy Trucks:	74		72.8		66.0		68.1		75	_	75
Vehicle Noise:	76	.0	74.0		68.0		69.2	2	76.		76
Centerline Distanc	e to Noise Co	ntour (in feet	)								
				70 dE		65 di		(	60 dBA	55	dBA
			Ldn:	142		305			657		,416
			VFI:	145		313			673		451

Wednesday, October 17, 2018

	FH'	WA-RD-77-108	HIGI	HWAY	NOISE P	REDICTI	ON M	ODEL			
Road Nan	rio: Existing W ne: Cedar Av. nt: s/o Santa							: Agua I	Mansa		
	SPECIFIC II	NPUT DATA							L INPUT	s	
Highway Data					Site Cor	nditions (	Hard	= 10, Sc	oft = 15)		
Average Daily	Traffic (Adt):	25,820 vehicl	es					Autos:	15		
Peak Hour	Percentage:	10%			Me	dium Tru	cks (2	2 Axles):	15		
Peak I	lour Volume:	2,582 vehicle	s		He	avy Truc	ks (3-	+ Axles):	15		
Ve	ehicle Speed:	40 mph			Vehicle	Miv					
Near/Far La	ne Distance:	48 feet				icleType		Dav	Evening	Night	Daily
Site Data							utos:	73.2%	-	18.6%	,
	rrier Height:	0.0 feet			М	edium Tr	ucks:	82.2%	3.9%	14.0%	
Barrier Type (0-V		0.0 reet				Heavy Tr	ucks:	76.5%	4.0%	19.5%	8.62%
	ist. to Barrier:	52.0 feet									
Centerline Dist.		52.0 feet			Noise Source Elevations (in feet)						
Barrier Distance		0.0 feet				Autos		0.000			
Observer Height		5.0 feet				m Trucks		2.297			
	ad Flevation:	0.0 feet			Heav	y Trucks		8.004	Grade Ad	ljustment	0.0
-	ad Elevation:	0.0 feet			Lane Eq	uivalent	Dista	nce (in	feet)		
710	Road Grade:	0.0%				Autos	: 4	6.400			
	I eft View:	-90.0 degre	29		Mediu	m Trucks	: 4	6.209			
	Right View:	90.0 degre			Heav	vy Trucks	: 4	6.228			
FHWA Noise Mod		-									
VehicleType	REMEL	Traffic Flow	Di	stance		Road	Fre		Barrier At		m Atten
Autos:				0.3		-1.20		-4.66		000	0.000
Medium Trucks:				0.4		-1.20		-4.87		000	0.000
Heavy Trucks:				0.4		-1.20		-5.41	0.0	000	0.000
Unmitigated Nois											
VehicleType	Leq Peak Ho	, ,		Leq E	vening	Leq I			Ldn		NEL
Autos:			65.8		62.3		-	1.1	68.		68.7
Medium Trucks:	-		62.3		55.0			5.9	63.		63.8
Heavy Trucks:			72.4		65.6			7.7	75.		75.1
Vehicle Noise:	75	5.6	73.6		67.5		68	3.8	76.	1	76.2
Centerline Distan	ce to Noise C	ontour (in feet	)								
			Į		dBA	65 c		(	60 dBA		dBA
			Ldn:		32	28	-		615		324
		C	NEL:	1	36	292 630 1,35				357	

FH	WA-RD-77-108	HIGHW	AY NOISE	PREDIC <sup>*</sup>	TION M	ODEL			
Scenario: Existing W Road Name: Cedar Av. Road Segment: s/o Jurupa						: Agua I : 11215	Mansa		
SITE SPECIFIC I	NPUT DATA						L INPUT	s	
Highway Data			Site C	onditions	(Hard	= 10, S	oft = 15)		
Average Daily Traffic (Adt):	23,181 vehicle	es				Autos:	15		
Peak Hour Percentage:	10%		/	∕ledium T	rucks (2	Axles):	15		
Peak Hour Volume:	2,318 vehicle	S	l l	Heavy Tru	ıcks (3+	Axles):	15		
Vehicle Speed:	50 mph		Vehicl	e Mix					
Near/Far Lane Distance:	48 feet		Ve	ehicleTyp	е	Day	Evening	Night	Daily
Site Data					Autos:	73.2%	8.1%	18.6%	88.68%
Barrier Height:	0.0 feet			Medium 1	Trucks:	82.2%	3.9%	14.0%	2.65%
Barrier Type (0-Wall, 1-Berm):	0.0			Heavy	Trucks:	76.5%	4.0%	19.5%	8.68%
Centerline Dist. to Barrier:	52.0 feet		Noise	Source E	Elevatio	ns (in f	eet)		
Centerline Dist. to Observer:	52.0 feet			Auto	os: (	0.000			
Barrier Distance to Observer:	0.0 feet		Med	ium Truc	ks: 2	2.297			
Observer Height (Above Pad):	5.0 feet		He	avy Truci	ks: 8	3.004	Grade Ad	justmen	t: 0.0
Pad Elevation:	0.0 feet		l	·					
Road Elevation:	0.0 feet		Lane E	quivaler			teet)		
Road Grade:	0.0%			Auto		6.400			
Left View:	-90.0 degre			ium Truc		5.209			
Right View:	90.0 degre	es	He	avy Truci	KS: 41	5.228			
FHWA Noise Model Calculation	15								
VehicleType REMEL	Traffic Flow	Dista		te Road	Fre		Barrier Att		rm Atten
Autos: 70.20			0.38	-1.20		-4.66		000	0.000
Medium Trucks: 81.00			0.41	-1.20		-4.87		000	0.000
Heavy Trucks: 85.38			0.41	-1.20		-5.41	0.0	000	0.000
Unmitigated Noise Levels (with								1	
VehicleType Leq Peak Ho			eq Evening		Night .		Ldn		NEL
		68.1	64		63		70.		71.0
		64.2	56		57		65.	-	65.7
		73.4 74.9	66		68		75.9 77.4		76.1 77.5
Centerline Distance to Noise C					- 70	••	77.	•	77.0
Control Distance to NOISE C	oour (iii leet	/	70 dBA	65	dBA		60 dBA	55	dBA
		Ldn:	161		347	<u> </u>	747		.610
	C	VEL:	165		356		767		,652

	FH	WA-RD-77-108	HIGH	IWAY N	IOISE P	REDICT	ION MODEL			
	io: Existing W e: Rubidoux I nt: s/o Produc	BI.					t Name: Agua Number: 1121			
SITE	SPECIFIC II	NPUT DATA					NOISE MOD		S	
Highway Data					Site Cor	nditions	(Hard = 10,	Soft = 15)		
Average Daily	Traffic (Adt):	25,469 vehicl	es				Auto	s: 15		
Peak Hour	Percentage:	10%			Me	edium Ti	rucks (2 Axles	): 15		
Peak H	our Volume:	2,547 vehicle	s		He	eavy Tru	icks (3+ Axles	): 15		
Ve	hicle Speed:	50 mph			Vehicle	Miss				
Near/Far Lai	ne Distance:	48 feet		H		nicleTyp	e Dav	Evening	Night	Daily
Site Data					Vei		Autos: 73,2		18.6%	
						ledium 7			14.0%	
	rier Height:	0.0 feet				Heavy 7		,,.	19.5%	
Barrier Type (0-W		0.0				ricavy i	70.0	70 4.070	10.07	3.3270
Centerline Dist		59.0 feet 59.0 feet		1	Noise S	ource E	levations (in	feet)		
Barrier Distance		0.0 feet				Auto	os: 0.000			
		5.0 feet			Mediu	m Truck	s: 2.297			
Observer Height (	ad Flevation:	0.0 feet			Hea	vy Truck	s: 8.004	Grade Ad	iustmen	t: 0.0
	ad Elevation:	0.0 feet		-	l ane Fo	uivaler	t Distance (in	n feet)		
	Road Grade:	0.0%		F		Auto		7.1001)		
,	Left View:	-90.0 degre	00		Modii	m Truck				
	Right View:	90.0 degre				vy Truck				
FHWA Noise Mode	el Calculation	ıs								
VehicleType	REMEL	Traffic Flow	Dis	stance	Finite	Road	Fresnel	Barrier Att	en Be	rm Atten
Autos:	70.20	1.17		-0.62	2	-1.20	-4.6	9 0.0	000	0.000
Medium Trucks:	81.00	-13.69		-0.60	)	-1.20	-4.8	3 0.0	000	0.000
Heavy Trucks:	85.38	-8.27		-0.60	)	-1.20	-5.3	5 0.0	000	0.000
Unmitigated Noise	e Levels (with	out Topo and	barrie	er atten	uation)					
VehicleType	Leq Peak Ho	ur Leq Daj	/	Leq E	/ening	Leq	Night	Ldn	C	NEL
Autos:			67.4		63.9		62.7	70.0		70.3
Medium Trucks:	65	5.5	63.9		56.6		57.4	65.2	2	65.4
Heavy Trucks:			73.4		66.6		68.7	75.9		76.0
Vehicle Noise:		5.7	74.7		68.7	•	69.9	77.2	2	77.4
Centerline Distance	ce to Noise C	ontour (in fee	)	70 -	/D A	0.5	-/D4	00 dD4		-/04
			Ldn:	70 c			dBA	60 dBA		5 dBA
		0	Lan: NEL:	18		384 826 1,781 393 847 1,826			,781 .826	
		C	VEL.	18		3	133	041	1	,020

	FH\	WA-RD-77-108	HIGHV	VAY NO	ISE P	REDICT	ION MO	DEL			
	: Existing W						Name:		Mansa		
	e: Rubidoux E					Job N	lumber:	11215			
Road Segmen	t: s/o El Rivir	io Rd.									
	SPECIFIC IN	IPUT DATA							L INPUT	S	
Highway Data				Si	te Con	ditions	(Hard =	10, Sc	oft = 15)		
Average Daily	Fraffic (Adt):	24,138 vehicl	es					Autos:	15		
Peak Hour	Percentage:	10%					ucks (2 A	,	15		
Peak H	our Volume:	2,414 vehicle	s		He	avy Tru	cks (3+ A	(xles	15		
Vel	nicle Speed:	50 mph		V	ehicle l	Mix					
Near/Far Lar	e Distance:	48 feet		<u> </u>		icleType	,	Day	Evening	Night	Daily
Site Data						,	Autos:	73.2%	8.1%	18.6%	86.40%
Bar	rier Heiaht:	0.0 feet			Me	edium T	rucks:	82.2%	3.9%	14.0%	3.04%
Barrier Type (0-W	all, 1-Berm):	0.0			F	leavy T	rucks:	76.5%	4.0%	19.5%	10.56%
Centerline Dis		59.0 feet		N	oise So	ource E	levation	s (in fe	eet)		
Centerline Dist. t		59.0 feet				Auto.		000			
Barrier Distance t		0.0 feet			Mediui	m Truck	s: 2.:	297			
Observer Height (	,	5.0 feet			Heav	y Truck	s: 8.0	004	Grade Adj	iustment	: 0.0
	d Elevation:	0.0 feet		-							
	d Elevation:	0.0 feet		Lá	ane Eq		t Distan	_	reet)		
F	Road Grade:	0.0%				Auto					
	Left View:	-90.0 degre				m Truck					
	Right View:	90.0 degre	es		Heav	y Truck	s: 53.	982			
FHWA Noise Mode											
VehicleType	REMEL	Traffic Flow	Dista		Finite	Road	Fresr	_	Barrier Att		rm Atten
Autos:	70.20	0.90		-0.62		-1.20		-4.69	0.0		0.000
Medium Trucks:	81.00	-13.65		-0.60		-1.20		-4.88		000	0.000
Heavy Trucks:	85.38	-8.23		-0.60		-1.20		-5.35	0.0	000	0.000
Unmitigated Noise											
	Leq Peak Ho		67.1	Leq Eve		Leq	Night 62.4		Ldn 69.8		NEL
Autos:	69				63.6						70.0 65.4
Medium Trucks:	65		63.9		56.6 66.6		57.5 68.7		65.3		
Heavy Trucks:  Vehicle Noise:	75 76		73.4 74.7		68.6		69.9		75.9 77.2		76.1 77.3
Centerline Distance					00.0		03.3		, , , ,	-	11.0
Centernile Distanc	e to worse C	ontour (in reet	,	70 dE	3A	65	dBA	6	60 dBA	55	dBA
			Ldn:	177			82		824		775
		C	NEL:	182			92		844		819

Wednesday, October 17, 2018

	FH\	WA-RD-77-108	HIGH	WAY I	NOISE PE	REDICT	ION M	ODEL				
Scenario: Existing With Alt 1 Road Name: Rubidoux Bl. Road Segment: s/o 20th St.						Project Name: Agua Mansa Job Number: 11215						
SITE SPECIFIC INPUT DATA						NOISE MODEL INPUTS						
Highway Data						Site Conditions (Hard = 10, Soft = 15)						
Average Daily	20,118 vehicle	es					Autos:	15				
Peak Hour Percentage:		10%			Medium Trucks (2 Axles): 15							
Peak Hour Volume:		2,012 vehicles			Heavy Trucks (3+ Axles): 15							
V	ehicle Speed:	50 mph			Vahiala	Miss						
Near/Far Lane Distance:		48 feet			Vehicle Mix  VehicleType Day Evening Night Daily							
Site Data				-	Ven		Autos:	73.2%		18.6%	,	
	arrier Heiaht:				1.11	r edium Ti		82.2%		14.0%		
	0.0 feet				deavy Ti		76.5%		19.5%			
Barrier Type (0-Wall, 1-Berm):		0.0				icavy 11	ucns.	10.07	U 4.070	13.570	0.557	
Centerline Dist. to Barrier: Centerline Dist. to Observer:		59.0 feet			Noise So	ource El	evatio	ns (in f	eet)			
	59.0 feet				Auto	s: (	0.000					
Barrier Distance	0.0 feet			Mediui	m Truck	s: 2	2.297					
Observer Height	5.0 feet 0.0 feet			Heav	y Truck	s: 8	3.004	Grade Ad	justment	0.0		
r Ro	0.0 feet		ŀ	I ano Fa	uivalen	Dieta	nce (in	foot)				
R	0.0 reet 0.0%			Lane Equivalent Distance (in feet)  Autos: 54.129								
Road Grade:					Modiu			3.966				
		-90.0 degrees 90.0 degrees				Medium Trucks: 53.966 Heavy Trucks: 53.982						
	Right View:	90.0 degre	es		пеач	y Huck	s. 5.	5.902				
FHWA Noise Mod	del Calculation	s										
VehicleType	REMEL	Traffic Flow	Dist	tance		Road	Fre		Barrier Att		m Atten	
Autos: 70.20		0.20		-0.62		-1.20	-4.69				0.000	
Medium Trucks: 81.0				-0.60		-1.20	-4.88				0.000	
Heavy Trucks: 85.38		-9.74		-0.60		-1.20	-5.35		0.0	000	0.000	
Unmitigated Nois	e Levels (with	out Topo and	barrie	r attei	nuation)							
VehicleType	Leq Peak Hou	ır Leq Day	Leq Day Leq		vening	g Leq Nig			Ldn	C	NEL	
Autos: 68					62.9		61.7		69.	1	69.3	
		.2 62.6			55.3		56.1		64.0		64.1	
Heavy Trucks: 73		.8 71.9			65.1		67.2		74.4		74.6	
Vehicle Noise	75	.3	73.3		67.4		68	.5	75.8	3	76.0	
Centerline Distar	nce to Noise C	ontour (in feet	)									
			L		dBA	65 dBA			60 dBA		dBA	
			Ldn:		44	-	11		671		445	
		CI	NEL:	1	48	3	19		688	1,	482	

Wednesday, October 17, 2018

	FH	WA-RD-77-108	HIGH	WAY N	OISE P	REDICT	ION M	ODEL			
	o: Existing W e: Rubidoux I nt: s/o 24th St	BI.						Agua I 11215	Mansa		
	SPECIFIC IN	NPUT DATA							L INPUT	S	
Highway Data					Site Cor	nditions	(Hard		oft = 15)		
Average Daily	Traffic (Adt):	20,815 vehicle	es					Autos:			
Peak Hour	Percentage:	10%				edium Tr					
Peak H	our Volume:	2,082 vehicle	S		He	eavy Tru	cks (3+	Axles):	15		
Ve	hicle Speed:	50 mph		,	Vehicle	Mix					
Near/Far Lai	ne Distance:	48 feet		F	Ver	icleType	9	Day	Evening	Night	Daily
Site Data							Autos:	73.2%	8.1%	18.6%	88.30%
Rai	rier Height:	0.0 feet			М	edium T	rucks:	82.2%	3.9%	14.0%	2.71%
Barrier Type (0-W	all, 1-Berm):	0.0				Heavy T	rucks:	76.5%	4.0%	19.5%	8.99%
Centerline Dis		59.0 feet		1	Voise S	ource E	levatio	ns (in f	eet)		
Centerline Dist.		59.0 feet				Auto	s: C	0.000			
Barrier Distance		0.0 feet			Mediu	m Truck	s: 2	.297			
Observer Height (	,	5.0 feet			Hear	vy Truck	s: 8	3.004	Grade Ad	justmen	0.0
	ad Elevation:	0.0 feet		L.		•					
	ad Elevation:	0.0 feet		1	Lane Eq	uivalen			feet)		
I	Road Grade:	0.0%				Auto		1.129			
	Left View:	-90.0 degre	es			m Truck	-	3.966			
	Right View:	90.0 degre	es		Hear	vy Truck	s: 53	3.982			
FHWA Noise Mode	el Calculation	ıs									
VehicleType	REMEL	Traffic Flow	Dis	tance	Finite	Road	Fres	snel	Barrier Att	en Be	rm Atten
Autos:	70.20	0.35		-0.62	2	-1.20		-4.69	0.0	000	0.000
Medium Trucks:	81.00			-0.60		-1.20		-4.88	0.0	000	0.000
Heavy Trucks:	85.38	-9.57		-0.60	)	-1.20		-5.35	0.0	000	0.000
Unmitigated Noise								_			
	Leq Peak Ho			Leg E			Night		Ldn		NEL
Autos:			66.6		63.1		61		69.	_	69.5
Medium Trucks:	-		62.8		55.5		56		64.:	_	64.3
Heavy Trucks:			72.0		65.2		67		74.		74.7
Vehicle Noise:			73.5		67.6		68	.7	76.	0	76.2
Centerline Distance	e to Noise C	ontour (in feet	)	70	10.4	05	10.4	1		-	
			L	70 c			dBA	(	60 dBA	1	dBA
			Ldn:	14	-	-	19		688		482
		C	NEL:	15	2	3	28		706	1	520

Wednesday, October 17, 2018

FH	WA-RD-77-108	HIGHW	AY N	OISE P	REDICT	ION MODE	L		
Scenario: Existing W Road Name: Rubidoux Road Segment: s/o 28th S	BI.					t Name: Agu Number: 112			
SITE SPECIFIC II	NPUT DATA				- 1	NOISE MO	DEL INPU	rs	
Highway Data			S	ite Cor	nditions	(Hard = 10	Soft = 15)		
Average Daily Traffic (Adt):	22,868 vehicle	es				Aut	os: 15		
Peak Hour Percentage:	10%			Ме	edium Ti	rucks (2 Axle	es): 15		
Peak Hour Volume:	2,287 vehicles	S		He	avy Tru	icks (3+ Axle	es): 15		
Vehicle Speed:	50 mph		1/	ehicle	Miv				
Near/Far Lane Distance:	48 feet		-		icleTyp	e Da	y Evening	Nic	tht Daily
Site Data				V C/1			2% 8.1%		.6% 88.43%
Barrier Height:	0.0 feet			М	edium 7		2% 3.9%		.0% 2.69%
Barrier Type (0-Wall, 1-Berm):	0.0 reet				Heavy 7	rucks: 76	5% 4.0%		.5% 8.87%
Centerline Dist. to Barrier:	59.0 feet								
Centerline Dist. to Observer:	59.0 feet		٨	loise S		levations (i			
Barrier Distance to Observer:	0.0 feet				Auto				
Observer Height (Above Pad):	5.0 feet				m Truck				
Pad Flevation:	0.0 feet			Hea	vy Truck	s: 8.004	Grade A	ajustn	nent: 0.0
Road Elevation:	0.0 feet		L	ane Eq	uivalen	t Distance	(in feet)		
Road Grade:	0.0%				Auto	s: 54.129	)		
Left View:	-90.0 degree	es		Mediu	m Truck	rs: 53.966	6		
Right View:	90.0 degree	es		Hear	vy Truck	s: 53.982	2		
FHWA Noise Model Calculation	18								
VehicleType REMEL	Traffic Flow	Dista	nce	Finite	Road	Fresnel	Barrier A	tten	Berm Atten
Autos: 70.20			-0.62		-1.20	-4.		.000	0.000
Medium Trucks: 81.00			-0.60		-1.20	-4.		.000	0.000
Heavy Trucks: 85.38			-0.60		-1.20	-5.	35 0	.000	0.000
Unmitigated Noise Levels (with									
VehicleType Leq Peak Ho			eq Ev			Night	Ldn		CNEL
		67.0		63.5		62.3	69		69.9
		63.2		55.9		56.7	64		64.7
,		72.4 73.9		65.6 68.0		67.7 69.1	75 76		75.1 76.5
				00.0		09.1	76	.4	76.5
Centerline Distance to Noise C	ontour (in feet	,	70 dBA 65 dBA 60 dBA 55 dBA			55 dBA			
		Ldn:				1,568			
		VEL:	16			347	747		1.608

	FHW	/A-RD-77-108 HIG	1 YAWH	NOISE PE	REDICTION	MODEL			
	Existing Wit Rubidoux B So 26th St.				Project Na Job Num	me: Agua ber: 1121			
SITE S	PECIFIC IN	PUT DATA					EL INPUT	S	
Highway Data				Site Con	ditions (H	ard = 10, S	Soft = 15)		
Average Daily T	raffic (Adt):	21,382 vehicles				Autos	s: 15		
Peak Hour F	Percentage:	10%		Me	dium Truck	s (2 Axles	): 15		
Peak Ho	ur Volume:	2,138 vehicles		He	avy Trucks	(3+ Axles	): 15		
Veh	icle Speed:	50 mph	ŀ	Vehicle I	Mix				
Near/Far Lan	e Distance:	48 feet	ŀ		icleType	Dav	Evening	Night	Daily
Site Data					Aut	os: 73.2		18.6%	
Rarr	ier Height:	0.0 feet		Me	edium Truc	ks: 82.2	% 3.9%	14.0%	2.70%
Barrier Type (0-Wa		0.0		F	leavy Truc	ks: 76.5	% 4.0%	19.5%	8.95%
Centerline Dist		59.0 feet	-						
Centerline Dist. to	Observer:	59.0 feet		Noise Sc	ource Elev		teet)		
Barrier Distance to	Observer:	0.0 feet			Autos:	0.000			
Observer Height (A	bove Pad):	5.0 feet			n Trucks: y Trucks:	2.297 8.004	Grade Ad	liustmont	
Pad	d Elevation:	0.0 feet		пеач	y Hucks.	6.004	Orado Ad	justinoni	. 0.0
Road	d Elevation:	0.0 feet		Lane Eq	uivalent D	istance (ir	ı feet)		
R	oad Grade:	0.0%			Autos:	54.129			
	Left View:	-90.0 degrees			n Trucks:	53.966			
	Right View:	90.0 degrees		Heav	y Trucks:	53.982			
FHWA Noise Model	Calculations	5							
VehicleType	REMEL		istance	Finite		Fresnel	Barrier At		m Atten
Autos:	70.20	0.47	-0.6	-	-1.20	-4.69		000	0.000
Medium Trucks:	81.00	-14.67	-0.6		-1.20	-4.88		000	0.000
Heavy Trucks:	85.38	-9.47	-0.6	-	-1.20	-5.35	5 0.0	000	0.000
Unmitigated Noise	•								
	eq Peak Hou		Leq E	vening	Leq Nig		Ldn		NEL
Autos:	68.			63.2		62.0	69.	-	69.6
Medium Trucks:	64.			55.6		56.4	64.		64.4
Heavy Trucks:	74.			65.3		67.5	74.		74.8
Vehicle Noise:	75.			67.7		68.8	76.	1	76.3
Centerline Distance	e to Noise Co	ntour (in feet)	70	dBA	65 dB	A	60 dBA	FF	dBA
		Ldn:		ава 51	324	,	699		506
		CNFI:		51 54	333		717		545
		CIVLL.	1.	U-T	333		, , ,	1,	0-10

Wednesday, October 17, 2018

	FH\	WA-RD-77-108	HIGH	WAY	NOISE PI	REDICTI	ON M	ODEL						
Road Nam	io: Existing Wine: Rubidoux Ent: s/o SR-60	BI.						: Agua l : 11215						
	SPECIFIC IN	IPUT DATA							L INPUT	S				
Highway Data					Site Con	ditions	(Hard	= 10, S	oft = 15)					
Average Daily	Traffic (Adt):	24,340 vehicle	es					Autos:	15					
Peak Hour	Percentage:	10%			Me	dium Tru	icks (2	Axles):	15					
Peak H	lour Volume:	2,434 vehicles	S		He	avy Truc	ks (3+	Axles):	15					
Ve	hicle Speed:	50 mph		-	Vehicle	Miss								
Near/Far La	ne Distance:	48 feet		ł		icleType		Dav	Evening	Night	Daily			
Site Data					*011		lutos:	73.2%	-	18.6%	,			
	rrier Heiaht:	0.0 feet			М	edium Tı		82.2%		14.0%				
Barrier Type (0-W		0.0 1001			- 1	Heavy Ti	ucks:	76.5%	4.0%	19.5%	7.69%			
Centerline Di		59.0 feet												
	Centerline Dist. to Observer: 59.0 feet						Noise Source Elevations (in feet)							
	arrier Distance to Observer: 0.0 feet						Autos: 0.000 Medium Trucks: 2.297							
Observer Height	(Above Pad):	5.0 feet						2.297						
	ad Flevation:	0.0 feet			Heav	y Truck	S. 8	3.004	Grade Ad	justment	: 0.0			
Roi	ad Elevation:	0.0 feet		İ	Lane Eq	uivalent	Dista	nce (in	feet)					
	Road Grade:	0.0%		İ		Auto	s: 5	4.129						
	Left View:	-90.0 degree	es		Mediu	m Truck	s: 5	3.966						
	Right View:	90.0 degree	es		Heav	y Truck	s: 5	3.982						
FHWA Noise Mod														
VehicleType	REMEL	Traffic Flow	Dis	tance		Road	Fre.	snel	Barrier Att		m Atten			
Autos:	70.20	1.10		-0.6	-	-1.20		-4.69		000	0.000			
Medium Trucks:	81.00			-0.6		-1.20		-4.88		000	0.000			
Heavy Trucks:	85.38	-9.58		-0.6	60	-1.20		-5.35	0.0	000	0.000			
Unmitigated Noise	e Levels (with	out Topo and	barrie	er atte	nuation)									
VehicleType	Leq Peak Hou	ır Leq Day	,	Leq E	vening	Leq	Night		Ldn	C	NEL			
Autos:	69		67.3		63.8		62		70.0		70.2			
Medium Trucks:	64		63.1		55.8		56		64.5	-	64.6			
Heavy Trucks:	74	.0	72.0		65.2		67	.4	74.6	6	74.7			
Vehicle Noise:	75	.7	73.7		67.9		68	.9	76.2	2	76.4			
Centerline Distan	ce to Noise C	ontour (in feet	)											
					dBA		dBA	(	60 dBA	55	dBA			
			Ldn:		53		29		708		526			
		CI	VEL:	1	57	33	37		727	1,	566			

	FHV	VA-RD-77-108	HIGH	WAY N	IOISE P	REDICT	ION M	ODEL			
Scenario: Ex Road Name: Ru Road Segment: s/o	ubidoux E	BI.						: Agua I : 11215	Mansa		
	CIFIC IN	IPUT DATA							L INPUT	S	
Highway Data					Site Cor	nditions	(Hard				
Average Daily Traffic	c (Adt):	18,671 vehicle	es					Autos:			
Peak Hour Perce		10%				edium Tr					
Peak Hour V		1,867 vehicle	S		He	eavy Tru	cks (3+	- Axles):	15		
Vehicle S		50 mph		1	Vehicle	Mix					
Near/Far Lane Dis	stance:	48 feet			Veh	icleType		Day	Evening	Night	Daily
Site Data							Autos:	73.2%	8.1%	18.6%	89.79%
Barrier H	leiaht:	0.0 feet			М	edium T	rucks:	82.2%	3.9%	14.0%	2.50%
Barrier Type (0-Wall, 1-	Berm):	0.0				Heavy T	rucks:	76.5%	4.0%	19.5%	7.71%
Centerline Dist. to E		59.0 feet		1	Noise S	ource E	levatio	ns (in f	eet)		
Centerline Dist. to Ob-		59.0 feet				Auto	s: (	0.000			
Barrier Distance to Ob-		0.0 feet			Mediu	m Truck	s: 2	2.297			
Observer Height (Above	,	5.0 feet			Hear	vy Truck	s: 8	3.004	Grade Ad	justment	0.0
Pad Ele		0.0 feet									
Road Ele		0.0 feet		<u> </u>	Lane Eq				reet)		
	Grade:	0.0%				Auto		4.129			
	ft View:	-90.0 degre				m Truck	-	3.966			
Rign	t View:	90.0 degre	es		неа	vy Truck	S. 5	3.982			
FHWA Noise Model Cal											
	MEL	Traffic Flow	Dis	stance		Road	Fre		Barrier Att	_	rm Atten
Autos:	70.20	-0.05		-0.62	_	-1.20		-4.69		000	0.000
Medium Trucks:	81.00	-15.61		-0.60	-	-1.20		-4.88		000	0.000
Heavy Trucks:	85.38	-10.71		-0.60		-1.20		-5.35	0.0	000	0.000
Unmitigated Noise Leve								_			
	Peak Hou			Leq E			Night	_	Ldn		NEL
Autos: Medium Trucks:	68 63		66.2 61.9		62.7 54.7		61 55		68.8	-	69.1
			70.9						63.3		63.5
Heavy Trucks: Vehicle Noise:	72 74		70.9		64.1		66		73.5 75.0		73.6 75.2
Centerline Distance to	Noise Co	ontour (in feet	+)								
		,	_	70 0	dBA	65	dBA	-	60 dBA	55	dBA
			Ldn:	12	28	2	76	-	594	1.	280
		C	NEL:	13	31	2	83		610	1,	314

	FHV	VA-RD-77-108	HIG	HWAY I	NOISE P	REDICT	ION M	ODEL						
Road Nam	io: Existing Wi e: Rivera St. nt: n/o Market							Agua I 11215	Mansa					
SITE	SPECIFIC IN	PUT DATA				N	IOISE	MODE	L INPUT	s				
Highway Data					Site Cor	ditions	(Hard	= 10, S	oft = 15)					
Average Daily	Traffic (Adt):	8,797 vehicl	es					Autos:	15					
Peak Hour	Percentage:	10%			Me	dium Tri	ucks (2	Axles):	15					
Peak H	our Volume:	880 vehicle	s		He	avy Truc	cks (3+	Axles):	15					
Ve	hicle Speed:	30 mph		-	Vehicle	Miv								
Near/Far Lai	ne Distance:	12 feet		ŀ		icleType		Day	Evening	Night	Daily			
Site Data							Autos:	73.2%		18.6%				
	rier Height:	0.0 feet			М	edium Ti		82.2%		14.0%				
Barrier Type (0-W		0.0				Heavy Ti	rucks:	76.5%	4.0%	19.5%	7.51%			
Centerline Dis	st. to Barrier:	33.0 feet		-	Noise S	ource E	levatio	ns (in f	eet)					
Centerline Dist.	Centerline Dist. to Observer: 33.0 feet						Autos: 0.000							
Barrier Distance	Barrier Distance to Observer: 0.0 feet						Medium Trucks: 2.297							
Observer Height (.		5.0 feet			Hear	vy Truck		3.004	Grade Ad	iustment	: 0.0			
	ad Elevation:	0.0 feet												
	ad Elevation:	0.0 feet			Lane Eq				feet)					
· ·	Road Grade:	0.0%				Auto		2.833						
	Left View:	-90.0 degre				m Truck		2.562						
	Right View:	90.0 degre	es		Hear	y Truck	s: 32	2.589						
FHWA Noise Mode	el Calculation	s												
VehicleType	REMEL	Traffic Flow	Di	stance		Road	Fres		Barrier Att		rm Atten			
Autos:	61.75	-1.09		2.6		-1.20		-4.52		000	0.000			
Medium Trucks:	73.48	-16.71		2.6	-	-1.20		-4.86	0.0	000	0.000			
Heavy Trucks:	79.92	-11.88		2.6	-	-1.20		-5.69	0.0	000	0.000			
Unmitigated Noise			_					_						
VehicleType	Leq Peak Hou	., .,		Leq E	vening	,	Night		Ldn		NEL			
Autos:	62		60.0		56.4		55		62.6		62.8			
Medium Trucks:	58		56.6		49.3		50		58.0		58.2			
Heavy Trucks: Vehicle Noise:	69 70		67.6 68.6		60.8		62 63		70.1 71.1		70.3 71.2			
Centerline Distance					02.1						7.1.2			
Co.nermie Distant	110136 00	Jui (iii leei	,	70	dBA	65	dBA	(	60 dBA	55	dBA			
	Ldn:						39 84 180			3	388			
		C	NEL:	4	10	8	36		184	3	397			

	FH\	VA-RD-77-108	HIG	HWAY	NOISE P	REDICT	ION MC	DEL			
Road Nan	rio: Existing Wine: Cactus Av. nt: n/o El Rivin						t Name: lumber:				
	SPECIFIC IN	IPUT DATA							L INPUT	s	
Highway Data					Site Cor	nditions	(Hard =	= 10, S	oft = 15)		
Average Daily	Traffic (Adt):	3,215 vehicle	es					Autos:	15		
Peak Hour	Percentage:	10%			Me	dium Tr	ucks (2	Axles):	15		
Peak F	lour Volume:	322 vehicle	S		He	avy Tru	cks (3+	Axles):	15		
Ve	hicle Speed:	40 mph		1	Vehicle	Mix					
Near/Far La	ne Distance:	11 feet				icleType	9	Day	Evening	Night	Daily
Site Data							Autos:	73.2%	8.1%	18.6%	90.80%
Ra	rrier Heiaht:	0.0 feet			M	edium T	rucks:	82.2%	3.9%	14.0%	2.28%
Barrier Type (0-W		0.0				Heavy T	rucks:	76.5%	4.0%	19.5%	6.92%
Centerline Di	ist. to Barrier:	30.0 feet		-	Noise S	ourco E	lovation	ne (in f	oot)		
Centerline Dist.	to Observer:	30.0 feet		ł	Noise 3	Auto		.000	eet)		
Barrier Distance	to Observer:	0.0 feet			Modiu	m Truck		.297			
Observer Height	(Above Pad):	5.0 feet				/y Truck		.004	Grade Ad	iustmen	. 0.0
P	ad Elevation:	0.0 feet			i ica	ry Truck	s. 0	.004	0,000,10	judumom	. 0.0
Ro	ad Elevation:	0.0 feet			Lane Eq	uivalen	t Distan	ice (in	feet)		
	Road Grade:	0.0%				Auto	s: 29	.912			
	Left View:	-90.0 degree	es		Mediu	m Truck	s: 29	.615			
	Right View:	90.0 degree	es		Hea	/y Truck	s: 29	.644			
FHWA Noise Mod	lel Calculation	s									
VehicleType	REMEL	Traffic Flow	Di	stance	Finite	Road	Fres	nel	Barrier Att	en Be	m Atten
Autos:	66.51	-6.67		3.2	24	-1.20		-4.49	0.0	000	0.000
Medium Trucks:	77.72	-22.68		3.3	31	-1.20		-4.86	0.0	000	0.000
Heavy Trucks:	82.99	-17.85		3.3	30	-1.20		-5.77	0.0	000	0.000
Unmitigated Nois	e Levels (with	out Topo and	barrı	ier atte	nuation)						
VehicleType	Leq Peak Hou	- 1 - 7		Leg E	vening		Night		Ldn		NEL
Autos:			59.7		56.2		55.		62.4		62.6
Medium Trucks:			55.5		48.2		49.		56.9	-	57.0
Heavy Trucks:	67		65.3		58.5		60.		67.8		68.0
Vehicle Noise:	68	.7	66.7		60.8		61.	9	69.2	2	69.4
Centerline Distan	ce to Noise Co	ontour (in feet	)								
				70	dRA	65	dRA	1 /	SO dRA	1 55	dRA

Wednesday, October 17, 2018

	FHV	VA-RD-77-108 H	IIGHWAY	NOISE P	REDICTION	ON MODEL		
Scenario: Road Name: Road Segment:		v.				lame: Agu mber: 112		
SITE SI	PECIFIC IN	PUT DATA			N	DISE MOD	EL INPUT	s
Highway Data				Site Cor	nditions (	Hard = 10,	Soft = 15)	
Average Daily Tr	raffic (Adt):	37,978 vehicles	3			Auto	s: 15	
Peak Hour Pe	ercentage:	10%		Me	dium Tru	cks (2 Axles	s): 15	
Peak Hou	ur Volume:	3,798 vehicles		He	avy Truck	s (3+ Axles	s): 15	
Vehic	cle Speed:	40 mph		Vehicle	Mile			
Near/Far Lane	Distance:	50 feet			icleType	Day	Evening	Night Daily
Site Data				*01.		tos: 73.2		18.6% 89.80%
Bossi	ior Holashtı	0.0 feet		М	edium Tru	icks: 82.2	2% 3.9%	14.0% 2.51%
Barrier Type (0-Wal	er Height:	0.0 reet 0.0			Heavy Tru	icks: 76.5	5% 4.0%	19.5% 7.69%
Centerline Dist.	. ,	60.0 feet						
Centerline Dist. to		60.0 feet		Noise S		vations (in	i teet)	
Barrier Distance to	Observer:	0.0 feet			Autos.			
Observer Height (Al		5.0 feet			m Trucks.			
	Elevation:	0.0 feet		Heal	y Trucks.	8.004	Grade Ad	ljustment: 0.0
Road	Elevation:	0.0 feet		Lane Eq	uivalent	Distance (i	n feet)	
Ro	oad Grade:	0.0%			Autos.	54.772		
	Left View:	-90.0 degrees	3	Mediu	m Trucks.	54.610		
F	Right View:	90.0 degrees	3	Heav	y Trucks.	54.626		
FHWA Noise Model	Calculation	s						
VehicleType	REMEL	Traffic Flow	Distance	Finite	Road	Fresnel	Barrier Att	ten Berm Atten
Autos:	66.51	4.00	-0.	70	-1.20	-4.6	9 0.0	0.000
Medium Trucks:	77.72	-11.53	-0.	68	-1.20	-4.8	8 0.0	0.000
Heavy Trucks:	82.99	-6.67	-0.	68	-1.20	-5.3	4 0.0	0.000
Unmitigated Noise L	Levels (with	out Topo and b	arrier atte	nuation)				
VehicleType L	eq Peak Hou	ır Leq Day	Leq	Evening	Leq N	light	Ldn	CNEL
Autos:	68		6.5	62.9		61.8	69.	
Medium Trucks:	64		2.7	55.4		56.2	64.	
Heavy Trucks:	74	.4 7:	2.5	65.7		67.8	75.	0 75.2
Vehicle Noise:	75	.8 7	3.8	67.8		69.0	76.	3 76.5
Centerline Distance	to Noise Co	ontour (in feet)						
				) dBA	65 d		60 dBA	55 dBA
		_		158	34	-	732	1,577
		CNI	EL:	162	34	3	750	1,616

	FH\	WA-RD-77-108	HIGHW	AY N	IOISE PI	REDICT	ION MO	DEL			
Road Nam	io: Existing Wine: Riverside Ant: s/o I-10 Fw	NV.					t Name: lumber:		Mansa		
	SPECIFIC IN	IPUT DATA							L INPUT	s	
Highway Data					Site Cor	nditions	(Hard:	= 10, S	oft = 15)		
Average Daily	Traffic (Adt):	39,927 vehicle	es					Autos:	15		
Peak Hour	Percentage:	10%			Me	edium Tr	ucks (2	Axles):	15		
Peak F	lour Volume:	3,993 vehicle	s		He	eavy Tru	cks (3+	Axles):	15		
Ve	hicle Speed:	50 mph		-	Vehicle	Mix					
Near/Far La	ne Distance:	50 feet				icleType	9	Dav	Evening	Night	Daily
Site Data							Autos:	73.2%		18.69	,
Ra	rrier Height:	0.0 feet			М	edium T	rucks:	82.2%	3.9%	14.09	6 2.59%
Barrier Type (0-W		0.0				Heavy T	rucks:	76.5%	4.0%	19.5%	6 8.13%
Centerline Di		60.0 feet		- 1	M-1 0			/! 4	41		
Centerline Dist.	to Observer:	60.0 feet		μ,	Noise S				eet)		
Barrier Distance	to Observer:	0.0 feet				Auto		.000			
Observer Height	(Above Pad):	5.0 feet				m Truck		.297	Grade Ad	ii rotmoon	4 0 0
P	ad Elevation:	0.0 feet			Heav	vy Truck	:s: 8	.004	Grade Ad	jusunen	n. 0.0
Ro	ad Elevation:	0.0 feet		1	Lane Eq	uivalen	t Distar	ice (in	feet)		
	Road Grade:	0.0%				Auto	s: 54	.772			
	Left View:	-90.0 degree	es		Mediu	m Truck	s: 54	.610			
	Right View:	90.0 degree	es		Heav	vy Truck	s: 54	.626			
FHWA Noise Mod	el Calculation	s									
VehicleType	REMEL	Traffic Flow	Dista	nce	Finite	Road	Fres	nel	Barrier Att	en Be	erm Atten
Autos:	70.20	3.23		-0.70	-	-1.20		-4.69		000	0.000
Medium Trucks:	81.00	-12.15		-0.68	-	-1.20		-4.88		000	0.000
Heavy Trucks:	85.38	-7.18		-0.68	В	-1.20		-5.34	0.0	000	0.000
Unmitigated Nois	e Levels (with	out Topo and	barrier a	atten	uation)						
VehicleType	Leq Peak Hou			.eq Eı	vening		Night		Ldn		CNEL
Autos:	71		69.4		65.9		64.		72.0		72.3
Medium Trucks:	67		65.3		58.1		58.	-	66.7		66.9
Heavy Trucks: Vehicle Noise:	76 77		74.4 76.0		67.6 70.1		69. 71.		76.9 78.4		77.1 78.6
					70.1		/1.	-	78.4	+	78.6
Centerline Distan	ce to Noise Co	ontour (in feet	,	70.0	dBA	65	dBA	т.	50 dBA	5	5 dBA
			l dn:	21			72	<u> </u>	1.017	-	2.191
			VEL:	22	-		84		1.044		2.248
		0,							.,	-	-,

FI	HWA-RD-77-10	8 HIGH	HWAY N	IOISE PI	REDICT	ION MO	DDEL			
Scenario: Existing N Road Name: Riverside Road Segment: s/o Santa	Av.					Name: lumber:		Mansa		
SITE SPECIFIC	NPUT DATA							L INPUT	S	
Highway Data				Site Cor	ditions	(Hard :	= 10, Sc	oft = 15)		
Average Daily Traffic (Adt):	29,221 vehic	les					Autos:	15		
Peak Hour Percentage:	10%			Me	dium Tr	ucks (2	Axles):	15		
Peak Hour Volume:	2,922 vehicl	es		He	avy Tru	cks (3+	Axles):	15		
Vehicle Speed:	55 mph		-	Vehicle	Mix					
Near/Far Lane Distance:	52 feet		i i		icleType	9	Day	Evening	Night	Daily
Site Data						Autos:	73.2%	8.1%	18.6%	89.07%
Barrier Height:	0.0 feet			М	edium T	rucks:	82.2%	3.9%	14.0%	2.62%
Barrier Type (0-Wall, 1-Berm):	0.0			1	Heavy T	rucks:	76.5%	4.0%	19.5%	8.31%
Centerline Dist. to Barrier.	52.0 feet		- 1	Noise S	ource F	levatio	ns (in fi	oet)		
Centerline Dist. to Observer:	52.0 feet		F		Auto		.000	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		
Barrier Distance to Observer:	0.0 feet			Madiu	m Truck		.297			
Observer Height (Above Pad):	5.0 feet				v Truck		.004	Grade Ad	iustment	0.0
Pad Elevation:	0.0 feet		L		,					
Road Elevation:	0.0 feet		Ľ	Lane Eq				feet)		
Road Grade:	0.0%				Auto		.310			
Left View:	-90.0 degre	ees		Mediu	m Truck		5.114			
Right View:	90.0 degre	ees		Heav	y Truck	s: 45	5.133			
FHWA Noise Model Calculation	ns									
VehicleType REMEL	Traffic Flow		stance		Road	Fres		Barrier Atte		m Atten
Autos: 71.7		-	0.5		-1.20		-4.66	0.0		0.000
Medium Trucks: 82.4			0.5		-1.20		-4.87	0.0		0.000
Heavy Trucks: 86.4	0 -8.86	6	0.56	6	-1.20		-5.41	0.0	100	0.000
Unmitigated Noise Levels (wi							_		_	
VehicleType Leq Peak H			Leq E	vening	Leq	Night		Ldn		NEL
	72.6	70.4		66.9		65.		73.0		73.3
	67.9	66.3		59.0		59.	-	67.6		67.8
	76.9 78.6	74.9 76.7		68.1 70.9		70. 71.		77.5 79.2		77.6 79.3
Centerline Distance to Noise				70.5		, , ,		73.2	-	7 3.0
Centerille Distance to NOISE	COMOUN (III TEE	:L)	70 0	dBA	65	dBA	6	60 dBA	55	dBA
		Ldn:	21	12	4	57		984	2,	119

FH	WA-RD-77-108	HIGHV	VAY NO	ISE PF	REDICT	ION MO	DEL			
Scenario: Existing W						Name:		Mansa		
Road Name: Riverside					Job N	lumber:	11215			
Road Segment: s/o Slover	AV.									
SITE SPECIFIC II	NPUT DATA				N	IOISE I	<b>IODE</b>	L INPUT	S	
Highway Data			Si	te Con	ditions	(Hard =	10, Sc	oft = 15)		
Average Daily Traffic (Adt):	37,295 vehicle	es					Autos:	15		
Peak Hour Percentage:	10%			Me	dium Tr	ucks (2 /	Axles):	15		
Peak Hour Volume:	3,729 vehicles	3		He	avy Truc	cks (3+ /	Axles):	15		
Vehicle Speed:	50 mph		Ve	ehicle l	Wix					
Near/Far Lane Distance:	52 feet		-		icleType	)	Dav	Evening	Night	Dailv
Site Data						Autos:	73.2%	-	18.6%	89.24%
Barrier Height:	0.0 feet			Me	edium T	rucks:	82.2%	3.9%	14.0%	2.60%
Barrier Type (0-Wall, 1-Berm):	0.0			F	leavy T	rucks:	76.5%	4.0%	19.5%	8.17%
Centerline Dist. to Barrier:	52.0 feet		No	oise Sc	ource E	levation	s (in f	eet)		
Centerline Dist. to Observer:	52.0 feet				Auto.	s: 0.	000			
Barrier Distance to Observer:	0.0 feet			Mediur	m Truck	s: 2.	297			
Observer Height (Above Pad):	5.0 feet			Heav	y Truck	s: 8.	004	Grade Ad	justmeni	: 0.0
Pad Elevation:	0.0 feet		-							
Road Elevation:	0.0 feet		Lé	ne Eq		t Distan	_	reet)		
Road Grade:	0.0%				Auto		310			
Left View:	-90.0 degree				m Truck		114			
Right View:	90.0 degree	es		Heav	y Truck	s: 45.	133			
FHWA Noise Model Calculation										
VehicleType REMEL	Traffic Flow	Dista		Finite	Road	Fresr	_	Barrier Att		rm Atten
Autos: 70.20			0.54		-1.20		-4.66		000	0.000
Medium Trucks: 81.00			0.57		-1.20		-4.87		000	0.000
Heavy Trucks: 85.38			0.56		-1.20		-5.41	0.0	000	0.000
Unmitigated Noise Levels (with										
VehicleType Leq Peak Ho  Autos: 72		70.3	Leq Eve	ening 66.8	Leq	Night 65.6		Ldn 72.9		NEL 73.2
		66.3		59.0		59.8		67.7		67.8
		75.3		68.5		70.7		77.9		78.0
		76.9		71.0		70.7		79.4		79.6
Centerline Distance to Noise C	ontour (in feet	)								
	(		70 dE	3A	65	dBA	- 6	60 dBA	55	dBA
		Ldn:	220	1	4	74		1,021	2	,200
	CI	VEL:	226		4	86		1,048	2	,258

Wednesday, October 17, 2018

	FH\	WA-RD-77-1	08 HIG	HWAY	NOISE PI	REDICTI	ON M	ODEL			
Road Nan	rio: Existing Wine: Riverside Ant: s/o Jurupa	Av.						: Agua l : 11215			
	SPECIFIC IN	IPUT DATA	A.						L INPUT	S	
Highway Data					Site Con	ditions	(Hard	= 10, S	oft = 15)		
Average Daily	Traffic (Adt):	33,946 veh	icles					Autos:	15		
Peak Hour	Percentage:	10%			Me	dium Tru	icks (2	2 Axles):	15		
Peak F	lour Volume:	3,395 vehic	les		He	avy Truc	ks (3-	+ Axles):	15		
Ve	ehicle Speed:	55 mph			Vehicle	Miv					
Near/Far La	ne Distance:	52 feet				icleType	T	Dav	Evening	Night	Daily
Site Data							utos:	73.2%	-	18.6%	
- Po	rrier Height:	0.0 feet			M	edium Tr	ucks:	82.2%	3.9%	14.0%	2.60%
Barrier Type (0-V		0.0			- 1	Heavy Tr	ucks:	76.5%	4.0%	19.5%	8.21%
,,,,,	ist. to Barrier:	52.0 feet									
Centerline Dist.	to Observer:	52.0 feet			Noise S				eet)		
Barrier Distance	to Observer:	0.0 feet				Autos		0.000			
Observer Height	(Above Pad):	5.0 feet				m Trucks		2.297	0	ti t	
	ad Elevation:	0.0 feet			Heav	y Trucks		8.004	Grade Ad	ijustment	: 0.0
Ro	ad Elevation:	0.0 feet			Lane Eq	uivalent	Dista	nce (in	feet)		
	Road Grade:	0.0%				Autos	: 4	5.310			
	Left View:	-90.0 deg	rees		Mediu	m Trucks	: 4	5.114			
	Right View:	90.0 deg	rees		Heav	y Trucks	:: 4	5.133			
FHWA Noise Mod	lel Calculation	ıs									-
VehicleType	REMEL	Traffic Flov	V Di	stance	Finite	Road	Fre	snel	Barrier Att	ten Bei	m Atten
Autos:		2.1	-	0.5	54	-1.20		-4.66	0.0	000	0.000
Medium Trucks:				0.5		-1.20		-4.87		000	0.000
Heavy Trucks:	86.40	-8.2	26	0.5	56	-1.20		-5.41	0.0	000	0.000
Unmitigated Nois			d barr	ier atte	nuation)						
VehicleType	Leq Peak Hou			Leq E	vening	Leq I			Ldn		NEL
Autos:	73		71.1		67.5		-	6.4	73.		74.0
Medium Trucks:			66.9		59.6		-	).4	68.	-	68.4
Heavy Trucks:			75.5		68.7			).9	78.		78.2
Vehicle Noise:	79	9.3	77.3		71.5		72	2.5	79.	8	79.9
Centerline Distan	ce to Noise C	ontour (in fe	et)								
					dBA	65 (			60 dBA		dBA
			Ldn:	_	:33	50	-		1,081		329
			CNEL:	2	39	51	5		1,110	2,	391

Site Data         Autos:         73.2%         8.1%         18.6%         8           Barrier Height:         0.0 feet         Medium Trucks:         82.2%         3.9%         14.0%	Daily 9.57% 2.55% 7.88%
Highway Data   Site Conditions (Hard = 10, Soft = 15)	9.57% 2.55%
Average Daily Traffic (Adt): 18,148 vehicles   Peak Hour Percentage: 10%   Medium Trucks (2 Axles): 15   Medium Trucks (2 Axles): 15	9.57% 2.55%
Peak Hour Percentage: 10%	9.57% 2.55%
Peak Hour Volume: 1,815 vehicles   Heavy Trucks (3+ Axles): 15	9.57% 2.55%
Vehicle Speed:	9.57% 2.55%
Near/Far Lane Distance:   52 feet     Vehicle Type   Day   Evening   Night	9.57% 2.55%
Near/Far Lane Distance:   52   feet     VehicleType   Day   Evening   Night   18.6%   Autos:   73.2%   8.1%   18.6%   Medium Trucks:   82.2%   3.9%   14.0%	9.57% 2.55%
Autos: 73.2% 8.1% 18.6% 8	9.57% 2.55%
Barrier Type (C-Wall, 1-Berm): 0.0  Centerline Dist. to Barrier: 52.0 feet Centerline Dist. to Observer: 52.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet  Medium Trucks: 2.297  Medium Trucks: 2.297  Medium Trucks: 8.004  Medium Trucks: 8.004  Grade Adjustment: 0.006	
Barrier Type (0-Wall, 1-Berm): 0.0  Centerline Dist. to Barrier: 52.0 feet Centerline Dist. to Observer: 52.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet  Heavy Trucks: 76.5% 4.0% 19.5%  Noise Source Elevations (in feet)  Autos: 0.000  Medium Trucks: 2.297  Heavy Trucks: 8, 10.04 Grade Adjustment: 0.000  Medium Trucks: 8, 10.04 Grade Adjustment: 0.000	7.88%
Centerline Dist. to Barrier: 52.0 feet Centerline Dist. to Observer: 52.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet  Medium Trucks: 2.297 Heavy Trucks: 8.004 Grade Adjustment: 0.005	
Centerline Dist. to Observer: 52.0 feet  Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet  Heavy Trucks: 2.297  Heavy Trucks: 8.004  Grade Adjustment: 0.000	
Barrier Distance to Observer: 0.0 feet Medium Trucks: 2.297 Observer Height (Above Pad): 5.0 feet Heavy Trucks: 8.004 Grade Adjustment: 0	
Observer Height (Above Pad): 5.0 feet Heavy Trucks: 8.004 Grade Adjustment: 0	
Pad Flouration: 0.0 feet	
rad Lievation. 0.0 feet	.0
Road Elevation: 0.0 feet Lane Equivalent Distance (in feet)	
Road Grade: 0.0% Autos: 45.310	
Left View: -90.0 degrees Medium Trucks: 45.114	
Right View: 90.0 degrees Heavy Trucks: 45.133	
FHWA Noise Model Calculations	
VehicleType REMEL Traffic Flow Distance Finite Road Fresnel Barrier Atten Berm	
Autos: 66.51 0.78 0.54 -1.20 -4.66 0.000	0.000
Medium Trucks: 77.72 -14.68 0.57 -1.20 -4.87 0.000	0.000
Heavy Trucks: 82.99 -9.77 0.56 -1.20 -5.41 0.000	0.000
Unmitigated Noise Levels (without Topo and barrier attenuation)	
VehicleType Leq Peak Hour Leq Day Leq Evening Leq Night Ldn CNE	
Autos: 66.6 64.5 61.0 59.8 67.1	67.4
Medium Trucks: 62.4 60.8 53.5 54.3 62.1	62.3
Heavy Trucks:         72.6         70.6         63.8         66.0         73.2           Vehicle Noise:         73.9         71.9         65.9         67.1         74.4	73.3
Centerline Distance to Noise Contour (in feet)	74.0
70 dBA 65 dBA 60 dBA 55 dB	3A
Ldn: 102 221 475 1.02	
CNEL: 105 226 487 1,05	

	FH\	WA-RD-77-108	HIGH	WAY N	OISE P	REDICT	TON MOD	EL		
	io: Existing W ie: Slover Av. int: w/o Cedar						t Name: A Number: 1			
	SPECIFIC IN	IPUT DATA							L INPUTS	
Highway Data					Site Cor	ditions	(Hard = 1	0, S	oft = 15)	
	Percentage:	11,181 vehicle					A rucks (2 A rucks (3+ A	/	15	
	our Volume:	1,118 vehicle	S		пе	avy IIu	UKS (3+ AL	(les)	15	
Near/Far Lai	hicle Speed: ne Distance:	50 mph 48 feet			<b>Vehicle</b> Veh	Mix icleTyp	e [	Day	Evening N	light Daily
Site Data							Autos: 7	3.2%	8.1% 1	8.6% 90.10%
Bar	rier Height:	0.0 feet			М	edium 7	rucks: 8	2.29	3.9% 1	4.0% 2.45%
Barrier Type (0-W		0.0			-	Heavy 7	rucks: 7	6.5%	4.0% 1	9.5% 7.45%
Centerline Dis	st. to Barrier:	52.0 feet		1	Voise S	ource E	levations	(in f	eet)	
	to Observer:	52.0 feet 0.0 feet 5.0 feet 0.0 feet 0.0 feet			Heav	Auto m Truck y Truck	s: 2.2	97 04	Grade Adjus	tment: 0.0
	Road Grade:	0.0%		F		Auto		<u> </u>	,	
,	Left View: Right View:	-90.0 degree				m Truck vy Truck	s: 46.2	09		
FHWA Noise Mode	el Calculation	ıs								
VehicleType	REMEL	Traffic Flow	Dis	tance	Finite	Road	Fresne	e/	Barrier Atten	Berm Atten
Autos:	70.20	-2.26		0.38	3	-1.20	-	4.66	0.000	0.00
Medium Trucks:	81.00	-17.92		0.41	I	-1.20	-	4.87	0.000	0.00
Heavy Trucks:	85.38	-13.09		0.41	I	-1.20	-	5.41	0.000	0.00
Unmitigated Noise	e Levels (with	out Topo and	barrie	er atten	uation)					
VehicleType	Leq Peak Hot	ır Leq Day	/	Leg E	ening/	Leq	Night		Ldn	CNEL
Autos:	67	'.1	65.0		61.5		60.3		67.6	67.
Medium Trucks:	62	2.3	60.6		53.4		54.2		62.0	62.
Heavy Trucks:	71		69.5		62.7		64.9		72.1	72.
Vehicle Noise:	73		71.2		65.4		66.4		73.7	73.
Centerline Distance	ce to Noise C	ontour (in feet	)	70	10.4		10.4		00 104	ee 10.4
			1 -1	70 c			dBA		60 dBA	55 dBA
Ldn: CNEL:					92 198 427 921 95 204 439 945					
		C	VEL.	9:	J	4	.04		408	940

	FH\	VA-RD-77-108	HIGHV	VAY N	OISE P	REDICT	TION MO	DDEL			
Road Nan	rio: Existing Wi ne: Rancho Av ent: s/o Agua M						t Name: Number:		Mansa		
SITE	SPECIFIC IN	IPUT DATA					NOISE	MODE	L INPUT	S	
Highway Data				S	ite Cor	ditions	(Hard:	= 10, Sc	oft = 15)		
Average Daily	Traffic (Adt):	12,918 vehicle	s					Autos:	15		
Peak Hour	Percentage:	10%			Me	dium Ti	rucks (2	Axles):	15		
Peak F	lour Volume:	1,292 vehicles	;		He	avy Tru	icks (3+	Axles):	15		
Ve	ehicle Speed:	40 mph		V	ehicle	Miv					
Near/Far La	ane Distance:	52 feet		-		icleTyp	е	Day	Evening	Night	Daily
Site Data							Autos:	73.2%	8.1%	18.6%	89.72%
Ba	rrier Height:	0.0 feet			М	edium 7	rucks:	82.2%	3.9%	14.0%	2.52%
Barrier Type (0-V		0.0				Heavy 7	rucks:	76.5%	4.0%	19.5%	7.76%
	ist. to Barrier:	52.0 feet			o			/! #	4)		
Centerline Dist.	to Observer:	52.0 feet		N	ioise S		levatio		eet)		
Barrier Distance	to Observer:	0.0 feet			14	Auto m Truck		.000			
Observer Height	(Above Pad):	5.0 feet						.004	Grade Ad	iuetmont	
P	ad Elevation:	0.0 feet			Heal	ry Truck	(S: 8	.004	Grade Au,	usuneni	. 0.0
Ro	ad Elevation:	0.0 feet		L	ane Eq	uivaler	t Distar	nce (in	feet)		
	Road Grade:	0.0%				Auto	os: 45	.310			
	Left View:	-90.0 degree	s		Mediu	m Truck	ks: 45	.114			
	Right View:	90.0 degree	·S		Heav	y Truck	rs: 45	.133			
FHWA Noise Mod	lel Calculation	s									
VehicleType	REMEL	Traffic Flow	Dista	ance	Finite	Road	Fres	nel	Barrier Att	en Bei	m Atten
Autos:	66.51	-0.69		0.54		-1.20		-4.66	0.0	000	0.00
Medium Trucks:	77.72	-16.20		0.57		-1.20		-4.87	0.0	000	0.00
Heavy Trucks:	82.99	-11.32		0.56		-1.20		-5.41	0.0	000	0.00
Unmitigated Nois	e Levels (with	out Topo and	barrier	attenu	ıation)						
VehicleType	Leq Peak Hou	- 1 - 7		Leq Ev		Leg	Night		Ldn		NEL
Autos:			3.0		59.5		58.	-	65.6	-	65.
Medium Trucks:			59.2		52.0		52.	-	60.6	-	60.
Heavy Trucks:			39.1		62.3		64.	•	71.6		71.
Vehicle Noise:			70.4		64.4		65.	6	72.9	9	73.0
Centerline Distan	ce to Noise Co	ontour (in feet)									
			1	70 di	BA	65	dBA	6	60 dBA	55	dBA

Ldn: CNEL:

Wednesday, October 17, 2018

	FH\	WA-RD-77-108	HIGH	YAW	NOISE P	REDICTION	ON M	DDEL			
Road Nam	io: Existing Wi ie: Slover Av. nt: w/o Riversi					Project I Job Nu					
SITE	SPECIFIC IN	IPUT DATA				N	OISE	MODE	L INPUT	s	
Highway Data					Site Cor	nditions (	Hard:	= 10, S	oft = 15)		
Average Daily	Traffic (Adt):	10,067 vehicle	es					Autos:	15		
Peak Hour	Percentage:	10%			Me	edium Tru	cks (2	Axles).	15		
Peak H	lour Volume:	1,007 vehicle	S		He	avy Truc	ks (3+	Axles).	15		
Ve	hicle Speed:	50 mph		-	Vehicle	Miv					
Near/Far La	ne Distance:	48 feet				icleType		Day	Evening	Night	Daily
Site Data							utos:	73.2%		18.6%	,
Por	rrier Height:	0.0 feet			М	edium Tr	ucks:	82.2%	3.9%	14.0%	
Barrier Type (0-W		0.0				Heavy Tri	ucks:	76.5%	4.0%	19.5%	7.56%
Centerline Dis	st. to Barrier:	52.0 feet			Noise S	ource Ele	evatio	ns (in f	eet)		
Centerline Dist.	to Observer:	52.0 feet				Autos		.000	,		
Barrier Distance	to Observer:	0.0 feet			Mediu	m Trucks		.297			
Observer Height (	Above Pad):	5.0 feet				vy Trucks		.004	Grade Ad	iustment	0.0
Pa	ad Elevation:	0.0 feet								,	
Ros	ad Elevation:	0.0 feet			Lane Eq	uivalent			feet)		
ı	Road Grade:	0.0%				Autos		.400			
	Left View:	-90.0 degree	es			m Trucks		.209			
	Right View:	90.0 degree	es		Hea	vy Trucks	: 46	.228			
FHWA Noise Mode											
VehicleType	REMEL	Traffic Flow	Dis	stance		Road	Fres		Barrier Att		m Atten
Autos:	70.20	-2.73		0.3		-1.20		-4.66		000	0.000
Medium Trucks:	81.00	-18.31		0.4		-1.20		-4.87		000	0.000
Heavy Trucks:	85.38	-13.48		0.4		-1.20		-5.41	0.0	000	0.000
Unmitigated Noise											
,,	Leq Peak Hou	, ,		Leq E	vening	Leq I			Ldn		NEL
Autos:	66		64.5		61.0		59		67.		67.4
Medium Trucks:	61		60.3		53.0		53	-	61.6	-	61.8
Heavy Trucks:	71		69.1		62.3		64	-	71.7		71.8
Vehicle Noise:	72		70.8		65.0	1	66	0	73.3	3	73.5
Centerline Distanc	ce to Noise Co	ontour (in feet	)	70	-/D 4	05.	ID A	_	00 -ID4		-(D.4
			,		dBA 36	65 0			60 dBA		dBA 165
	Ldn:					186		401		-	165 188
	CNEL:					89 191 412					100

	FH	WA-RD-77-108	HIGHV	VAY NO	ISE P	REDICTIO	ON MO	DEL			
	o: Existing W e: Santa Ana nt: w/o Cedar	Av.				Project N Job Nu			Vlansa		
	SPECIFIC IN	IPUT DATA							L INPUTS	5	
Highway Data				S	ite Con	ditions (i					
Average Daily	Traffic (Adt):	6,664 vehicl	es					Autos:			
	Percentage:	10%				dium Truc					
	our Volume:	666 vehicle	S		He	avy Truck	is (3+ A	(xles	15		
	hicle Speed:	40 mph		V	ehicle l	Mix					
Near/Far Lar	ne Distance:	36 feet			Veh	icleType		Day	Evening	Night	Daily
Site Data						Aı	ıtos:	73.2%	8.1%	18.6%	88.92%
Rar	rier Height:	0.0 feet			Me	edium Tru	icks:	82.2%	3.9%	14.0%	2.65%
Barrier Type (0-W	all, 1-Berm):	0.0			F	leavy Tru	icks:	76.5%	4.0%	19.5%	8.44%
Centerline Dis		44.0 feet		N	oise Sc	ource Ele	vation	s (in f	eet)		
Centerline Dist.		44.0 feet				Autos:		000	,		
Barrier Distance		0.0 feet			Mediui	n Trucks:	2.5	297			
Observer Height (		5.0 feet			Heav	y Trucks:	8.0	004	Grade Adj	ustmen	t: 0.0
	d Elevation:	0.0 feet		-		•					
	d Elevation:	0.0 feet		Li	ane Eq	uivalent i			teet)		
<i>F</i>	Road Grade:	0.0%				Autos:					
	Left View:	-90.0 degre				n Trucks:		241			
	Right View:	90.0 degre	es		Heav	y Trucks:	40.	262			
FHWA Noise Mode											
VehicleType	REMEL	Traffic Flow	Dista		Finite	Road	Fresn		Barrier Atte		rm Atten
Autos:	66.51			1.28		-1.20		-4.61	0.0		0.000
Medium Trucks:	77.72			1.31		-1.20		-4.87	0.0		0.000
Heavy Trucks:	82.99			1.31		-1.20		-5.50	0.0	00	0.000
Unmitigated Noise		-									
	Leq Peak Ho			Leq Eve		Leq N			Ldn		NEL
Autos:			60.8		57.3		56.1		63.5		63.7
Medium Trucks:			57.3		50.0		50.9		58.7		58.9
Heavy Trucks: Vehicle Noise:			67.3 68.5		60.5		62.6		69.9 71.0		70.0
					62.5		63.7		71.0	1	/1.2
Centerline Distance	e to Noise C	ontour (in feet	)	70 dF	RA	65 d	RA		50 dBA	55	i dBA
			I dn:	52		11		<u>'</u>	239		516
		С	NEL:	53		114			245		528

	FH	WA-RD-77-108	HIGHV	VAY NO	DISE P	REDICT	ION MOI	DEL			
Road Nan	rio: Existing W ne: Jurupa Av ent: w/o Cedar						Name: A lumber: 1				
SITE	SPECIFIC II	NPUT DATA				I.	NOISE N	IODE	L INPUT	S	
Highway Data				S	ite Cor	ditions	(Hard =	10, S	oft = 15)		
Average Daily Peak Hou	Traffic (Adt): Percentage:	5,284 vehicl	es		Ме	dium Tr	ucks (2 A	Autos: xles):			
Peak F	Hour Volume:	528 vehicle	s		He	avy Tru	cks (3+ A	xles):	15		
Ve	ehicle Speed:	40 mph		1/	ehicle	Miv					
Near/Far La	ane Distance:	48 feet				icleType		Day	Evening	Night	Daily
Site Data								73.2%		18.69	
Ва	rrier Heiaht:	0.0 feet			М	edium T	rucks:	82.2%	3.9%	14.09	6 2.41%
Barrier Type (0-V		0.0			-	Heavy T	rucks:	76.5%	4.0%	19.59	6 7.34%
	ist. to Barrier:	52.0 feet		N	loise S	ource E	levations	(in f	eet)		
Centerline Dist.		52.0 feet				Auto	s: 0.0	100			
Barrier Distance	to Observer:	0.0 feet			Mediu	m Truck	s: 2.2	97			
Observer Height		5.0 feet			Heav	v Truck	s: 8.0	04	Grade Ad	ustmer	nt: 0.0
	Pad Elevation:	0.0 feet				·		,,			
	ad Elevation:	0.0 feet		L	ane Eq		t Distanc		teet)		
	Road Grade:	0.0%				Auto					
	Left View:	-90.0 degre				m Truck					
	Right View:	90.0 degre	es		Heav	y Truck	s: 46.2	228			
FHWA Noise Mod	lel Calculation	18									
VehicleType	REMEL	Traffic Flow	Dista			Road	Fresn		Barrier Atte		erm Atten
Autos:				0.38		-1.20		4.66	0.0		0.000
Medium Trucks:				0.41		-1.20		4.87	0.0		0.000
Heavy Trucks:	82.99	-15.44		0.41		-1.20		-5.41	0.0	100	0.000
Unmitigated Nois											
VehicleType	Leq Peak Ho			Leq Eve		Leq	Night		Ldn		ONEL
Autos:	-	1.2	59.0		55.5		54.3		61.6		61.9
Medium Trucks:	-	6.7	55.0		47.7		48.6		56.4		56.5
Heavy Trucks: Vehicle Noise:		3.8 3.1	64.8 66.2		58.0 60.2		60.1		67.4 68.7		67.5 68.8
Centerline Distan	-	***			00.2		01.4		30.7		33.0
Cernerinie Distan	ce to worse C	ontour (iii fee	9	70 dE	BA	65	dBA	-	60 dBA	5	5 dBA
			Ldn:	42			91		196		423
	CNEL:					43 93 201 434					434

	FHV	VA-RD-77-108	HIGH	1 YAWI	NOISE P	REDICT	ON MO	DDEL			
Road Nan	nio: Existing Wine: Santa Ana int: w/o Riversio	Av.				Project Job N		Agua I 11215			
	SPECIFIC IN	PUT DATA			04- 0				L INPUT	s	
Highway Data					Site Cor	aitions	(Hara :				
Average Daily		4,020 vehicle	es					Autos:			
	Percentage:	10%				dium Tru					
	lour Volume:	402 vehicles	3		He	avy Truc	cks (3+	Axles):	15		
	ehicle Speed:	40 mph		Ī	Vehicle	Mix					
Near/Far La	ne Distance:	36 feet		ı	Veh	icleType		Day	Evening	Night	Daily
Site Data						-	Autos:	73.2%	8.1%	18.6%	90.03%
Ba	rrier Heiaht:	0.0 feet			М	edium Ti	rucks:	82.2%	3.9%	14.0%	2.47%
Barrier Type (0-V	Vall, 1-Berm):	0.0				Heavy Ti	rucks:	76.5%	4.0%	19.5%	7.50%
Centerline Di	ist. to Barrier:	44.0 feet		ŀ	Noise S	ourco El	lovatio	ne (in f	oot)		
Centerline Dist.	to Observer:	44.0 feet		ŀ	NOISE S	Auto:		.000	eei)		
Barrier Distance	to Observer:	0.0 feet			Modiu	m Truck		.297			
Observer Height	(Above Pad):	5.0 feet				y Truck		.004	Grade Ad	iuetmant	. 0.0
P	ad Elevation:	0.0 feet			пеа	y Trucks	s. o	.004	Orado Adj	ustriciit	. 0.0
Ro	ad Elevation:	0.0 feet			Lane Eq	uivalent	Distar	ıce (in	feet)		
	Road Grade:	0.0%				Auto	s: 40	.460			
	Left View:	-90.0 degree	es		Mediu	m Truck	s: 40	.241			
	Right View:	90.0 degree	es		Heav	y Truck	s: 40	.262			
FHWA Noise Mod	lel Calculation:	s									
VehicleType	REMEL	Traffic Flow	Dis	stance	Finite	Road	Fres	nel	Barrier Att	en Bei	m Atten
Autos:	66.51	-5.74		1.2	8	-1.20		-4.61	0.0	000	0.000
Medium Trucks:	77.72	-21.36		1.3	1	-1.20		-4.87	0.0	000	0.000
Heavy Trucks:	82.99	-16.53		1.3	1	-1.20		-5.50	0.0	000	0.000
Unmitigated Nois	e Levels (with	out Topo and	barri	er atter	nuation)						
VehicleType	Leq Peak Hou	r Leq Day	,	Leq E	vening	Leq	Night		Ldn	С	NEL
Autos:	60.	.8	58.7		55.2		54.	.0	61.3	3	61.6
Medium Trucks:	56.	.5	54.8		47.5		48.	.4	56.2	2	56.4
Heavy Trucks:	66.	.6	64.6		57.8		59.	.9	67.2	2	67.3
Vehicle Noise:	67	.9	66.0	,	60.0	,	61.	.2	68.4	1	68.6
Centerline Distan	ce to Noise Co	ontour (in feet	)								
				70	AD A	65	AD A	1 /	SO ADA	55	ADA

Wednesday, October 17, 2018

	FH\	WA-RD-77-108	HIGH	IWAY	NOISE PI	REDICT	ION M	ODEL			
Road Nan	rio: Existing Wine: El Rivino R ent: e/o Cedar /	d.						: Agua : 11215			
SITE	SPECIFIC IN	IPUT DATA				N	IOISE	MODE	L INPUT	S	
Highway Data					Site Con	ditions	(Hard	= 10, S	oft = 15)		
Average Daily	Traffic (Adt):	6,301 vehicle	es					Autos	15		
Peak Hour	Percentage:	10%			Me	dium Tr	ucks (2	Axles).	15		
Peak H	Hour Volume:	630 vehicle	S		He	avy Tru	cks (3+	Axles).	15		
Ve	hicle Speed:	45 mph			Vehicle	Miss					
Near/Far La	ne Distance:	36 feet				icleType		Day	Evening	Night	Daily
Site Data					VCII		Autos:	73.2%		18.6%	,
					1.4	, edium T		82.2%		14.0%	
	rrier Height:	0.0 feet 0.0				Heavy T		76.5%		19.5%	
Barrier Type (0-V	. ,					icavy i	rucno.	10.07	U 4.070	13.570	0.1170
Centerline Dist.		44.0 feet 44.0 feet			Noise So	ource E	levatio	ns (in f	eet)		
Barrier Distance		0.0 feet				Auto	s: (	0.000			
					Mediu	m Truck	s: 2	2.297			
Observer Height	(Above Pad): ad Flevation:	5.0 feet 0.0 feet			Heav	y Truck	s: 8	3.004	Grade Ad	justment	0.0
	ad Elevation: ad Flevation:	0.0 feet			Lane Eq	uivalon	t Nieta	nce (in	foot)		
	aa Elevation: Road Grade:	0.0 reet 0.0%			Lane Lq	Auto		0.460	icci)		
	l eft View:				Modiu						
		-90.0 degree			Medium Trucks: 40.241 Heavy Trucks: 40.262						
	Right View:	90.0 degree	es		пеач	ry Truck	8. 4	J.202			
FHWA Noise Mod	lel Calculation	s									
VehicleType	REMEL	Traffic Flow	Dis	stance		Road	Fre	snel	Barrier Att		m Atten
Autos:		-4.32		1.2		-1.20		-4.61		000	0.000
Medium Trucks:		-20.21		1.3		-1.20		-4.87		000	0.000
Heavy Trucks:	84.25	-14.76		1.3	31	-1.20		-5.50	0.0	000	0.000
Unmitigated Nois	e Levels (with	out Topo and	barri	er atte	nuation)						
VehicleType	Leq Peak Hou			Leq E	vening	Leq	Night		Ldn		NEL
Autos:			62.1		58.5		57		64.7		65.0
Medium Trucks: 59.4 57.7					50.4		51		59.		59.2
Heavy Trucks: 69.6 67.6					60.8		63	.0	70.2	2	70.3
Vehicle Noise:	71	.0	69.0		63.1		64	.3	71.	5	71.7
Centerline Distan											
			L		dBA		dBA		60 dBA		dBA
Ldn:				56 120 259			_	57			
		CI	VEL:	:	57	1	23		265	5	71

	FH	WA-RD-77-108	HIGH	WAY N	OISE P	REDICT	ION M	ODEL			
	o: Existing W e: El Rivino R nt: e/o Cactus	td.						Agua I 11215	Mansa		
	SPECIFIC IN	NPUT DATA							L INPUT	s	
Highway Data				S	Site Cor	nditions	(Hard	= 10, S	oft = 15)		
Average Daily	Traffic (Adt):	5,849 vehicle	es					Autos:	15		
Peak Hour	Percentage:	10%			Me	edium Tr	ucks (2	Axles):	15		
Peak H	our Volume:	585 vehicle	S		He	eavy Tru	cks (3+	Axles):	15		
Ve	hicle Speed:	45 mph		ν	/ehicle	Mix					
Near/Far Lai	ne Distance:	36 feet		- F		icleType	9	Day	Evening	Night	Daily
Site Data							Autos:	73.2%	8.1%	18.69	85.92%
Bar	rier Height:	0.0 feet			M	edium T	rucks:	82.2%	3.9%	14.09	2.97%
Barrier Type (0-W	all, 1-Berm):	0.0				Heavy T	rucks:	76.5%	4.0%	19.5%	11.12%
Centerline Dis		44.0 feet		٨	loise S	ource E	levatio	ns (in f	eet)		
Centerline Dist.		44.0 feet				Auto		0.000	,		
Barrier Distance		0.0 feet			Mediu	m Truck		.297			
Observer Height (	,	5.0 feet				vy Truck		3.004	Grade Ad	justmen	t: 0.0
	ad Elevation:	0.0 feet				•					
	ad Elevation:	0.0 feet		L	ane Eq	uivalen			feet)		
I	Road Grade:	0.0%				Auto		0.460			
	Left View:	-90.0 degre	es			m Truck		).241			
	Right View:	90.0 degre	es		Hea	vy Truck	s: 40	).262			
FHWA Noise Mode	el Calculation	IS									
VehicleType	REMEL	Traffic Flow	Dis	tance	Finite	Road	Fres	snel	Barrier Att	en Be	rm Atten
Autos:	68.46	-4.83		1.28		-1.20		-4.61	0.0	000	0.000
Medium Trucks:	79.45			1.31		-1.20		-4.87	0.0	000	0.000
Heavy Trucks:	84.25	-13.71		1.31		-1.20		-5.50	0.0	000	0.000
Unmitigated Noise				er atteni	uation)			_			
	Leq Peak Ho			Leq Ev			Night		Ldn		NEL
Autos:			61.6		58.0		56		64.	_	64.5
Medium Trucks:			58.5		51.2		52		59.	-	60.0
Heavy Trucks:			68.7		61.9		64		71.:		71.4
Vehicle Noise:	-		69.8		63.6		65	.0	72.	3	72.4
Centerline Distance	e to Noise C	ontour (in feet	)	70		0.5	10.4	1		-	- 10.4
				70 d			dBA	(	60 dBA		5 dBA
			Ldn:	63			35		290		625
		Ci	NEL:	64		1	38		297		641

	FH\	WA-RD-77-108	HIGI	1 YAWH	IOISE P	REDICT	ION M	ODEL			
Road Nam	io: Existing Wi e: Agua Mans nt: e/o 20th St	a Rd.						: Agua : 11215			
	SPECIFIC IN	IPUT DATA							L INPUT	s	
Highway Data					Site Cor	nditions	(Hard	= 10, S	oft = 15)		
Average Daily	Traffic (Adt):	11,509 vehic	les					Autos.			
Peak Hour	Percentage:	10%				edium Ti					
Peak H	lour Volume:	1,151 vehicle	es		He	eavy Tru	icks (3+	Axles).	: 15		
Ve	hicle Speed:	45 mph		H	Vehicle	Mix					
Near/Far Lai	ne Distance:	36 feet		F		icleTyp	е	Day	Evening	Night	Daily
Site Data							Autos:	73.29	6 8.1%	18.6%	88.49%
Bar	rier Height:	0.0 feet			М	edium 7	rucks:	82.29	6 3.9%	14.0%	2.70%
Barrier Type (0-W		0.0				Heavy 7	rucks:	76.5%	6 4.0%	19.5%	8.81%
Centerline Dis	st. to Barrier:	50.0 feet		-	Noise S	ource F	levatio	ns (in t	eet)		
Centerline Dist.	to Observer:	50.0 feet		H		Auto		0.000	001)		
Barrier Distance	to Observer:	0.0 feet			Modiu	m Truck		2.297			
Observer Height (	Above Pad):	5.0 feet				vv Truck		3.004	Grade Ad	iustmen	t· 0.0
Pa	ad Elevation:	0.0 feet				,					
Ros	ad Elevation:	0.0 feet			Lane Eq				feet)		
I	Road Grade:	0.0%				Auto		6.915			
	Left View:	-90.0 degre				m Truck		6.726			
	Right View:	90.0 degre	es		Hear	vy Truck	(S: 4)	6.744			
FHWA Noise Mode	el Calculation	s									
VehicleType	REMEL	Traffic Flow	Di	stance	Finite	Road	Fre	snel	Barrier Att	en Be	rm Atten
Autos:	68.46	-1.76		0.3		-1.20		-4.65		000	0.000
Medium Trucks:	79.45	-16.91		0.3		-1.20		-4.87		000	0.000
Heavy Trucks:	84.25	-11.78		0.3	4	-1.20		-5.43	0.0	000	0.000
Unmitigated Noise				ier atter	nuation)						
,,	Leq Peak Hou			Leq E	vening		Night		Ldn	_	NEL
Autos:	65		63.7		60.1		59		66.3		66.6
Medium Trucks:	61		60.0		52.8		53		61.4		61.6
Heavy Trucks:	71		69.7		62.9		65		72.2		72.3
Vehicle Noise:	73		71.0		65.0		66	.2	73.5	)	73.6
Centerline Distanc	ce to Noise Co	ontour (in fee	t)	70	dBA	65	dBA		60 dBA		5 dBA
			Ldn:		ава 5		84		396		853
		_	NEL:	-	5 7		88		406		875
		C	IVEL.	٥	,		00		400		515

	FHWA-	-RD-77-108 H	IGHWAY	NOISE PE	REDICTION	ON MODEL			
	Existing With A El Rivino Rd. e/o Hall Av.	Alt 1				lame: Agua mber: 11215			
	PECIFIC INPU	JT DATA		0:- 0		DISE MODE		s	
Highway Data				Site Con	ditions (i	Hard = 10, S			
Average Daily Tr	. ,	,257 vehicles				Autos			
Peak Hour P		10%				cks (2 Axles)			
		126 vehicles		He	avy Truck	is (3+ Axles)	: 15		
	cle Speed:	45 mph		Vehicle I	Лix				
Near/Far Lane	e Distance:	36 feet		Vehi	cleType	Day	Evening	Night	Daily
Site Data					A	itos: 73.29	6 8.1%	18.6%	93.05%
Barri	er Height:	0.0 feet		Me	edium Tru	icks: 82.29	6 3.9%	14.0%	1.72%
Barrier Type (0-Wal		0.0		F	leavy Tru	icks: 76.5%	6 4.0%	19.5%	5.23%
Centerline Dist.		44.0 feet		M-! 0-		vations (in	E4\		
Centerline Dist. to	Observer:	44.0 feet		Noise 30	Autos:	•	eet)		
Barrier Distance to	Observer:	0.0 feet		14	Autos: n Trucks:				
Observer Height (Al	bove Pad):	5.0 feet			n Trucks: y Trucks:		Grade Ad	iuetmant	. 0.0
Pad	Elevation:	0.0 feet		Heav	y Trucks:	8.004	Grade Au	usunent	0.0
Road	Elevation:	0.0 feet		Lane Equ	uivalent l	Distance (in	feet)		
Ro	oad Grade:	0.0%			Autos:	40.460			
	Left View: -	90.0 degrees		Mediur	n Trucks:	40.241			
F	Right View:	90.0 degrees		Heav	y Trucks:	40.262			
FHWA Noise Model		1		1					
VehicleType		raffic Flow	Distance	Finite		Fresnel	Barrier Att		m Atten
Autos:	68.46 79.45	-5.86	1.2		-1.20 -1.20	-4.61 -4.87		000	0.000
Medium Trucks:		-23.19	1.3					000	0.000
Heavy Trucks:	84.25	-18.36	1.3		-1.20	-5.50	0.0	000	0.000
VehicleType L	eq Peak Hour	•			Leg N	liodat	Ldn		VEL
Autos:	eq Peak Hour	Leq Day 60		Evening 57.0	Ley N	55.8	Lan 63.2		VEL 63.4
Medium Trucks:	56.4	54		47.5		48.3	56.1		56.3
Heavy Trucks:	66.0	64		57.2		59.4	66.6		66.7
Vehicle Noise:	68.0	66		60.4		61.2	68.		68.7
Centerline Distance	to Noise Cont	our (in feet)							

Wednesday, October 17, 2018

	FH\	WA-RD-77-10	B HIGI	HWAY	NOISE PI	REDICT	ION M	ODEL				
Road Nan	rio: Existing Wine: Agua Mans ent: w/o Brown	sa Rd.						: Agua I : 11215				
SITE	SPECIFIC IN	IPUT DATA				N	IOISE	MODE	L INPUT	S		
Highway Data					Site Con	ditions	(Hard	= 10, S	oft = 15)			
Average Daily	Traffic (Adt):	11,378 vehic	les					Autos:	15			
Peak Hour	Percentage:	10%			Me	dium Tru	icks (2	Axles):	15			
Peak I	Hour Volume:	1,138 vehicle	es		He	avy Truc	cks (3+	Axles):	15			
Ve	ehicle Speed:	45 mph			Vehicle	Miss						
Near/Far La	ane Distance:	36 feet				icleType		Day	Evening	Night	Daily	
Site Data							Autos:	73.2%		18.6%		
D.	rrier Heiaht:	0.0 feet			M	edium Ti		82.2%	3.9%	14.0%		
Barrier Type (0-V		0.0 feet			- 1	leavy Ti	ucks:	76.5%	4.0%	19.5%	8.91%	
	ist. to Barrier:	50.0 feet										
Centerline Dist.		50.0 feet			Noise Source Elevations (in feet)							
Barrier Distance					Auto		0.000					
Observer Height	(Above Pad):	5.0 feet				m Truck		2.297				
	ad Elevation:	0.0 feet			Heav	y Truck	S: 8	3.004	Grade Ad	justment	: 0.0	
Ro	ad Elevation:	0.0 feet			Lane Eq	uivalent	Dista	nce (in	feet)			
	Road Grade:	0.0%				Auto	s: 4	6.915				
	Left View:	-90.0 degre	ees		Mediu	m Truck	s: 4	6.726				
	Right View:	90.0 degre	ees		Heav	y Truck	s: 4	6.744				
FHWA Noise Mod												
VehicleType	REMEL	Traffic Flow		stance		Road	Fre.	snel	Barrier At		m Atten	
Autos:		-1.81		0.3		-1.20		-4.65		000	0.000	
Medium Trucks:				0.3		-1.20		-4.87		000	0.000	
Heavy Trucks:	84.25	-11.78	3	0.3	34	-1.20		-5.43	0.0	000	0.000	
Unmitigated Nois	e Levels (with	out Topo and	l barri	ier atte	nuation)							
VehicleType	Leq Peak Hou	ur Leq Da	У	Leq E	vening	Leq	Night		Ldn	C	NEL	
Autos:			63.6		60.1		58		66.	_	66.5	
Medium Trucks:			60.0		52.8		53		61.		61.6	
Heavy Trucks:	71	.6	69.7		62.9		65		72.:		72.3	
Vehicle Noise:	72	2.9	71.0		65.0		66	.2	73.	5	73.6	
Centerline Distan	ce to Noise C	ontour (in fee	t)									
			L		dBA		dBA	(	60 dBA		dBA	
			Ldn:		85		33		395	-	352	
		C	NEL:		87	18	38		405	8	373	

Wednesday, October 17, 2018

	FHW	A-RD-77-108	HIGHV	VAY N	IOISE PE	EDICT	ION MO	DEL			
Road Nan	rio: Existing Wit ne: Agua Mansa ent: w/o Holly St	h Alt 1 a Rd.			.0.02	Project	Name: lumber:	Agua			
SITE	SPECIFIC IN	PUT DATA				N	IOISE	MODE	L INPUTS	5	
Highway Data					Site Con	ditions	(Hard =	10, S	oft = 15)		
Average Daily	Traffic (Adt):	12,730 vehicle	es					Autos.	15		
Peak Hour	Percentage:	10%			Me	dium Tri	ucks (2	Axles).	15		
Peak I	Hour Volume:	1,273 vehicles	3		He	avy Truc	cks (3+ .	Axles).	15		
Ve	ehicle Speed:	45 mph		-	Vehicle I	Aire					
Near/Far La	ane Distance:	48 feet		H		nix cleType		Day	Evening	Night	Dailv
Site Data				-+	VCIII		Autos:	73.29		18.6%	. ,
	rrier Height:	0.0 feet			Me	dium Ti		82.29		14.0%	
Barrier Type (0-V		0.0 feet			F	leavy Ti	rucks:	76.5%	4.0%	19.5%	8.81%
	ist. to Barrier:	52.0 feet		L							
Centerline Dist.		52.0 feet		4	Noise Sc				eet)		
Barrier Distance		0.0 feet				Auto		000			
Observer Height		5.0 feet				n Truck		297			
	ad Elevation:	0.0 feet			Heav	y Truck	s: 8.	004	Grade Adj	ustmen	t: 0.0
	ad Flevation:	0.0 feet		1	Lane Equ	ıivalen	t Distan	ce (in	feet)		
	Road Grade:	0.0%		Ī		Auto	s: 46.	400			
	Left View:	-90.0 degree	es		Mediur	n Truck	s: 46.	209			
	Right View:	90.0 degree			Heav	y Truck	s: 46	228			
FHWA Noise Mod	lel Calculations	;									
VehicleType	REMEL	Traffic Flow	Dista	ance	Finite	Road	Fresi	nel	Barrier Atte	en Be	rm Atten
Autos:	68.46	-1.32		0.38	8	-1.20		-4.66	0.0	00	0.000
Medium Trucks:	79.45	-16.44		0.4	1	-1.20		-4.87	0.0	00	0.000
Heavy Trucks:	84.25	-11.34		0.4	1	-1.20		-5.41	0.0	00	0.000
Unmitigated Nois	e Levels (witho	ut Topo and	barrier	atten	uation)						
VehicleType	Leq Peak Hou	Leq Day	· L	Leg E	vening	Leq	Night		Ldn	C	NEL
Autos:	66.	3	64.2		60.6		59.	5	66.8		67.1
Medium Trucks:	62.	2	60.6		53.3		54.	1	62.0		62.1
Heavy Trucks:	72.	1	70.2		63.4		65.	5	72.7		72.9
Vehicle Noise:	73.	5	71.5		65.5		66.	7	74.0		74.2
Centerline Distan	ce to Noise Co	ntour (in feet	)								
				70 c			dBA		60 dBA		5 dBA
			Ldn:	9	-	_	07		445		960
		CI	VEL:	9	8	2	12		457		984

	FH\	WA-RD-77-108	HIGI	HWAY N	IOISE P	REDICT	ION M	ODEL			
	io: Existing Wi e: Agua Mans nt: e/o El Rivin	a Rd.						Agua I 11215	Mansa		
	SPECIFIC IN	IPUT DATA							L INPUT	S	
Highway Data					Site Cor	nditions	(Hard	= 10, S	oft = 15)		
Average Daily	Traffic (Adt):	16,271 vehicle	es					Autos:	15		
Peak Hour	Percentage:	10%			Me	edium Tr	ucks (2	Axles):	15		
Peak H	lour Volume:	1,627 vehicle	S		He	eavy Tru	cks (3+	Axles):	15		
Ve	hicle Speed:	45 mph		-	Vehicle	Miv					
Near/Far Lai	ne Distance:	82 feet		H		icleType	Э	Day	Evening	Night	Daily
Site Data							Autos:	73.2%	8.1%	18.6%	87.91%
Bar	rier Heiaht:	0.0 feet			М	edium T	rucks:	82.2%	3.9%	14.0%	2.77%
Barrier Type (0-W		0.0				Heavy T	rucks:	76.5%	4.0%	19.5%	9.31%
Centerline Dis		60.0 feet			Noise S	ource E	levatio	ns (in f	eet)		
Centerline Dist.		60.0 feet				Auto		0.000	,		
	Barrier Distance to Observer: 0.0 feet						s: 2	.297			
Observer Height (		5.0 feet			Hear	vy Truck		3.004	Grade Ad	justment	0.0
	ad Elevation:	0.0 feet		-							
	ad Elevation:	0.0 feet		Ľ	Lane Eq				feet)		
I	Road Grade:	0.0%				Auto		1.091			
	Left View:	-90.0 degre				m Truck		3.890			
	Right View:	90.0 degre	es		Hear	vy Truck	is: 43	3.909			
FHWA Noise Mode											
VehicleType	REMEL	Traffic Flow	Di	stance		Road	Fres		Barrier Att		m Atten
Autos:	68.46	-0.28		0.72	_	-1.20		-4.69		000	0.00
Medium Trucks:	79.45	-15.30		0.7	-	-1.20		-4.88		000	0.00
Heavy Trucks:	84.25	-10.03		0.74		-1.20		-5.34	0.0	000	0.00
Unmitigated Noise						100	Nioht		Ldn		NEL
VehicleType Autos:	Leq Peak Hou		65.5	Leq E	vening 62.0		Night 60	0	Lan 68.2		NEL 68.4
Medium Trucks:	63		62.1		54.8		55		63.4	-	63.6
Heavy Trucks:	73		71.8		65.0		67		74.4		74.
Vehicle Noise:	75		73.1		67.0		68		75.6		75.
Centerline Distance	ce to Noise Co	ontour (in feet	<del>'</del> )								
				70 c	dBA	65	dBA	(	60 dBA	55	dBA
			Ldn:	14	11	3	04		655	1,	412
		C	NEL:	14	15		12		672	1.	447

Autos: 73.2% 8.1% 18.6% 89.06		FHV	VA-RD-77-108	HIG	YAWH	NOISE P	REDICT	ION M	ODEL			
Average Daily Traffic (Adı):	Road Nam	e: Agua Mans	a Rd.							Mansa		
Average Daily Traffic (Adt): 12,282 vehicles   Peak Hour Percentage: 10%   Medium Trucks (2 Axles): 15   Vehicle Speed: Vehicle Speed: 45 mph   Wear/Far Lane Distance: 48 feet   Vehicle Mix   Vehicle Type   Day   Evening   Night   Daily	SPECIFIC IN	PUT DATA			Site Co.					S		
Peak Hour Percentage:	· ·					Site Coi	laitions	(Hara				
Peak Hour Volume: 1,225 vehicles   Vehicle Speed: 45 mph   Vehicle Mix   Vehicle Speed: 45 mph   Vehicle Mix   V			,	:S			ti T					
Vehicle Speed:   45 mph   Near/Far Lane Distance:   48 feet   Vehicle Mix   Vehicle Type   Day   Evening   Night   Daily   Bound   Night   Daily   Site Data   Autos:   73.2 %   8.1%   18.6%   89.0%   89.0%   Reference   Night									,			
Near/Far Lane Distance:   48 feet   Vehicle Type   Day   Evening   Night   Daily			,	•		HE	avy iru	icks (3-	FAXIES):	15		
Site Data		<b>/</b>				Vehicle	Mix					
Barrier Height:   0.0   feet   Barrier Type (I-Wall, 1-Berm):   0.0   Centerline Dist. to Barrier:   52.0   feet   Centerline Dist. to Observer:   52.0   feet   Barrier Distance to Observer:   0.0   feet   Autos:   0.000   Medium Trucks:   2.297   Heavy Trucks:   2.297   Heavy Trucks:   2.297   Heavy Trucks:   2.297   Heavy Trucks:   2.297   Heavy Trucks:   2.297   Heavy Trucks:   2.297   Heavy Trucks:   2.297   Heavy Trucks:   2.297   Heavy Trucks:   46.400   Medium Trucks:   46.400   Heavy Trucks:   46.209   Hea	Near/Far Lai	ne Distance:	48 feet			Veh	icleTyp	е	Day	Evening	Night	Daily
Barrier Trype (0-Wall, 1-Bern)   0.0 teet	Site Data										18.6%	89.05%
Noise Source Elevations (in feet)   Centerline Dist. to Darrier:   52.0 feet   Surier Distance to Observer:   52.0 feet   Autos:   0.000   Medium Trucks:   2.297   Heavy Trucks:   8.004   Grade Adjustment:   0.0 feet   Autos:   0.0 feet   Road Elevation:   0.0 feet   Road Elevation:   0.0 feet   Autos:   46.400   Autos:   46.209   Heavy Trucks:   46.209   Heavy Trucks:   46.208   Heavy Truck	Bai	rier Height:	0.0 feet			M	ledium 7	rucks:	82.2%	3.9%	14.0%	2.649
Centerline Dist. to Observer: 52.0   feet Barrier Distance to Observer: 52.0   feet Distance to Observer: 52.0   feet Distance to Observer: 52.0   feet Distance to Observer: 52.0   feet Distance to Observer: 52.0   feet Pad Elevation: 5.0   feet Pad Elevation: 6.0   feet Pad	Barrier Type (0-W	all, 1-Berm):	0.0				Heavy 7	rucks:	76.5%	4.0%	19.5%	8.319
Autos: 0.000   Autos: 0.000   Barrier Atten   Barrier Atten   Barrier Atten   Barrier Autos: 0.000   Constitution   Constitu	Centerline Dis	st. to Barrier:	52.0 feet			Noiso S	ourco E	lovatio	ne (in f	not)		
Barrier Distance to Observer: 0.0 feet   Distance   D	Centerline Dist.	to Observer:	52.0 feet			NOISE 3			_	<i></i>		
Diserver Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0%   Lane Equivalent Distance (in feet)	Barrier Distance	to Observer:	0.0 feet			Modiu						
Pad Elevation: 0.0 feet   Road Glevation: 0.0 feet   Road Glevation: 0.0 feet   Road Glevation: 0.0 feet   Road Grade: 0.0%   Left View: -90.0 degrees   Right View: 90.0 degrees   Heavy Trucks: 46.209   Heavy Trucks: 46.228   H	Observer Height (	Above Pad):	5.0 feet							Grade Ad	iustmeni	. 00
Road Grade: 0.0%	Pa	ad Elevation:	0.0 feet								juoumom	. 0.0
Left View:	Ros	ad Elevation:	0.0 feet			Lane Eq	uivaler			feet)		
FHWA Noise Mode  Calculations   VehicleType   REMEL   Traffic Flow   Distance   Finite Road   Fresnel   Barrier Atten   Berm Atte	ı	Road Grade:	0.0%						6.400			
Part   Part		Left View:	-90.0 degree	s		Mediu	m Truck	ks: 4	6.209			
VehicleType		Right View:	90.0 degree	s		Hea	vy Truck	rs: 4	6.228			
Autos: 68.46	FHWA Noise Mode	el Calculation:	5									
Medium Trucks:         79.45         -16.73         0.41         -1.20         -4.87         0.000         0.0           Heavy Trucks:         84.25         -11.75         0.41         -1.20         -5.41         0.000         0.0           Unmitigated Noise Levels (without Tropo and barrier attenuation)         VehicleType         Leq Peak How         Leq Day         Leq Evening         Leq Night         Ldn         CNEL           Autos:         66.2         64.1         60.5         59.4         66.7         66           Medium Trucks:         61.9         60.3         53.0         53.8         61.7         66           Heavy Trucks:         71.7         69.8         63.0         65.1         72.3         77           Vehicle Noise:         73.1         71.2         65.2         66.4         73.6         73				Dis				Fre				
Heavy Trucks:   84.25   -11.75   0.41   -1.20   -5.41   0.000   0.00												0.00
Various   Vari												0.00
VehicleType         Leq Peak Hour         Leq Day         Leq Evening         Leq Night         Ldn         CNEL           Autos:         66.2         64.1         60.5         59.4         66.7							-1.20		-5.41	0.0	000	0.00
Autos:         66.2         64.1         60.5         59.4         66.7         66           Medium Trucks:         61.9         60.3         53.0         53.8         61.7         66           Heavy Trucks:         71.7         69.8         63.0         65.1         72.3         72           Vehicle Noise:         73.1         71.2         65.2         66.4         73.6         73		•										
Medium Trucks:         61.9         60.3         53.0         53.8         61.7         6           Heavy Trucks:         71.7         69.8         63.0         65.1         72.3         72.           Vehicle Noise:         73.1         71.2         65.2         66.4         73.6         73.					Leq E							
Heavy Trucks:         71.7         69.8         63.0         65.1         72.3         72.           Vehicle Noise:         73.1         71.2         65.2         66.4         73.6         73.												66.
Vehicle Noise: 73.1 71.2 65.2 66.4 73.6 73			-									61.
												72.
Centerline Distance to Noise Contour (in feet)						65.2		66	6.4	73.6	5	73.
70 dBA 65 dBA 60 dBA 55 dBA	Centerline Distance	ce to Noise Co	ntour (in feet)		70	dD A	05	- ADA		20 4B4		dD1

Wednesday, October 17, 2018

	FH\	WA-RD-77-108	HIGH	IWAY	NOISE PI	REDICT	ION M	ODEL				
Road Nan	rio: Existing Wine: Agua Mans ent: e/o Riversi	a Rd.				Project Job N		Agua 11215				
	SPECIFIC IN	IPUT DATA							L INPUT	S		
Highway Data					Site Con	ditions	(Hard	= 10, S	oft = 15)			
Average Daily	Traffic (Adt):	7,917 vehicle	es					Autos	15			
Peak Hour	Percentage:	10%			Me	dium Tr	icks (2	Axles).	15			
Peak I	Hour Volume:	792 vehicle	S		He	avy True	cks (3+	Axles).	15			
Ve	ehicle Speed:	45 mph			Vehicle	Miss						
Near/Far La	ane Distance:	82 feet				icleType		Day	Evening	Night	Daily	
Site Data					****		Autos:	73.2%		18.6%		
	rrier Heiaht:	0.0 feet			М	edium T		82.2%		14.0%		
Barrier Type (0-V		0.0 reet				leavy T	ucks:	76.5%		19.5%		
	ist. to Barrier:	60.0 feet										
Centerline Dist.		60.0 feet			Noise S				eet)			
	Barrier Distance to Observer: 0.0 feet							0.000				
Observer Height		5.0 feet				m Truck		2.297				
	ad Flevation:	0.0 feet			Heav	y Truck	s: 8	3.004	Grade Ad	justment	: 0.0	
	ad Elevation:	0.0 feet			Lane Eq	uivalen	Dista	nce (in	feet)			
710	Road Grade:	0.0%				Auto	s: 4	1.091				
	I eft View:	-90.0 degree	29		Mediu	m Truck	s: 4:	3.890				
	Right View:	90.0 degree				y Truck		3.909				
FHWA Noise Mod	lel Calculation	s									-	
VehicleType	REMEL	Traffic Flow	Dis	stance	Finite	Road	Fre	snel	Barrier Att	en Bei	m Atten	
Autos:	68.46	-3.36		0.7	72	-1.20		-4.69	0.0	000	0.000	
Medium Trucks:	79.45	-18.66		0.7	75	-1.20		-4.88	0.0	000	0.000	
Heavy Trucks:	84.25	-13.55		0.7	74	-1.20		-5.34	0.0	000	0.000	
Unmitigated Nois	e Levels (with	out Topo and	barri	er atte	nuation)							
VehicleType	Leq Peak Hou	ır Leq Day	/	Leq E	vening	Leq	Night		Ldn	C	NEL	
Autos:			62.5		58.9		57		65.		65.4	
Medium Trucks:			58.7		51.4		52	-	60.		60.2	
Heavy Trucks:			68.3		61.5		63		70.8	_	71.0	
Vehicle Noise:			69.7		63.7		64	.9	72.	ı	72.3	
Centerline Distan	ce to Noise C	ontour (in feet	)	70	dDA	65	AD A	1 .	60 dBA	EE	dBA	
I dn:				70 dBA 65 dBA 83 180			387		34 34			
	CNEL:						86 184 397				856	

	FH\	WA-RD-77-108	HIGH	WAY N	OISE P	REDICT	ION M	DDEL				
Scenario Road Name Road Segmen							t Name: lumber:					
	SPECIFIC IN	IPUT DATA							L INPUT	s		
Highway Data					Site Cor	ditions	(Hard	= 10, S	oft = 15)			
Average Daily	Traffic (Adt):	23,696 vehicle	es					Autos:	15			
Peak Hour I	Percentage:	10%			Me	dium Tr	ucks (2	Axles):	15			
Peak He	our Volume:	2,370 vehicle	S		He	avy Tru	cks (3+	Axles):	15			
Vel	hicle Speed:	45 mph		1	/ehicle	Mix						
Near/Far Lar	ne Distance:	36 feet				icleType	9	Day	Evening	Nigh	t	Daily
Site Data							Autos:	73.2%	8.1%	18.6	8 %	88.26%
Bar	rier Height:	0.0 feet			М	edium T	rucks:	82.2%	3.9%	14.0	)%	2.72%
Barrier Type (0-Wa	all, 1-Berm):	0.0				Heavy T	rucks:	76.5%	4.0%	19.5	5%	9.03%
Centerline Dis		50.0 feet		1	Voise S	ource E	levatio	ns (in f	eet)			
Centerline Dist. t		50.0 feet				Auto	s: C	.000				
Barrier Distance t		0.0 feet			Mediu	m Truck	s: 2	.297				
Observer Height (/	,	5.0 feet			Hear	y Truck	s: 8	.004	Grade Ad	justme	ent: (	0.0
	d Elevation:	0.0 feet		-				,,				
	d Elevation:	0.0 feet		L	.ane Eq				teet)			
F	Road Grade:	0.0%				Auto		.915				
	Left View:	-90.0 degree				m Truck		.726				
	Right View:	90.0 degree	es		Hea	ry Truck	is: 46	5.744				
FHWA Noise Mode	el Calculation	s										
VehicleType	REMEL	Traffic Flow	Dist	tance		Road	Fres		Barrier Att	_	Berm	Atten
Autos:	68.46	1.37		0.31		-1.20		-4.65		000		0.000
Medium Trucks:	79.45	-13.75		0.34		-1.20		-4.87		000		0.000
Heavy Trucks:	84.25			0.34		-1.20		-5.43	0.0	000		0.000
Unmitigated Noise								-				
VehicleType Autos:	Leq Peak Hou		66.8	Leq Ev	ening 63.3	Leq	Night 62	4	Ldn 69.4		CNE	£ 69.7
Medium Trucks:	64		63.2		55.9		56		64.			64.7
	74		72.9		66.1		68		75.	-		75.6
Heavy Trucks:  Vehicle Noise:	76		74.2		68.2		69		76.			76.9
Centerline Distance	e to Noise C	ontour (in feet	)									
				70 a	IBA .	65	dBA	-	60 dBA		55 dE	3 <i>A</i>
			Ldn:	14	0	3	01		649		1,39	8
		CI	VEL:	14	3	3	09		665		1,43	3

Wednesday, October 17, 2018

	FHV	VA-RD-77-10	HIGI	TWATE	NUISE P	KEDICI	ION M	ODEL			
	o: Existing Wi e: Market St. nt: e/o Hall Av.							: Agua I : 11215	Mansa		
SITE S	SPECIFIC IN	PUT DATA				N	IOISE	MODE	L INPUT	S	
Highway Data					Site Cor	nditions	(Hard	= 10, S	oft = 15)		
Average Daily	Traffic (Adt):	25,565 vehic	les					Autos:	15		
Peak Hour	Percentage:	10%			Me	edium Tr	ucks (2	Axles):	15		
Peak He	our Volume:	2,556 vehicle	es		He	avy Tru	cks (3+	Axles):	15		
Vel	hicle Speed:	45 mph		-	Vehicle	Miv					
Near/Far Lar	ne Distance:	36 feet		F		icleType	9	Day	Evening	Night	Daily
Site Data							Autos:	73.2%	8.1%	18.6%	87.73%
Rar	rier Heiaht:	0.0 feet			М	edium T	rucks:	82.2%	3.9%	14.0%	2.80%
Barrier Type (0-Wi		0.0				Heavy T	rucks:	76.5%	4.0%	19.5%	9.47%
Centerline Dis	st. to Barrier:	50.0 feet			Noise S	ource E	levatio	ns (in f	eet)		
Centerline Dist. t		50.0 feet		F		Auto		0.000	,		
Barrier Distance t	Barrier Distance to Observer: 0.0 feet							2.297			
Observer Height (/	Above Pad):	5.0 feet			Hear	v Truck		3.004	Grade Ad	ustment	: 0.0
	ad Elevation:	0.0 feet		-		,					
	ad Elevation:	0.0 feet		-	Lane Eq				feet)		
F	Road Grade:	0.0%				Auto		5.915			
	Left View:	-90.0 degre				m Truck		6.726			
	Right View:	90.0 degre	ees		Hear	vy Truck	s: 46	6.744			
FHWA Noise Mode		-									
VehicleType	REMEL	Traffic Flow		stance		Road	Fres		Barrier Att		m Atten
Autos:	68.46	1.67		0.3		-1.20		-4.65	0.0		0.00
Medium Trucks:	79.45	-13.29		0.3		-1.20		-4.87	0.0		0.000
Heavy Trucks:	84.25	-8.00	)	0.3	4	-1.20		-5.43	0.0	100	0.000
Unmitigated Noise								1		_	
	Leq Peak Hou		,	Leq E	vening		Night		Ldn		NEL
Autos:	69		67.1		63.6		62		69.7		70.0
Medium Trucks:	65		63.7		56.4		57		65.0		65.2
Heavy Trucks: Vehicle Noise:	75 76		73.4		66.6 68.6		68 69		76.0 77.2		76. <sup>-</sup>
Centerline Distanc			t)								
Constille Distant	110/38 00	Jui (iii lee	'	70	dBA	65	dBA	-	60 dBA	55	dBA
			Ldn:	1	51	3	25		699	1,	507
		-	NFI:	4.0	54	2	33		717	4	544

	FHV	VA-RD-77-108	HIGI	HWAY	NOISE P	REDICT	ION MO	DDEL			
Road Nan	rio: Existing Wine: 20th St. ent: e/o Agua M						t Name: lumber:				
	SPECIFIC IN	PUT DATA							L INPUT	S	
Highway Data					Site Cor	nditions	(Hard =	= 10, Sc	oft = 15)		
Average Daily	Traffic (Adt):	19,329 vehicle	es					Autos:	15		
Peak Hour	Percentage:	10%				edium Tr		,			
Peak H	Hour Volume:	1,933 vehicles	S		He	eavy Tru	cks (3+	Axles):	15		
	ehicle Speed:	45 mph			Vehicle	Mix					
Near/Far La	ne Distance:	36 feet				icleType	е	Day	Evening	Night	Daily
Site Data							Autos:	73.2%	8.1%	18.6%	87.03%
Ra	rrier Heiaht:	0.0 feet			M	edium 7	rucks:	82.2%	3.9%	14.0%	2.89%
Barrier Type (0-V		0.0				Heavy T	rucks:	76.5%	4.0%	19.5%	10.07%
	ist. to Barrier:	50.0 feet		-	Noise S	auraa E	lovetio	an (in f	0.041		
Centerline Dist.	to Observer:	50.0 feet		-	Noise 3	Auto		.000	eet)		
Barrier Distance	to Observer:	0.0 feet			Modiu	m Truck		.297			
Observer Height	(Above Pad):	5.0 feet				vy Truck		.004	Grade Ad	iustmen	t· 0.0
P	ad Elevation:	0.0 feet								judumom	0.0
Ro	ad Elevation:	0.0 feet			Lane Eq	uivalen	t Distar	ice (in	feet)		
	Road Grade:	0.0%				Auto		.915			
	Left View:	-90.0 degree	es		Mediu	m Truck	s: 46	.726			
	Right View:	90.0 degree	es		Hea	vy Truck	rs: 46	.744			
FHWA Noise Mod	lel Calculation:	s									
VehicleType	REMEL	Traffic Flow	Di	stance	Finite	Road	Fres	nel	Barrier Att	en Be	rm Atten
Autos:		0.42		0.3		-1.20		-4.65		000	0.000
Medium Trucks:		-14.36		0.3		-1.20		-4.87		000	0.000
Heavy Trucks:	84.25	-8.94		0.3	34	-1.20		-5.43	0.0	000	0.000
<b>Unmitigated Nois</b>	e Levels (with	out Topo and	barri	ier atte	nuation)						
VehicleType	Leq Peak Hou			Leq E	vening		Night		Ldn		NEL
Autos:		-	65.8		62.3		61.	_	68.5	-	68.7
Medium Trucks:			62.6		55.3		56.		64.0		64.1
Heavy Trucks:			72.5		65.7		67.		75.0		75.2
Vehicle Noise:	75.	.7	73.7		67.6		68.	9	76.2	2	76.3
Centerline Distan	ce to Noise Co	ntour (in feet	)					_			
				70	dBA	1 65	dBA	1 6	60 dBA	5.5	i dBA

1,291 1,323

Wednesday, October 17, 2018

	FH\	WA-RD-77-108	HIGHW	VAY NO	DISE P	REDICTION	ON MC	DEL			
	o: Existing Wi e: Market St. nt: e/o Rivera					Project I Job Nu					
SITE S	SPECIFIC IN	IPUT DATA				N	OISE	MODE	L INPUT	s	
Highway Data				S	ite Con	ditions (	Hard =	: 10, S	oft = 15)		
Average Daily	Traffic (Adt):	29,901 vehicle	s					Autos:	15		
Peak Hour	. ,	10%			Me	dium Tru	cks (2	Axles).	15		
Peak H	our Volume:	2,990 vehicles	3		He	avy Truci	ks (3+	Axles).	15		
Vel	hicle Speed:	45 mph			ehicle l	141					
Near/Far Lar	ne Distance:	48 feet		V		icleType		Day	Evening	Night	Daily
Site Data				_	ven		utos:	73.2%		18.6%	,
					1.4	A edium Tri		82.2%		14.0%	
	rier Height:	0.0 feet				deavy Tru		76.5%	,.	19.5%	
Barrier Type (0-W	. ,	0.0				leavy III	icns.	70.57	4.076	19.576	5.22 /0
Centerline Dist		50.0 feet 50.0 feet		N	oise So	ource Ele	evation	ıs (in f	eet)		
						Autos	: 0	000			
	Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet						: 2	297			
	Above Paa): nd Flevation:	0.0 feet			Heav	y Trucks	: 8	004	Grade Ad	justment	: 0.0
	nd Elevation: ad Flevation:	0.0 feet		1	ano Fa	uivalent	Dietar	co (in	foot)		
	Road Grade:	0.0 reet 0.0%		-	ane Ly	Autos		147	icci)		
r	l eft View:		_		Modium	m Trucks		.147			
		-90.0 degree				v Trucks		.966			
	Right View:	90.0 degree	s		пеач	y Hucks	. 43	.900			
FHWA Noise Mode	el Calculation	s									
VehicleType	REMEL	Traffic Flow	Dista		Finite	Road	Fres		Barrier Att		m Atten
Autos:	68.46	2.36		0.71		-1.20		-4.65		000	0.000
Medium Trucks:	79.45	-12.67		0.74		-1.20		-4.87		000	0.000
Heavy Trucks:	84.25	-7.43		0.73		-1.20		-5.43	0.0	000	0.000
Unmitigated Noise	Levels (with	out Topo and I	barrier	attenu	ation)						
VehicleType	Leq Peak Hou	ır Leq Day	L	Leq Eve	ening	Leq N	light		Ldn	C	NEL
Autos:	70	.3 6	68.2		64.7		63.	5	70.8	3	71.1
Medium Trucks:	66	.3 6	64.7		57.4		58.	2	66.	1	66.2
Heavy Trucks: 76.4 74.4			74.4		67.6		69.	7	77.0	)	77.1
Vehicle Noise:	77	.7	75.7		69.7		70.	9	78.2	2	78.3
Centerline Distanc	e to Noise Co	ontour (in feet)	1								
				70 dl		65 a		1	60 dBA		dBA
		-	Ldn:	175		37	-		814	1,	754
		CN	IEL:	180	)	38	7		835	1,	799

FH	WA-RD-77-108	HIGHW	AY NOISE I	PREDICT	TION MO	DEL			
Scenario: Existing W Road Name: Cedar Av. Road Segment: n/o I-10 Fv					t Name: lumber:		Mansa		
SITE SPECIFIC I	NPUT DATA						L INPUT	S	
Highway Data			Site Co	onditions	(Hard:	= 10, Sc	oft = 15)		
Average Daily Traffic (Adt):	40,822 vehicle	es				Autos:	15		
Peak Hour Percentage:	10%		N	fedium Ti	rucks (2	Axles):	15		
Peak Hour Volume:	4,082 vehicle	S	H	leavy Tru	icks (3+	Axles):	15		
Vehicle Speed:	40 mph		Vehicle	Mix					
Near/Far Lane Distance:	48 feet			hicleTyp	е	Day	Evening	Night	Daily
Site Data					Autos:	73.2%	8.1%	18.6%	89.84%
Barrier Height:	0.0 feet		- 1	Medium 7	rucks:	82.2%	3.9%	14.0%	2.50%
Barrier Type (0-Wall, 1-Berm):	0.0			Heavy 7	rucks:	76.5%	4.0%	19.5%	7.66%
Centerline Dist. to Barrier:	52.0 feet		Noise :	Source E	levatio	ns (in fe	eet)		
Centerline Dist. to Observer:	52.0 feet			Auto	os: 0	.000			
Barrier Distance to Observer:	0.0 feet		Medi	um Truck	(S: 2	.297			
Observer Height (Above Pad):	5.0 feet		Hea	avy Truck	s: 8	.004	Grade Ad	justment	0.0
Pad Elevation:	0.0 feet			·		,,			
Road Elevation:	0.0 feet		Lane E	quivalen			reet)		
Road Grade:	0.0%			Auto		.400			
Left View:	-90.0 degre			um Truck		.209			
Right View:	90.0 degre	es	Hea	avy Truck	(S: 46	.228			
FHWA Noise Model Calculation									
VehicleType REMEL	Traffic Flow	Distar		e Road	Fres	_	Barrier Att	_	rm Atten
Autos: 66.51			0.38	-1.20		-4.66		000	0.000
Medium Trucks: 77.72			0.41	-1.20		-4.87		000	0.000
Heavy Trucks: 82.99			0.41	-1.20		-5.41	0.0	000	0.000
Unmitigated Noise Levels (with						_			
VehicleType Leq Peak Ho			eq Evening		Night		Ldn		NEL
		67.9 64.0	64. 56.	-	63. 57.	_	70.5 65.4	-	70.8
		73.9		-	69.	-			65.6
		75.2	67. 69.		70.		76.4 77.7		76.6 77.8
Centerline Distance to Noise C			03.		70.	•	,,,,		77.0
Contenine Distance to Noise C	ontour (III leet	,	70 dBA	65	dBA	6	0 dBA	55	dBA
		Ldn:	169 364 785			1.	.691		
		NFI:	173		374		805		734

	FH\	WA-RD-77-108	B HIGH	WAY N	OISE P	REDICT	ION M	ODEL			
	o: Existing Wi e: Cedar Av. nt: s/o Slover							Agua I 11215	Mansa		
	SPECIFIC IN	IPUT DATA							L INPUT	S	
Highway Data				S	Site Cor	ditions	(Hard		oft = 15)		
Average Daily	. ,	25,285 vehic	les					Autos:			
	Percentage:	10%				dium Tr					
	our Volume:	2,529 vehicle	es		He	avy Tru	cks (3+	Axles):	15		
	hicle Speed:	40 mph		V	/ehicle	Mix					
Near/Far Lai	ne Distance:	48 feet			Veh	icleType	9	Day	Evening	Night	Daily
Site Data							Autos:	73.2%	8.1%	18.6%	88.95%
Bar	rier Heiaht:	0.0 feet			М	edium T	rucks:	82.2%	3.9%	14.0%	2.62%
Barrier Type (0-W		0.0			1	Heavy T	rucks:	76.5%	4.0%	19.5%	8.43%
Centerline Dis	st. to Barrier:	52.0 feet			Inisa S	ource E	lovatio	ne (in f	aof)		
Centerline Dist.	to Observer:	52.0 feet		,	ioise si	Auto		0.000	<i>561)</i>		
Barrier Distance	Barrier Distance to Observer: 0.0 feet							.297			
Observer Height (.	Above Pad):	5.0 feet				m Truck ∕v Truck		3.004	Grade Ad	iuetmant	. 0.0
Pa	ad Elevation:	0.0 feet				,				douriorit	. 0.0
Roa	ad Elevation:	0.0 feet		L	ane Eq	uivalen	t Dista	nce (in	feet)		
I	Road Grade:	0.0%				Auto	s: 46	6.400			
	Left View:	-90.0 degre	ees			m Truck		6.209			
	Right View:	90.0 degre	ees		Heav	y Truck	s: 46	5.228			
FHWA Noise Mode	el Calculation	ıs									
VehicleType	REMEL	Traffic Flow		stance		Road	Fres		Barrier Att		m Atten
Autos:	66.51	2.19		0.38		-1.20		-4.66		000	0.00
Medium Trucks:	77.72	-13.11		0.41		-1.20		-4.87		000	0.000
Heavy Trucks:	82.99	-8.04		0.41		-1.20		-5.41	0.0	000	0.000
Unmitigated Noise			l barrie	er atteni	uation)						
	Leq Peak Hou		,	Leq Ev			Night		Ldn		NEL
Autos:	67		65.7		62.2		61		68.4		68.0
Medium Trucks:	63		62.2		54.9		55		63.5		63.
Heavy Trucks: Vehicle Noise:	74 75		72.2		65.4 67.4		67 68		74.8 75.9		74.9
					01.4		80	.0	/5.3	7	70.
Centerline Distanc	e to Noise Co	ontour (in fee	t)	70 d	'BA	65	dBA	1 6	60 dBA	55	dBA
			Ldn:	12			78		599		290
		CNEL:									

Barrier Height:   0.0   feet   Barrier Type (0-Wall, 1-Berm):   0.0   Centerline Dist. to Barrier:   52.0   feet   Centerline Dist. to Observer:   52.0   feet   Centerline Dist. for Observer:   52.0   feet   Centerline Dist. for Observer:   52.0   feet   Centerline Dist. for Observer:   52.0   feet   Centerline Dist. for Observer:   52.0   feet   Centerline Dist. for Observer:   52.0   feet   Centerline Dist. for Observer:   52.0   feet   Centerline Dist. for Observer:   60.0   Centerline Distance   Cente		FH\	WA-RD-77-108	HIGHW	AY NO	ISE PR	EDICTIO	ON MO	DEL			
Average Daily Traffic (Adi):	Road Name	e: Cedar Av.								Mansa		
Average Daily Traffic (Adt): 29,346 vehicles		SPECIFIC IN	IPUT DATA		0.						S	
Near/Far Lane Distance:	Average Daily Peak Hour Peak H	Percentage: our Volume:	10% 2,935 vehicles			Med Hea	dium Truck avy Truck	ks (2 )	Autos: Axles):	15 15		
Autos: 73.2% 8.1% 18.6% 89.07	Near/Far Lar	e Distance:	48 feet		Ve				Day	Evonina	Night	Daily
Barrier Type (0-Wall, 1-Berm):	Site Data						AL		73.2%	8.1%	18.6%	89.079
Noise Source Elevations (in Teet)	Barrier Type (0-W	all, 1-Berm):	0.0									
Left View:	Centerline Dist. I Barrier Distance I Observer Height (A Pa	o Observer: o Observer: Above Pad): d Elevation:	52.0 feet 0.0 feet 5.0 feet 0.0 feet			Mediun Heav	Autos: n Trucks: y Trucks:	0. 2. 8.	000 297 004	Grade Ad	justmeni	t: 0.0
VehicleType		Left View: Right View:	-90.0 degree				n Trucks:	46.	209			
Autos: 66.51   2.85   0.38   -1.20   -4.66   0.000   0.0				Dista	nce	Finite	Road	Fresi	nel	Rarrier Att	en Re	rm Atter
Unmitigated Noise   Levels (without Topo and barrier attenuation)   Vehicle Type   Leq Peak Hour   Leq Day   Leq Evening   Leq Night   Ldn   CNEL	Autos: Medium Trucks:	66.51 77.72	2.85 -12.48		0.38 0.41		-1.20 -1.20		-4.66 -4.87	0.0	000	0.00
Vehicle Type         Leq Peak Hour         Leq Day         Leq Evening         Leq Night         Ldn         CNEL           Autos:         68.5         66.4         62.9         61.7         69.0         68.6           Medium Trucks:         64.4         62.8         55.5         56.4         64.2         66.1           Heavy Trucks:         74.8         72.8         66.0         68.1         75.4         75.7           Vehicle Noise:         76.0         74.0         68.0         69.2         76.5         76.           Centerline Distance to Noise Contour (In feet)         70 dBA         65 dBA         60 dBA         55 dBA           Ldn:         142         305         657         1,416					••••		-1.20		-5.41	0.0	J00	0.00
Autos:         68.5         66.4         62.9         61.7         69.0         66           Medium Trucks:         64.4         62.8         55.5         56.4         64.2         64           Heavy Trucks:         74.8         72.8         66.0         68.1         75.4         75           Vehicle Noise:         76.0         74.0         68.0         69.2         76.5         76           Centerline Distance to Noise Contour (in feet)         70 dBA         65 dBA         60 dBA         55 dBA           Ldn:         142         305         657         1,416		•					I on N	liaht	T	l dn		NEI
Heavy Trucks:         74.8         72.8         66.0         68.1         75.4         75.7           Vehicle Noise:         76.0         74.0         68.0         69.2         76.5         76.5           Centerline Distance to Noise Contour (In feet)           Ldn:         142         305         657         1,416					.04 =10		Logiv		7		_	69
Vehicle Noise:         76.0         74.0         68.0         69.2         76.5         76           Centerline Distance to Noise Contour (In feet)	Medium Trucks:	64	.4	62.8		55.5		56.4	4	64.2	2	64
Centerline Distance to Noise Contour (in feet)           70 dBA         65 dBA         60 dBA         55 dBA           Ldn:         142         305         657         1,416	Heavy Trucks:	74	1.8	72.8		66.0		68.	1	75.4	4	75
70 dBA 65 dBA 60 dBA 55 dBA Ldn: 142 305 657 1,416	Vehicle Noise:	76	5.0	74.0		68.0		69.2	2	76.	5	76
Ldn: 142 305 657 1,416	Centerline Distanc	e to Noise C	ontour (in feet	)								
				L					6			
CINEL: 145 313 673 1,451												
			CI	VEL:	145		313	3		673	1,	451

Thursday, October 18, 2018

	FH\	WA-RD-77-10	B HIGI	HWAY	NOISE P	REDICTI	ON M	ODEL			
Road Nan	io: Existing Wine: Cedar Av. nt: s/o Santa A					Project Job N		: Agua I : 11215			
SITE	SPECIFIC IN	IPUT DATA				N	OISE	MODE	L INPUT	S	
Highway Data					Site Con	ditions	(Hard	= 10, S	oft = 15)		
Average Daily	Traffic (Adt):	25,820 vehic	les					Autos:	15		
Peak Hour	Percentage:	10%			Me	dium Tru	icks (2	Axles):	15		
Peak F	lour Volume:	2,582 vehicle	es		He	avy Truc	ks (3+	Axles):	15		
Ve	hicle Speed:	40 mph			Vehicle I	Miss					
Near/Far La	ne Distance:	48 feet				icleType		Day	Evening	Night	Daily
Site Data							lutos:	73.2%		18.6%	,
Pa	rrier Heiaht:	0.0 feet			Me	edium Tr	ucks:	82.2%	3.9%	14.0%	2.65%
Barrier Type (0-W		0.0 1001			F	leavy Tr	ucks:	76.5%	4.0%	19.5%	8.62%
Centerline Di		52.0 feet									
Centerline Dist.	to Observer:	52.0 feet			Noise So				eet)		
Barrier Distance	to Observer:	0.0 feet				Autos		0.000			
Observer Height	(Above Pad):	5.0 feet				n Trucks		2.297	0		
	ad Elevation:	0.0 feet			Heav	y Trucks	S: 8	3.004	Grade Ad	justment	. 0.0
Ro	ad Elevation:	0.0 feet			Lane Eq	uivalent	Dista	nce (in	feet)		
	Road Grade:	0.0%				Autos	s: 46	6.400			
	Left View:	-90.0 degre	es		Mediui	m Trucks	s: 46	6.209			
	Right View:	90.0 degre	ees		Heav	y Trucks	s: 46	6.228			
FHWA Noise Mod											
VehicleType	REMEL	Traffic Flow		stance		Road	Fre		Barrier At		m Atten
Autos:	66.51	2.27		0.3		-1.20		-4.66		000	0.000
Medium Trucks:				0.4		-1.20		-4.87		000	0.000
Heavy Trucks:	82.99	-7.85	•	0.4	11	-1.20		-5.41	0.0	000	0.000
Unmitigated Nois			l barri	ier atte	nuation)						
VehicleType	Leq Peak Hou		_	Leq E	vening	Leq	Night		Ldn		NEL
Autos:	68		65.8		62.3		61		68.		68.7
Medium Trucks:	64		62.3		55.0		55		63.		63.8
Heavy Trucks:			72.4		65.6		67	••	75.		75.1
Vehicle Noise:	75	5.6	73.6		67.5		68	.8	76.	1	76.2
Centerline Distan	ce to Noise C	ontour (in fee	t)								
			L		dBA	65		(	60 dBA		dBA
					132 285			615		324	
	CNEL:				136 292			2 630			357

	FH\	WA-RD-77-108	HIGH	HWAY	NOISE P	REDICT	ION M	ODEL			
Road Nan	rio: Existing W ne: Cedar Av. ent: s/o Jurupa							: Agua I : 11215	Mansa		
	SPECIFIC IN	IPUT DATA							L INPUT	S	
Highway Data					Site Cor	nditions	(Hard	= 10, S	oft = 15)		
Average Daily	Traffic (Adt):	23,181 vehicle	es					Autos:	15		
Peak Hour	Percentage:	10%				edium Tr					
Peak I	Hour Volume:	2,318 vehicle	S		He	eavy Tru	cks (3+	Axles):	15		
Ve	ehicle Speed:	50 mph			Vehicle	Mix					
Near/Far La	ne Distance:	48 feet				icleType	9	Dav	Evening	Night	Daily
Site Data							Autos:	73.2%	Ü	18.6%	_
Ra	rrier Height:	0.0 feet			М	edium T	rucks:	82.2%	3.9%	14.0%	2.65%
Barrier Type (0-V	-	0.0				Heavy T	rucks:	76.5%	4.0%	19.5%	8.68%
	ist. to Barrier:	52.0 feet									
Centerline Dist.	to Observer:	52.0 feet			Noise S				eet)		
Barrier Distance	to Observer:	0.0 feet				Auto		0.000			
Observer Height	(Above Pad):	5.0 feet			Medium Trucks: 2.297 Heavy Trucks: 8.004 Grade Adjustment: 0.0						
	ad Elevation:	0.0 feet			Hear	vy Truck	s: 8	3.004	Grade Ad	justment	0.0
	ad Elevation:	0.0 feet			Lane Eq	uivalen	t Dista	nce (in	feet)		
	Road Grade:	0.0%				Auto	s: 46	6.400			
	Left View:	-90.0 degre	es		Mediu	m Truck	s: 46	5.209			
	Right View:	90.0 degre			Hear	vy Truck	s: 46	6.228			
FHWA Noise Mod	lel Calculation	ıs									
VehicleType	REMEL	Traffic Flow	Dis	stance	Finite	Road	Fres	snel	Barrier Att	en Ber	m Atten
Autos:	70.20	0.83		0.3	38	-1.20		-4.66	0.0	000	0.000
Medium Trucks:	81.00	-14.41		0.4	41	-1.20		-4.87	0.0	000	0.000
Heavy Trucks:	85.38	-9.26		0.4	41	-1.20		-5.41	0.0	000	0.000
Unmitigated Nois	e Levels (with	out Topo and	barrie	er atte	nuation)						
VehicleType	Leq Peak Hot			Leq E	Evening	Leq	Night		Ldn		NEL
Autos:	70	1.2	68.1		64.5		63	.4	70.	7	71.0
Medium Trucks:	65	i.8	64.2		56.9		57	.7	65.	5	65.7
Heavy Trucks:	75	i.3	73.4		66.6		68	.7	75.	9	76.1
Vehicle Noise:	76	5.8	74.9		69.0		70	.1	77.	1	77.5
Centerline Distan	ce to Noise C	ontour (in feet	)								
				70	dBA	65	dBA	(	60 dBA	55	dBA
			Ldn:		61	_	47		747	,	610
		C	NEL:	1	65	3	56		767	1,	652

	FH\	WA-RD-77-108	HIGI	A YAWH	IOISE P	REDICT	ION M	ODEL							
Road Nam	io: Existing W ie: Rubidoux E nt: s/o Produc	BI.						Agua 1							
SITE	SPECIFIC IN	IPUT DATA				ı	IOISE	MODE	L INPUT	S					
Highway Data					Site Cor	ditions	(Hard	= 10, S	oft = 15)						
Average Daily	Traffic (Adt):	25,246 vehic	les					Autos:	15						
Peak Hour	Percentage:	10%			Me	dium Tr	ucks (2	Axles):	15						
Peak H	lour Volume:	2,525 vehicle	es		He	avy Tru	cks (3+	Axles):	15						
Ve	hicle Speed:	50 mph		+	Vehicle	Miv									
Near/Far La	ne Distance:	48 feet		F		icleType	9	Day	Evening	Night	Daily				
Site Data							Autos:	73.2%	8.1%	18.6%	87.79%				
Rai	rrier Height:	0.0 feet			М	edium T	rucks:	82.2%	3.9%	14.0%	2.76%				
Barrier Type (0-W		0.0			-	Heavy T	rucks:	76.5%	4.0%	19.5%	9.45%				
Centerline Dis	st. to Barrier:	59.0 feet		H	Noise S	ourco E	lovatio	ne (in f	innt)						
Centerline Dist.	to Observer:	59.0 feet		H.	worse s	Auto		0.000	eei)						
Barrier Distance	Barrier Distance to Observer: 0.0 feet						Medium Trucks: 2,297								
Observer Height (	Above Pad):	5.0 feet				vy Truck		3.004	Grade Ad	liustment	- 00				
Pa	ad Elevation:	0.0 feet								jusunon	. 0.0				
Roa	ad Elevation:	0.0 feet			Lane Eq	uivalen	t Dista	nce (in	feet)						
	Road Grade:	0.0%				Auto	s: 54	1.129							
	Left View:	-90.0 degre	es			m Truck		3.966							
	Right View:	90.0 degre	es		Heav	y Truck	s: 53	3.982							
FHWA Noise Mode	el Calculation	s													
VehicleType	REMEL	Traffic Flow	Di	stance	Finite	Road	Fres	snel	Barrier At	ten Bei	rm Atten				
Autos:	70.20	1.16	i	-0.6	2	-1.20		-4.69	0.	000	0.000				
Medium Trucks:	81.00	-13.87		-0.6		-1.20		-4.88		000	0.000				
Heavy Trucks:	85.38	-8.52	!	-0.6	0	-1.20		-5.35	0.	000	0.000				
Unmitigated Noise															
VehicleType	Leq Peak Hot		_	Leq E	vening	Leq	Night		Ldn		NEL				
Autos:	69		67.4		63.9		62		70.	-	70.3				
Medium Trucks:	65		63.7		56.4		57		65.		65.2				
Heavy Trucks: Vehicle Noise:	75 76		73.1		66.3 68.5		68 69		75. 77.		75.8 77.2				
					30.3		03	.,	77.		11.4				
Centerline Distant	ce to Noise C	ontour (in fee	t)	70 0	dBA	65	dBA	Т (	60 dBA	55	dBA				
			Ldn:		73		72		802		727				
	CNFI:					177 382 822 1,771									

	FHWA-	-RD-77-108 I	HIGHWAY	NOISE P	REDICTION	ON MODE	L		
Scenario: Exi Road Name: Rut Road Segment: s/o	oidoux Bl.					lame: Agu mber: 112			
SITE SPEC	IFIC INPL	JT DATA					DEL INPUT	S	
Highway Data				Site Cor	ditions (	Hard = 10	Soft = 15)		
Average Daily Traffic	(Adt): 25	,178 vehicle	s			Aut	os: 15		
Peak Hour Percei	ntage:	10%		Me	dium Tru	cks (2 Axle	es): 15		
Peak Hour Vo	lume: 2,5	518 vehicles		He	avy Truci	is (3+ Axle	es): 15		
Vehicle S	peed:	50 mph		Vehicle	Mix				
Near/Far Lane Dist	ance:	48 feet		Veh	icleType	Da	y Evening	Night	Daily
Site Data					A	itos: 73.	2% 8.1%	18.6%	87.64%
Barrier Ho	eiaht:	0.0 feet		М	edium Tru	icks: 82.	2% 3.9%	14.0%	2.79%
Barrier Type (0-Wall, 1-E		0.0			Heavy Tru	icks: 76.	5% 4.0%	19.5%	9.57%
Centerline Dist. to B	arrier:	59.0 feet		Noise S	ourco Ela	vations (i	n foot)		
Centerline Dist. to Obs	erver:	59.0 feet		NOISE S	Autos:				
Barrier Distance to Obs	erver:	0.0 feet		Modiu	m Trucks				
Observer Height (Above	Pad):	5.0 feet			vy Trucks.			liustment	. 0.0
Pad Elev	ration:	0.0 feet		i icai	y Trucks.	0.004	- Grado rio	, ao an an	. 0.0
Road Elev	ration:	0.0 feet		Lane Eq	uivalent	Distance (	(in feet)		
Road G	Grade:	0.0%			Autos.	54.129	)		
Left	View: -	90.0 degree	S	Mediu	m Trucks.	53.966			
Right	View:	90.0 degree	s	Heav	y Trucks.	53.982			
FHWA Noise Model Cald	ulations			1					
VehicleType REI	MEL Ti	raffic Flow	Distance	Finite	Road	Fresnel	Barrier At	ten Bei	m Atten
Autos:	70.20	1.14	-0.	62	-1.20	-4.	69 0.	000	0.000
Medium Trucks:	81.00	-13.83	-0.	60	-1.20	-4.	88 0.	000	0.000
Heavy Trucks:	85.38	-8.48	-0.	60	-1.20	-5.	35 0.	000	0.000
Unmitigated Noise Leve		t Topo and b	oarrier atte	enuation)					
VehicleType Leq P	eak Hour	Leq Day		Evening	Leq N		Ldn	_	NEL
Autos:	69.5	-	7.4	63.9		62.7	70.	-	70.3
Medium Trucks:	65.4	-	3.7	56.5		57.3	65.		65.3
Heavy Trucks:	75.1	7	3.1	66.3		68.5	75.	7	75.8
Vehicle Noise:	76.5		4.5	68.6		69.7	77.	0	77.2
Centerline Distance to N	loise Cont	our (in feet)							

Ldn: CNEL:

Thursday, October 18, 2018

	FH\	WA-RD-77-108	HIGH	-IWAY	NOISE P	REDICTI	ON M	ODEL			
Road Nan	io: Existing Wine: Rubidoux Ent: s/o 20th St	31.						: Agua I : 11215			
	SPECIFIC IN	IPUT DATA							L INPUT	S	
Highway Data					Site Con	ditions (	Hard	= 10, S	oft = 15)		
Average Daily	Traffic (Adt):	19,871 vehicl	es					Autos:	15		
Peak Hour	Percentage:	10%			Me	dium Tru	cks (2	2 Axles):	15		
Peak F	lour Volume:	1,987 vehicle	S		He	avy Truc	ks (3-	+ Axles):	15		
Ve	hicle Speed:	50 mph		-	Vehicle I	Miv					
Near/Far La	ne Distance:	48 feet		-		icleType		Dav	Evening	Night	Daily
Site Data							utos:	73.2%	0	18.6%	,
Pa	rrier Height:	0.0 feet			Me	edium Tr	ucks:	82.2%	3.9%	14.0%	2.72%
Barrier Type (0-W		0.0			F	leavy Tr	ucks:	76.5%	4.0%	19.5%	9.06%
Centerline Di		59.0 feet			Noise So	urco El	ovatio	ne (in f	not)		
Centerline Dist.	to Observer:	59.0 feet		ł	NOISE SC	Autos		0.000	eei)		
Barrier Distance	to Observer:	0.0 feet			Modiu	n Trucks		2.297			
Observer Height	(Above Pad):	5.0 feet				v Trucks		8.004	Grade Ac	liustmont	. 0.0
P	ad Elevation:	0.0 feet			пеач	y Trucks		5.004	Grade At	justinent	. 0.0
Ro	ad Elevation:	0.0 feet			Lane Eq	uivalent	Dista	nce (in	feet)		
	Road Grade:	0.0%				Autos	: 5	4.129			
	Left View:	-90.0 degre	es		Mediui	m Trucks	: 5	3.966			
	Right View:	90.0 degre	es		Heav	y Trucks	: 5	3.982			
FHWA Noise Mod	el Calculation	IS									
VehicleType	REMEL	Traffic Flow	Dis	stance	Finite		Fre	snel	Barrier At		m Atten
Autos:		0.14		-0.6	_	-1.20		-4.69		000	0.000
Medium Trucks:				-0.6		-1.20		-4.88		000	0.000
Heavy Trucks:	85.38	-9.74		-0.6	60	-1.20		-5.35	0.	000	0.000
Unmitigated Nois			barri	er atte	nuation)						
VehicleType	Leq Peak Hou			Leq E	vening	Leq I			Ldn		NEL
Autos:	68		66.4		62.9		-	1.7	69.	-	69.3
Medium Trucks:	64		62.6		55.3		-	5.1	64.	-	64.1
Heavy Trucks:	73		71.9		65.1			7.2	74.		74.6
Vehicle Noise:	75	5.3	73.3		67.4		68	3.5	75.	В	76.0
Centerline Distan	ce to Noise C	ontour (in feet	)								
			L		dBA	65 c		(	60 dBA		dBA
			Ldn:		44	31			669	,	442
		C	VEL:	1	48	31	9		687	1,	479

Thursday, October 18, 2018

	FH	WA-RD-77-108	HIGHWA'	Y NOISE P	REDICT	ION MO	DEL						
Road Na	ario: Existing W me: Rubidoux I ent: s/o 24th St	BI.				Name: I		Mansa					
	SPECIFIC IN	NPUT DATA						L INPUT	S				
Highway Data				Site Cor	nditions	(Hard =	10, Sc	oft = 15)					
Average Dail	y Traffic (Adt):	20,815 vehicle	es			,	Autos:	15					
Peak Hou	ır Percentage:	10%		Me	edium Tr	ucks (2 A	(xles	15					
Peak	Hour Volume:	2,082 vehicles	3	He	eavy Tru	cks (3+ A	(xles	15					
V	ehicle Speed:	50 mph		Vehicle	Miv								
Near/Far L	ane Distance:	48 feet			nicleType	,	Dav	Evening	Niaht	Dailv			
Site Data				10.			73.2%	-	18.6%	- /			
	arrier Height:	0.0 feet		М	ledium T	rucks:	82.2%	3.9%	14.0%	2.71%			
Barrier Type (0-	-	0.0 1661		Heavy Trucks: 76.5% 4.0% 19.5% 8.999									
	Dist. to Barrier:	59.0 feet											
Centerline Dis		59.0 feet		Noise Source Elevations (in feet)									
Barrier Distanc		0.0 feet			Autos: 0.000								
Observer Heigh		5.0 feet		Mediu	m Truck	s: 2.2	297						
	Pad Elevation:	0.0 feet		Hear	vy Truck	s: 8.0	004	Grade Ad	iustment	: 0.0			
	oad Flevation:	0.0 feet		Lane Eq	uivalen	t Distanc	e (in t	feet)					
	Road Grade:	0.0%			Auto								
	Left View:	-90.0 degree	\c	Mediu	m Truck								
	Right View:	90.0 degree											
	ragin view.	50.0 degree	75	7700	Heavy Trucks: 53.982								
FHWA Noise Mo	del Calculation	ıs		•									
VehicleType	REMEL	Traffic Flow	Distanc		Road	Fresn		Barrier Att		m Atten			
Autos	3: 70.20	0.35	-(	0.62	-1.20		-4.69	0.0	000	0.000			
Medium Trucks	81.00	-14.78	-(	0.60	-1.20		-4.88	0.0	000	0.000			
Heavy Trucks	85.38	-9.57	-(	0.60	-1.20		-5.35	0.0	000	0.000			
Unmitigated Noi	se Levels (with	out Topo and	barrier at	tenuation)									
VehicleType	Leq Peak Ho	ur Leq Day	Leq	Evening	Leq	Night		Ldn	C	NEL			
Autos	s: 68	3.7	6.6	63.1	•	61.9	i	69.2	2	69.5			
Medium Trucks	3: 64	1.4	62.8	55.5		56.3		64.2	2	64.3			
Heavy Trucks	8:74	1.0	72.0	65.2		67.4		74.6	3	74.7			
Vehicle Noise	e: 75	5.5	73.5	67.6	i	68.7		76.0	)	76.2			
Centerline Dista	nce to Noise C	ontour (in feet	)										
			7	70 dBA 65 dBA 60 dBA 55 dBA				dBA					
			148	319 688 1,482			482						
		CI	VEL:	152	328 706 1,520					520			

Thursday, October 18, 2018

	FHV	VA-RD-77-108	HIGH	N YAWH	IOISE P	REDICT	ION M	ODEL					
	o: Existing Wi e: Rubidoux E nt: s/o 28th St.	BI.						: Agua I : 11215	Mansa				
SITE S	SPECIFIC IN	IPUT DATA				N	IOISE	MODE	L INPUT	S			
Highway Data					Site Cor	nditions	(Hard	= 10, Sc	oft = 15)				
Average Daily	Traffic (Adt):	22,868 vehicle	es		Autos: 15								
Peak Hour I	Percentage:	10%			Me	edium Tr	ucks (2	Axles):	15				
Peak He	our Volume:	2,287 vehicle	s		He	avy Tru	cks (3+	Axles):	15				
Vel	hicle Speed:	50 mph		- 1	Vehicle	Mix							
Near/Far Lar	ne Distance:	48 feet		F		icleType	•	Day	Evening	Night	Daily		
Site Data							Autos:	73.2%	8.1%	18.6%	88.43%		
Rar	rier Height:	0.0 feet			Medium Trucks: 82.2% 3.9% 14.0% 2.6								
Barrier Type (0-Wa		0.0				Heavy T	rucks:	76.5%	4.0%	19.5%	8.87%		
Centerline Dis	st. to Barrier:	59.0 feet		-	Noise Source Elevations (in feet)								
Centerline Dist. t	to Observer:	59.0 feet		· F	10/36 0	Auto		0.000	JC1)				
Barrier Distance t	Barrier Distance to Observer: 0.0 feet							2.297					
Observer Height (/	Above Pad):	5.0 feet				vv Truck		3.004	Grade Ad	iustment	. 0.0		
Pa	ad Elevation:	0.0 feet		L		,				douriorit	. 0.0		
Roa	ad Elevation:	0.0 feet		1	Lane Eq	uivalen	t Dista	nce (in	feet)				
F	Road Grade:	0.0%				Auto		1.129					
	Left View:	-90.0 degre	es			m Truck		3.966					
	Right View:	90.0 degre	es		Hear	vy Truck	s: 50	3.982					
FHWA Noise Mode	el Calculation	s											
VehicleType	REMEL	Traffic Flow	Dis	stance		Road	Fres		Barrier Att		m Atten		
Autos:	70.20	0.76		-0.62	_	-1.20		-4.69		000	0.00		
Medium Trucks:	81.00	-14.40		-0.60		-1.20		-4.88		000	0.00		
Heavy Trucks:	85.38	-9.22		-0.60	)	-1.20		-5.35	0.0	000	0.00		
Unmitigated Noise				er atten	uation)								
	Leq Peak Hou	-, -,		Leq E		,	Night		Ldn		NEL		
Autos:	69		67.0		63.5		62		69.6		69.9		
Medium Trucks:	64		63.2		55.9		56		64.5		64.		
Heavy Trucks: Vehicle Noise:	74 75	•	72.4 73.9		65.6 68.0		67 69	••	75.0 76.4		75. <sup>-</sup>		
					00.0	'	69	. 1	10.4	•	10.		
Centerline Distance	e to Noise Co	ontour (in feet	)	70 c	1RA	65	dBA	-	60 dBA	55	dBA		
			Ldn:	15			38		728		568		

	FHWA	-RD-77-108 i	HIGH	WAY NO	DISE PE	REDICTIO	N MO	DEL			
Scenario: Existin Road Name: Rubido Road Segment: s/o 26	ux Bl.	Alt 1A				Project N Job Nui			Mansa		
	Barrier Height: 0.0 feet								L INPUT	S	
Average Daily Traffic (Ad Peak Hour Percenta Peak Hour Volun Vehicle Spee	ne: 2 ne: 2	10% 138 vehicles 50 mph	S		Me He <b>ehicle I</b>		ks (2 )	Autos: Axles): Axles):	15 15 15		
		10 1001			Vehi	icleType		Day	Evening	Night	Daily
Barrier Type (0-Wall, 1-Berl	n):	0.0				Au edium Tru Heavy Tru		73.2% 82.2% 76.5%	3.9%	18.6% 14.0% 19.5%	2.709
Centerline Dist. to Observ Barrier Distance to Observ	er: er: d): on:	59.0 feet 0.0 feet 5.0 feet 0.0 feet			Mediur Heav	Autos: m Trucks: y Trucks: uivalent L	0. 2. 8.	000 297 004	Grade Ad	justmeni	t: 0.0
Road Grai Left Vie Right Vie	ile: w: w:	0.0 feet 0.0% -90.0 degree: 90.0 degree:			Mediur	Autos: n Trucks: y Trucks:	54. 53.	129 966 982	cciy		
FHWA Noise Model Calcula											
Medium Trucks: 8	0.20 1.00 5.38	0.47 -14.67 -9.47	DIS	-0.62 -0.60 -0.60	Finite	-1.20 -1.20 -1.20	Fresi	-4.69 -4.88 -5.35	0.0	000 000 000	0.00 0.00 0.00 0.00
Unmitigated Noise Levels (	withou	ıt Topo and b	arrie	er attenu	ation)						
VehicleType Leq Peak	_	Leq Day		Leg Eve		Leq N	ight		Ldn	С	NEL
Autos: Medium Trucks: Heavy Trucks:	68.9 64.5 74.1	6	6.7 2.9 2.1		63.2 55.6 65.3		62.0 56.4 67.5	ļ.	69.0 64.0 74.1	3	69. 64. 74.
Vehicle Noise:	75.6		3.6		67.7		68.8		76.		76.
Centerline Distance to Nois	e Con	tour (in feet)									
		, ,	dn: EL:	70 dl 151 154	· ·	65 dl 324 333	ı	6	60 dBA 699 717	1.	506 545

Thursday, October 18, 2018

Average Daily Traffic (Adt): 24,340 vehicles   Peak Hour Percentage: 10%   Medium Trucks (2 Axles): 15   Heavy Trucks (3+ Ax		FH\	WA-RD-77-108	HIGHWA	AY N	OISE PR	EDICTIO	ON M	ODEL				
Site Conditions (Hard = 10, Soft = 15)	Road Nam	e: Rubidoux E	31.										
Average Daily Traffic (Adt): 24,340 vehicles   Peak Hour Percentage: 10%   Medium Trucks (2 Axles): 15   Vehicle Speed: 50 mph Near/Far Lane Distance: 48 feet   Vehicle Mix   Vehicle Type   Day   Evening   Night   Daily   Vehicle Type   Day   Evening   Night   Daily   Vehicle Trucks: 22		SPECIFIC IN	IPUT DATA								S		
Peak Hour Percentage: 2,434 vehicles   Peak Hour Volume: 2,434 vehicles   Feak Hour Volume: 2,434 vehicles   Vehicle Speed: 50 mph   Wehicle Type   Day   Evening   Night   Daily   Vehicle Type   Day   Evening   Night   Daily   Night   Daily   Night   Daily   Night   N	Highway Data				S	ite Cond	litions (	Hard	= 10, S	oft = 15)			
Peak Hour Volume	Average Daily	Traffic (Adt):	24,340 vehicle	es					Autos:	15			
Vehicle Nix   Vehicle Mix   Vehicle Mix   Vehicle Type   Day   Evening   Night   Daily   te Data   Autos: 73.2%   8.1%   18.6%   89.82%   Autos: 76.5%   4.0%   19.5%   7.69%   Autos: 76.5%   4.0%   19.5%   7.69%   Autos: 76.2%   Autos: 76.5%   4.0%   19.5%   7.69%   Autos: 76.2%   Autos: 76.	Peak Hour	Percentage:	10%										
Near/Far Lane Distance:	Peak H	our Volume:	2,434 vehicle	S		Hea	vy Truci	ks (3-	- Axles):	15			
Near/Far Lane Distance:	Vei	hicle Speed:	50 mph		ν	ehicle N	lix						
Medium Trucks: 82.2% 3.9% 14.0% 2.50%   Heavy Trucks: 76.5% 4.0% 19.5% 7.69%   Heavy Trucks: 8.004   Grade Adjustment: 0.0   Medium Trucks: 8.229   Heavy Trucks: 8.004   Grade Adjustment: 0.0   Heavy Trucks: 8.004   Grade Adjustment: 0.0   Heavy Trucks: 8.004   Grade Adjustment: 0.0   Heavy Trucks: 53.966   Heavy Trucks: 64.7 63.1 55.8 56.7 64.5 64.5 64.5 64.5 64.5 64.5 64.5 64.5	Near/Far Lar	ne Distance:	48 feet		F				Day	Evening	Night	Daily	
Autos:   A	Site Data						A	utos:	73.2%	8.1%	18.6%	89.82%	
Heavy Trucks: 76.5%   4.0%   19.5%   7.69%   Centerline Dist. to Barrier: 59.0   feet   69.0   f	Rar	rier Height:	0.0 feet			Medium Trucks: 82.2% 3.9% 14.0% 2.50							
Noise Source Elevations (in feet)						Н	eavy Tru	icks:	76.5%	4.0%	19.5%	7.69%	
Autos: 0.000   Barrier Distance to Observer: 59.0 feet   Barrier Distance to Observer: 0.0 feet   Distance to Observer: 0.0 feet   Distance to Observer: 0.0 feet   Pad Elevation: 0.0 feet   Road Elevation: 0.	,,,,		59.0 feet			O-			(! 6	4			
Medium Trucks: 2.297   Heavy Trucks: 8.004   Grade Adjustment: 0.0	Centerline Dist.	to Observer:	59.0 feet		^	ioise so		_	_ •	eet)			
Disserver Height (Above Pad): 5.0   feet Pad Elevation: 0.0   feet Road Elevation: 0.0   feet Road Elevation: 0.0   feet Road Grade: 0.0%	Barrier Distance	to Observer:	0.0 feet			14-45							
Pad Elevation: 0.0 feet   Lane Equivalent Distance (in feet)	Observer Height (	Above Pad):	5.0 feet							Grada Ac	liuetmont	. 0.0	
Road Grade: 0.0%   Autos: 54.129	Pa	ad Elevation:	0.0 feet			neavy	r Trucks.		5.004	Grade At	ijusiiri <del>c</del> rii	. 0.0	
Left View: 90.0 degrees   Medium Trucks: 53.966	Roa	ad Elevation:	0.0 feet		L	ane Equ	ivalent	Dista	nce (in	feet)			
	F	Road Grade:	0.0%				Autos.	5	4.129				
Name   Name		Left View:	-90.0 degree	es		Medium	Trucks.	5	3.966				
VehicleType		Right View:	90.0 degree	es		Heavy	/ Trucks.	5	3.982				
Autos:         70.20         1.10         -0.62         -1.20         -4.69         0.000         0.000           Medium Trucks:         81.00         -14.45         -0.60         -1.20         -4.88         0.000         0.000           Heavy Trucks:         85.38         -9.58         -0.60         -1.20         -5.35         0.000         0.000           untiligated Moise Levels (without Topo and barrier attenuation)           VehicleType         Leq Peak Hour         Leq Day         Leq Evening         Leq Night         Ldn         CNEL           Autos:         69.5         67.3         63.8         62.6         70.0         70.           Medium Trucks:         64.7         63.1         55.8         56.7         64.5         64.           Heavy Trucks:         74.0         72.0         65.2         67.4         74.6         74.           Vehicle Noise:         75.7         73.7         67.9         68.9         76.2         76.2           Interline Distance to Noise Contour (in feet)         70 dBA         65 dBA         60 dBA         55 dBA           Loh:         153         329         708         1,526	FHWA Noise Mode	el Calculation	ıs										
Medium Trucks:         81.00         -14.45         -0.60         -1.20         -4.88         0.000         0.000           Heavy Trucks:         85.38         -9.58         -0.60         -1.20         -5.35         0.000         0.000           minitigated Noise Levels (without Topo and barrier attenuation)         VehicleType         Leq Peak How         Leq Day         Leq Evening         Leq Night         Ldn         CNEL           Autos:         69.5         67.3         63.8         62.6         70.0         70.           Medium Trucks:         64.7         63.1         55.8         56.7         64.5         64.5           Heavy Trucks:         74.0         72.0         65.2         67.4         74.6         74.           Vehicle Noise:         75.7         73.7         67.9         68.9         76.2         76.           Interfline Distance to Noise Contour (in feet)           Ldn:         153         329         708         1,526								Fre					
Heavy Trucks:   85.38													
Numitigated Noise   Levels (without Topo and barrier attenuation)   VehicleType   Leq Peak Hour   Leq Day   Leq Evening   Leq Night   Ldn   CNEL													
VehicleType         Leq Peak Hour         Leq Day         Leq Evening         Leq Night         Ldn         CNEL           Autos:         69.5         67.3         63.8         62.6         70.0         70.           Medium Trucks:         64.7         63.1         55.8         56.7         64.5         64.4           Heavy Trucks:         74.0         72.0         65.2         67.4         74.6         74.           Vehicle Noise:         75.7         73.7         67.9         68.9         76.2         76.2           Interline Distance to Noise Contour (in feet)         70 dBA         65 dBA         60 dBA         55 dBA           Loh:         153         329         708         1,526							-1.20		-5.35	0.	000	0.000	
Autos:         69.5         67.3         63.8         62.6         70.0         70.2           Medium Trucks:         64.7         63.1         55.8         56.7         64.5         64.4           Heavy Trucks:         74.0         72.0         65.2         67.4         74.6         74.           Vehicle Noise:         75.7         73.7         67.9         68.9         76.2         76.           enterline Distance to Noise Contour (in feet)           Ldn:         153         329         708         1,526													
Medium Trucks:         64.7         63.1         55.8         56.7         64.5         64.1           Heavy Trucks:         74.0         72.0         65.2         67.4         74.6         74.7           Vehicle Noise:         75.7         73.7         67.9         68.9         76.2         76.2           Interline Distance to Noise Contour (in Feet)         70 dBA         65 dBA         60 dBA         55 dBA           Ldn:         153         329         708         1,526	,,				eq Ev		Leq N	_					
Heavy Trucks:         74.0         72.0         65.2         67.4         74.6         74.7           Vehicle Noise:         75.7         73.7         67.9         68.9         76.2         76.2           enterline Distance to Noise Contour (in Feet)         70 dBA         65 dBA         60 dBA         55 dBA           Loh:         153         329         708         1,526													
Vehicle Noise:         75.7         73.7         67.9         68.9         76.2         76.0           enterline Distance to Noise Contour (in feet)           70 dBA         65 dBA         60 dBA         55 dBA           Ldn:         153         329         708         1,526											-		
######################################	· · · · ·										_		
70 dBA         65 dBA         60 dBA         55 dBA           Ldn:         153         329         708         1,526						67.9		68	5.9	76.		76.4	
Ldn: 153 329 708 1,526	Centerline Distanc	e to Noise C	ontour (in feet	,	70 d	RΔ	65 d	RΔ	т,	SO dBA	55	dΒΔ	
				I dn:									
						-		-					

	FH	WA-RD-77-108	HIGH	WAY N	OISE P	REDICT	ION M	ODEL			
	o: Existing W e: Rubidoux I nt: s/o 34th St	BI.						Agua I 11215	Mansa		
	SPECIFIC IN	NPUT DATA							L INPUT	S	
Highway Data					Site Cor	nditions	(Hard	= 10, S	oft = 15)		
Average Daily	Traffic (Adt):	18,671 vehicle	es					Autos:			
Peak Hour	Percentage:	10%				edium Tr					
Peak H	our Volume:	1,867 vehicle	S		He	eavy Tru	cks (3+	Axles):	15		
Ve	hicle Speed:	50 mph		- 1	Vehicle	Mix					
Near/Far Lai	ne Distance:	48 feet			Vel	icleType	9	Day	Evening	Night	Daily
Site Data							Autos:	73.2%	8.1%	18.6%	89.79%
Rai	rier Height:	0.0 feet			M	edium T	rucks:	82.2%	3.9%	14.0%	2.50%
Barrier Type (0-W	all, 1-Berm):	0.0				Heavy T	rucks:	76.5%	4.0%	19.5%	7.71%
Centerline Dis		59.0 feet		1	Voise S	ource E	levatio	ns (in f	eet)		
Centerline Dist.		59.0 feet				Auto	s: C	0.000			
Barrier Distance		0.0 feet			Mediu	m Truck	s: 2	.297			
Observer Height (	,	5.0 feet			Hea	vy Truck	s: 8	3.004	Grade Ad	justmen	t: 0.0
	d Elevation:	0.0 feet		- H.		•					
	d Elevation:	0.0 feet		- 1	Lane Eq	uivalen			teet)		
I	Road Grade:	0.0%				Auto		1.129			
	Left View:	-90.0 degre				m Truck	-	3.966			
	Right View:	90.0 degre	es		Hea	vy Truck	s: 53	3.982			
FHWA Noise Mode	el Calculation	ıs									
VehicleType	REMEL	Traffic Flow	Dist	tance		Road	Fres		Barrier Att	_	rm Atten
Autos:	70.20			-0.62	-	-1.20		-4.69		000	0.000
Medium Trucks:	81.00			-0.60		-1.20		-4.88	0.0	000	0.000
Heavy Trucks:	85.38			-0.60		-1.20		-5.35	0.0	000	0.000
Unmitigated Noise			_					_			
	Leq Peak Ho			Leg E			Night		Ldn		NEL
Autos:			66.2		62.7		61		68.	-	69.1
Medium Trucks:			61.9		54.7		55		63.	-	63.5
Heavy Trucks: Vehicle Noise:			70.9 72.6		64.1		66 67		73.5 75.0		73.6 75.2
					66.7		67	.8	/5.0	J	75.2
Centerline Distance	e to Noise C	ontour (in feet	)	70 c	IRΔ	65	dBA		50 dBA	5.6	5 dBA
			I dn:	12			76		594		.280
			NFI:	13	-	_	83		610		,314
		Ci		10					0.10	'	,0.7

	FHV	VA-RD-77-108	HIGH	A YAWH	IOISE P	REDICT	ION M	ODEL			
Road Nam	io: Existing Wi ne: Rivera St. nt: n/o Market							Agua   11215			
	SPECIFIC IN	IPUT DATA							L INPUT	S	
Highway Data					Site Cor	nditions	(Hard	= 10, S	oft = 15)		
Average Daily	Traffic (Adt):	8,797 vehic	les					Autos:	15		
Peak Hour	Percentage:	10%			Me	edium Tr	ucks (2	Axles):	15		
Peak H	lour Volume:	880 vehicle	es		He	avy Tru	cks (3+	Axles):	15		
Ve	hicle Speed:	30 mph		-	Vehicle	Miv					
Near/Far Lai	ne Distance:	12 feet		-		icleType		Day	Evening	Night	Daily
Site Data							Autos:	73.2%	8.1%	18.6%	90.02%
Rai	rrier Height:	0.0 feet			М	edium T	rucks:	82.2%	3.9%	14.0%	2.47%
Barrier Type (0-W		0.0			1	Heavy T	rucks:	76.5%	4.0%	19.5%	7.51%
Centerline Dis	st. to Barrier:	33.0 feet		- 1	Noise S	ource F	levatio	ns (in f	eet)		
Centerline Dist.	to Observer:	33.0 feet		F		Auto		0.000	000		
Barrier Distance	to Observer:		Mediu	m Truck		.297					
Observer Height (	'Above Pad):	5.0 feet				vy Truck		3.004	Grade Ad	iustment	0.0
Pa	ad Elevation:	0.0 feet		L						,	
Roa	ad Elevation:	0.0 feet			Lane Eq	uivalen	t Dista	nce (in	feet)		
I	Road Grade:	0.0%				Auto		2.833			
	Left View:	-90.0 degre	es			m Truck		2.562			
	Right View:	90.0 degre	es		Heav	vy Truck	s: 32	2.589			
FHWA Noise Mode	el Calculation	s									
VehicleType	REMEL	Traffic Flow		stance		Road	Fres		Barrier Att		m Atten
Autos:	61.75	-1.09		2.64		-1.20		-4.52		000	0.00
Medium Trucks:	73.48	-16.71		2.69	9	-1.20		-4.86	0.0	000	0.000
Heavy Trucks:	79.92	-11.88		2.69	9	-1.20		-5.69	0.0	000	0.000
Unmitigated Noise										,	
,,	Leq Peak Hou		_	Leg E			Night		Ldn		NEL
Autos:	62		60.0		56.4		55		62.0	-	62.8
Medium Trucks:	58		56.6		49.3		50		58.0		58.2
Heavy Trucks: Vehicle Noise:	69 70		67.6 68.6		60.8		62		70. <sup>-</sup>		70.3
Centerline Distance					02.4		00		71.		71
Cerneriirie Distant	ce to Noise Co	ontour (in ree	i)	70 0	dBA	65	dBA		60 dBA	55	dBA
			Ldn:	3	9		34	-	180	. 3	888
	CNFI:					40 86 184 397					

	FHV	VA-RD-77-108	HIG	HWAY	NOISE P	REDICT	ION MOI	DEL			
Road Nan	rio: Existing Wine: Cactus Av. nt: n/o El Rivin						Name: / lumber: 1				
SITE Highway Data	SPECIFIC IN	PUT DATA			Site Cor				L INPUT	S	
					Site Coi	laitions	•				
Average Daily		3,215 vehicle	es					Autos:			
	Percentage:	10%					ucks (2 A	,			
	lour Volume:	322 vehicle	S		He	avy Tru	cks (3+ A	xles):	15		
Ve	ehicle Speed:	40 mph			Vehicle	Mix					
Near/Far La	ne Distance:	11 feet				icleType		Day	Evening	Night	Daily
Site Data						,	Autos:	73.2%	8.1%	18.6%	90.80%
Ba	rrier Heiaht:	0.0 feet			М	edium T	rucks:	82.2%	3.9%	14.0%	2.28%
Barrier Type (0-VI		0.0				Heavy T	rucks:	76.5%	4.0%	19.5%	6.92%
Centerline Di	ist. to Barrier:	30.0 feet		-	Noise S	ourco E	lovations	(in f	not)		
Centerline Dist.	to Observer:	30.0 feet		ł	NOISE S	Auto		•	cei)		
Barrier Distance	to Observer:	0.0 feet			Modiu	m Truck					
Observer Height	(Above Pad):	5.0 feet				vy Truck			Grade Ad	iustmon	t· 0.0
P	ad Elevation:	0.0 feet			Heal	y rruck	s: 8.C	104	Grade Au,	usunen	. 0.0
Ro	ad Elevation:	0.0 feet		ĺ	Lane Eq	uivalen	t Distand	e (in	feet)		
	Road Grade:	0.0%		ĺ		Auto	s: 29.9	912			
	Left View:	-90.0 degree	es		Mediu	m Truck	s: 29.6	315			
	Right View:	90.0 degree			Heav	y Truck	s: 29.6	644			
FHWA Noise Mod	lel Calculation	s									
VehicleType	REMEL	Traffic Flow	Di	stance	Finite	Road	Fresn	el	Barrier Att	en Be	rm Atten
Autos:	66.51	-6.67		3.2	24	-1.20		4.49	0.0	000	0.000
Medium Trucks:	77.72	-22.68		3.3	31	-1.20		4.86	0.0	000	0.000
Heavy Trucks:	82.99	-17.85		3.3	30	-1.20		5.77	0.0	000	0.000
Unmitigated Nois	e Levels (with	out Topo and	barr	ier atte	nuation)						
VehicleType	Leq Peak Hou	r Leq Day	,	Leq E	vening	Leq	Night		Ldn	С	NEL
Autos:	61	.9	59.7		56.2		55.0		62.4	1	62.6
Medium Trucks:	57	.1	55.5		48.2		49.1		56.9	9	57.0
Heavy Trucks:	67	.2	65.3		58.5		60.6		67.8	3	68.0
Vehicle Noise:	68	.7	66.7		60.8		61.9		69.2	2	69.4
Centerline Distan	ce to Noise Co	ontour (in feet	)								
				70	ADA	65	AD A	-	SO ADA	55	ADA.

Thursday, October 18, 2018

	FH\	WA-RD-77-108	HIGHW	AY N	OISE PR	EDICTION	ON M	ODEL				
Road Nam	io: Existing Wile: Riverside Ant: n/o I-10 Fw	۸v.				Project I Job Nu		: Agua I : 11215				
	SPECIFIC IN	IPUT DATA							L INPUT	s		
Highway Data				S	ite Cond	ditions (	Hard	= 10, S	oft = 15)			
Average Daily	Traffic (Adt):	37,978 vehicle	es					Autos:	15			
Peak Hour	Percentage:	10%				dium Tru						
Peak H	lour Volume:	3,798 vehicle	S		Hea	avy Truci	ks (3+	- Axles):	15			
Ve	hicle Speed:	40 mph		ν	ehicle N	Nix						
Near/Far La	ne Distance:	50 feet		F		cleType		Dav	Evening	Night	Daily	
Site Data							utos:	73.2%	-	18.6%		
Par	rrier Height:	0.0 feet			Medium Trucks: 82.2% 3.9% 14.0% 2.51							
Barrier Type (0-W		0.0			Н	leavy Tru	ıcks:	76.5%	4.0%	19.5%	7.69%	
Centerline Di	. ,	60.0 feet		-								
Centerline Dist.	to Observer:	60.0 feet		^	loise So			_ •	eet)			
Barrier Distance	to Observer:	0.0 feet				Autos n Trucks		0.000				
Observer Height (	Above Pad):	5.0 feet						2.297 3.004	Grade Ad	livotmont		
Pa	ad Elevation:	0.0 feet			neav	y Trucks		5.004	Grade Ad	justin <del>e</del> nt.	0.0	
Roa	ad Elevation:	0.0 feet		L	ane Equ	ıivalent	Dista	nce (in	feet)			
1	Road Grade:	0.0%				Autos	5-	4.772				
	Left View:	-90.0 degree	es		Mediun	n Trucks	5	4.610				
	Right View:	90.0 degree	es		Heav	y Trucks	5-	4.626				
FHWA Noise Mod												
VehicleType	REMEL	Traffic Flow	Distan		Finite I		Fre	snel	Barrier At		m Atten	
Autos:	66.51	4.00		-0.70		-1.20		-4.69		000	0.000	
Medium Trucks:	77.72			-0.68		-1.20		-4.88		000	0.000	
Heavy Trucks:	82.99			-0.68		-1.20		-5.34	0.0	000	0.000	
Unmitigated Noise							E-d-1		l dn	1 0		
VehicleType Autos:	Leq Peak Hou		66.5	eq Ev	ening 62.9	Leq N	iignt 61		Lan 69.		VEL 69.4	
Medium Trucks:	64		62.7		55.4		56		64.		64.2	
Heavy Trucks:	74		72.5		65.7		67		75.	-	75.2	
Vehicle Noise:	75		73.8		67.8			0.0	76.	-	76.5	
Centerline Distant	ce to Noise C	ontour (in feet	)									
				70 d	BA	65 a	BA	(	60 dBA	55	dBA	
			Ldn:	15	8	34	0		732	1,	577	
		CI	NEL:	162	2	34	8		750	1,	616	

Thursday, October 18, 2018

	FH\	WA-RD-77-108	HIGH	NAY I	NOISE P	REDICT	ION M	ODEL			
Road Nan	rio: Existing W ne: Riverside A ent: s/o I-10 Fw	۸v.					t Name: lumber:				
	SPECIFIC IN	IPUT DATA							L INPUT	s	
Highway Data					Site Cor	ditions	(Hard	= 10, S	oft = 15)		
Average Daily	Traffic (Adt):	39,927 vehicle	es					Autos:	15		
Peak Hour	Percentage:	10%			Me	dium Tr	ucks (2	Axles):	15		
Peak I	Hour Volume:	3,993 vehicle	S		He	avy Tru	cks (3+	Axles):	15		
Ve	ehicle Speed:	50 mph		ŀ	Vehicle	Mix					
Near/Far La	ane Distance:	50 feet		ŀ		icleType	9	Dav	Evening	Night	Daily
Site Data							Autos:	73.2%		18.6%	,
Ra	rrier Height:	0.0 feet			М	edium T	rucks:	82.2%	3.9%	14.0%	2.59%
Barrier Type (0-V		0.0			1	Heavy T	rucks:	76.5%	4.0%	19.5%	8.13%
	ist. to Barrier:	60.0 feet		ļ							
Centerline Dist.	to Observer:	60.0 feet		ļ	Noise S				eet)		
Barrier Distance	to Observer:	0.0 feet				Auto		0.000			
Observer Height	(Above Pad):	5.0 feet				m Truck		2.297	0		
	ad Elevation:	0.0 feet			Heav	y Truck	:s: 8	3.004	Grade Ad	justment	: 0.0
	ad Elevation:	0.0 feet		Ī	Lane Eq	uivalen	t Dista	nce (in	feet)		
	Road Grade:	0.0%		Ī		Auto	s: 54	1.772			
	Left View:	-90.0 degree	es		Mediu	m Truck	s: 54	1.610			
	Right View:	90.0 degree	es		Heav	y Truck	s: 54	1.626			
FHWA Noise Mod	lel Calculation	ıs									
VehicleType	REMEL	Traffic Flow	Dist	ance	Finite	Road	Fres	snel	Barrier Att	en Bei	m Atten
Autos:	70.20	3.23		-0.7	0	-1.20		-4.69	0.0	000	0.000
Medium Trucks:	81.00	-12.15		-0.6	i8	-1.20		-4.88	0.0	000	0.000
Heavy Trucks:	85.38	-7.18		-0.6	8	-1.20		-5.34	0.0	000	0.000
Unmitigated Nois	e Levels (with	out Topo and	barrie	r attei	nuation)						
VehicleType	Leq Peak Hot	ır Leq Day	/	Leq E	vening	Leq	Night		Ldn	С	NEL
Autos:	71	.5	69.4		65.9		64	.7	72.0	0	72.3
Medium Trucks:	67	.0	65.3		58.1		58	.9	66.7	7	66.9
Heavy Trucks:	76	5.3	74.4		67.6		69	.7	76.9	9	77.1
Vehicle Noise:	77	'.9	76.0		70.1		71	.1	78.4	4	78.6
Centerline Distan	ce to Noise C	ontour (in feet	)								
					dBA		dBA	- (	60 dBA		dBA
			Ldn:	_	19		72		1,017		191
		CI	VEL:	2	25	4	84		1,044	2	248

	FH\	WA-RD-77-108	HIG	1 YAWH	NOISE P	REDICT	ION M	DDEL			
Road Nam	io: Existing W ne: Riverside A nt: s/o Santa A	Av.						Agua I 11215	Vlansa		
	SPECIFIC IN	NPUT DATA							L INPUT	S	
Highway Data					Site Cor	nditions	(Hard	= 10, S	oft = 15)		
Average Daily	Traffic (Adt):	29,221 vehic	les					Autos:	15		
Peak Hour	Percentage:	10%			Me	edium Tr	ucks (2	Axles):	15		
Peak H	lour Volume:	2,922 vehicle	es		He	eavy Tru	cks (3+	Axles):	15		
Ve	hicle Speed:	55 mph		t	Vehicle	Mix					
Near/Far La	ne Distance:	52 feet		Ħ		icleType	9	Day	Evening	Night	Daily
Site Data							Autos:	73.2%	8.1%	18.6%	89.07%
Bai	rrier Height:	0.0 feet			М	edium T	rucks:	82.2%	3.9%	14.0%	2.62%
Barrier Type (0-W		0.0				Heavy T	rucks:	76.5%	4.0%	19.5%	8.31%
Centerline Di	st. to Barrier:	52.0 feet			Noise S	ource E	levatio	ns (in f	eet)		
Centerline Dist.	to Observer:	52.0 feet				Auto		.000	,		
Barrier Distance	to Observer:	0.0 feet			Mediu	m Truck		.297			
Observer Height (	(Above Pad):	5.0 feet			Heavy Trucks: 8.004 Grade Adjustment: 0.0						
Pa	ad Elevation:	0.0 feet		L							
Roa	ad Elevation:	0.0 feet			Lane Eq				feet)		
	Road Grade:	0.0%				Auto		.310			
	Left View:	-90.0 degre	es			m Truck		5.114			
	Right View:	90.0 degre	es		Hear	vy Truck	s: 45	5.133			
FHWA Noise Mod		-									
VehicleType	REMEL	Traffic Flow		stance		Road	Fres		Barrier Att		m Atten
Autos:	71.78			0.5		-1.20		-4.66		000	0.000
Medium Trucks:				0.5		-1.20		-4.87		000	0.000
Heavy Trucks:				0.5	-	-1.20		-5.41	0.0	000	0.000
Unmitigated Nois											
VehicleType	Leq Peak Hot		_	Leq E	vening		Night		Ldn		NEL
Autos:		2.6	70.4		66.9		65		73.0		73.3
Medium Trucks:		7.9	66.3		59.0		59		67.6		67.8
Heavy Trucks: Vehicle Noise:		3.6	74.9 76.7		68.1 70.9		70 71		77.5 79.2		77.6 79.3
Centerline Distant					. 5.0			-			. 5.0
Contonine Distant	00 10 1.0/36 0	omour (mree	,	70	dBA	65	dBA	(	60 dBA	55	dBA
	Ldn:					212 457 984 2,1			119		
		2	218 469 1,010 2,176				176				

	FHV	VA-RD-77-108	HIGH	WAY NC	ISE P	REDICTION	ON MO	DEL			
Scenario: Exis Road Name: Rive Road Segment: s/o S	rside A	v.				Project i Job Nu	Name: . ımber:				
SITE SPECI	FIC IN	PUT DATA				N	OISE N	ЛОDE	L INPUT	S	
Highway Data				Si	te Con	ditions (	Hard =	10, S	oft = 15)		
Average Daily Traffic (	Adt):	37,295 vehicl	es					Autos:	15		
Peak Hour Percen	tage:	10%			Me	dium Tru	cks (2 A	Axles):	15		
Peak Hour Vol	ume:	3,729 vehicle	s		He	avy Truc	ks (3+ A	Axles):	15		
Vehicle Sp	eed:	50 mph		Ve	ehicle l	Mix					
Near/Far Lane Dista	nce:	52 feet		-		icleType		Dav	Evening	Night	Dailv
Site Data							utos:	73.2%		18.69	,
Barrier He	iaht.	0.0 feet			Me	edium Tn	ucks:	82.2%	3.9%	14.09	6 2.60%
Barrier Type (0-Wall, 1-Be	erm):	0.0			F	leavy Tr	ucks:	76.5%	4.0%	19.59	% 8.17%
Centerline Dist. to Ba		52.0 feet		No	oise So	ource Ele	evation	s (in f	eet)		
Centerline Dist. to Obse		52.0 feet				Autos	: 0.0	000	-		
Barrier Distance to Obse		0.0 feet			Mediui	m Trucks	: 2.:	297			
Observer Height (Above I	,	5.0 feet			Heav	y Trucks	: 8.0	004	Grade Ac	ljustmei	nt: 0.0
Pad Eleva		0.0 feet		-			<b>D</b> : .				
Road Eleva		0.0 feet		Lá	ine Eq	uivalent		_	reet)		
Road G		0.0%				Autos					
Left		-90.0 degre				n Trucks					
Right		90.0 degre	es		Heav	y Trucks	: 45.	133			
FHWA Noise Model Calcu											
VehicleType REN		Traffic Flow	Dist	tance	Finite	Road	Fresr		Barrier At	_	erm Atten
Autos:	70.20	2.93		0.54		-1.20		-4.66		000	0.000
Medium Trucks:	81.00	-12.43		0.57		-1.20		-4.87		000	0.000
Heavy Trucks:	85.38	-7.46		0.56		-1.20		-5.41	0.	000	0.000
VehicleType Leq Pe	•			Leq Eve		Leq N	light	Г	Ldn	Т.	CNEL
Autos:	ак поц 72		70.3	Ley Eve	66.8	Legi	vigrit 65.6		72.		73.2
Medium Trucks:	67		66.3		59.0		59.8		67.	-	67.
Heavy Trucks:	77	.3	75.3		68.5		70.7	,	77.	9	78.0
Vehicle Noise:	78	.9	76.9		71.0		72.1		79.		79.6
Centerline Distance to No	oise Co	ontour (in fee	t)								
				70 dE	A	65 c	IBA	(	60 dBA	5	5 dBA
			Ldn:	220		47			1,021		2,200
			NFI:	226		48			1,048		2,258

Thursday, October 18, 2018

	FH\	WA-RD-77-108	HIGH	WAY	NOISE P	REDICT	ION M	ODEL			
Road Nam	io: Existing Wine: Riverside Ant: s/o Jurupa	۱۷.						: Agua I : 11215			
SITE	SPECIFIC IN	IPUT DATA				N	IOISE	MODE	L INPUT	s	
Highway Data					Site Con	ditions	(Hard	= 10, S	oft = 15)		
Average Daily	Traffic (Adt):	33,946 vehicle	es		Autos: 15						
Peak Hour	Percentage:	10%			Me	dium Tru	icks (2	Axles):	15		
Peak H	lour Volume:	3,395 vehicles	3		He	avy Truc	cks (3+	Axles):	15		
Ve	hicle Speed:	55 mph		}	Vehicle I						
Near/Far La	ne Distance:	52 feet		-		viix icleType	. 1	Day	Evening	Night	Daily
Site Data				-	VCII		Autos:	73.2%		18.6%	,
				-	Medium Trucks: 82.2% 3.9% 14.0% 2.						
	rrier Height:	0.0 feet				deavy Ti		76.5%		19.5%	
Barrier Type (0-W		0.0				icavy ii	uons.	10.57	7.070	13.570	0.2170
Centerline Di		52.0 feet			Noise So	ource El	evatio	ns (in f	eet)		
Centerline Dist.		52.0 feet				Auto	s: (	0.000			
Barrier Distance		0.0 feet			Mediui	m Truck	s: 2	2.297			
Observer Height (	,	5.0 feet			Heav	y Trucks	s: 8	3.004	Grade Ad	justment	0.0
	ad Elevation: ad Elevation:	0.0 feet 0.0 feet		ł	Lane Eq	uivalen	Dieta	nce (in	foot)		
	aa Elevation: Road Grade:	0.0 reet 0.0%		ł	Lane Ly	Auto		5.310	1001)		
	Road Grade:				Modium	m Truck:		5.114			
	Right View:	-90.0 degree				y Truck		5.133			
	ragnit view.	90.0 degree	:5		ricav	y IIuck	s. 4·	J. 133			
FHWA Noise Mod											
VehicleType	REMEL	Traffic Flow	Dis	tance		Road	Fre.	snel	Barrier At		m Atten
Autos:	71.78	2.10		0.5		-1.20		-4.66		000	0.000
Medium Trucks:	82.40	-13.25		0.5		-1.20		-4.87		000	0.000
Heavy Trucks:	86.40	-8.26		0.5		-1.20		-5.41	0.0	000	0.000
Unmitigated Nois			barrie	er atte	nuation)						
VehicleType	Leq Peak Hou	, ,		Leq E	vening	Leq	Night		Ldn		NEL
Autos:	73		71.1		67.5		66		73.		74.0
Medium Trucks:	68		66.9		59.6		60		68.	-	68.4
Heavy Trucks:	77		75.5		68.7		70		78.		78.2
Vehicle Noise:	79	.3	77.3		71.5		72	5	79.	3	79.9
Centerline Distan	ce to Noise C	ontour (in feet	)								
			L		dBA		dBA	_	60 dBA		dBA
			Ldn:	_					329		
		CI	VEL:	2	39	5	15		1,110	2,	391

Thursday, October 18, 2018

	FH\	WA-RD-77-108	HIGH	WAY	NOISE P	REDICT	TON MC	DEL			
Road Nar	rio: Existing W ne: Rancho Av ent: n/o Agua N						t Name: lumber:		Vlansa		
SITE	SPECIFIC IN	IPUT DATA				- 1	NOISE	MODE	L INPUT	s	
Highway Data					Site Cor	ditions	(Hard =	: 10, S	oft = 15)		
Average Daily	Traffic (Adt):	18,148 vehicle	es					Autos:	15		
Peak Hou	r Percentage:	10%			Me	dium Ti	ucks (2	Axles):	15		
Peak I	Hour Volume:	1,815 vehicle	s		He	avy Tru	cks (3+ .	Axles):	15		
Ve	ehicle Speed:	40 mph		F	Vehicle	Miv					
Near/Far La	ane Distance:	52 feet		ŀ		icleTyp	9	Dav	Evening	Night	Daily
Site Data							Autos:	73.2%		18.69	_
Rs	rrier Height:	0.0 feet			М	edium 7	rucks:	82.2%	3.9%	14.09	6 2.55%
Barrier Type (0-V		0.0			1	Heavy 7	rucks:	76.5%	4.0%	19.59	6 7.88%
	ist. to Barrier:	52.0 feet									
Centerline Dist.	to Observer:	52.0 feet		ŀ	Noise S				eet)		
Barrier Distance	to Observer:	0.0 feet				Auto		000			
Observer Height	(Above Pad):	5.0 feet				m Truck		297	Crada Ad	iuatman	4 0 0
F	ad Elevation:	0.0 feet			Heav	y Truck	s: 8.	004	Grade Ad	usuner	n. 0.0
Ro	ad Elevation:	0.0 feet			Lane Eq	uivalen	t Distan	ce (in	feet)		
	Road Grade:	0.0%				Auto	s: 45.	310			
	Left View:	-90.0 degre	es		Mediu	m Truck	s: 45	114			
	Right View:	90.0 degre	es		Heav	y Truck	s: 45	.133			
FHWA Noise Mod	lel Calculation	s									
VehicleType	REMEL	Traffic Flow	Dist	tance		Road	Fresi		Barrier Att		erm Atten
Autos:		0.78		0.5		-1.20		-4.66		000	0.000
Medium Trucks:		-14.68		0.5		-1.20		-4.87		000	0.000
Heavy Trucks:	82.99	-9.77		0.5	6	-1.20		-5.41	0.0	000	0.000
Unmitigated Nois	e Levels (with	out Topo and	barrie	r atte	nuation)						
VehicleType	Leq Peak Hou			Leq E	vening	Leq	Night		Ldn		CNEL
Autos:			64.5		61.0		59.		67.1		67.4
Medium Trucks:			60.8		53.5		54.3	-	62.1		62.3
Heavy Trucks: Vehicle Noise			70.6 71.9		63.8 65.9		66.0		73.2 74.4		73.3 74.6
					65.9		67.	1	74.4	+	74.6
Centerline Distan	ice to Noise C	ontour (in feet	)	70	dBA	65	dBA		50 dBA	E	5 dBA
			I dn:		02		и <i>Б</i> А 21	1 (	475	_	1.024
			VEL:		05	_	26		487		1.050
		C	•						.01		,,,,,,,,

	FH\	WA-RD-77-108	HIGH	WAY N	IOISE P	REDICT	ION MO	DDEL			
	o: Existing Wie: Slover Av. nt: w/o Cedar					Project Job N	Name: umber:				
	SPECIFIC IN	IPUT DATA							L INPUT	S	
Highway Data					Site Cor	iditions	(Hard :				
Average Daily	. ,	11,181 vehicle	es					Autos.			
	Percentage:	10%				dium Tr					
Peak H	our Volume:	1,118 vehicle	S		He	avy Tru	cks (3+	Axles).	: 15		
Ve	hicle Speed:	50 mph		H	Vehicle	Mix					
Near/Far Lai	ne Distance:	48 feet			Veh	icleType		Day	Evening	Night	Daily
Site Data							Autos:	73.29	6 8.1%	18.69	90.10%
Par	rier Heiaht:	0.0 feet			М	edium T	rucks:	82.29	6 3.9%	14.09	2.45%
Barrier Type (0-W		0.0			-	Heavy T	rucks:	76.5%	6 4.0%	19.5%	7.45%
Centerline Dis	st. to Barrier:	52.0 feet			Noise S	ource E	levatio	ns (in t	eet)		
Centerline Dist.	to Observer:	52.0 feet				Auto		.000	,		
Barrier Distance	to Observer:	0.0 feet			Mediu	m Truck		.297			
Observer Height (	Above Pad):	5.0 feet			Heavy Trucks: 8.004 Grade Adjustment: 0.0						
Pa	ad Elevation:	0.0 feet		L						,	
Roa	ad Elevation:	0.0 feet		L	Lane Eq	uivalen	t Distai	nce (in	feet)		
I	Road Grade:	0.0%				Auto		3.400			
	Left View:	-90.0 degree	es			m Truck		3.209			
	Right View:	90.0 degree	es		Heav	y Truck	s: 46	5.228			
FHWA Noise Mode				1							
VehicleType	REMEL	Traffic Flow	Dis	tance		Road	Fres		Barrier Att		rm Atten
Autos:	70.20	-2.26		0.3		-1.20		-4.66		000	0.000
Medium Trucks:	81.00	-17.92		0.4		-1.20		-4.87		000	0.000
Heavy Trucks:	85.38	-13.09		0.4	-	-1.20		-5.41	0.0	000	0.000
Unmitigated Noise										,	
VehicleType	Leq Peak Hou			Leq E	vening		Night		Ldn		NEL
Autos:	67		65.0		61.5		60		67.0		67.9
Medium Trucks:	62		60.6		53.4		54	_	62.0	-	62.2
Heavy Trucks: Vehicle Noise:	71 73		69.5 71.2		62.7		64		72.		72.2
Centerline Distance					00.4		00		73.		73.
Cerneriirie Distant	e to NOISE C	ontour (in feet		70 (	dBA	65	dBA	1	60 dBA	5	5 dBA
	Ldn:				92 198 427 92			921			
	CNFI:					95 204 439 945					

	FHV	VA-RD-77-108	HIGI	HWAY	NOISE P	REDICT	TION MO	DEL			
	rio: Existing Wi						t Name:				
	ne: Rancho Av.					Job I	Vumber:	11215			
Road Segme	ent: s/o Agua M	lansa Rd.									
	SPECIFIC IN	IPUT DATA							L INPUT	S	
Highway Data					Site Co	nditions	(Hard =				
Average Daily	Traffic (Adt):	12,918 vehicl	es					Autos:	15		
Peak Hour	Percentage:	10%			Me	edium T	rucks (2 /	Axles):	15		
Peak F	Hour Volume:	1,292 vehicle	:S		He	eavy Tru	icks (3+ i	Axles):	15		
Ve	ehicle Speed:	40 mph			Vehicle	Mix					
Near/Far La	ane Distance:	52 feet				icleTyp	е	Day	Evening	Night	Daily
Site Data							Autos:	73.2%	8.1%	18.6%	89.72%
Ra	rrier Height:	0.0 feet			M	edium 1	rucks:	82.2%	3.9%	14.0%	2.52%
Barrier Type (0-V		0.0				Heavy T	rucks:	76.5%	4.0%	19.5%	7.76%
	ist. to Barrier:	52.0 feet			Noise C	011100 F	levation	o (in f	0.041		
Centerline Dist.	to Observer:	52.0 feet			Noise 3	Auto		000	eet)		
Barrier Distance	to Observer:	0.0 feet			Modis	m Truci		297			
Observer Height	(Above Pad):	5.0 feet				vy Truci		297 004	Grade Ad	iustmeni	. 0.0
P	ad Elevation:	0.0 feet								dournorn	. 0.0
Ro	ad Elevation:	0.0 feet			Lane Eq	uivaler	nt Distan	ce (in	feet)		
	Road Grade:	0.0%				Auto	os: 45.	310			
	Left View:	-90.0 degre	es		Mediu	m Truci	ks: 45.	114			
	Right View:	90.0 degre	es		Hea	vy Truci	ks: 45.	133			
FHWA Noise Mod	lel Calculation	s									
VehicleType	REMEL	Traffic Flow	Di	stance	Finite	Road	Fresr	nel	Barrier Att	en Be	m Atten
Autos:	66.51	-0.69		0.5	54	-1.20		-4.66	0.0	000	0.000
Medium Trucks:	77.72	-16.20		0.5	57	-1.20		-4.87	0.0	000	0.000
Heavy Trucks:	82.99	-11.32		0.5	56	-1.20		-5.41	0.0	000	0.000
Unmitigated Nois			barri	ier atte	nuation)						
VehicleType	Leq Peak Hou			Leq E	Evening		Night		Ldn		NEL
Autos:		-	63.0		59.5		58.3	-	65.6		65.9
Medium Trucks:			59.2		52.0		52.8	-	60.6		60.8
Heavy Trucks:			69.1		62.3		64.4		71.6		71.8
Vehicle Noise:	72	.4	70.4		64.4		65.6	6	72.9	9	73.0
Centerline Distan	ce to Noise Co	ontour (in feet	t)								
				70	dBA	6.5	dBA	1 (	60 dBA	1 55	dBA

Thursday, October 18, 2018

	FH\	WA-RD-77-108 I	HIGHWA	Y NOISE	PREDICTION	ON MODE	EL	
	o: Existing Wi e: Slover Av. nt: w/o Riversi					Vame: Ag Imber: 11	ua Mansa 215	
SITE S	SPECIFIC IN	IPUT DATA			N	OISE MC	DEL INPUT	s
Highway Data				Site Co	nditions (	Hard = 10	), Soft = 15)	
Average Daily	Traffic (Adt):	10,067 vehicle	s			Au	tos: 15	
Peak Hour	Percentage:	10%		Λ.	ledium Tru	cks (2 Axl	les): 15	
Peak H	our Volume:	1,007 vehicles		F	leavy Truci	ks (3+ Axl	les): 15	
Vei	hicle Speed:	50 mph		Vehicle	Miv			
Near/Far Lar	ne Distance:	48 feet			hicleType	Da	ay Evening	Night Daily
Site Data				1			3.2% 8.1%	,
Pos	rier Height:	0.0 feet		١,	леdium Тп	ıcks: 82	2.2% 3.9%	
Barrier Type (0-W		0.0			Heavy Tru	ucks: 76	6.5% 4.0%	19.5% 7.56%
Centerline Dis	st. to Barrier:	52.0 feet		Noise	Source Ele	vations (	in feet)	
Centerline Dist.	to Observer:	52.0 feet		710700	Autos			
Barrier Distance	to Observer:	0.0 feet		Medi	um Trucks			
Observer Height (	Above Pad):	5.0 feet			avy Trucks			djustment: 0.0
Pa	ad Elevation:	0.0 feet			-			,
Roa	ad Elevation:	0.0 feet		Lane E	quivalent	Distance	(in feet)	
F	Road Grade:	0.0%			Autos		-	
	Left View:	-90.0 degree	s	Medi	um Trucks	46.20	9	
	Right View:	90.0 degree	S	He	avy Trucks	46.22	8	
FHWA Noise Mode								
VehicleType	REMEL	Traffic Flow	Distant		e Road	Fresnel		
Autos:	70.20	-2.73		0.38	-1.20			0.000
Medium Trucks:	81.00	-18.31		0.41	-1.20			0.000
Heavy Trucks:	85.38			0.41	-1.20	-5.	.41 0.	0.000
Unmitigated Noise								
,,	Leq Peak Hou			q Evening	Leq N	-	Ldn	CNEL
Autos:	66		4.5	61.		59.8	67.	
Medium Trucks:	61		0.3	53.	-	53.8	61.	
Heavy Trucks:	71		9.1	62.	-	64.5	71.	
Vehicle Noise:	72	1.8 7	0.8	65.	0	66.0	73.	.3 73.5
Centerline Distanc	ce to Noise Co	ontour (in feet)			,			
				70 dBA	65 a		60 dBA	55 dBA
		_	.dn:	86 186		401	865	
		CN	EL:	89	19	1	412	888

Thursday, October 18, 2018

	FH\	WA-RD-77-108	HIGH	IWAY N	OISE P	REDICT	TION M	ODEL			
	c: Existing W e: Santa Ana t: w/o Cedar	Av.						: Agua   : 11215	Mansa		
	PECIFIC IN	IPUT DATA							L INPUT	S	
Highway Data					Site Cor	nditions	(Hard	= 10, S	oft = 15)		
Average Daily T	raffic (Adt):	6,664 vehicle	es					Autos:			
Peak Hour I	Percentage:	10%				edium Ti					
Peak Ho	our Volume:	666 vehicle	S		He	eavy Tru	icks (3+	Axles):	15		
Veh	icle Speed:	40 mph		1	Vehicle	Mix					
Near/Far Lar	e Distance:	36 feet		F	Vel	nicleTyp	е	Day	Evening	Night	Daily
Site Data							Autos:	73.2%	8.1%	18.6%	88.92%
Ran	rier Height:	0.0 feet			M	ledium 7	rucks:	82.2%	3.9%	14.0%	2.65%
Barrier Type (0-Wa	all, 1-Berm):	0.0				Heavy 7	rucks:	76.5%	4.0%	19.5%	8.44%
Centerline Dis		44.0 feet		1	Voise S	ource E	levatio	ns (in f	eet)		
Centerline Dist. t		44.0 feet				Auto	os: (	0.000			
Barrier Distance t		0.0 feet			Mediu	m Truck	s: 2	2.297			
Observer Height (A	,	5.0 feet			Hea	vy Truck	(S: 8	3.004	Grade Ad	justmen	t: 0.0
	d Elevation:	0.0 feet		۱.	_	·					
	d Elevation:	0.0 feet		- 4	Lane Eq	uivalen			teet)		
F	Road Grade:	0.0%				Auto		0.460			
	Left View:	-90.0 degre				m Truck		0.241			
	Right View:	90.0 degre	es		неа	vy Truck	(S: 4)	0.262			
FHWA Noise Mode											
VehicleType	REMEL	Traffic Flow	Dis	tance		Road	Fre		Barrier Att	_	rm Atten
Autos:	66.51	-3.60		1.28	-	-1.20		-4.61		000	0.000
Medium Trucks:	77.72			1.31		-1.20		-4.87		000	0.000
Heavy Trucks:	82.99			1.31		-1.20		-5.50	0.0	000	0.000
Unmitigated Noise	•									1	
	Leq Peak Hou			Leq Ev			Night		Ldn		NEL
Autos:	63		60.8		57.3		56		63.	-	63.7
Medium Trucks:			57.3		50.0		50		58.		58.9
Heavy Trucks:			67.3 68.5		60.5		62		69.9 71.0		70.0
Centerline Distanc					52.0		-		,	-	
22				70 c	IBA	65	dBA		60 dBA	55	dBA
			Ldn:	52		1	11		239		516
		C	NEL:	53	3	1	14		245		528

	FHV	VA-RD-77-10	B HIGI	HWAY N	OISE P	REDICT	ION M	ODEL			
Road Nam	e: Jurupa Av.							: Agua : 11215			
	See   See						L INPUT	s			
Highway Data				5	Site Cor	nditions	(Hard	= 10, S	oft = 15)		
Average Daily	Traffic (Adt):	5,284 vehic	les					Autos.	15		
Peak Hour	Percentage:	10%			Me	edium Tr	ucks (2	Axles).	15		
Peak H	lour Volume:	528 vehicle	es		He	avy Tru	cks (3+	Axles).	15		
Ve	hicle Speed:	40 mph		1	/ehicle	Miv					
Near/Far La	ne Distance:	48 feet		ľ		icleType	9	Day	Evening	Night	Daily
Site Data							Autos:	73.29	8.1%	18.6%	90.25%
Rai	rrier Heiaht	0.0 feet			Medium Trucks: 82.2% 3.9% 14.0%						
					1	Heavy T	rucks:	76.5%	4.0%	19.5%	7.34%
Centerline Dis	st. to Barrier:	52.0 feet		,	Vaisa S	ource E	levatio	ne (in t	oot)		
Centerline Dist.	to Observer:	52.0 feet		,	10/36 3	Auto		0.000	eei)		
Barrier Distance	to Observer:	0.0 feet			Modiu	m Truck		2.297			
Observer Height (	Above Pad):	5.0 feet				vy Truck		3.004	Grade Ad	iustmen:	- 00
Pa	ad Elevation:	0.0 feet								Judanon	. 0.0
Roa	ad Elevation:	0.0 feet		L	.ane Eq	uivalen	t Dista	nce (in	feet)		
	Road Grade:	0.0%				Auto	s: 46	6.400			
	Left View:	-90.0 degre	ees		Mediu	m Truck	s: 46	5.209			
	Right View:	90.0 degre	ees		Heav	vy Truck	s: 46	5.228			
FHWA Noise Mode	el Calculation	s									
VehicleType	REMEL	Traffic Flow	Di	stance	Finite	Road	Fres	snel	Barrier Att	en Be	rm Atten
				0.38		-1.20		-4.66		000	0.000
Medium Trucks:				0.41		-1.20		-4.87		000	0.000
Heavy Trucks:	82.99	-15.44	ļ	0.41		-1.20		-5.41	0.0	000	0.000
VehicleType			,	Leq Ev			Night		Ldn		NEL
					55.5		54		61.0	-	61.9
Medium Trucks:					47.7		48		56.4		56.5
Heavy Trucks: Vehicle Noise:	66		64.8		58.0		60 61		67.4 68.1		67.
		• •			00.2		01	.4	00.	'	00.
Centerline Distant	ce to Noise Co	ontour (in fee	t)	70 c	IBA	65	dBA		60 dBA	55	dBA
			I dn:	42			91		196		123
	Lan: CNFI:					42 91 196 423					

	FHV	VA-RD-77-108	HIGH	1 YAWI	NOISE P	REDICT	ION MO	DDEL			
Road Nan	nio: Existing Wine: Santa Ana int: w/o Riversio	Av.				Project Job N	Name: lumber:				
	SPECIFIC IN	PUT DATA			04- 0				L INPUT	s	
Highway Data					Site Cor	aitions	(Hard :				
Average Daily		4,020 vehicle	es					Autos:			
	Percentage:	10%				dium Tru					
Peak H	Hour Volume:	402 vehicles	3		He	avy Truc	cks (3+	Axles):	15		
Ve	ehicle Speed:	40 mph		H	Vehicle	Mix					
Near/Far La	ne Distance:	36 feet		ŀ		icleType		Day	Evening	Night	Daily
Site Data						-	Autos:	73.2%	8.1%	18.6%	90.03%
Ra	rrier Heiaht:	0.0 feet			М	edium Ti	rucks:	82.2%	3.9%	14.0%	2.47%
Barrier Type (0-V		0.0				Heavy Ti	rucks:	76.5%	4.0%	19.5%	7.50%
Centerline Di	ist. to Barrier:	44.0 feet			Noise S	ouroo El	lovotio	an (in f	0.041		
Centerline Dist.	to Observer:	44.0 feet			Noise 3	Auto:		.000	eet)		
Barrier Distance	to Observer:	0.0 feet			1.4	Auto: m Truck:					
Observer Height	(Above Pad):	5.0 feet						.297	Grade Ad	iustmon	
P	ad Elevation:	0.0 feet			Heal	y Truck	s: 8	.004	Grade Ad,	usunem	. 0.0
Ro	ad Elevation:	0.0 feet		ſ	Lane Eq	uivalent	t Distar	ice (in	feet)		
	Road Grade:	0.0%				Auto	s: 40	.460			
	Left View:	-90.0 degree	es.		Mediu	m Truck	s: 40	.241			
	Right View:	90.0 degree			Heav	y Truck	s: 40	.262			
FHWA Noise Mod	lel Calculation:	s									
VehicleType	REMEL	Traffic Flow	Dis	stance	Finite	Road	Fres	nel	Barrier Att	en Be	m Atten
Autos:	66.51	-5.74		1.2	8	-1.20		-4.61	0.0	000	0.000
Medium Trucks:	77.72	-21.36		1.3	1	-1.20		-4.87	0.0	000	0.000
Heavy Trucks:	82.99	-16.53		1.3	1	-1.20		-5.50	0.0	000	0.000
Unmitigated Nois	e Levels (with	out Topo and	barri	er atter	nuation)						
VehicleType	Leq Peak Hou	r Leq Day	,	Leq E	vening	Leq	Night		Ldn	С	NEL
Autos:	60.	.8	58.7		55.2		54.	0	61.3	3	61.6
Medium Trucks:	56.	.5	54.8		47.5		48.	4	56.2	2	56.4
Heavy Trucks:	66.	.6	64.6		57.8		59.	9	67.2	2	67.3
Vehicle Noise:	67.	.9	66.0		60.0		61.	2	68.4	1	68.6
Centerline Distan	ce to Noise Co	ontour (in feet	)								
				70	AD A	65	AD A	1 7	SO ADA	55	AD A

Thursday, October 18, 2018

	FH\	WA-RD-77-108	HIGH	WAY	NOISE PE	REDICT	ION M	ODEL				
Road Nan	rio: Existing Wine: El Rivino Rent: e/o Cedar	d.						: Agua : 11215				
SITE	SPECIFIC IN	IPUT DATA							L INPUT	s		
Highway Data					Site Con	ditions	(Hard	= 10, S	oft = 15)			
Average Daily	Traffic (Adt):	9,097 vehicle	es					Autos	15			
Peak Hour	Percentage:	10%			Me	dium Tr	ucks (2	Axles).	15			
Peak I	Hour Volume:	910 vehicle	S		He	avy Tru	cks (3+	Axles).	15			
Ve	ehicle Speed:	45 mph		-	Vehicle I	Miss						
Near/Far La	ne Distance:	36 feet		-		viix icleType	. 1	Day	Evening	Night	Daily	
Site Data				-	VCII		Autos:	73.2%		18.6%	,	
					Medium Trucks: 82.2% 3.9% 14.0% 3.4							
	rrier Height:	0.0 feet			Heavy Trucks: 76.5% 4.0% 19.5% 14.05							
Barrier Type (0-V	. ,	0.0 44.0 feet				icavy i	ucns.	10.07	U 4.070	13.570	14.00%	
Centerline Dist.	ist. to Barrier:	44.0 feet			Noise So	ource E	levatio	ns (in f	eet)			
Barrier Distance		0.0 feet				Auto	s: (	0.000				
		5.0 feet			Mediui	m Truck	s: 2	2.297				
Observer Height	(Above Pad): Pad Flevation:	0.0 feet			Heav	y Truck	s: 8	3.004	Grade Ad	justment	0.0	
	ad Elevation:	0.0 feet		1	Lane Eq	uivalen	t Dista	nce (in	feet)			
	Road Grade:	0.0%		ł	Larro Lq	Auto		0.460	1001)			
	Left View:	-90.0 degree	00		Mediu	m Truck		0.241				
	Right View:	90.0 degree				y Truck		0.262				
	rugin view.	30.0 degree	03		77047	y maon		J.LUL				
HWA Noise Mod	lel Calculation	s										
VehicleType	REMEL	Traffic Flow	Dis	tance		Road	Fre		Barrier Att		m Atten	
Autos:		-3.08		1.2		-1.20		-4.61		000	0.000	
Medium Trucks:		-16.89		1.3		-1.20		-4.87		000	0.000	
Heavy Trucks:	84.25	-10.77		1.3	31	-1.20		-5.50	0.0	000	0.000	
Unmitigated Nois	e Levels (with	out Topo and	barrie	er atte	nuation)							
VehicleType	Leq Peak Hou	ır Leq Day	/	Leq E	vening	Leq	Night		Ldn	C	NEL	
Autos:			63.3		59.8		58	.6	65.9	9	66.2	
Medium Trucks:	62	.7	61.0		53.8		54	.6	62.4	4	62.6	
Heavy Trucks:	73	.6	71.6		64.8		67	.0	74.2	2	74.3	
Vehicle Noise:	74	.5	72.5		66.3		67	.8	75.0	)	75.2	
Centerline Distan	ce to Noise C	ontour (in feet	)									
			L		dBA		dBA	-	60 dBA		dBA	
			Ldn:					154				
		CI	NEL:	9	98	2	10		453	9	76	

Thursday, October 18, 2018

	FHW	/A-RD-77-108	HIGHV	VAY N	IOISE PE	REDICTI	ON MO	DEL			
Road Nan	rio: Existing Wit ne: El Rivino Ro nt: e/o Cactus	h Alt 1A			.0.02.1.	Project	Name: umber:	Agua I			
SITE	SPECIFIC IN	PUT DATA				N	OISE I	ИODE	L INPUTS	5	
Highway Data					Site Con	ditions	(Hard =	10, S	oft = 15)		
Average Daily	Traffic (Adt):	5,849 vehicle	es					Autos:	15		
Peak Hour	Percentage:	10%			Me	dium Tru	icks (2 /	Axles):	: 15		
Peak F	lour Volume:	585 vehicles	S		He	avy Truc	ks (3+ /	Axles):	: 15		
Ve	hicle Speed:	45 mph		F	Vehicle I	Aiv					
Near/Far La	ne Distance:	36 feet		-		cleType		Day	Evening	Niaht	Daily
Site Data					*0		lutos:	73.2%		18.69	. ,
	rrier Height:	0.0 feet			Me	edium Tr		82.2%		14.09	
Barrier Type (0-W		0.0			F	leavy Tr	ucks:	76.5%	6 4.0%	19.59	6 11.12%
Centerline Di		44.0 feet		L							
Centerline Dist.		44.0 feet		Ľ	Noise Sc				eet)		
Barrier Distance		0.0 feet				Autos		000			
Observer Height	(Above Pad):	5.0 feet				n Trucks		297			
	ad Elevation:	0.0 feet			Heav	y Trucks	s: 8.	004	Grade Adj	ustmer	it: 0.0
	ad Elevation:	0.0 feet			Lane Equ	ıivalent	Distan	ce (in	feet)		
	Road Grade:	0.0%				Autos	s: 40.	460			
	Left View:	-90.0 degree	es		Mediur	n Trucks	s: 40.	241			
	Right View:	90.0 degree			Heav	y Trucks	3: 40.	262			
FHWA Noise Mod	el Calculations	3		-							
VehicleType	REMEL	Traffic Flow	Dista	ance	Finite	Road	Fresr	nel	Barrier Atte	en Be	erm Atten
Autos:	68.46	-4.83		1.2	8	-1.20		-4.61	0.0	00	0.000
Medium Trucks:	79.45	-19.44		1.3	1	-1.20		-4.87	0.0	00	0.000
Heavy Trucks:	84.25	-13.71		1.3	1	-1.20		-5.50	0.0	00	0.000
Unmitigated Nois	e Levels (with	out Topo and	barrier	atten	nuation)						
VehicleType	Leq Peak Hou	r Leq Day	, ,	Leq E	vening	Leq	Night		Ldn	(	CNEL
Autos:	63.	7	61.6		58.0		56.9	)	64.2		64.5
Medium Trucks:	60.	1	58.5		51.2		52.0	)	59.8		60.0
Heavy Trucks:	70.	7	68.7		61.9		64.0	)	71.3	i	71.4
Vehicle Noise:	71.	8	69.8		63.6		65.0	)	72.3		72.4
Centerline Distan	ce to Noise Co	ntour (in feet	)								
	<u></u>			70 (	dBA	65 (	dBA	-	60 dBA	5	5 dBA
			Ldn:	6	3	13	35		290		625
		CI	VEL:	6	4	13	38		297		641

	FH\	WA-RD-77-108	HIGH	HWAY N	IOISE P	REDICT	ION MO	ODEL						
Road Nam	io: Existing W ne: Agua Mans nt: e/o 20th St	sa Rd.						Agua I 11215	Mansa					
SITE Highway Data	SPECIFIC IN	IPUT DATA			04- 0	N nditions			L INPUT	S				
Average Daily Peak Hour Peak H	Traffic (Adt): Percentage: lour Volume: hicle Speed:	11,856 vehicle 10% 1,186 vehicle 45 mph			Ме	edium Tr eavy Tru	ucks (2	Autos: Axles):	15 15					
Near/Far La	ne Distance:	36 feet		F		icleType	,	Day	Evening	Night	Daily			
	rrier Height:	0.0 feet				edium T Heavy T		73.2% 82.2% 76.5%	3.9%	18.6% 14.0%				
Barrier Type (0-W Centerline Dis	st. to Barrier:	0.0 50.0 feet				ource E	levatio	ns (in f		19.5%	10.59%			
Barrier Distance Observer Height (	Centerline Dist. to Observer: 50.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Flevation: 0.0 feet						Autos: 0.000  Medium Trucks: 2.297  Heavy Trucks: 8.004 Grade Adjustment: 0.0							
Ros	ad Elevation: Road Grade:	0.0 feet 0.0%			Lane Eq	uivalen Auto		nce (in 6.915	feet)					
	Left View: Right View:	-90.0 degre			Medium Trucks: 46.726 Heavy Trucks: 46.744									
FHWA Noise Mod	el Calculation	ıs												
VehicleType	REMEL	Traffic Flow	Dis	stance	Finite	Road	Fres	snel	Barrier Att	en Bei	m Atten			
Autos: Medium Trucks:	68.46 79.45	-1.74 -16.23		0.3		-1.20 -1.20		-4.65 -4.87		000	0.000			
Heavy Trucks:	84.25	-10.85		0.34	4	-1.20		-5.43	0.0	000	0.000			
Unmitigated Noise	e Levels (with	out Topo and	barri	er atten	uation)									
VehicleType	Leq Peak Hou			Leg E			Night		Ldn		NEL			
Autos:	65		63.7		60.2		59		66.3		66.6			
Medium Trucks:	62		60.7		53.4		54		62.1		62.3			
Heavy Trucks: Vehicle Noise:	72 73		70.6 71.7		63.8 65.6		65 67		73.° 74.2		73.3 74.4			
Centerline Distant	na to Noise C	ontour (in foot	-)											
Genterine Distant	SE LO MOISE C			70 c			dBA	6	60 dBA		dBA			
			Ldn:	9				58						
		NEL:	9	98 211 456 981				81						

	FHV	VA-RD-77-108 I	HIGHW	AY NO	DISE P	REDICT	ION MO	DDEL			
Road Nar	rio: Existing Wi ne: El Rivino R ent: e/o Hall Av.	d.					t Name: lumber:		Mansa		
	SPECIFIC IN	IPUT DATA							L INPUT	s	
Highway Data				S	ite Cor	aitions	(Hard :		oft = 15)		
Average Daily	. ,	4,257 vehicles	3					Autos:			
	Percentage:	10%					ucks (2	,			
	Hour Volume:	426 vehicles			He	avy Iru	cks (3+	Axies):	15		
	ehicle Speed:	45 mph		V	ehicle	Mix					
Near/Far La	ane Distance:	36 feet			Veh	icleType	9	Day	Evening	Night	Daily
Site Data							Autos:	73.2%	8.1%	18.6%	93.05%
Ва	rrier Height:	0.0 feet				edium T		82.2%		14.0%	1.729
Barrier Type (0-V	Vall, 1-Berm):	0.0			1	Heavy T	rucks:	76.5%	4.0%	19.5%	5.239
Centerline D	ist. to Barrier:	44.0 feet		M	oico S	ourco E	levatio	ne (in f	not)		
Centerline Dist.	to Observer:	44.0 feet		14	0136 3	Auto		.000	cei)		
Barrier Distance	to Observer:	0.0 feet			Modiu	m Truck		.297			
Observer Height	(Above Pad):	5.0 feet				y Truck		.004	Grade Ad	iustment	. 0.0
P	ad Elevation:	0.0 feet									- 0.0
Ro	ad Elevation:	0.0 feet		Li	ane Eq	uivalen	t Distar	nce (in	feet)		
	Road Grade:	0.0%				Auto		.460			
	Left View:	-90.0 degrees	3		Mediu	m Truck	s: 40	.241			
	Right View:	90.0 degrees	3		Heav	ry Truck	s: 40	.262			
FHWA Noise Mod	lel Calculation	s									
VehicleType	REMEL	Traffic Flow	Distar		Finite	Road	Fres		Barrier Att		m Atten
Autos:		-5.86		1.28		-1.20		-4.61		000	0.00
Medium Trucks:		-23.19		1.31		-1.20		-4.87		000	0.00
Heavy Trucks:		-18.36		1.31		-1.20		-5.50	0.0	000	0.00
<b>Unmitigated Nois</b>	e Levels (with	out Topo and b	arrier a	attenu	ation)						
VehicleType	Leq Peak Hou	- 1 - 7		eq Eve		Leq	Night		Ldn		NEL
Autos:			0.5		57.0		55.	-	63.2	-	63.
Medium Trucks:			4.7		47.5		48.	-	56.1		56.
Heavy Trucks:			4.0		57.2		59.		66.6		66.
Vehicle Noise:			6.0		60.4		61.	.2	68.5	ō	68.
Centerline Distan	ce to Noise Co	ontour (in feet)		70 dE	24	65	dBA	Τ.	60 dBA		dBA
			- 1	/U at	DM	65	UDA	1 6	JU UDA	) ၁၁	UDA

Thursday, October 18, 2018

FH	WA-RD-77-108	HIGH	1 YAW	NOISE PF	REDICTION	ON M	ODEL			
Scenario: Existing W Road Name: Agua Man: Road Segment: w/o Brown	sa Rd.				Project I Job Nu		: Agua I			
SITE SPECIFIC II	NPUT DATA							L INPUT	S	
Highway Data				Site Con	ditions (	Hard	= 10, Sc	oft = 15)		
Average Daily Traffic (Adt):	11,856 vehicle	es					Autos:	15		
Peak Hour Percentage:	10%			Med	dium Tru	cks (2	Axles):	15		
Peak Hour Volume:	1,186 vehicles	S		Hea	avy Truck	ks (3+	Axles):	15		
Vehicle Speed:	45 mph		F	Vehicle I	Miv					
Near/Far Lane Distance:	36 feet		ŀ		cleType		Dav	Evening	Night	Daily
Site Data						utos:	73.2%	-	18.6%	,
Barrier Height:	0.0 feet			Me	edium Tru	icks:	82.2%	3.9%	14.0%	3.07%
Barrier Type (0-Wall, 1-Berm):	0.0			F	łeavy Tru	ıcks:	76.5%	4.0%	19.5%	10.59%
Centerline Dist. to Barrier:	50.0 feet		-	M-1 0-			(! 6	41		
Centerline Dist. to Observer:	50.0 feet		-	Noise So				eet)		
Barrier Distance to Observer:	0.0 feet				Autos. n Trucks		2.297			
Observer Height (Above Pad):	5.0 feet						3.004	Grade Ad	livotmont	
Pad Elevation:	0.0 feet			Heav	y Trucks.		3.004	Grade Ad	jusimeni	. 0.0
Road Elevation:	0.0 feet			Lane Equ	uivalent	Dista	nce (in	feet)		
Road Grade:	0.0%				Autos.	4	6.915			
Left View:	-90.0 degree	es		Mediun	n Trucks.	4	6.726			
Right View:	90.0 degree	es		Heav	y Trucks.	4	6.744			
FHWA Noise Model Calculation	ıs									
VehicleType REMEL	Traffic Flow	Dist	ance	Finite		Fre	snel	Barrier At	ten Ber	m Atten
Autos: 68.46			0.3		-1.20		-4.65		000	0.000
Medium Trucks: 79.45			0.3		-1.20		-4.87		000	0.000
Heavy Trucks: 84.25			0.3		-1.20		-5.43	0.0	000	0.000
Unmitigated Noise Levels (with										
VehicleType Leq Peak Ho			Leq E	vening	Leq ∧	_		Ldn		NEL
		63.7		60.2		59		66.	-	66.6
		60.7		53.4		54		62.	•	62.3
		70.6 71.7		63.8 65.6		65		73. 74.		73.3 74.4
	***			05.0		67	.0	74		74.4
Centerline Distance to Noise C	ontour (in feet	,	70	dBA	65 d	RA		60 dBA	55	dBA
				96	20					
	Ldn:							445	c c	158

Thursday, October 18, 2018

	FH	WA-RD-77-108	HIGHWA	Y NOISE P	REDICTI	ON MO	DEL			
Road Na	ario: Existing W ame: Agua Mana aent: w/o Holly S	sa Rd.				Name: i umber:		Mansa		
SITE	SPECIFIC IN	NPUT DATA						L INPUT	s	
Highway Data				Site Cor	nditions	(Hard =	10, Sc	oft = 15)		
Average Dail	ly Traffic (Adt):	12,656 vehicle	es			,	Autos:	15		
Peak Hou	ır Percentage:	10%		Me	edium Tru	icks (2 A	(xles	15		
Peak	Hour Volume:	1,266 vehicles	3	He	eavy Truc	ks (3+ A	(xles	15		
V	/ehicle Speed:	45 mph		Vehicle	Miv					
Near/Far L	.ane Distance:	48 feet			nicleType		Dav	Evening	Niaht	Dailv
Site Data							73.2%	-	18.6%	. ,
	arrier Height:	0.0 feet		M	ledium Tr	ucks:	82.2%	3.9%	14.0%	2.63%
Barrier Type (0-	-	0.0			Heavy Tr	ucks:	76.5%	4.0%	19.5%	8.38%
	Dist. to Barrier:	52.0 feet								
	t. to Observer:	52.0 feet		Noise S	ource El			eet)		
Barrier Distanc	e to Observer:	0.0 feet			Autos		000			
Observer Heigh	t (Above Pad):	5.0 feet			ım Trucks		297	0		
	Pad Elevation:	0.0 feet		Hea	vy Trucks	s: 8.0	004	Grade Ad	ustment	: 0.0
	oad Elevation:	0.0 feet		Lane Ec	quivalent	Distanc	ce (in t	feet)		
	Road Grade:	0.0%			Autos	3: 46.4	400			
	Left View:	-90.0 degree	es	Mediu	ım Trucks	3: 46.2	209			
	Right View:	90.0 degree		Hea	vy Trucks	3: 46.2	228			
FHWA Noise Mo	del Calculation	IS								
VehicleType	REMEL	Traffic Flow	Distan	ce Finite	Road	Fresn		Barrier Att	en Ber	m Atten
Autos				0.38	-1.20		-4.66		000	0.000
Medium Trucks				0.41	-1.20		-4.87		000	0.000
Heavy Trucks	s: 84.25	-11.58		0.41	-1.20		-5.41	0.0	000	0.000
Unmitigated Noi	se Levels (with	out Topo and	barrier a	ttenuation)						
VehicleType	Leq Peak Ho	ur Leq Day	Le	q Evening	Leq	Night		Ldn	C	NEL
Autos	s: 66	6.3	64.2	60.6	i	59.5		66.8	3	67.1
Medium Trucks	s: 62	2.1 (	60.4	53.1		54.0		61.8	3	61.9
Heavy Trucks	s: 71	1.9 (	69.9	63.1		65.2	!	72.5	5	72.6
Vehicle Noise	e: 73	3.3	71.3	65.3	3	66.5		73.8	3	74.0
Centerline Dista	nce to Noise C	ontour (in feet,	)							
				70 dBA		dBA	6	60 dBA		dBA
			Ldn:	93 201 433			-	32		
		CI	IEL:	96	20	06		444	9	56

Thursday, October 18, 2018

	FHV	VA-RD-77-108	HIGH	WAY N	IOISE P	REDICT	ION MO	DDEL				
	o: Existing Wi e: Agua Mans nt: e/o El Rivin	a Rd.						Agua N 11215	Mansa			
	SPECIFIC IN	IPUT DATA							L INPUT	S		
Highway Data					Site Cor	ditions	(Hard:	= 10, Sc	oft = 15)			
Average Daily	Traffic (Adt):	16,271 vehicle	es					Autos:	15			
Peak Hour	Percentage:	10%			Me	dium Tr	ucks (2	Axles):	15			
Peak H	our Volume:	1,627 vehicle	S		He	avy Tru	cks (3+	Axles):	15			
Vei	hicle Speed:	45 mph		-	Vehicle	Mix						
Near/Far Lar	ne Distance:	82 feet		F		icleType	9	Day	Evening	Night	Daily	
Site Data							Autos:	73.2%	8.1%	18.6%	87.919	
Rar	rier Height:	0.0 feet			М	edium T	rucks:	82.2%	3.9%	14.0%	2.77%	
Barrier Type (0-W		0.0				Heavy T	rucks:	76.5%	4.0%	19.5%	9.319	
Centerline Dis	st. to Barrier:	60.0 feet			Noise S	ource E	levatio	ns (in fe	eet)			
Centerline Dist.	to Observer:	60.0 feet		Ī		Auto		.000	,			
Barrier Distance	to Observer:		Medium Trucks: 2.297									
Observer Height (	Above Pad):	5.0 feet			Heavy Trucks: 8.004 Grade Adjustment: 0.0							
Pa	ad Elevation:	0.0 feet										
	ad Elevation:	0.0 feet			Lane Eq				feet)			
F	Road Grade:	0.0%				Auto		.091				
	Left View:	-90.0 degre				m Truck		3.890				
	Right View:	90.0 degre	es		Hear	y Truck	s: 43	3.909				
FHWA Noise Mode	el Calculation	s										
VehicleType	REMEL	Traffic Flow	Dis	stance		Road	Fres		Barrier Att		m Atten	
Autos:	68.46	-0.28		0.7		-1.20		-4.69	0.0		0.00	
Medium Trucks:	79.45	-15.30		0.7		-1.20		-4.88	0.0		0.00	
Heavy Trucks:	84.25	-10.03		0.7	4	-1.20		-5.34	0.0	000	0.00	
Unmitigated Noise										_		
,,	Leq Peak Hou			Leq E	vening		Night		Ldn		NEL	
Autos:	67		65.5		62.0		60		68.2	-	68.	
Medium Trucks:	63		62.1 71.8		54.8		55 67		63.4		63.	
Heavy Trucks: Vehicle Noise:	73 75		73.1		65.0 67.0		68		74.4 75.6		74. 75.	
Centerline Distance	e to Noise Co	ontour (in feet	<del>!</del> )									
		7 1 7001	_	70 (	dBA	65	dBA	6	0 dBA	55	dBA	
			Ldn:	14	141 304 655 1,4			412				
		NFI:		145 312 672 1,4			4.47					

	FHV	VA-RD-77-108	HIGHW	AY NO	DISE P	REDICT	ION M	ODEL			
Scenario: Road Name: Road Segment:		a Rd.						: Agua I : 11215			
	ECIFIC IN	PUT DATA							L INPUT	S	
Average Daily Tra Peak Hour Pe Peak Hou Vehic Near/Far Lane	rcentage: r Volume: le Speed:	12,675 vehicle 10% 1,267 vehicle 45 mph 48 feet			Ме	dium Tı avy Tru	ucks (2	Autos: Axles): Axles):	15		
	Distance.	40 1661			Veh	icleType		Day	Evening	Night	Daily
Site Data  Barrie  Barrier Type (0-Wall,	r Height: 1-Berm):	0.0 feet 0.0				edium T Ieavy T		73.2% 82.2% 76.5%	3.9%	14.0%	86.29° 3.11° 10.60°
Centerline Dist. to Barrier Distance to Observer Height (Ab	Centerline Dist. to Barrier: 52.0 f Centerline Dist. to Observer: 52.0 f arrier Distance to Observer: 0.0 f oserver Height (Above Pad): 5.0 f Pad Elevation: 0.0 f Road Elevation: 0.0 f				Noise Source Elevations (in feet)  Autos: 0.000  Medium Trucks: 2.297  Heavy Trucks: 8.004 Grade Adjustn  Lane Equivalent Distance (in feet)					ljustmeni	t: 0.0
Ros	Elevation: ad Grade: Left View: ight View:	0.0 feet 0.0% -90.0 degree 90.0 degree		Li	Mediu	Auto Auto m Truck ry Truck	s: 46	6.400 6.209 6.228	reet)		
FHWA Noise Model (	Calculation	S									
VehicleType Autos: Medium Trucks: Heavy Trucks:	68.46 79.45 84.25	-1.45 -15.88 -10.56	Distai	0.38 0.41 0.41	Finite	-1.20 -1.20 -1.20	Fre	-4.66 -4.87 -5.41	0.0	ten Be 000 000	0.00 0.00 0.00
						-1.20		-5.41	0.0	J00	0.00
VehicleType Le	evels (with a Peak Hou	-		attenu eq Eve		Log	Night		Ldn		NEL
Autos: Medium Trucks:	66. 62.	.2	64.1 61.1	54 EV6	60.5 53.9	234	59 54		66.1	7	66 62
Heavy Trucks: Vehicle Noise:	72. 74.	-	70.9 72.1		64.1		66 67		73.5 74.6		73 74
Centerline Distance	to Noise Co	ntour (in feet	)								
			Ldn: VEL:	70 dE 105	,	2	dBA 27 33	(	489 501	1,	,054 ,080

Thursday, October 18, 2018

	FHV	VA-RD-77-108	HIGH	WAY	NOISE PE	REDICTI	ON M	ODEL			
Scenario: Road Name: Road Segment:		a Rd.				Project Job N		: Agua I : 11215			
	PECIFIC IN	IPUT DATA							L INPUT	S	
Highway Data					Site Con	ditions	(Hard	= 10, S	oft = 15)		
Average Daily Tr	raffic (Adt):	7,917 vehicle	s					Autos:	15		
Peak Hour Pe	ercentage:	10%			Me	dium Tru	icks (2	Axles):	15		
Peak Hou	ur Volume:	792 vehicles	3		He	avy Truc	ks (3+	Axles):	15		
Vehi	cle Speed:	45 mph		-	Vehicle I	Miss					
Near/Far Lane	Distance:	82 feet		ł		icleType		Dav	Evening	Night	Daily
Site Data					* 077		lutos:	73.2%	-	18.6%	,
	er Heiaht:	0.0 feet			Me	edium Tr		82.2%		14.0%	
Barrier Type (0-Wal		0.0 reet 0.0				leavy Tr		76.5%		19.5%	
Centerline Dist.		60.0 feet									
Centerline Dist. to		60.0 feet			Noise So				eet)		
Barrier Distance to		0.0 feet				Autos		0.000			
Observer Height (Al		5.0 feet				m Trucks		2.297			
	Flevation:	0.0 feet			Heav	y Trucks	s: 8	3.004	Grade Ad	justment	: 0.0
	Flevation:	0.0 feet		İ	Lane Eq	uivalent	Dista	nce (in	feet)		
	ad Grade:	0.0%		l		Autos	s: 4	1.091			
710	Left View:	-90.0 degree	24		Mediu	n Trucks		3.890			
F	Right View:	90.0 degree			Heav	y Trucks	s: 40	3.909			
FHWA Noise Model	Calculation	s									
VehicleType	REMEL	Traffic Flow	Dis	tance		Road	Fre	snel	Barrier Att		m Atten
Autos:	68.46	-3.36		0.7	_	-1.20		-4.69		000	0.000
Medium Trucks:	79.45	-18.66		0.7	-	-1.20		-4.88	0.0	000	0.000
Heavy Trucks:	84.25	-13.55		0.7	4	-1.20		-5.34	0.0	000	0.000
Unmitigated Noise I	Levels (with	out Topo and	barrie	er atte	nuation)						
VehicleType L	eq Peak Hou	ır Leq Day		Leg E	vening	Leq	Night		Ldn	C	NEL
Autos:	64	.6 6	32.5		58.9		57	.8	65.	1	65.4
Medium Trucks:	60	.3 5	58.7		51.4		52	.2	60.	1	60.2
Heavy Trucks:	70	.2 (	6.83		61.5		63	.6	70.8	3	71.0
Vehicle Noise:	71	.6	69.7		63.7		64	.9	72.	1	72.3
Centerline Distance	to Noise Co	ontour (in feet)	)								
				70	dBA	65	dBA	- (	60 dBA	55	dBA
			Ldn:	8	33	18	30		387	8	34
		CN	IEL:		36	18	34		397	8	56

FH	WA-RD-77-108	HIGHW	AY NOISE	PREDICT	TION M	DDEL			
Scenario: Existing W Road Name: 20th St. Road Segment: e/o Rubido					t Name: Number:		Vlansa		
SITE SPECIFIC II	NPUT DATA				NOISE	MODE	L INPUT	s	
Highway Data			Site Co	onditions	(Hard	= 10, S	oft = 15)		
Average Daily Traffic (Adt):	23,439 vehicle	es				Autos:	15		
Peak Hour Percentage:	10%		٨	ledium T	rucks (2	Axles):	15		
Peak Hour Volume:	2,344 vehicle	s	F	leavy Tru	icks (3+	Axles):	15		
Vehicle Speed:	45 mph		Vehicle	Mix					
Near/Far Lane Distance:	36 feet		Ve	hicleTyp	е	Day	Evening	Night	Daily
Site Data					Autos:	73.2%	8.1%	18.6%	88.45%
Barrier Height:	0.0 feet		-	Medium 1	rucks:	82.2%	3.9%	14.0%	2.69%
Barrier Type (0-Wall, 1-Berm):	0.0			Heavy 1	rucks:	76.5%	4.0%	19.5%	8.87%
Centerline Dist. to Barrier:	50.0 feet		Noise	Source E	levatio	ns (in f	eet)		
Centerline Dist. to Observer:	50.0 feet			Auto		.000	,		
Barrier Distance to Observer:	0.0 feet		Med	um Truci		.297			
Observer Height (Above Pad):	5.0 feet		He	avy Truck	ks: 8	.004	Grade Ad	justment	0.0
Pad Elevation:	0.0 feet								
Road Elevation:	0.0 feet		Lane E	quivaler			feet)		
Road Grade:	0.0%			Auto		3.915			
Left View:	-90.0 degree			um Truci		.726			
Right View:	90.0 degree	es	He	avy Truci	KS: 46	5.744			
FHWA Noise Model Calculation	ıs		•						
VehicleType REMEL	Traffic Flow	Dista		e Road	Fres		Barrier Att	_	rm Atten
Autos: 68.46			0.31	-1.20		-4.65		000	0.000
Medium Trucks: 79.45			0.34	-1.20		-4.87		000	0.000
Heavy Trucks: 84.25			0.34	-1.20		-5.43	0.0	000	0.000
Unmitigated Noise Levels (with				_		_			
VehicleType Leq Peak Ho			eq Evening		Night		Ldn		NEL
		66.8	63.	_	62		69.4		69.7
		63.1	55.	-	56		64.5	-	64.6
		72.8 74.1	66. 68.	-	68 69		75.0 76.6		75.5 76.8
Centerline Distance to Noise C	***		00.		- 00		70.0		70.0
Containing Distance to NOISE C	ooui (iii leet	/	70 dBA	65	dBA	-	60 dBA	55	dBA
		Ldn:	137		296		638		375
	CI	VEL:	141	3	304		654		409

	FH\	WA-RD-77-10	B HIGI	HWAY N	IOISE P	REDICT	ION M	ODEL					
Road Nam	io: Existing Wine: Market St. nt: e/o Hall Av							: Agua   : 11215					
	SPECIFIC IN	IPUT DATA							L INPUT	S			
Highway Data					Site Cor	nditions	(Hard	= 10, S	oft = 15)				
Average Daily	Traffic (Adt):	25,565 vehic	les					Autos:	15				
Peak Hour	Percentage:	10%			Me	edium Tr	ucks (2	Axles):	15				
Peak H	lour Volume:	2,556 vehicle	es		He	eavy Tru	cks (3+	Axles):	15				
Ve	hicle Speed:	45 mph		-	Vehicle	Mix							
Near/Far La	ne Distance:	36 feet		t		icleType	Э	Day	Evening	Night	Daily		
Site Data							Autos:	73.2%	8.1%	18.6%	87.73%		
Bai	rrier Height:	0.0 feet			М	edium T	rucks:	82.2%	3.9%	14.0%	2.80%		
Barrier Type (0-W		0.0			- 1	Heavy T	rucks:	76.5%	4.0%	19.5%	9.47%		
Centerline Dis	st. to Barrier:	50.0 feet		h.	Noise S	ource F	lovatio	ne (in f	oot)				
Centerline Dist.	to Observer:	50.0 feet		F.	110/30 0	Auto		0.000	ccij				
Barrier Distance	to Observer:	0.0 feet			Madiu	m Truck		2.297					
Observer Height (	Above Pad):	5.0 feet			Heavy Trucks: 8.004 Grade Adjustment: 0.0								
Pa	ad Elevation:	0.0 feet								,			
Ros	ad Elevation:	0.0 feet			Lane Eq				feet)				
ı	Road Grade:	0.0%				Auto		5.915					
	Left View:	-90.0 degre	ees			m Truck		6.726					
	Right View:	90.0 degre	ees		Heav	vy Truck	s: 46	6.744					
FHWA Noise Mode	el Calculation	s											
VehicleType	REMEL	Traffic Flow	Di	stance	Finite	Road	Fres	snel	Barrier At	en Bei	rm Atten		
Autos:	68.46	1.67		0.3		-1.20		-4.65		000	0.00		
Medium Trucks:	79.45	-13.29		0.3		-1.20		-4.87		000	0.000		
Heavy Trucks:	84.25	-8.00	)	0.3	4	-1.20		-5.43	0.	000	0.000		
Unmitigated Noise										,			
VehicleType	Leq Peak Hou		,	Leq E	vening		Night		Ldn		NEL		
Autos:	69		67.1		63.6		62		69.		70.0		
Medium Trucks:	65		63.7		56.4		57		65.		65.2		
Heavy Trucks: Vehicle Noise:	75 76		73.4		66.6		68 69		76. 77.		76. <sup>-</sup>		
Centerline Distant		••			30.0		- 00		77.		,,,,		
Cernerinie Distant	ce to Noise C	ontour (in ree	u)	70 0	dBA	65	dBA		60 dBA	55	dBA		
			Ldn:	15	51	3	25		699	1,	,507		
	Ldn: CNFL:						154 333 717 1,54						

	FH	WA-RD-77-108	HIGH	WAY NC	ISE PF	REDICTIO	N MODI	EL			
Scenari Road Name Road Segmen						Project No Job Nur			а		
SITE S	SPECIFIC IN	NPUT DATA						ODEL IN			
Highway Data				Si	te Con	ditions (H	lard = 1	0, Soft =	15)		
	Traffic (Adt): Percentage: our Volume:	19,329 vehicl 10% 1,933 vehicle				dium Truck	ks (2 Ax	,	5		
Vel	hicle Speed:	45 mph		1/4	ehicle l	Miv					
Near/Far Lar	ne Distance:	36 feet				icleType	D	av Eve	ning Ni	ght	Daily
Site Data					* 0111			.,		3.6%	87.03%
Rar	rier Heiaht:	0.0 feet			Me	edium Truc	ks: 82	2.2% 3	3.9% 14	4.0%	2.89%
Barrier Type (0-W	all, 1-Berm):	0.0			F	leavy Truc	ks: 76	6.5% 4	1.0% 19	9.5%	10.07%
Centerline Dis		50.0 feet		No	oise Sc	ource Elev	ations	(in feet)			
Centerline Dist. t		50.0 feet				Autos:	0.00	00			
Barrier Distance t		0.0 feet			Mediur	n Trucks:	2.29	7			
Observer Height (	,	5.0 feet			Heav	y Trucks:	8.00	4 Grad	de Adjusti	ment:	0.0
	d Elevation:	0.0 feet									
	d Elevation:	0.0 feet		Lá	ne Eq	uivalent D					
F	Road Grade:	0.0%				Autos:	46.91	-			
	Left View: Right View:	-90.0 degre 90.0 degre				n Trucks: y Trucks:	46.72 46.74				
FHWA Noise Mode	el Calculation	ıs									
VehicleType	REMEL	Traffic Flow	Dist	ance	Finite	Road	Fresne	I Barri	er Atten	Berr	n Atten
Autos:	68.46	0.42		0.31		-1.20	-4	1.65	0.000		0.000
Medium Trucks:	79.45	-14.36		0.34		-1.20	-4	1.87	0.000		0.000
Heavy Trucks:	84.25	-8.94		0.34		-1.20	-5	5.43	0.000		0.000
Unmitigated Noise											
	Leq Peak Ho			Leq Eve		Leq Ni		Ldn		C٨	IEL
Autos:			65.8		62.3		61.2		68.5		68.7
Medium Trucks:	-		62.6		55.3		56.1		64.0		64.1
Heavy Trucks:		1.4	72.5		65.7		67.8		75.0		75.2
Vehicle Noise:		***	73.7		67.6		68.9		76.2		76.3
Centerline Distance	e to Noise C	ontour (in feet	)	70 dE	ν Ι	65 dE	Α Τ	60 dB	4	55 (	AD A
			I dn:	129		278		599	^	1.2	
		_	Lan: NFI:	132		278		614		,	123
		C	VLL.	132		200		014		1,0	20

Thursday, October 18, 2018

	FH\	WA-RD-77-108	HIGHW	AY N	OISE PR	EDICTIO	ON M	ODEL			
Road Nar	rio: Existing Wine: Market St. ent: e/o Rivera					Project N Job Nu		: Agua I : 11215	Mansa		
	SPECIFIC IN	NPUT DATA							L INPUT	s	
Highway Data				S	ite Cond	litions (	Hard	= 10, S	oft = 15)		
Average Daily	Traffic (Adt):	29,901 vehicle	es					Autos:	15		
Peak Hou	r Percentage:	10%				lium Trud					
Peak I	Hour Volume:	2,990 vehicles	S		Hea	vy Truck	(3 (3 ×	- Axles):	15		
Ve	ehicle Speed:	45 mph		V	ehicle N	liv					
Near/Far La	ane Distance:	48 feet		۲		leType		Day	Evening	Night	Daily
Site Data						A	ıtos:	73.2%	8.1%	18.6%	88.01%
Ra	arrier Height:	0.0 feet			Me	dium Tru	icks:	82.2%	3.9%	14.0%	2.76%
Barrier Type (0-V		0.0			Н	eavy Tru	icks:	76.5%	4.0%	19.5%	9.22%
Centerline D	ist. to Barrier:	50.0 feet			loise So	urca Fla	vatio	ne (in f	oot)		
Centerline Dist.	to Observer:	50.0 feet		F	0.00 00	Autos		0.000	301)		
Barrier Distance	to Observer:	0.0 feet			Modium	Trucks:		2.297			
Observer Height	(Above Pad):	5.0 feet				Trucks:		3.004	Grade Ad	liustment	0.0
F	Pad Elevation:	0.0 feet								juouriorit.	0.0
Ro	ad Elevation:	0.0 feet		L	ane Equ	ivalent i	Dista	nce (in	feet)		
	Road Grade:	0.0%				Autos:		4.147			
	Left View:	-90.0 degree	es			Trucks:		3.947			
	Right View:	90.0 degree	es		Heavy	/ Trucks:	4	3.966			
FHWA Noise Mod											
VehicleType	REMEL	Traffic Flow	Distan		Finite I		Fre.	snel	Barrier At		m Atten
Autos.				0.71		-1.20		-4.65		000	0.000
Medium Trucks.				0.74		-1.20		-4.87		000	0.000
Heavy Trucks.	84.25	-7.43		0.73		-1.20		-5.43	0.	000	0.000
Unmitigated Nois											
VehicleType	Leq Peak Hou			eq Ev	ening	Leq N	_		Ldn		VEL
Autos.			68.2		64.7		63		70.		71.1
Medium Trucks.			64.7		57.4			3.2	66.		66.2
Heavy Trucks.			74.4		67.6			).7	77.	_	77.1
Vehicle Noise.	77	7.7	75.7		69.7		70	).9	78.	2	78.3
Centerline Distan	ce to Noise C	ontour (in feet	)								
				70 d		65 d		(	60 dBA		dBA
			Ldn:	17	-	378	-		814		754
		CI	VEL:	180	)	387	7		835	1,	799

Thursday, October 18, 2018

	FH\	WA-RD-77-108	HIGH	WAY	NOISE P	REDICT	ION MC	DEL			
Road Nam	nio: OY 2020 W ne: Cedar Av. nt: n/o I-10 Fw	,					t Name: lumber:				
	SPECIFIC IN	IPUT DATA							L INPUT	s	
Highway Data					Site Cor	nditions	(Hard =	= 10, S	oft = 15)		
Average Daily	Traffic (Adt):	44,029 vehicle	es					Autos:	15		
Peak Hour	Percentage:	10%			Me	edium Tr	ucks (2	Axles):	15		
Peak F	lour Volume:	4,403 vehicle	S		He	eavy Tru	cks (3+	Axles):	15		
Ve	hicle Speed:	40 mph		ŀ	Vehicle	Mix					
Near/Far La	ne Distance:	48 feet		ŀ		icleType	9	Dav	Evening	Night	Daily
Site Data							Autos:	73.2%		18.69	,
Ra	rrier Height:	0.0 feet			М	edium T	rucks:	82.2%	3.9%	14.09	6 2.50%
Barrier Type (0-W		0.0				Heavy T	rucks:	76.5%	4.0%	19.59	6 7.60%
Centerline Di		52.0 feet		-	M-/ 0			/! 4			
Centerline Dist.	to Observer:	52.0 feet		-	Noise S				eet)		
Barrier Distance	to Observer:	0.0 feet				Auto		.000			
Observer Height	(Above Pad):	5.0 feet				m Truck		.297	Grade Ad	iuotma	a4: 0 0
P	ad Elevation:	0.0 feet			Hear	vy Truck	s: 8.	.004	Grade Ad	jusunei	n. 0.0
Ro	ad Elevation:	0.0 feet			Lane Eq	uivalen	t Distan	ce (in	feet)		
	Road Grade:	0.0%				Auto	s: 46	.400			
	Left View:	-90.0 degre	es		Mediu	m Truck	s: 46	.209			
	Right View:	90.0 degre	es		Hear	vy Truck	s: 46	.228			
FHWA Noise Mod	el Calculation	s									
VehicleType	REMEL	Traffic Flow	Dist	tance	Finite	Road	Fres	nel	Barrier Att	en B	erm Atten
Autos:		4.65		0.3		-1.20		-4.66		000	0.000
Medium Trucks:		-10.91		0.4		-1.20		-4.87		000	0.000
Heavy Trucks:	82.99	-6.08		0.4	11	-1.20		-5.41	0.0	000	0.000
Unmitigated Nois	e Levels (with	out Topo and	barrie	r atte	nuation)						
VehicleType	Leq Peak Hou			Leq E	vening		Night		Ldn		CNEL
Autos:	70		68.2		64.7		63.		70.8		71.1
Medium Trucks:			64.4		57.1		57.	-	65.8	-	65.9
Heavy Trucks:			74.2		67.4		69.		76.7		76.9
Vehicle Noise:			75.5		69.5		70.	/	78.0	)	78.1
Centerline Distan	ce to Noise C	ontour (in feet	)	70	dBA	65	dBA	Τ.	60 dBA		5 dBA
			l dn:		77		82		822	_	5 <i>aBA</i> 1.772
			VEL:		82	_	91		843		1,772
		C	VLL.		02	3	131		040		1,010

	FHV	VA-RD-77-108	HIGH	IWAY N	OISE P	REDICT	ION M	ODEL			
	o: OY 2020 W e: Cedar Av. et: s/o Slover A	,						Agua I 11215	Mansa		
	SPECIFIC IN	PUT DATA							L INPUT	S	
Highway Data				S	Site Cor	ditions	(Hard:	= 10, Sc	oft = 15)		
Average Daily 1	Traffic (Adt):	30,518 vehicle	es					Autos:	15		
Peak Hour I	Percentage:	10%			Me	dium Tr	ucks (2	Axles):	15		
Peak Ho	our Volume:	3,052 vehicle	S		He	avy Tru	cks (3+	Axles):	15		
Veh	nicle Speed:	40 mph		ı	/ehicle	Mix					
Near/Far Lar	ne Distance:	48 feet		F		icleType	•	Day	Evening	Night	Daily
Site Data							Autos:	73.2%	8.1%	18.6%	89.90%
Bar	rier Height:	0.0 feet			М	edium T	rucks:	82.2%	3.9%	14.0%	2.50%
Barrier Type (0-Wa		0.0			1	Heavy T	rucks:	76.5%	4.0%	19.5%	7.60%
Centerline Dis	t. to Barrier:	52.0 feet		٨	loise S	ource E	levatio	ns (in f	eet)		
Centerline Dist. t	o Observer:	52.0 feet			10/30 0	Auto		0.000	coty		
Barrier Distance t	o Observer:	0.0 feet			Madiu	m Truck		.297			
Observer Height (A	Above Pad):	5.0 feet				vy Truck		3.004	Grade Ad	iustment	0.0
Pa	d Elevation:	0.0 feet									
Roa	d Elevation:	0.0 feet		L	ane Eq	uivalen	t Distai	nce (in	feet)		
F	Road Grade:	0.0%				Auto		6.400			
	Left View:	-90.0 degre	es			m Truck		6.209			
	Right View:	90.0 degre	es		Heav	y Truck	s: 46	5.228			
FHWA Noise Mode	l Calculation:	S									
VehicleType	REMEL	Traffic Flow	Dis	stance	Finite	Road	Fres	snel	Barrier Att	en Ber	m Atten
Autos:	66.51	3.06		0.38		-1.20		-4.66	0.0		0.00
Medium Trucks:	77.72	-12.50		0.41		-1.20		-4.87	0.0		0.00
Heavy Trucks:	82.99	-7.67		0.41		-1.20		-5.41	0.0	000	0.00
Unmitigated Noise			_								
,,	Leq Peak Hou			Leq Ev		Leq	Night		Ldn		NEL
Autos:	68.	-	66.6		63.1		61		69.2		69.
Medium Trucks:	64.		62.8		55.5		56		64.2		64.
Heavy Trucks: Vehicle Noise:	74. 75.	-	72.6 73.9		65.8 67.9		67. 69		75.1 76.4		75. 76.
					07.9		09	. 1	70.2	•	76.
Centerline Distanc	e to Noise Co	ntour (in feet	)	70 d	RΔ	65	dBA	-	60 dBA	EE.	dBA
			Ldn:	13			99		644		387

	FH\	WA-RD-77-108	HIGHWA	Y NOISE	PREDIC <sup>*</sup>	TION MODE	L	
	e: Cedar Av.	Vithout Project vy.				et Name: Ag Number: 112		
	SPECIFIC IN	IPUT DATA					DEL INPUT	S
Highway Data				Site (	Conditions	s (Hard = 10	, Soft = 15)	
Peak H	Traffic (Adt): Percentage: our Volume: hicle Speed:	37,699 vehicle 10% 3,770 vehicles 40 mph			Heavy Tru	Aut rucks (2 Axle ucks (3+ Axle	es): 15	
Near/Far Lar		48 feet			le Mix			
	ic Distance.	40 1001		1	/ehicleTyp		,	Night Daily
Site Data  Barrier Type (0-W	rier Height: all, 1-Berm):	0.0 feet 0.0			Medium 1	Trucks: 82	.2% 8.1% .2% 3.9% .5% 4.0%	18.6% 89.90% 14.0% 2.50% 19.5% 7.60%
Centerline Dis	t. to Barrier:	52.0 feet		Noise	Source F	Elevations (	n feet)	
Roa	to Observer:	52.0 feet 0.0 feet 5.0 feet 0.0 feet 0.0 feet 0.0%	26	Lane	Auto dium Truco leavy Truco <b>Equivaler</b> Auto dium Truco	ks: 2.297 ks: 8.004 ht Distance os: 46.400	Grade Adj (in feet)	iustment: 0.0
FHWA Noise Mode	Right View:	90.0 degree	es	Н	eavy Truc	ks: 46.228	3	
VehicleType	REMEL	Traffic Flow	Distanc	e Fi	nite Road	Fresnel	Barrier Att	en Berm Atten
Autos: Medium Trucks: Heavy Trucks:	66.51 77.72 82.99			0.38 0.41 0.41	-1.20 -1.20 -1.20	-4.	87 0.0	0.000
	. 11- (141-		b!	4	-1			
Unmitigated Noise VehicleType	Leq Peak Hou		_	<b>tenuatio</b> q Evenin		n Night	Ldn	CNEL
Autos:	69 69		67.5		4.0	62.8	70.1	
Medium Trucks:	65	5.3	63.7	5	6.4	57.3	65.1	
Heavy Trucks:	75	5.4	73.5	6	6.7	68.8	76.1	76.2
Vehicle Noise:	76	6.8	74.8	6	8.8	70.0	77.3	3 77.5
Centerline Distance	e to Noise C	ontour (in feet	)					
			_	70 dBA	65	5 dBA	60 dBA	55 dBA
			Ldn:	160		344	741	1,597
		CI	VEL:	164	;	353	760	1,638

Wednesday, October 17, 2018

	FH	WA-RD-77-108	HIGHW	/AY N	OISE P	REDICT	ION MOD	EL			
	e: Cedar Av.	Vithout Project Ana Av.					Name: A lumber: 1		Mansa		
SITE S	PECIFIC II	NPUT DATA				N	IOISE M	ODE	L INPUTS		
Highway Data					Site Con	ditions	(Hard = 1)	0, Sc	oft = 15)		
Average Daily T Peak Hour I Peak Ho	. ,	30,707 vehicle 10% 3,071 vehicle					A ucks (2 A) cks (3+ A)	,	15 15 15		
Veh	icle Speed:	40 mph		1	/ehicle l	Mix					
Near/Far Lar	e Distance:	48 feet		F		icleType	) E	ay	Evening N	light	Daily
Site Data							Autos: 7	3.2%	8.1% 1	18.6%	89.90%
Ran	rier Height:	0.0 feet			Me	edium T	rucks: 8	2.2%	3.9% 1	14.0%	2.50%
Barrier Type (0-Wa		0.0			F	leavy T	rucks: 7	6.5%	4.0%	19.5%	7.60%
Centerline Dis	t. to Barrier:	52.0 feet		,	Voise Sc	ource F	levations	(in fe	eet)		
Centerline Dist. t	o Observer:	52.0 feet		- F	10,00 00	Auto		•	,01,		
Barrier Distance t	o Observer:	0.0 feet			Madiu	n Truck		-			
Observer Height (/	Above Pad):	5.0 feet				y Truck			Grade Adjus	tment:	0.0
Pa	d Elevation:	0.0 feet							•		
Roa	d Elevation:	0.0 feet		I	.ane Eq	uivalen	t Distance	(in	feet)		
F	load Grade:	0.0%				Auto		-			
	Left View:	-90.0 degre				m Truck		-			
	Right View:	90.0 degre	es		Heav	y Truck	s: 46.2	28			
FHWA Noise Mode	l Calculation	18									
VehicleType	REMEL	Traffic Flow	Dista	nce	Finite	Road	Fresne	1	Barrier Atten	Bern	n Atten
Autos:	66.51	3.08		0.38	3	-1.20		1.66	0.000	)	0.000
Medium Trucks:	77.72	-12.47		0.41	l	-1.20		1.87	0.000	)	0.000
Heavy Trucks:	82.99	-7.65		0.41		-1.20	-4	5.41	0.000	)	0.000
Unmitigated Noise	Levels (with	out Topo and	barrier	atten	uation)						
VehicleType	Leq Peak Ho	ur Leq Day	/ L	eq Ev	rening	Leq	Night		Ldn	CN	IEL
Autos:	-		66.6		63.1		61.9		69.3		69.5
Medium Trucks:	-		62.8		55.5		56.4		64.2		64.3
Heavy Trucks:			72.6		65.8		67.9		75.2		75.3
Vehicle Noise:	7	5.9	73.9		67.9		69.1		76.4		76.6
Centerline Distanc	e to Noise C	ontour (in feet	t)								
·				70 c	IBA	65	dBA	6	i0 dBA	55 d	dBA
			Ldn:	13	-	3	00		647	1,3	
			NFI:	14					663	1,4	

	FH\	WA-RD-77-108	HIGH	NAY NO	DISE PF	REDICTIO	N MOI	DEL			
	e: Cedar Av.	/ithout Project Av.				Project N Job Nu			Mansa		
	SPECIFIC IN	IPUT DATA							L INPUTS	s	
Highway Data				S	ite Con	ditions (l	Hard =	10, Sc	oft = 15)		
Average Daily	Traffic (Adt):	27,873 vehicle	es				/	Autos:	15		
Peak Hour I	Percentage:	10%			Me	dium Truc	ks (2 A	xles):	15		
Peak He	our Volume:	2,787 vehicle	S		He	avy Truck	s (3+ A	xles):	15		
	hicle Speed:	50 mph		V	ehicle l	Mix					
Near/Far Lar	ne Distance:	48 feet				cleType		Day	Evening	Night	Daily
Site Data						AL	itos:	73.2%	8.1%	18.6%	89.90%
Rar	rier Height:	0.0 feet			Ме	edium Tru	cks:	82.2%	3.9%	14.0%	2.50%
Barrier Type (0-Wa	all, 1-Berm):	0.0			F	łeavy Tru	cks:	76.5%	4.0%	19.5%	7.60%
Centerline Dis		52.0 feet		N	oise Sc	urce Ele	vations	s (in fe	eet)		
Centerline Dist. t		52.0 feet				Autos:		000	,		
Barrier Distance t		0.0 feet			Mediur	n Trucks:	2.2	297			
Observer Height (/	,	5.0 feet			Heav	y Trucks:	8.0	004	Grade Adj	ustmen	t: 0.0
	d Elevation:	0.0 feet									
	d Elevation:	0.0 feet		Li	ane Eq	uivalent l			teet)		
F	Road Grade:	0.0%				Autos:					
	Left View:	-90.0 degre				n Trucks:					
	Right View:	90.0 degre	es		Heav	y Trucks:	46.2	228			
FHWA Noise Mode	el Calculation	s									
VehicleType	REMEL	Traffic Flow	Dist	ance	Finite	Road	Fresn		Barrier Atte		rm Atten
Autos:	70.20	1.69		0.38		-1.20		-4.66	0.0		0.000
Medium Trucks:	81.00	-13.86		0.41		-1.20		-4.87	0.0		0.000
Heavy Trucks:	85.38	-9.04		0.41		-1.20		-5.41	0.0	100	0.000
Unmitigated Noise											
	Leq Peak Hou			Leq Eve		Leq N			Ldn		NEL
Autos:	71		68.9		65.4		64.2		71.6		71.8
Medium Trucks:	66	.0	64.7		57.4		58.3		66.1		66.2
Heavy Trucks:	75		73.6		66.8		68.9		76.2		76.3
Vehicle Noise:	77		75.3		69.4		70.5		77.8	3	77.9
Centerline Distance	e to Noise C	ontour (in feet	)	70 dF	24	65 di	RΔ	-	SO dBA	51	5 dBA
			I dn:	171		368			794		.710
			NFI:	175		378	-		815		.755
		O.	*	170	•	570	•		0.0		,. 00

	FH\	WA-RD-77-108	HIGH	IWAY N	OISE P	REDICT	ION M	ODEL			
Road Nam	io: OY 2020 V e: Rubidoux E nt: s/o Produc							: Agua : 11215			
SITE	SPECIFIC IN	IPUT DATA							L INPUT	s	
Highway Data					Site Cor	nditions	(Hard	= 10, S	oft = 15)		
	Traffic (Adt): Percentage: lour Volume:	28,156 vehicle 10% 2,816 vehicle				edium Tr eavy Tru			: 15		
Ve	hicle Speed:	50 mph		,	/ehicle	Miv					
Near/Far Lai	ne Distance:	48 feet		H		icleType	e .	Day	Evening	Nigh	nt Daily
Site Data							Autos:	73.29		18.6	
Pos	rier Heiaht:	0.0 feet			М	edium T	rucks:	82.29	6 3.9%	14.0	
Barrier Type (0-W	'all, 1-Berm):	0.0				Heavy T		76.59		19.	
Centerline Dis		59.0 feet		1	Voise S	ource E	levatio	ns (in	feet)		
Centerline Dist.		59.0 feet				Auto	s: (	0.000			
Barrier Distance		0.0 feet			Mediu	m Truck	s: 2	2.297			
Observer Height (.	,	5.0 feet				v Truck		3.004	Grade Ad	justm	ent: 0.0
	ad Elevation:	0.0 feet		-							
	ad Elevation:	0.0 feet		L	Lane Eq				feet)		
I	Road Grade:	0.0%				Auto		4.129			
	Left View:	-90.0 degre				m Truck		3.966			
	Right View:	90.0 degre	es		Hear	vy Truck	s: 5	3.982			
FHWA Noise Mode	el Calculation	ıs									
VehicleType	REMEL	Traffic Flow	Dis	stance	Finite	Road	Fre	snel	Barrier Att	en l	Berm Atten
Autos:	70.20	1.74		-0.62	2	-1.20		-4.69	0.0	000	0.000
Medium Trucks:	81.00	-13.82		-0.60	)	-1.20		-4.88	0.0	000	0.000
Heavy Trucks:	85.38	-8.99		-0.60	)	-1.20		-5.35	0.0	000	0.000
Unmitigated Noise				er atten	uation)						
,,	Leq Peak Hou			Leq Ev			Night		Ldn		CNEL
Autos:	70		68.0		64.4		63		70.0		70.9
Medium Trucks:	65		63.7		56.5		57		65.		65.3
Heavy Trucks: Vehicle Noise:	74 76		72.6 74.3		65.8 68.5		68		75.: 76.:		75.3 77.0
Centerline Distance					00.5		08		70.0	,	77.0
Centeriine Distant	e to Noise C	untour (in fee	''	70 c	iBA	65	dBA		60 dBA	Τ	55 dBA
			Ldn:	16	7	3	60		776		1,673
		С	NEL:	17	2	3	70		797		1,717

	FH\	WA-RD-77-108 H	IGHWAY	NOISE P	REDICTION	MODEL		
Road Nam	io: OY 2020 W le: Rubidoux E nt: s/o El Rivin				Project Na Job Num	me: Agua ber: 11215		
	SPECIFIC IN	IPUT DATA					EL INPUTS	;
Highway Data				Site Con	ditions (Ha	ard = 10, S	oft = 15)	
	Traffic (Adt): Percentage: lour Volume:	28,439 vehicles 10% 2,844 vehicles			dium Truck avy Trucks	,	: 15	
Ve	hicle Speed:	50 mph		Vehicle I	Miv			
Near/Far Lai	ne Distance:	48 feet			icleType	Dav	Evening	Night Daily
Site Data					Auto	- /		18.6% 89.90%
Rai	rrier Height:	0.0 feet		Me	edium Truck	ks: 82.29	6 3.9%	14.0% 2.50%
Barrier Type (0-W	all, 1-Berm):	0.0		F	leavy Truck	ks: 76.5%	6 4.0%	19.5% 7.60%
Centerline Dis		59.0 feet		Noise So	ource Eleva	ations (in	feet)	
Centerline Dist.		59.0 feet			Autos:	0.000	,	
Barrier Distance		0.0 feet		Mediui	m Trucks:	2.297		
Observer Height (	,	5.0 feet		Heav	y Trucks:	8.004	Grade Adju	ustment: 0.0
	ad Elevation:	0.0 feet		I ana Fa	uivalent Di	atanaa (in	foot)	
	ad Elevation:	0.0 feet		Lane Eq	Autos:	54.129	ieet)	
'	Road Grade: Left View:	0.0%		Modium	m Trucks:	53.966		
	Right View:	-90.0 degrees 90.0 degrees			y Trucks:	53.982		
FHWA Noise Mode	el Calculation	ıs						
VehicleType	REMEL	Traffic Flow	Distance	Finite	Road I	Fresnel	Barrier Atte	n Berm Atten
Autos:	70.20	1.78	-0.	62	-1.20	-4.69	0.00	0.000
Medium Trucks:	81.00	-13.78	-0.	60	-1.20	-4.88	0.00	0.000
Heavy Trucks:	85.38		-0.		-1.20	-5.35	0.00	0.000
Unmitigated Noise								
,,	Leq Peak Hou	. , . ,		Evening	Leq Nig		Ldn	CNEL
Autos:		0.2 68		64.5		63.3	70.6	70.9
Medium Trucks:	65			56.5		57.3	65.2	65.3
Heavy Trucks: Vehicle Noise:	74	i.6 72		65.9 68.5		68.0	75.2 76.8	75.4 77.0
Centerline Distance				00.0		03.0	70.0	77.0
Centernile Distant	SE IO NOISE CI	ontour (m reet)	70	dBA	65 dB/	4	60 dBA	55 dBA
		La		168	363	.	782	1.684
		CNE		173	372		802	1,729
		0.12	_		0.2			.,. 20

Wednesday, October 17, 2018

FH	WA-RD-77-108	HIGHWA'	Y NOISE PR	EDICTIO	ON MO	ODEL			
Scenario: OY 2020 V Road Name: Rubidoux E Road Segment: s/o 20th St	BI.			Project N Job Nu					
SITE SPECIFIC IN	NPUT DATA						L INPUT	S	
Highway Data			Site Cond	ditions (l	Hard:	= 10, Sc	oft = 15)		
Average Daily Traffic (Adt):	23,621 vehicle	ès				Autos:	15		
Peak Hour Percentage:	10%			dium Truc					
Peak Hour Volume:	2,362 vehicles	S	Hea	avy Truck	ıs (3+	Axles):	15		
Vehicle Speed:	50 mph		Vehicle N	Nix					
Near/Far Lane Distance:	48 feet			cleType		Day	Evening	Night	Daily
Site Data			1	Aı	ıtos:	73.2%	8.1%	18.6%	89.90%
Barrier Height:	0.0 feet		Me	edium Tru	icks:	82.2%	3.9%	14.0%	2.50%
Barrier Type (0-Wall, 1-Berm):	0.0		Н	leavy Tru	icks:	76.5%	4.0%	19.5%	7.60%
Centerline Dist. to Barrier:	59.0 feet		Noise So			/! #	41		
Centerline Dist. to Observer:	59.0 feet		Noise So	Autos:		n <b>s (in</b> 10	eet)		
Barrier Distance to Observer:	0.0 feet		14	Autos: n Trucks:	_	.297			
Observer Height (Above Pad):	5.0 feet			n Trucks: y Trucks:		297	Grade Ad	liustmont	. 0.0
Pad Elevation:	0.0 feet		Heav	/ Trucks:	8	.004	Grade Ad	jusimeni.	0.0
Road Elevation:	0.0 feet		Lane Equ	ıivalent l	Distai	nce (in	feet)		
Road Grade:	0.0%			Autos:	54	1.129			
Left View:	-90.0 degree	es	Mediun	n Trucks:	53	3.966			
Right View:	90.0 degree	es	Heavy	y Trucks:	53	3.982			
FHWA Noise Model Calculation	ıs								
VehicleType REMEL	Traffic Flow	Distanc			Fres		Barrier At		m Atten
Autos: 70.20			0.62	-1.20		-4.69		000	0.000
Medium Trucks: 81.00			0.60	-1.20		-4.88		000	0.000
Heavy Trucks: 85.38			0.60	-1.20		-5.35	0.0	000	0.000
Unmitigated Noise Levels (with						_			
VehicleType Leq Peak Hot			Evening	Leq N	_		Ldn		VEL TO A
		67.2	63.7		62		69.		70.1
		63.0	55.7		56		64.		64.5
,		71.9	65.1		67	_	74.	•	74.6
		73.5	67.7		68	. /	76.	U	76.2
Centerline Distance to Noise C	ontour (in feet		70 dBA	65 di	RA.		60 dBA	55	dBA
		Ldn:	149	32		1	691		488

Wednesday, October 17, 2018

	FH\	WA-RD-77-108	HIGH	WAY	NOISE P	REDICT	ION M	ODEL			
Road Nan	rio: OY 2020 V ne: Rubidoux E nt: s/o 24th St	31.					t Name: lumber:	Agua I 11215	Mansa		
	SPECIFIC IN	IPUT DATA							L INPUT	S	
Highway Data					Site Cor	nditions	(Hard	= 10, Sc	oft = 15)		
Average Daily	Traffic (Adt):	24,377 vehicle	es					Autos:	15		
Peak Hour	Percentage:	10%				edium Tr					
Peak F	lour Volume:	2,438 vehicle	S		He	eavy Tru	cks (3+	Axles):	15		
Ve	hicle Speed:	50 mph		ŀ	Vehicle	Mix					
Near/Far La	ne Distance:	48 feet		ŀ		icleType	9	Dav	Evening	Night	Daily
Site Data							Autos:	73.2%	-	18.6%	
Ra	rrier Height:	0.0 feet			М	edium T	rucks:	82.2%	3.9%	14.0%	2.50%
Barrier Type (0-W	-	0.0				Heavy T	rucks:	76.5%	4.0%	19.5%	7.60%
	st. to Barrier:	59.0 feet									
Centerline Dist.	to Observer:	59.0 feet		ŀ	Noise S				eet)		
Barrier Distance	to Observer:	0.0 feet				Auto		0.000			
Observer Height	(Above Pad):	5.0 feet				m Truck		2.297	Grade Ad	ii rodeno o ni	4 0 0
P	ad Elevation:	0.0 feet			Hear	vy Truck	is: E	3.004	Grade Ad	jusunem	. 0.0
Ro	ad Elevation:	0.0 feet			Lane Eq	uivalen	t Dista	nce (in	feet)		
	Road Grade:	0.0%				Auto	s: 54	1.129			
	Left View:	-90.0 degree	es		Mediu	m Truck	s: 53	3.966			
	Right View:	90.0 degree	es		Hear	vy Truck	s: 53	3.982			
FHWA Noise Mod	el Calculation	ıs									
VehicleType	REMEL	Traffic Flow	Dist	tance	Finite	Road	Fres	snel	Barrier Att	en Be	rm Atten
Autos:	70.20	1.11		-0.6	62	-1.20		-4.69	0.0	000	0.000
Medium Trucks:	81.00	-14.45		-0.6	0	-1.20		-4.88	0.0	000	0.000
Heavy Trucks:	85.38	-9.62		-0.6	0	-1.20		-5.35	0.0	000	0.000
Unmitigated Nois	e Levels (with	out Topo and	barrie	r atte	nuation)						
VehicleType	Leq Peak Hou			Leq E	vening		Night		Ldn		NEL
Autos:	69		67.4		63.8		62		70.0		70.2
Medium Trucks:	-		63.1		55.8		56		64.5	-	64.6
Heavy Trucks:			72.0		65.2		67		74.6		74.7
Vehicle Noise:			73.7		67.9		68	.9	76.2	2	76.3
Centerline Distan	ce to Noise C	ontour (in feet	)	70	10.4		10.4				
					dBA		dBA		30 dBA		dBA
			Ldn:		52	_	27		705		,520
		CI	VEL:	1	56	3	36		724	1	,560

Wednesday, October 17, 2018

	FH\	WA-RD-77-10	B HIG	1 YAWH	NOISE P	REDICT	ION MO	DDEL			
	e: Rubidoux E						: Name: lumber:				
	SPECIFIC IN	IPUT DATA							L INPUT	5	
Highway Data					Site Cor	ditions	(Hard :	= 10, S	oft = 15)		
Average Daily	Traffic (Adt):	26,550 vehic	les					Autos			
Peak Hour	Percentage:	10%				dium Tr					
Peak H	our Volume:	2,655 vehicle	es		He	avy Tru	cks (3+	Axles)	: 15		
Vel	hicle Speed:	50 mph		F	Vehicle	Mix					
Near/Far Lar	ne Distance:	48 feet				icleType	9	Day	Evening	Night	Daily
Site Data							Autos:	73.29	6 8.1%	18.6%	89.90%
Rar	rier Height:	0.0 feet			М	edium T	rucks:	82.29	6 3.9%	14.0%	2.50%
Barrier Type (0-W		0.0			1	Heavy T	rucks:	76.5%	6 4.0%	19.5%	7.60%
Centerline Dis	t. to Barrier:	59.0 feet		H	Noise S	ource E	levatio	ns (in i	feet)		
Centerline Dist.	to Observer:	59.0 feet		H		Auto		.000	001)		
Barrier Distance	to Observer:	0.0 feet			Modiu	m Truck		.297			
Observer Height (A	Above Pad):	5.0 feet				vy Truck		.004	Grade Ad	ustmen	t· 0.0
Pa	d Elevation:	0.0 feet								000111011	0.0
Roa	d Elevation:	0.0 feet			Lane Eq	uivalen	t Distar	ıce (in	feet)		
F	Road Grade:	0.0%				Auto	s: 54	.129			
	Left View:	-90.0 degre	ees			m Truck		.966			
	Right View:	90.0 degre	ees		Heav	y Truck	s: 53	.982			
FHWA Noise Mode	el Calculation	ıs		-							
VehicleType	REMEL	Traffic Flow	Di	stance	Finite	Road	Fres	nel	Barrier Atte	en Be	rm Atten
Autos:	70.20	1.48	3	-0.6	2	-1.20		-4.69	0.0	00	0.000
Medium Trucks:	81.00	-14.08	3	-0.6	0	-1.20		-4.88	0.0	00	0.000
Heavy Trucks:	85.38	-9.25	i	-0.6	0	-1.20		-5.35	0.0	00	0.000
Unmitigated Noise								,			
,,	Leq Peak Ho			Leq E	vening	Leq	Night		Ldn	_	NEL
Autos:		1.9	67.7		64.2		63.		70.3		70.6
Medium Trucks:	65		63.5		56.2		57.	-	64.9		65.0
Heavy Trucks: Vehicle Noise:		1.3	72.4 74.1		65.6 68.2		67. 69.		74.9 76.5		75.1 76.1
					00.2		05.		70.0		70.1
Centerline Distanc	e to Noise C	untour (in fee	u)	70	dBA	65	dBA		60 dBA	55	5 dBA
			Ldn:	16	61	3	47		747	1	,609

	FH	WA-RD-77-108	HIGH	WAY NO	DISE PE	REDICTIO	N MOI	DEL			
	e: Rubidoux E					Project N Job Nur			Mansa		
SITE S	SPECIFIC IN	NPUT DATA				NO	ISE N	IODE	L INPUT	s	
Highway Data				S	ite Con	ditions (F	lard =	10, So	ft = 15)		
Average Daily	Traffic (Adt):	25,227 vehicl	es				-	Autos:	15		
Peak Hour	Percentage:	10%				dium Truc			15		
Peak H	our Volume:	2,523 vehicle	S		He	avy Truck	s (3+ A	xles):	15		
Vei	hicle Speed:	50 mph		ν	ehicle l	Wix					
Near/Far Lar	ne Distance:	48 feet			Vehi	icleType		Dav	Evening	Night	Daily
Site Data							tos:	73.2%	0	18.6%	
Rar	rier Heiaht:	0.0 feet			Me	edium True	cks:	82.2%	3.9%	14.0%	2.50%
Barrier Type (0-W	all, 1-Berm):	0.0			F	leavy Tru	cks:	76.5%	4.0%	19.5%	7.60%
Centerline Dis		59.0 feet		N	oise Sc	ource Elev	ations	(in fe	et)		
Centerline Dist.		59.0 feet				Autos:	0.0	•	,		
Barrier Distance		0.0 feet			Mediur	m Trucks:	2.2	97			
Observer Height (.	,	5.0 feet			Heav	y Trucks:	8.0	004	Grade Adj	justmeni	f: 0.0
	d Elevation:	0.0 feet				uivalent E		- /! /	41		
	d Elevation:	0.0 feet		L	ane Eq	Autos:	54.1		eet)		
,	Road Grade:	0.0%			Modium	n Trucks:	53.9				
	Right View:	-90.0 degre 90.0 degre				y Trucks:	53.9				
FHWA Noise Mode	el Calculation	ıs									
VehicleType	REMEL	Traffic Flow	Dist	tance	Finite	Road	Fresn	el .	Barrier Att	en Be	rm Atten
Autos:	70.20	1.26		-0.62		-1.20		4.69	0.0	000	0.000
Medium Trucks:	81.00	-14.30		-0.60		-1.20		4.88	0.0	000	0.000
Heavy Trucks:	85.38	-9.47		-0.60		-1.20		-5.35	0.0	000	0.000
Unmitigated Noise	•		barrie								
,,	Leq Peak Ho			Leq Eve		Leq Ni			Ldn		NEL
Autos:		9.6	67.5		64.0		62.8		70.1		70.4
Medium Trucks:	-	1.9	63.3		56.0		56.8		64.6		64.8
Heavy Trucks: Vehicle Noise:		1.1 5.8	72.2 73.8		65.3 68.0		67.5 69.0		74.7 76.3		74.8
Centerline Distance					00.0		03.0		70.0	,	70.
Jenterine Distant	e to Noise C	omour (iii lee	,	70 dl	BA	65 dE	BA	6	0 dBA	55	dBA
			Ldn:	155		335			722		.555
		С	NEL:	160		344			741		.596

Wednesday, October 17, 201

Fi	HWA-RD-77-108 HI	IGHWAY	NOISE PI	REDICTIO	N MODEL		
Scenario: OY 2020 Road Name: Rubidoux Road Segment: s/o SR-6	BI.				lame: Agua mber: 1121		
SITE SPECIFIC	INPUT DATA			NC	DISE MOD	EL INPUTS	
Highway Data			Site Con	ditions (l	Hard = 10,	Soft = 15)	
Average Daily Traffic (Adt): Peak Hour Percentage:	27,306 vehicles 10%		Mo	dium Truc	Auto		
Peak Hour Volume:					s (3+ Axles		
Vehicle Speed:	50 mph		110	avy IIuch	S (ST AXICS	). 15	
			Vehicle				
Near/Far Lane Distance:	48 feet		Veh	icleType	Day	Evening N	light Daily
Site Data				Αι	itos: 73.2	% 8.1%	18.6% 89.90%
Barrier Height:	0.0 feet		M	edium Tru	cks: 82.2	% 3.9%	14.0% 2.50%
Barrier Type (0-Wall, 1-Berm):	0.0		I	Heavy Tru	cks: 76.5	% 4.0%	19.5% 7.60%
Centerline Dist. to Barrier:	59.0 feet		Noise S	ource Ele	vations (in	feet)	
Centerline Dist. to Observer:	59.0 feet			Autos	-	,	
Barrier Distance to Observer:	0.0 feet		Mediu	m Trucks:			
Observer Height (Above Pad):			Heav	y Trucks:	8.004	Grade Adjus	tment: 0.0
Pad Elevation:	0.0 feet						
Road Elevation:			Lane Eq		Distance (ii	ı feet)	
Road Grade:	0.0%			Autos:			
Left View:	-90.0 degrees		Mediu	m Trucks:	53.966		
Right View:	90.0 degrees		Heav	y Trucks:	53.982		
FHWA Noise Model Calculation	ons	ı					
VehicleType REMEL	Traffic Flow	Distance	Finite	Road	Fresnel	Barrier Atten	Berm Atten
Autos: 70.2	0 1.61	-0.6	32	-1.20	-4.69	9 0.000	0.000
Medium Trucks: 81.0	0 -13.95	-0.6	60	-1.20	-4.88	0.000	0.000
Heavy Trucks: 85.3	8 -9.12	-0.6	60	-1.20	-5.38	0.000	0.000
Unmitigated Noise Levels (wi	thout Topo and ba	rrier atte	nuation)				
VehicleType Leq Peak H	our Leq Day	Leq E	vening	Leq N	light	Ldn	CNEL
	70.0 67		64.3		63.1	70.5	70.7
	65.2 63		56.3		57.2	65.0	65.1
	74.5 72		65.7		67.8	75.1	75.2
Vehicle Noise:	76.1 74	.2	68.4		69.4	76.7	76.8
Centerline Distance to Noise	Contour (in feet)						
			dBA	65 di		60 dBA	55 dBA
	Ld		64	353	-	761	1,639
	CNE	L: 1	68	362	4	781	1,682

	FH\	WA-RD-77-108	HIGHV	NAY I	NOISE P	REDICT	ION MC	DEL			
Road Nar	rio: OY 2020 V ne: Rubidoux E ent: s/o 34th St	3I.					t Name: lumber:		Mansa		
	SPECIFIC IN	NPUT DATA							L INPUT	S	
Highway Data					Site Cor	ditions	(Hard =	: 10, S	oft = 15)		
Average Daily	Traffic (Adt):	20,503 vehicle	es					Autos:	15		
Peak Hou	r Percentage:	10%			Me	dium Tr	ucks (2	Axles):	15		
Peak I	Hour Volume:	2,050 vehicle	S		He	avy Tru	cks (3+	Axles):	15		
Ve	ehicle Speed:	50 mph		ŀ	Vehicle	Mix					
Near/Far La	ane Distance:	48 feet		ŀ		icleType	9	Dav	Evening	Night	Daily
Site Data							Autos:	73.2%		18.69	
Rs	rrier Height:	0.0 feet			М	edium T	rucks:	82.2%	3.9%	14.09	6 2.50%
Barrier Type (0-V		0.0			1	Heavy T	rucks:	76.5%	4.0%	19.5%	6 7.60%
	ist. to Barrier:	59.0 feet		-	M-1 0			- /! #	41		
Centerline Dist.	to Observer:	59.0 feet		-	Noise S				eet)		
Barrier Distance	to Observer:	0.0 feet				Auto		000			
Observer Height	Observer Height (Above Pad): 5.0 feet					m Truck		297	Grade Ad	i atma	4 00
F	Diserver Height (Above Pad): 5.0 feet  Pad Elevation: 0.0 feet					y Truck	s: 8.	004	Grade Adj	usunen	ii. 0.0
Ro	ad Elevation:	0.0 feet			Lane Eq	uivalen	t Distan	ce (in	feet)		
	Road Grade:	0.0%				Auto	s: 54	129			
	Left View:	-90.0 degre	es		Mediu	m Truck	s: 53	966			
	Right View:	90.0 degre	es		Heav	y Truck	s: 53	.982			
FHWA Noise Mod	lel Calculation	ıs									
VehicleType	REMEL	Traffic Flow	Dista	ance	Finite	Road	Fres	nel	Barrier Att	en Be	erm Atten
Autos:				-0.6		-1.20		-4.69		000	0.000
Medium Trucks:				-0.6		-1.20		-4.88		000	0.000
Heavy Trucks:	85.38	-10.37		-0.6	60	-1.20		-5.35	0.0	000	0.000
Unmitigated Nois	e Levels (with	out Topo and	barrier	r atte	nuation)						
VehicleType	Leq Peak Hot			Leq E	vening	Leq	Night		Ldn		CNEL
Autos:			66.6		63.1		61.		69.2		69.5
Medium Trucks:	-		62.4		55.1		55.	-	63.7		63.9
Heavy Trucks:			71.3		64.4		66.		73.8		73.9
Vehicle Noise.			72.9		67.1		68.	1	75.4	1	75.6
Centerline Distant	ce to Noise C	ontour (in feet	)								
			L		dBA		dBA	(	60 dBA	-	5 dBA
			Ldn:		35		92		628		,354
		C	VEL:	1	39	2	99		645	1	,390

	FHV	VA-RD-77-108	HIGI	HWAY N	OISE P	REDICT	ION MO	DDEL			
Road Nam	io: OY 2020 W e: Rivera St. nt: n/o Market	,					Name: lumber:	Agua I 11215	Mansa		
	SPECIFIC IN	PUT DATA							L INPUT	S	
Highway Data				5	Site Cor	ditions	(Hard:	= 10, Sc	oft = 15)		
Average Daily	Traffic (Adt):	10,110 vehic	les					Autos:	15		
Peak Hour	Percentage:	10%				dium Tr			15		
Peak H	our Volume:	1,011 vehicle	es		He	avy Tru	cks (3+	Axles):	15		
Ve	hicle Speed:	30 mph		1	/ehicle	Miv					
Near/Far Lai	ne Distance:	12 feet		H.		icleType	,	Day	Evening	Night	Daily
Site Data							Autos:	73.2%	8.1%	18.6%	89.90%
Rai	rier Height:	0.0 feet			М	edium T	rucks:	82.2%	3.9%	14.0%	2.50%
Barrier Type (0-W		0.0			-	leavy T	rucks:	76.5%	4.0%	19.5%	7.60%
Centerline Dis	st. to Barrier:	33.0 feet		1	Voise S	ource E	levatio	ns (in fe	eet)		
Centerline Dist.	to Observer:	33.0 feet				Auto		.000	,		
Barrier Distance	to Observer:	0.0 feet			Mediu	m Truck		.297			
Observer Height (	Above Pad):	5.0 feet				v Truck		.004	Grade Ad	iustment	0.0
Pa	ad Elevation:	0.0 feet									
Ros	ad Elevation:	0.0 feet		I	Lane Eq	uivalen	t Distar	nce (in	feet)		
I	Road Grade:	0.0%				Auto		2.833			
	Left View:	-90.0 degre			Medium Trucks: 32.562						
	Right View:	90.0 degre	es		Heav	y Truck	s: 32	2.589			
FHWA Noise Mode											
VehicleType	REMEL	Traffic Flow		stance		Road	Fres		Barrier Att		m Atten
Autos:	61.75	-0.49		2.64		-1.20		-4.52	0.0		0.00
Medium Trucks:	73.48	-16.05		2.69		-1.20		-4.86	0.0		0.00
Heavy Trucks:	79.92	-11.22		2.69		-1.20		-5.69	0.0	100	0.00
Unmitigated Noise								_			
VehicleType Autos:	Leq Peak Hou		_	Leq Ev		Leq	Night		Ldn		NEL
Medium Trucks:	62 58		60.6 57.3		57.0 50.0		55. 50.		63.2 58.7		63.4 58.8
Heavy Trucks:	70		68.2		61.4		63.		70.8		70.9
Vehicle Noise:	69.2		63.0		64.		71.7		70.8		
Centerline Distance											
		(	_	70 a	IBA	65	dBA	6	0 dBA	55	dBA
	Ldn:						43 92 199 429				
			Ldn:	43	3	(	92		199	4	29

	FHV	VA-RD-77-108	HIG	HWAY	NOISE P	REDICT	TION M	ODEL			
Road Nam	io: OY 2020 W ne: Cactus Av. nt: n/o El Rivin	,						: Agua I : 11215	Mansa		
	SPECIFIC IN	IPUT DATA			Site Coi				L INPUT	S	
Highway Data					Site Coi	naitions	Hara		15 15		
Average Daily	. ,	7,464 vehicle	es		1.4	odium T	ruelse (	Autos: 2 Axles):			
	Percentage: lour Volume:	746 vehicles						Axles):			
	hicle Speed:	40 mph	5		П	avy III	icks (34	FAXIES).	15		
	ne Distance:	11 feet			Vehicle						
iveai/i ai La	ne Distance.	11 leet			Vel	nicleTyp		Day	Evening	Night	Daily
Site Data							Autos:	73.2%			89.90%
Ba	rrier Height:	0.0 feet				ledium T				14.0%	
Barrier Type (0-W	/all, 1-Berm):	0.0				Heavy I	rucks:	76.5%	4.0%	19.5%	7.60%
Centerline Di		30.0 feet			Noise S	ource E	levatio	ons (in f	eet)		
Centerline Dist.		30.0 feet				Auto		0.000	,		
Barrier Distance		0.0 feet			Mediu	ım Truci	ks:	2.297			
Observer Height		5.0 feet			Hea	vy Truci	ks:	8.004	Grade Ad	justmeni	0.0
	ad Elevation:	0.0 feet			Lane Ed		4 Diese	naa (in	foot)		
	ad Elevation: Road Grade:	0.0 feet			Lane Et	Auto		9.912	ieel)		
,	Road Grade:	0.0%			Modiu	m Truci		9.615			
	Right View:	-90.0 degree				vy Truci		9.615			
		90.0 degree	<i>*</i> 5		7100	vy muci	10. Z	3.044			
FHWA Noise Mod VehicleType	el Calculation REMEL	s Traffic Flow	Δ.	istance	Einite	Road	Ero	snel	Barrier Att	on Po	m Atten
Autos:	66.51	-3.06	DI	3.2		-1.20		-4.49		000	0.00
Medium Trucks:	77.72	-18.62		3.3		-1.20		-4.86		000	0.00
Heavy Trucks:	82.99	-13.79		3.3		-1.20		-5.77		000	0.00
Unmitigated Noise	e Levels (with	out Topo and	barr	ier atte	nuation)						
VehicleType	Leg Peak Hou		_	-	Evening	Lec	Night		Ldn	С	NEL
Autos:	65	.5	63.4		59.8	i	58	3.7	66.0	)	66.
Medium Trucks:	61	.2	59.6		52.3		53	3.1	60.9	9	61.
Heavy Trucks:	71	.3	69.4		62.6	i	64	1.7	71.9	9	72.
Vehicle Noise:	72	.6	70.7		64.7		65	5.9	73.2	2	73.
Centerline Distan	ce to Noise Co	ontour (in feet,	)								
				70	dBA	6.5	dBA	1 6	60 dBA	55	dBA

Wednesday, October 17, 2018

	FH\	WA-RD-77-108	HIG	HWAY	NOISE PI	REDICTI	ON M	ODEL			
Road Nan	rio: OY 2020 W ne: Riverside A nt: n/o I-10 Fw	۸v.				Project Job N		: Agua : 11215			
	SPECIFIC IN	IPUT DATA							L INPUT	S	
Highway Data					Site Con	ditions	(Hard	= 10, S	oft = 15)		
Average Daily	Traffic (Adt):	40,439 vehicl	es					Autos:	15		
Peak Hour	Percentage:	10%			Me	dium Tru	icks (2	Axles).	15		
Peak H	Hour Volume:	4,044 vehicle	:S		He	avy Truc	ks (3+	Axles).	15		
Ve	hicle Speed:	40 mph			Vehicle	Miss					
Near/Far La	ne Distance:	50 feet				icleType		Dav	Evening	Night	Daily
Site Data							lutos:	73.2%	-	18.6%	
	rrier Heiaht:	0.0 feet			М	edium Tı		82.2%		14.0%	
Barrier Type (0-V		0.0 feet			1	Heavy Ti	ucks:	76.5%	4.0%	19.5%	7.60%
Centerline Di		60.0 feet									
Centerline Dist.		60.0 feet			Noise S				eet)		
Barrier Distance		0.0 feet			Autos: 0.000 Medium Trucks: 2.297						
Observer Height	server Height (Above Pad): 5.0 feet										
	erver Height (Above Pad): 5.0 teet Pad Flevation: 0.0 feet					y Truck	S. 8	3.004	Grade Ad	justment	: 0.0
Ro	ad Elevation:	0.0 feet			Lane Eq	uivalent	Dista	nce (in	feet)		
	Road Grade:	0.0%				Auto	s: 5	1.772			
	Left View:	-90.0 degre	es		Mediu	m Truck	s: 5	4.610			
	Right View:	90.0 degre	es		Heav	y Truck:	s: 5	4.626			
FHWA Noise Mod	lel Calculation	ıs									
VehicleType	REMEL	Traffic Flow	Di	stance		Road	Fre.	snel	Barrier Att		m Atten
Autos:		4.28		-0.	-	-1.20		-4.69		000	0.000
Medium Trucks:				-0.0		-1.20		-4.88		000	0.000
Heavy Trucks:	82.99	-6.45		-0.0	68	-1.20		-5.34	0.0	000	0.000
Unmitigated Nois	e Levels (with	out Topo and	barr	ier atte	nuation)						
VehicleType	Leq Peak Hou	ur Leq Daj	<i>y</i>	Leq I	Evening	Leq	Night		Ldn	C	NEL
Autos:			66.8		63.2		62		69.4		69.6
Medium Trucks:			62.9		55.6		56		64.3	-	64.4
Heavy Trucks:	Heavy Trucks: 74.7 72.7					65.9 68.0 75.3				75.4	
Vehicle Noise:	76	6.0	74.0		68.0		69	.2	76.	5	76.7
Centerline Distan	ce to Noise C	ontour (in fee	t)								
		-			dBA		dBA		60 dBA	55	dBA
			Ldn:		63	-	52		759		635
		С	NEL:	1	68	30	31		778	1,	676

	FH	WA-RD-77-108	HIGH	WAY N	OISE P	REDICT	ION M	DDEL			
	e: Riverside /						Name: lumber:		Mansa		
	SPECIFIC II	NPUT DATA							L INPUT	s	
Highway Data					Site Cor	nditions	(Hard		oft = 15)		
Average Daily	Traffic (Adt):	45,163 vehicle	es					Autos:			
Peak Hour	Percentage:	10%				edium Tr					
Peak H	our Volume:	4,516 vehicle	S		He	eavy Tru	cks (3+	Axles):	15		
Ve	hicle Speed:	50 mph		1	/ehicle	Mix					
Near/Far Lai	ne Distance:	50 feet			Veh	icleType	9	Day	Evening	Night	Daily
Site Data							Autos:	73.2%	8.1%	18.6%	89.90%
Rai	rier Height:	0.0 feet			М	edium T	rucks:	82.2%	3.9%	14.0%	2.50%
Barrier Type (0-W	all, 1-Berm):	0.0				Heavy T	rucks:	76.5%	4.0%	19.5%	7.60%
Centerline Dis		60.0 feet		1	Voise S	ource E	levatio	ns (in f	eet)		
Centerline Dist.		60.0 feet				Auto	s: 0	.000			
Barrier Distance		0.0 feet			Mediu	m Truck	s: 2	.297			
Observer Height (.	,	5.0 feet				vy Truck		.004	Grade Ad	justmen	t: 0.0
	ad Elevation:	0.0 feet		<u> </u>		•					
	ad Elevation:	0.0 feet			.ane Eq	uivalen			feet)		
I	Road Grade:	0.0%				Auto		.772			
	Left View:	-90.0 degre	es			m Truck		.610			
	Right View:	90.0 degre	es		Hear	vy Truck	s: 54	.626			
FHWA Noise Mode	el Calculation	ıs									
VehicleType	REMEL	Traffic Flow	Dis	tance	Finite	Road	Fres	nel	Barrier Att	en Be	rm Atten
Autos:	70.20			-0.70	)	-1.20		-4.69	0.0	000	0.000
Medium Trucks:	81.00			-0.68		-1.20		-4.88	0.0	000	0.000
Heavy Trucks:	85.38			-0.68		-1.20		-5.34	0.0	000	0.000
Unmitigated Noise			_								
	Leq Peak Ho			Leq Ev			Night		Ldn		NEL
Autos:			70.0		66.4		65	-	72.0	-	72.8
Medium Trucks:			65.7		58.4		59	-	67.	-	67.2
Heavy Trucks:			74.6		67.8		69		77.:		77.3
Vehicle Noise:			76.3		70.5		71	.5	78.	В	78.9
Centerline Distance	e to Noise C	ontour (in feet	)	70		05	10.4	1 .			- 10.4
			L	70 a			dBA	(	0 dBA	_	5 dBA
			Ldn:	23	-		96		1,069		,304
		C	NEL:	23	О	5	09		1,098	2	,365

Scenario: OY 2020 Without Project Road Name: Riverside Av. Road Segment: s/o Santa Ana Av.  SITE SPECIFIC INPUT DATA Highway Data  Average Daily Traffic (Adt): 33,353 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 3,335 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 52 feet  Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0  Poly Number: 11215  NOISE MODEL INPUTS Site Conditions (Hard = 10, Soft = 15)  Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15 Vehicle Mix Vehicle Mix Vehicle Type Day Evening Night Medium Trucks: 82,2% 8,1% 18,6% Medium Trucks: 82,2% 3,9% 14,0% Heavy Trucks: 78,5% 4,0% 19,5%	
Site Conditions (Hard = 10, Soft = 15)	
Average Daily Traffic (Adt): 33,353 vehicles   Autos: 15	
Peak Hour Percentage: 10%   Medium Trucks (2 Axies): 15   Heavy Trucks (2 Axies): 15   Heavy Trucks (3 Axies): 15   Heavy Trucks (	
Peak Hour Volume: 0,335 vehicles   Heavy Trucks (3+ Axles): 0.15   Vehicle Mix   Vehicle Mix   Vehicle Type   Day   Evening   Night	
Vehicle Speed:         55 mph Near/Far Lane Distance:         Vehicle Mix         Vehicle Type         Day         Evening         Night           Site Data         Autos:         73.2%         8.1%         18.6%           Barrier Height:         0.0 feet         Medium Trucks:         82.2%         3.9%         14.0%	
Near/Far Lane Distance:   52 feet     Vehicle Mix   Vehicle Type   Day   Evening   Night	
Near/Far Lane Distance:         52 feet         VehicleType         Day         Evening         Night           Site Data         Autos:         73.2%         8.1%         18.6%           Barrier Height:         0.0 feet         Medium Trucks:         82.2%         3.9%         14.0%	
Site Data         Autos:         73.2%         8.1%         18.6%           Barrier Height:         0.0 feet         Medium Trucks:         82.2%         3.9%         14.0%	
Barrier Height: 0.0 feet	
11 - 1	% 2.50%
	7.60%
Centerline Dist. to Barrier: 52.0 feet Noise Source Elevations (in feet)	
Centerline Dist. to Observer: 52.0 feet Autos: 0.000	
Barrier Distance to Observer: 0.0 feet Medium Trucks: 2.297	
Observer Height (Above Pad): 5.0 feet Heavy Trucks: 8.004 Grade Adjustmen	ent: 0.0
Pad Elevation: 0.0 feet	
Road Elevation: 0.0 feet Lane Equivalent Distance (in feet)	
Road Grade: 0.0% Autos: 45.310	
Left View: -90.0 degrees Medium Trucks: 45.114	
Right View: 90.0 degrees Heavy Trucks: 45.133	
FHWA Noise Model Calculations	
**	Berm Atten
Autos: 71.78 2.06 0.54 -1.20 -4.66 0.000	0.000
Medium Trucks: 82.40 -13.50 0.57 -1.20 -4.87 0.000	0.000
Heavy Trucks: 86.40 -8.67 0.56 -1.20 -5.41 0.000	0.000
Unmitigated Noise Levels (without Topo and barrier attenuation)	
	CNEL
Autos: 73.2 71.0 67.5 66.3 73.7	73.9
Medium Trucks: 68.3 66.6 59.4 60.2 68.0	68.2
Heavy Trucks:         77.1         75.1         68.3         70.5         77.7           Vehicle Noise:         79.0         77.0         71.2         72.2         79.5	77.8 79.6
Centerline Distance to Noise Contour (in feet)	70.0
	55 dBA
Ldn: 222 479 1,031 2	2,222
CNEL: 228 492 1,059 2	2.282

	FH\	WA-RD-77-108	HIGHW	AY NO	ISE PF	REDICTIO	N MOE	DEL			
	e: Riverside A					Project No Job Nur			lansa		
SITE S	SPECIFIC IN	IPUT DATA							INPUTS	5	
Highway Data				Si	te Con	ditions (H	lard = '	10, So	ft = 15)		
	Percentage: our Volume:	41,762 vehicle 10% 4,176 vehicles				dium Truck avy Truck	ks (2 A	,	15 15 15		
	nicle Speed:	50 mph		Ve	ehicle I	Иix					
Near/Far Lar	ne Distance:	52 feet			Vehi	cleType	I	Day	Evening	Night	Daily
Site Data						Au	tos: 7	73.2%	8.1%	18.6%	89.90%
Ban	rier Height:	0.0 feet			Me	edium Truc	cks: 8	32.2%	3.9%	14.0%	2.50%
Barrier Type (0-Wa	all, 1-Berm):	0.0			F	leavy Truc	cks: 7	76.5%	4.0%	19.5%	7.60%
Centerline Dis		52.0 feet		N	oise So	urce Elev	ations	(in fe	et)		
Centerline Dist. t		52.0 feet				Autos:	0.0	•	,		
Barrier Distance t		0.0 feet			Mediur	n Trucks:	2.2	97			
Observer Height (/	Above Pad): d Flevation:	5.0 feet			Heav	y Trucks:	8.0	04	Grade Adj	ustment	0.0
	d Elevation: d Flevation:	0.0 feet		1.	no Ear	uivalent D	lietano	o (in f	not)		
	a Elevation: Road Grade:	0.0 feet 0.0%		L	ine Ly	Autos:	45.3		eei)		
,	Left View:	-90.0 degree	_		Modium	n Trucks:	45.1				
	Right View:	90.0 degree				y Trucks:	45.1				
FHWA Noise Mode	l Calculation	ıs									
VehicleType	REMEL	Traffic Flow	Distan	ice	Finite	Road	Fresne	el l	Barrier Atte	en Ber	m Atten
Autos:	70.20	3.45		0.54		-1.20	-	4.66	0.0	00	0.000
Medium Trucks:	81.00	-12.11		0.57		-1.20	-	4.87	0.0	00	0.000
Heavy Trucks:	85.38	-7.28		0.56		-1.20	-	5.41	0.0	00	0.000
Unmitigated Noise	Levels (with	out Topo and I	barrier a	ttenu	ation)						
VehicleType	Leq Peak Hou			eq Eve	ening	Leq Ni	ght		Ldn	C	NEL
Autos:	73	3.0 7	0.8		67.3		66.2		73.5		73.7
Medium Trucks:			6.6		59.3		60.2		68.0		68.2
Heavy Trucks:			5.5		68.7		70.8		78.1		78.2
Vehicle Noise:			7.2		71.4		72.4		79.7	'	79.8
Centerline Distance	e to Noise C	ontour (in feet)									
				70 dE		65 dE			0 dBA		dBA
		_	.dn:	229		494			,064	,	293
		CN	IEL:	235		507		1	,092	2,	353

Wednesday, October 17, 2018

F	HWA-RD-77-10	08 HIG	I YAWH	NOISE P	REDICTION	ON MOD	EL			
Scenario: OY 2020 Road Name: Riverside Road Segment: s/o Jurup	Av.	et			Project I Job Nu	Name: A mber: 1				
SITE SPECIFIC	INPUT DATA	1			N	DISE M	ODE	L INPUTS	5	
Highway Data				Site Cor	ditions (	Hard =	10, S	oft = 15)		
Average Daily Traffic (Adt).	38,171 vehi	cles				Α	utos:	15		
Peak Hour Percentage.	10%			Me	dium Tru	cks (2 A	xles):	15		
Peak Hour Volume.	3,817 vehic	les		He	avy Truci	ks (3+ A	xles):	15		
Vehicle Speed:	55 mph			Vehicle	Miv					
Near/Far Lane Distance.	52 feet		-		icleType		Day	Evening	Night	Daily
Site Data							73.2%	-	18.6%	,
Barrier Height.	0.0 feet			М	edium Tru	icks: 8	32.2%	3.9%	14.0%	2.50%
Barrier Type (0-Wall, 1-Berm)					Heavy Tru	icks: 7	76.5%	4.0%	19.5%	7.60%
Centerline Dist. to Barrier			-	Maina C	ource Ele		(in f	0.041		
Centerline Dist. to Observer	52.0 feet			Noise 3	Autos		•	eei)		
Barrier Distance to Observer	0.0 feet			Modiu	m Trucks					
Observer Height (Above Pad)	5.0 feet				vy Trucks.			Grade Adj	iietmant	. 0 0
Pad Elevation	0.0 feet								uoumom	. 0.0
Road Elevation	0.0 feet		L	Lane Eq	uivalent	Distanc	e (in	feet)		
Road Grade.	0.0%				Autos.					
Left View	-90.0 deg	rees			m Trucks.					
Right View	90.0 deg	rees		Heav	y Trucks.	45.1	33			
FHWA Noise Model Calculation	ons									
VehicleType REMEL	Traffic Flow	/ Di	stance	Finite	Road	Fresne	el	Barrier Atte	en Ber	m Atten
Autos: 71.7	78 2.6	5	0.5	4	-1.20	-	4.66	0.0	00	0.000
Medium Trucks: 82.4	10 -12.9	11	0.5	7	-1.20	-	4.87	0.0	00	0.000
Heavy Trucks: 86.4	-8.0	18	0.5	6	-1.20	-	5.41	0.0	00	0.000
Unmitigated Noise Levels (wi	thout Topo an	d barr	ier atter	nuation)						
VehicleType Leq Peak H	our Leq D	ay	Leq E	vening	Leq N	light		Ldn	C	NEL
Autos:	73.8	71.6		68.1		66.9		74.2		74.5
	68.9	67.2		59.9		60.8		68.6		68.7
	77.7	75.7		68.9		71.0		78.3		78.4
Vehicle Noise:	79.5	77.6		71.8		72.7		80.0	)	80.2
Centerline Distance to Noise	Contour (in fe	et)								
		[		dBA	65 d		(	60 dBA		dBA
		Ldn:	_	43	52			1,128	,	431
		CNEL:	2	50	53	8		1,159	2,	497

	FH	WA-RD-77-108	HIGH	WAY N	IOISE PE	REDICT	ION MO	DEL			
	e: Rancho Av						Name: . lumber:		Mansa		
	SPECIFIC II	NPUT DATA							L INPUT	S	
Highway Data					Site Con	ditions	(Hard =	10, Sc	oft = 15)		
Average Daily	Traffic (Adt):	20,219 vehicl	es					Autos:	15		
Peak Hour	Percentage:	10%					ucks (2 A		15		
Peak H	lour Volume:	2,022 vehicle	S		He	avy Tru	cks (3+ A	Axles):	15		
Ve	hicle Speed:	40 mph		F	Vehicle I	Wix					
Near/Far La	ne Distance:	52 feet		H		icleType	9	Day	Evening	Night	Daily
Site Data								73.2%	-	18.69	-
Rai	rier Heiaht:	0.0 feet			Me	edium T	rucks:	82.2%	3.9%	14.09	6 2.50%
Barrier Type (0-W		0.0			F	leavy T	rucks:	76.5%	4.0%	19.59	6 7.60%
Centerline Dis		52.0 feet		-	M-1 0-			- /! #	41		
Centerline Dist.	to Observer:	52.0 feet		Ľ	Noise So				eet)		
Barrier Distance	to Observer:	0.0 feet				Auto		000			
Observer Height (	Above Pad):	5.0 feet				n Truck		297	Crada As	livotmo	4 0 0
Pa	ad Elevation:	0.0 feet			Heav	y Truck	s: 8.0	004	Grade Ad	ijusiiriei	n. 0.0
Roa	ad Elevation:	0.0 feet			Lane Eq	uivalen	t Distan	ce (in i	feet)		
	Road Grade:	0.0%				Auto	s: 45.	310			
	Left View:	-90.0 degre	es		Mediur	n Truck	s: 45.	114			
	Right View:	90.0 degre	es		Heav	y Truck	s: 45.	133			
FHWA Noise Mode	el Calculation	IS									
VehicleType	REMEL	Traffic Flow	Dist	ance	Finite	Road	Fresn	iel	Barrier At	ten B	erm Atten
Autos:	66.51			0.5		-1.20		-4.66		000	0.000
Medium Trucks:	77.72			0.5		-1.20		-4.87		000	0.000
Heavy Trucks:	82.99	-9.46		0.5	6	-1.20		-5.41	0.	000	0.000
Unmitigated Noise	e Levels (with	out Topo and	barrie	r atten	uation)						
VehicleType	Leq Peak Ho	ur Leq Day	/	Leq E	vening	Leq	Night		Ldn	-	CNEL
Autos:	67	7.1	65.0		61.4		60.3	3	67.	6	67.9
Medium Trucks:	62	2.8	61.1		53.9		54.7	,	62.	5	62.7
Heavy Trucks:	72	2.9	70.9		64.1		66.3	3	73.	5	73.6
Vehicle Noise:	74	1.2	72.3		66.3		67.5	5	74.	8	74.9
Centerline Distant	ce to Noise C	ontour (in fee	)								
				70 (	dBA	65	dBA	$\epsilon$	0 dBA	5	5 dBA
			Ldn:	10	)8	2	33		501		1,080
		C	NEL:	11	11	2	39		514		1,107

	FH	WA-RD-77-108	HIGH	IWAY N	OISE P	REDICT	ION MC	DEL				
	e: Slover Av.	Vithout Project Av.					t Name: lumber:					
SITE	SPECIFIC IN	NPUT DATA				ľ	NOISE	MODI	EL INPU	TS		
Highway Data					Site Cor				oft = 15)			
Average Daily	Traffic (Adt):	13,795 vehic	les					Autos	: 15			
Peak Hour	Percentage:	10%			Me	edium Tr	ucks (2	Axles)	: 15			
Peak H	lour Volume:	1,379 vehicle	es		He	avy Tru	cks (3+	Axles)	: 15			
Ve	hicle Speed:	50 mph		-	/ehicle	Miss						
Near/Far La	ne Distance:	48 feet				iviix nicleType	a	Day	Evening	Mi	ght	Daily
Site Data					V C/1		Autos:	73.29			8.6%	89.90%
	rrior Holabti	0.0 feet			М	edium T		82.29		-	4.0%	2.50%
Barrier Type (0-W	rrier Height:	0.0				Heavy T	rucks:	76.59	6 4.0%	6 1	9.5%	7.60%
Centerline Dis		52.0 feet		<u> </u>								
Centerline Dist.		52.0 feet		,	Voise S				reet)			
Barrier Distance	to Observer:	0.0 feet				Auto		.000				
Observer Height (	(Above Pad):	5.0 feet				m Truck		.297				
	ad Flevation:	0.0 feet			Hear	vy Truck	s: 8	.004	Grade A	ajust	ment:	0.0
Ros	ad Elevation:	0.0 feet		L	ane Eq	uivalen	t Distan	ce (in	feet)			
	Road Grade:	0.0%				Auto	s: 46	.400				
	Left View:	-90.0 degre	es		Mediu	m Truck	s: 46	.209				
	Right View:	90.0 degre	es		Hear	vy Truck	s: 46	.228				
FHWA Noise Mode	el Calculation	15										
VehicleType	REMEL	Traffic Flow	Dis	stance	Finite	Road	Fres	nel	Barrier A	tten	Berr	n Atten
Autos:	70.20	-1.36		0.38	3	-1.20		-4.66	C	0.000		0.000
Medium Trucks:	81.00	-16.92		0.41	I	-1.20		-4.87	C	0.000		0.000
Heavy Trucks:	85.38	-12.09		0.41	I	-1.20		-5.41	C	0.000		0.000
Unmitigated Noise	e Levels (with	out Topo and	l barrie	er atten	uation)							
VehicleType	Leq Peak Ho	ur Leq Da	у	Leq Ev	ening/	Leq	Night		Ldn		C٨	IEL
Autos:	68	3.0	65.9		62.4		61.	2	68	3.5		68.8
Medium Trucks:		3.3	61.6		54.4		55.		63	3.0		63.2
Heavy Trucks:		2.5	70.5		63.7		65.		73			73.2
Vehicle Noise:	74	1.2	72.2		66.4		67.	4	74	1.7		74.9
Centerline Distand	ce to Noise C	ontour (in fee	t)	70		-	10.4					10.4
			Later	70 d			dBA		60 dBA			dBA
		_	Ldn: NEL:		107 230 497 1,07 110 237 510 1.09							
		C	IVEL:	11	U		.31		510		1,0	190

	FHV	VA-RD-77-108	HIGI	HWAY	NOISE P	REDICT	ION M	ODEL			
Road Nan	io: OY 2020 W ne: Rancho Av. nt: s/o Agua M							: Agua I :: 11215			
SITE	SPECIFIC IN	PUT DATA				-	NOISE	MODE	L INPUT	S	
Highway Data					Site Cor	nditions	(Hard	= 10, S	oft = 15)		
Average Daily	Traffic (Adt):	14,645 vehicle	es					Autos:	15		
Peak Hour	Percentage:	10%			Me	dium Tı	ucks (2	2 Axles):	15		
Peak H	lour Volume:	1,464 vehicles	3		He	avy Tru	cks (3+	Axles):	15		
Ve	hicle Speed:	40 mph		-	Vehicle	Miv					
Near/Far La	ne Distance:	52 feet		1		icleType	9	Dav	Evening	Night	Daily
Site Data							Autos:	73.2%	8.1%	18.6%	89.90%
Ra	rrier Heiaht:	0.0 feet			М	edium T	rucks:	82.2%	3.9%	14.0%	2.50%
Barrier Type (0-W		0.0				Heavy T	rucks:	76.5%	4.0%	19.5%	7.60%
Centerline Di		52.0 feet		-	Noise S	F	lovotic	no (in f	0.041		
Centerline Dist.	to Observer:	52.0 feet			Noise 3	Auto		0.000	eet)		
Barrier Distance	to Observer:	0.0 feet			Modiu	m Truck		2.297			
Observer Height	(Above Pad):	5.0 feet				/y Truck		8.004	Grade Ad	iustment	. 00
P	ad Elevation:	0.0 feet								dournorn	. 0.0
Ro	ad Elevation:	0.0 feet			Lane Eq	uivalen	t Dista	nce (in	feet)		
	Road Grade:	0.0%				Auto	s: 4	5.310			
	Left View:	-90.0 degree	es		Mediu	m Truck	s: 4	5.114			
	Right View:	90.0 degree	es		Heav	y Truck	s: 4	5.133			
FHWA Noise Mod	el Calculation	s									
VehicleType	REMEL	Traffic Flow	Di	stance	Finite	Road	Fre	snel	Barrier Att	en Bei	m Atten
Autos:	66.51	-0.13		0.5	54	-1.20		-4.66	0.0	000	0.00
Medium Trucks:	77.72	-15.69		0.5	57	-1.20		-4.87	0.0	000	0.000
Heavy Trucks:	82.99	-10.86		0.5	56	-1.20		-5.41	0.0	000	0.00
Unmitigated Nois	e Levels (with	out Topo and	barri	er atte	nuation)						
VehicleType	Leq Peak Hou	ır Leq Day	,	Leq E	vening	Leq	Night		Ldn	С	NEL
Autos:	65		63.6		60.0			3.9	66.2		66.
Medium Trucks:	61		59.7		52.5			3.3	61.1		61.
Heavy Trucks:	71		69.5		62.7		64	1.9	72.1	l	72.:
Vehicle Noise:	72	.8	70.9		64.9		66	5.1	73.4	1	73.
Centerline Distan	ce to Noise Co	ontour (in feet	)								
				70	dBA	65	dRA	1 /	SO dRA	55	dBA

	FH\	WA-RD-77-108	HIGH	1 YAW	NOISE P	REDICTION	OM MC	DEL			
Road Nam	io: OY 2020 W ne: Slover Av. nt: w/o Riversi	/ithout Project de Av.				Project I Job Nu					
SITE	SPECIFIC IN	IPUT DATA				N	OISE I	MODE	L INPUT	s	
Highway Data					Site Cor	ditions (	Hard =	: 10, S	oft = 15)		
Average Daily	Traffic (Adt):	11,338 vehicle	es					Autos:	15		
Peak Hour	Percentage:	10%			Me	dium Tru	cks (2 )	Axles).	15		
Peak H	lour Volume:	1,134 vehicles	3		He	avy Truci	ks (3+ )	Axles).	15		
Ve	hicle Speed:	50 mph		ŀ	Vehicle	Miv					
Near/Far La	ne Distance:	48 feet		ŀ		icleType		Day	Evening	Night	Daily
Site Data							utos:	73.2%		18.6%	
Par	rrier Height:	0.0 feet			М	edium Tru	ıcks:	82.2%	3.9%	14.0%	
Barrier Type (0-W		0.0			1	Heavy Tru	ıcks:	76.5%	4.0%	19.5%	7.60%
Centerline Dis	st. to Barrier:	52.0 feet		ŀ	Noise S	ource Ele	vation	s (in f	eet)		
Centerline Dist.	to Observer:	52.0 feet		ŀ		Autos		000	001)		
Barrier Distance	to Observer:	0.0 feet			Mediu	m Trucks		297			
Observer Height (	(Above Pad):	5.0 feet				y Trucks		004	Grade Ad	liustment	. 0.0
Pa	ad Elevation:	0.0 feet		L						,	
Roa	ad Elevation:	0.0 feet		L	Lane Eq	uivalent	Distan	ce (in	feet)		
, and a	Road Grade:	0.0%				Autos		400			
	Left View:	-90.0 degree	es			m Trucks		209			
	Right View:	90.0 degree	es		Heav	y Trucks	: 46.	228			
FHWA Noise Mode											
VehicleType	REMEL	Traffic Flow	Dis	tance		Road	Fresi		Barrier Att		m Atten
Autos:	70.20	-2.21		0.3		-1.20		-4.66		000	0.000
Medium Trucks:	81.00	-17.77		0.4		-1.20		-4.87		000	0.000
Heavy Trucks:	85.38			0.4		-1.20		-5.41	0.0	000	0.000
Unmitigated Noise								1			
VehicleType	Leq Peak Hou	, ,		Leq E	vening	Leq N	_		Ldn		NEL
Autos:	67		65.0		61.5		60.3		67.6		67.9
Medium Trucks:	62		8.06		53.5		54.4		62.2	_	62.3
Heavy Trucks:	71		69.7		62.9		65.0	_	72.2		72.4
Vehicle Noise:	73	1.3	71.4		65.5		66.0	6	73.8	8	74.0
Centerline Distant	ce to Noise C	ontour (in feet	)								
			L		dBA	65 a		'	60 dBA		dBA
			Ldn:		14	20	_		436		939
		CI	VEL:	٤	16	20	8		447	٤	963

	FH	WA-RD-77-108	HIGH	WAY NO	DISE PE	REDICTIO	OM MO	DEL			
	e: Santa Ana					Project N Job Nu			Mansa		
	SPECIFIC II	NPUT DATA							L INPUTS	5	
Highway Data				S	ite Con	ditions (l					
Average Daily	Traffic (Adt):	8,031 vehicl	es					Autos:			
	Percentage:	10%				dium Truc					
	our Volume:	803 vehicle	S		He	avy Truck	s (3+ A	xles):	15		
	hicle Speed:	40 mph		V	ehicle l	Mix					
Near/Far Lar	ne Distance:	36 feet			Veh	cleType		Day	Evening	Night	Daily
Site Data						AL	itos:	73.2%	8.1%	18.6%	89.90%
Rar	rier Height:	0.0 feet			Me	edium Tru	cks:	82.2%	3.9%	14.0%	2.50%
Barrier Type (0-Wa	all, 1-Berm):	0.0			F	leavy Tru	cks:	76.5%	4.0%	19.5%	7.60%
Centerline Dis		44.0 feet		N	oise Sc	urce Ele	vations	s (in fe	eet)		
Centerline Dist. t		44.0 feet				Autos:	0.0	000			
Barrier Distance t		0.0 feet			Mediui	n Trucks:	2.2	297			
Observer Height (/		5.0 feet			Heav	y Trucks:	8.0	004	Grade Adj	ustmen	0.0
	d Elevation:	0.0 feet		-							
	d Elevation:	0.0 feet		L	ane Eq	uivalent l			teet)		
F	Road Grade:	0.0%				Autos:					
	Left View:	-90.0 degre				n Trucks:					
	Right View:	90.0 degre	es		Heav	y Trucks:	40.2	262			
FHWA Noise Mode	el Calculation	ıs									
VehicleType	REMEL	Traffic Flow		ance	Finite	Road	Fresn		Barrier Atte		rm Atten
Autos:	66.51			1.28		-1.20		-4.61	0.0		0.000
Medium Trucks:	77.72			1.31		-1.20		-4.87	0.0		0.000
Heavy Trucks:	82.99			1.31		-1.20		-5.50	0.0	00	0.000
Unmitigated Noise	•	-									
	Leq Peak Ho			Leq Eve		Leq N			Ldn		NEL
Autos:		3.8	61.7		58.2		57.0		64.3		64.6
Medium Trucks:		9.5	57.9		50.6		51.4		59.3		59.4
Heavy Trucks:			67.7		60.9		63.0		70.2		70.4
Vehicle Noise:		1.0	69.0		63.0		64.2		71.5		71.7
Centerline Distance	e to Noise C	ontour (in fee	t)	70 dl	24	65 di	RΔ	-	60 dBA	56	dBA
			I dn:	55		119		μ,	257		553
		C	NFI:	57		122			263		567
		0		31			-		_50	,	

	FHV	VA-RD-77-108	HIGH	WAY N	IOISE PI	REDICT	ION MODEL				
	: Jurupa Av.	'ithout Project Av.					t Name: Agu lumber: 112				
SITE S	PECIFIC IN	IPUT DATA				1	NOISE MOD	DEL INPUT	rs		
Highway Data					Site Con	ditions	(Hard = 10,	Soft = 15)			
Average Daily T	raffic (Adt):	7,181 vehicle	es				Auto	s: 15			
Peak Hour F	Percentage:	10%			Me	dium Tr	ucks (2 Axle:	s): 15			
Peak Ho	ur Volume:	718 vehicle	s		He	avy Tru	cks (3+ Axle	s): 15			
Veh	icle Speed:	40 mph		-	Vehicle	Misc					
Near/Far Lan	e Distance:	48 feet		Ľ		icleType	e Day	Evening	Nii	ght	Daily
Site Data					Ven		Autos: 73.2		_ '	_	89.90%
					M		rucks: 82.2			1.0%	2.50%
	ier Height:	0.0 feet 0.0				Heavy T		-,,-		9.5%	7.60%
Barrier Type (0-Wa Centerline Dist		52.0 feet								3.070	7.007
Centerline Dist. to		52.0 feet		1	Noise So		levations (in	r feet)			
Barrier Distance to		0.0 feet				Auto					
Observer Height (A		5.0 feet				m Truck					
	d Flevation:	0.0 feet			Heav	y Truck	s: 8.004	Grade A	djustr	ment:	0.0
	d Elevation:	0.0 feet		1	Lane Ea	uivalen	t Distance (i	in feet)			
	oad Grade:	0.0%				Auto		,			
	Left View:	-90.0 degree	20		Mediu	m Truck					
	Right View:	90.0 degree			Heav	y Truck	s: 46.228				
FHWA Noise Model	l Calculation	s									
VehicleType	REMEL	Traffic Flow	Dist	ance	Finite	Road	Fresnel	Barrier A	tten	Bern	n Atten
Autos:	66.51	-3.23		0.38	3	-1.20	-4.6	6 0.	.000		0.00
Medium Trucks:	77.72	-18.78		0.41		-1.20	-4.8		.000		0.000
Heavy Trucks:	82.99	-13.96		0.41	1	-1.20	-5.4	1 0.	.000		0.000
Unmitigated Noise	Levels (with	out Topo and	barrie	r atten	uation)						
	Leq Peak Hou			Leg E		Leq	Night	Ldn		CN	
Autos:	62		60.3		56.8		55.6	62			63.2
Medium Trucks:	58		56.5		49.2		50.1	57.			58.0
Heavy Trucks: Vehicle Noise:	68		66.3 67.6		59.5 61.6		61.6 62.8	68. 70			69.0 70.3
					01.0		02.0	70	. 1		70.
Centerline Distance	e to Noise Co	ontour (in feet		70 c	IBA	65	dBA	60 dBA	1	55 a	IBA
			Ldn:	53	3	1	14	245		52	9

	FHWA	-RD-77-108 HI	GHWAY	NOISE P	REDICTION	ON MODEL			
Road Nan	rio: OY 2020 With ne: Santa Ana Av nt: w/o Riverside	·				Name: Agua I mber: 11215			
SITE Highway Data	SPECIFIC INP	UT DATA		Cito Con		DISE MODE		S	
	T	5.102 vehicles		Site Con	uitions (	Autos:			
Average Daily	Percentage:	10%		140	dium Tru	cks (2 Axles):			
		510 vehicles				ks (3+ Axles):			
	ehicle Speed:	40 mph				13 (JT AXICS).	13		
	nne Distance:	36 feet		Vehicle I					
iveai/i ai La	ine Distance.	30 leet		Veh	icleType	Day	Evening	Night	Daily
Site Data						utos: 73.2%			89.90%
Ba	rrier Height:	0.0 feet			edium Tru			14.0%	
Barrier Type (0-W	Vall, 1-Berm):	0.0		F	leavy Tru	icks: 76.5%	4.0%	19.5%	7.60%
Centerline Di	ist. to Barrier:	44.0 feet	ł	Noise So	ource Fle	vations (in f	eet)		
Centerline Dist.	to Observer:	44.0 feet		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	Autos	-	001)		
Barrier Distance	to Observer:	0.0 feet		Mediu	n Trucks				
Observer Height	(Above Pad):	5.0 feet			y Trucks.		Grade Ad	iustment.	0.0
P	ad Elevation:	0.0 feet							
	ad Elevation:	0.0 feet		Lane Eq		Distance (in	feet)		
	Road Grade:	0.0%			Autos.				
		-90.0 degrees			m Trucks.	10.211			
	Right View:	90.0 degrees		Heav	y Trucks.	40.262			
FHWA Noise Mod									
VehicleType			Distance		Road	Fresnel	Barrier Att		m Atten
Autos:		-4.71	1.2		-1.20	-4.61		000	0.00
Medium Trucks:		-20.27	1.3		-1.20	-4.87		000	0.00
Heavy Trucks:		-15.44	1.3		-1.20	-5.50	0.0	000	0.00
Unmitigated Nois									
VehicleType	Leq Peak Hour	Leq Day		vening	Leq N		Ldn		VEL
Autos: Medium Trucks:		59 55		56.2 48.6		55.0 49.5	62.4 57.3		62.0 57.0
		55 65		48.6 58.9		49.5 61.0	57.3 68.3		57. 68.
Heavy Trucks:									
Vehicle Noise:		67	.0	61.0		62.2	69.5	)	69.
Centerline Distan	ce to Noise Con	tour (in feet)							

	FH\	WA-RD-77-108	HIGH	WAY	NOISE PI	REDICT	ION M	ODEL			
Road Nan	rio: OY 2020 W ne: El Rivino R ent: e/o Cedar	d.				Project Job N		: Agua : 11215			
	SPECIFIC IN	IPUT DATA							L INPUT	S	
Highway Data					Site Con	ditions	(Hard	= 10, S	oft = 15)		
Average Daily	Traffic (Adt):	9,543 vehicle	es					Autos:	15		
Peak Hour	Percentage:	10%			Me	dium Tru	icks (2	Axles).	15		
Peak I	Hour Volume:	954 vehicle	S		He	avy Truc	cks (3+	Axles).	15		
Ve	ehicle Speed:	45 mph		-	Vehicle	Miss					
Near/Far La	ane Distance:	36 feet		1		icleType		Day	Evening	Night	Daily
Site Data					VCII		Autos:	73.2%		18.6%	,
		0.0.6			M	edium Ti		82.2%		14.0%	
	rrier Height:	0.0 feet 0.0				leavy Ti		76.5%		19.5%	
Barrier Type (0-V	vali, 1-Berm): ist. to Barrier:	0.0 44.0 feet				1001) 11	dono.	10.07	1.070	10.070	7.0070
Centerline Dist.		44.0 feet			Noise So	ource El	evatio	ns (in f	eet)		
Barrier Distance		0.0 feet				Auto	s: (	0.000			
Observer Height		5.0 feet			Mediu	m Truck	s: 2	2.297			
	(ADDIVE Fau). Pad Flevation:	0.0 feet			Heav	y Truck	s: 8	3.004	Grade Ad	justment	: 0.0
	ad Elevation:	0.0 feet		1	Lane Eq	uivalen	Dista	nce (in	feet)		
No	Road Grade:	0.0%		ŀ		Auto		0.460	,		
	Left View:	-90.0 degree	00		Mediu	n Truck		0.241			
	Right View:	90.0 degree				y Truck		0.262			
FHWA Noise Mod	lel Calculation	s									
VehicleType	REMEL	Traffic Flow	Dis	tance	Finite	Road	Fre	snel	Barrier Att	en Bei	m Atten
Autos:	68.46	-2.50		1.2	28	-1.20		-4.61	0.0	000	0.000
Medium Trucks:	79.45	-18.06		1.3	31	-1.20		-4.87	0.0	000	0.000
Heavy Trucks:	84.25	-13.23		1.3	31	-1.20		-5.50	0.0	000	0.000
Unmitigated Nois	e Levels (with	out Topo and	barrie	er atte	nuation)						
VehicleType	Leq Peak Hou	ır Leq Day	/	Leq E	vening	Leq	Night		Ldn	C	NEL
Autos:			63.9		60.4		59	-	66.	-	66.8
Medium Trucks:			59.9		52.6		53		61.2	_	61.4
Heavy Trucks:	71	.1	69.2		62.4		64	.5	71.7	7	71.9
Vehicle Noise:	72	1.6	70.7		64.8		65	.9	73.2	2	73.3
Centerline Distan	ce to Noise C	ontour (in feet	)					_			
			L		dBA		dBA	'	60 dBA		dBA
			Ldn:		71		54		332		15
		Ci	VEL:	- 7	73	15	58		340	7	33

	FH\	WA-RD-77-108	HIGH	WAY N	OISE P	REDICT	ION M	ODEL			
	e: El Rivino R							Agua I 11215	Mansa		
	SPECIFIC IN	NPUT DATA							L INPUT	S	
Highway Data				5	Site Cor	nditions	(Hard	= 10, S	oft = 15)		
Average Daily	Traffic (Adt):	5,669 vehicle	es					Autos:			
Peak Hour I	Percentage:	10%				edium Tr					
Peak He	our Volume:	567 vehicle	S		He	eavy Tru	cks (3+	Axles):	15		
Vel	hicle Speed:	45 mph		١	/ehicle	Mix					
Near/Far Lar	ne Distance:	36 feet		F	Veh	icleType	9	Day	Evening	Night	Daily
Site Data							Autos:	73.2%	8.1%	18.6%	89.90%
Rar	rier Height:	0.0 feet			M	edium T	rucks:	82.2%	3.9%	14.0%	2.50%
Barrier Type (0-Wa	all, 1-Berm):	0.0				Heavy T	rucks:	76.5%	4.0%	19.5%	7.60%
Centerline Dis		44.0 feet		^	loise S	ource E	levatio	ns (in f	eet)		
Centerline Dist. t		44.0 feet				Auto	s: (	0.000			
Barrier Distance t		0.0 feet			Mediu	m Truck	s: 2	.297			
Observer Height (/	,	5.0 feet			Hear	vy Truck	s: 8	3.004	Grade Ad	justmen	t: 0.0
	d Elevation:	0.0 feet		-		•					
	d Elevation:	0.0 feet			ane Eq	uivalen			teet)		
F	Road Grade:	0.0%				Auto		0.460			
	Left View:	-90.0 degre				m Truck		).241			
	Right View:	90.0 degre	es		Hear	vy Truck	s: 40	0.262			
FHWA Noise Mode	el Calculation	ıs									
VehicleType	REMEL	Traffic Flow	Dis	tance		Road	Fres		Barrier Att		rm Atten
Autos:	68.46			1.28		-1.20		-4.61		000	0.000
Medium Trucks:	79.45			1.31		-1.20		-4.87		000	0.000
Heavy Trucks:	84.25			1.31		-1.20		-5.50	0.0	000	0.000
Unmitigated Noise			_							_	
VehicleType Autos:	Leq Peak Hot		61.6	Leq Ev			Night 56		Ldn 64.3		NEL 64.5
			57.6		58.1 50.3		50 51		59.0	_	59.1
Medium Trucks:			66.9				62			-	
Heavy Trucks:  Vehicle Noise:	68		68.4		60.1		63		69.5 70.5		69.6 71.1
Centerline Distance					52.0				70.	-	
			,	70 d	BA .	65	dBA	-	60 dBA	55	i dBA
			Ldn:	51		1	09		234		505
		C	NEL:	52	2	1	12		241		518

	FHV	VA-RD-77-108	HIGH	WAY N	IOISE PI	REDICT	ION M	DDEL			
Road Nam	io: OY 2020 W e: Agua Mans nt: e/o 20th St	a Rd.				Project Job N	Name: lumber.				
SITE	SPECIFIC IN	IPUT DATA				I.	IOISE	MODE	L INPUT	s	
Highway Data					Site Cor	ditions	(Hard	= 10, S	oft = 15)		
Average Daily	Traffic (Adt):	14,739 vehicle	es					Autos	15		
Peak Hour	Percentage:	10%			Me	dium Tr	ucks (2	Axles)	: 15		
Peak H	our Volume:	1,474 vehicle	s		He	avy Tru	cks (3+	Axles)	15		
Ve	hicle Speed:	45 mph		-	Vehicle	Miss					
Near/Far Lai	ne Distance:	36 feet		-		icleType		Day	Evening	Night	Daily
Site Data					V C//		Autos:	73.29		18.6%	
					M	edium T		82.29		14.0%	
	rier Height:	0.0 feet 0.0				Heavy T		76.59		19.5%	
Barrier Type (0-W Centerline Dis		50.0 feet		L						10.070	7.0070
Centerline Dist		50.0 feet		1	Noise S	ource E	levatio	ns (in i	eet)		
Barrier Distance		0.0 feet				Auto	s: C	.000			
		5.0 feet			Mediu	m Truck	s: 2	.297			
Observer Height (	ad Flevation:	0.0 feet			Heav	y Truck	s: 8	.004	Grade Ad	justmen	t: 0.0
	ad Elevation:	0.0 feet		-	Lane Eq	uivalen	t Dista	nce (in	feet)		
	Road Grade:	0.0%		F		Auto		.915	,		
,	Left View:	-90.0 degre	00		Madiu	m Truck		.726			
	Right View:	90.0 degre				vy Truck		5.744			
			03		77001	7774011	0. 10				
FHWA Noise Mode											
VehicleType	REMEL	Traffic Flow	Dis	tance		Road	Fres		Barrier Att		rm Atten
Autos:	68.46	-0.62		0.3		-1.20		-4.65		000	0.000
Medium Trucks:	79.45	-16.17		0.3		-1.20		-4.87		000	0.000
Heavy Trucks:	84.25	-11.34		0.3	4	-1.20		-5.43	0.0	000	0.000
Unmitigated Noise			barrie								
VehicleType	Leq Peak Hou	.,.,		Leq E			Night		Ldn		NEL
Autos:	67		64.8		61.3		60		67.4		67.7
Medium Trucks:	62		60.8		53.5		54		62.1		62.3
Heavy Trucks:	72		70.1		63.3		65		72.6		72.8
Vehicle Noise:	73	.6	71.6		65.7		66	.8	74.	1	74.2
Centerline Distance	ce to Noise Co	ontour (in feet	)								
			L	70 c			dBA		60 dBA		i dBA
			Ldn:	9	-	_	01		434		935
		C	NEL:	9	6	2	07		445	9	959

	FHW	A-RD-77-108	HIGHV	VAY N	IOISE PF	REDICT	ON MC	DEL			
	OY 2020 Wit El Rivino Rd e/o Hall Av.					Project Job N	Name: umber:		Mansa		
	PECIFIC INF	PUT DATA							L INPUT	5	
Highway Data					Site Con	ditions	(Hard =	: 10, Sc			
Average Daily Tr	affic (Adt):	3,874 vehicle	s					Autos:	15		
Peak Hour P	ercentage:	10%				dium Tru		,	15		
Peak Hot	ır Volume:	387 vehicles	;		He	avy Truc	cks (3+	Axles):	15		
	cle Speed:	45 mph		1	Vehicle I	Mix					
Near/Far Lane	Distance:	36 feet			Vehi	icleType		Day	Evening	Night	Daily
Site Data						-	Autos:	73.2%	8.1%	18.6%	89.90%
Barri	er Height:	0.0 feet			Me	edium Ti	rucks:	82.2%	3.9%	14.0%	2.50%
Barrier Type (0-Wal		0.0			F	leavy Ti	rucks:	76.5%	4.0%	19.5%	7.60%
Centerline Dist.	to Barrier:	44.0 feet		-	Noise Sc	urco El	lovation	e (in fe	not)		
Centerline Dist. to	Observer:	44.0 feet		,	10/30 00	Auto:		000	.01)		
Barrier Distance to	Observer:	0.0 feet			Modium	n Truck:		297			
Observer Height (Al	bove Pad):	5.0 feet				y Truck		004	Grade Ad	ustment	: 0.0
Pad	Elevation:	0.0 feet		_							
Road	Elevation:	0.0 feet		1	Lane Eq				feet)		
Ro	oad Grade:	0.0%				Auto		.460			
	Left View:	-90.0 degree	s			n Truck	10	.241			
F	Right View:	90.0 degree	:S		Heav	y Truck	s: 40	.262			
FHWA Noise Model											
VehicleType		Traffic Flow	Dista		Finite		Fres		Barrier Att		m Atten
Autos:	68.46	-6.42		1.28	-	-1.20		-4.61	0.0		0.000
Medium Trucks:	79.45	-21.98		1.31		-1.20		-4.87	0.0		0.000
Heavy Trucks:	84.25	-17.15		1.31	1	-1.20		-5.50	0.0	00	0.000
Unmitigated Noise I											
	eq Peak Hour			Leq E	vening	Leq	Night		Ldn		NEL
Autos:	62.1		0.0		56.4		55.	-	62.6		62.9
Medium Trucks:	57.6		55.9		48.7		49.	-	57.3		57.5
Heavy Trucks:	67.2		35.3		58.5		60.	-	67.8		68.0
Vehicle Noise:	68.7		6.8		60.8		62.	0	69.2	!	69.4
Centerline Distance	to Noise Cor	ntour (in feet)									

Wednesday, October 17, 2018

FH	WA-RD-77-108 HI	GHWAY	NOISE P	REDICTIO	N MODEL		
Scenario: OY 2020 \ Road Name: Agua Mar Road Segment: w/o Brown	sa Rd.				lame: Agua mber: 1121		
SITE SPECIFIC I	NPUT DATA			NO	DISE MOD	EL INPUTS	
Highway Data			Site Cor	ditions (i	Hard = 10,	Soft = 15)	
Average Daily Traffic (Adt):	14,739 vehicles				Auto	s: 15	
Peak Hour Percentage:	10%		Me	dium Truc	ks (2 Axles	:): 15	
Peak Hour Volume:	1,474 vehicles		He	avy Truck	s (3+ Axles	:): 15	
Vehicle Speed:	45 mph		Vehicle	Miv			
Near/Far Lane Distance:	36 feet			icleType	Day	Evening N	light Daily
Site Data					itos: 73.2		18.6% 89.90%
Barrier Height:	0.0 feet		М	edium Tru	cks: 82.2	% 3.9%	14.0% 2.50%
Barrier Type (0-Wall, 1-Berm):	0.0			Heavy Tru	cks: 76.5	% 4.0%	19.5% 7.60%
Centerline Dist. to Barrier:	50.0 feet		M-1 0			f4)	
Centerline Dist. to Observer:	50.0 feet		Noise S	Autos:	vations (in	reet)	
Barrier Distance to Observer:	0.0 feet		14	Autos: m Trucks:			
Observer Height (Above Pad):	5.0 feet					Grade Adjus	dmont: 0.0
Pad Elevation:	0.0 feet		Heal	y Trucks:	8.004	Grade Adjus	unen. 0.0
Road Elevation:	0.0 feet		Lane Eq	uivalent l	Distance (i	n feet)	
Road Grade:	0.0%			Autos:	46.915		
Left View:	-90.0 degrees		Mediu	m Trucks:	46.726		
Right View:	90.0 degrees		Heav	y Trucks:	46.744		
FHWA Noise Model Calculation	ns						
VehicleType REMEL	Traffic Flow	Distance	Finite	Road	Fresnel	Barrier Atten	Berm Atten
Autos: 68.46	-0.62	0.3	31	-1.20	-4.6	5 0.000	0.000
Medium Trucks: 79.45	-16.17	0.3	34	-1.20	-4.8	7 0.000	0.000
Heavy Trucks: 84.25	-11.34	0.3	34	-1.20	-5.4	3 0.000	0.000
Unmitigated Noise Levels (wit	hout Topo and bar	rrier atte	nuation)				
VehicleType Leq Peak Ho	our Leq Day	Leq E	vening	Leq N	light	Ldn	CNEL
Autos: 6	7.0 64.	8	61.3		60.1	67.4	67.7
	2.4 60.8	8	53.5		54.3	62.1	62.3
Heavy Trucks: 7	2.0 70.	1	63.3		65.4	72.6	72.8
Vehicle Noise: 7	3.6 71.	6	65.7		66.8	74.1	74.2
Centerline Distance to Noise C	Contour (in feet)						
			dBA	65 d		60 dBA	55 dBA
	Ldr		93	20		434	935
	CNEL	2 1	96	20	7	445	959

	FHV	VA-RD-77-108	HIGH	WAY	NOISE P	REDICT	TION MC	DEL			
Road Nan	rio: OY 2020 W ne: Agua Mans ent: w/o Holly S	a Rd.					t Name: Number:		Mansa		
	SPECIFIC IN	IPUT DATA							L INPUT	s	
Highway Data					Site Cor	ditions	(Hard =	= 10, S	oft = 15)		
Average Daily	Traffic (Adt):	15,023 vehicle	es					Autos:	15		
Peak Hour	Percentage:	10%			Me	dium Tr	rucks (2	Axles):	15		
Peak F	Hour Volume:	1,502 vehicle	S		He	avy Tru	icks (3+	Axles):	15		
Ve	ehicle Speed:	45 mph		ŀ	Vehicle	Mix					
Near/Far La	ane Distance:	48 feet		ł		icleType	e	Dav	Evening	Night	Daily
Site Data							Autos:	73.2%		18.69	_
Ra	rrier Height:	0.0 feet			М	edium T	rucks:	82.2%	3.9%	14.09	6 2.50%
Barrier Type (0-W		0.0			1	Heavy T	rucks:	76.5%	4.0%	19.59	6 7.60%
	ist. to Barrier:	52.0 feet		-							
Centerline Dist.	to Observer:	52.0 feet		-	Noise S				eet)		
Barrier Distance	to Observer:	0.0 feet				Auto		.000			
Observer Height	(Above Pad):	5.0 feet				m Truck		.297	Crodo Ad	iatma.	4 0 0
	ad Elevation:	0.0 feet			Heav	y Truck	(S. 8.	.004	Grade Ad	ustmer	IT: 0.0
Ro	ad Elevation:	0.0 feet		Ī	Lane Eq	uivalen	t Distan	ce (in	feet)		
	Road Grade:	0.0%		ĺ		Auto	s: 46	.400			
	Left View:	-90.0 degre	es		Mediu	m Truck	s: 46	.209			
	Right View:	90.0 degre	es		Heav	y Truck	s: 46	.228			
FHWA Noise Mod	lel Calculation	s		,							
VehicleType	REMEL	Traffic Flow	Dis	tance	Finite	Road	Fres	nel	Barrier Att	en Be	erm Atten
Autos:		-0.53		0.3		-1.20		-4.66		000	0.000
Medium Trucks:		-16.09		0.4		-1.20		-4.87		000	0.000
Heavy Trucks:	84.25	-11.26		0.4	11	-1.20		-5.41	0.0	000	0.000
Unmitigated Nois	e Levels (with	out Topo and	barrie	er atte	nuation)						
VehicleType	Leq Peak Hou			Leq E	vening	Leq	Night		Ldn		CNEL
Autos:			65.0		61.4		60.		67.6		67.9
Medium Trucks:			60.9		53.7		54.	-	62.3		62.5
Heavy Trucks: Vehicle Noise:			70.2 71.7		63.4 65.8		65. 66.		72.8 74.2		72.9 74.4
		••			65.8		66.	9	74.2	-	74.4
Centerline Distan	ce to Noise Co	ornour (In reet		70	dBA	65	dBA		50 dBA	5	5 dBA
			l dn:		00		15	,	462	_	996
			VEL:		02		220		474		1.022
		O.			-	-					,022

Wednesday, October 17, 2018

	FH\	WA-RD-77-108	HIGH	1 YAWH	NOISE P	REDICT	ION M	ODEL			
	e: Agua Mans							Agua 1			
	SPECIFIC IN	IPUT DATA							L INPUT	s	
Highway Data					Site Cor	nditions	(Hard	= 10, S	oft = 15)		
Average Daily	Traffic (Adt):	18,330 vehicl	es					Autos:	15		
Peak Hour	Percentage:	10%			Me	edium Tr	ucks (2	Axles):	15		
Peak H	our Volume:	1,833 vehicle	s		He	eavy Tru	cks (3+	Axles):	15		
Vei	hicle Speed:	45 mph			Vehicle	Miv					
Near/Far Lar	ne Distance:	82 feet		F		icleType	9	Day	Evening	Night	Daily
Site Data							Autos:	73.2%	8.1%	18.6%	89.90%
Bar	rier Heiaht:	0.0 feet			М	edium T	rucks:	82.2%	3.9%	14.0%	2.50%
Barrier Type (0-W		0.0				Heavy T	rucks:	76.5%	4.0%	19.5%	7.60%
Centerline Dis	st. to Barrier:	60.0 feet		F	Noise S	ource E	levatio	ns (in f	eet)		
Centerline Dist.	to Observer:	60.0 feet				Auto		0.000	,		
Barrier Distance		0.0 feet			Mediu	m Truck		.297			
Observer Height (	,	5.0 feet			Hear	vy Truck		3.004	Grade Ad	iustment	0.0
	ad Elevation:	0.0 feet				·					
	d Elevation:	0.0 feet		-	Lane Eq				reet)		
F	Road Grade:	0.0%				Auto		1.091			
	Left View:	-90.0 degre				m Truck		3.890 3.909			
	Right View:	90.0 degre	es		пеа	vy Truck	8. 40	5.909			
FHWA Noise Mode											
VehicleType	REMEL	Traffic Flow		stance		Road	Fres		Barrier Att		m Atten
Autos:	68.46	0.33		0.7	-	-1.20		-4.69		000	0.00
Medium Trucks:	79.45	-15.23		0.7	-	-1.20		-4.88		000	0.00
Heavy Trucks:	84.25	-10.40		0.7	4	-1.20		-5.34	0.0	000	0.000
Unmitigated Noise										_	
,,	Leq Peak Hou			Leq E	vening		Night	_	Ldn		NEL
Autos: Medium Trucks:	68		66.2		62.6 54.9		61 55		68.8 63.5		69.1 63.1
	73		71.4		54.9 64.6		55 66		74.0		74.1
Heavy Trucks: Vehicle Noise:	74		72.9		67.0		68		74.0		75.1
Centerline Distance	e to Noise C	ontour (in fee	f)								
Come mie Distant	ie to morse of	ontour (III lee	'/	70	dBA	65	dBA	-	60 dBA	55	dBA
			Ldn:	13	38	2	98		641	1,	381
			NEL:		42		05		658		417

	FH	WA-RD-77-10	HIGH	IWAY N	OISE PREI	DICTION M	ODEL			
	e: Agua Mans					oject Name ob Number		Mansa		
	PECIFIC IN	NPUT DATA						L INPUT	5	
Highway Data				5	ite Conditi	ons (Hard	= 10, Sc	oft = 15)		
Average Daily 1	raffic (Adt):	15,023 vehic	les				Autos:	15		
Peak Hour F	Percentage:	10%				n Trucks (2		15		
	our Volume:	1,502 vehicle	es		Heavy	Trucks (3-	Axles):	15		
	icle Speed:	45 mph		١	ehicle Mix					
Near/Far Lan	e Distance:	48 feet			Vehicle	Туре	Day	Evening	Night	Daily
Site Data						Autos:	73.2%	8.1%	18.6%	89.90%
Barı	rier Height:	0.0 feet			Mediu	ım Trucks:	82.2%	3.9%	14.0%	2.50%
Barrier Type (0-Wa	-	0.0			Hea	vy Trucks:	76.5%	4.0%	19.5%	7.60%
Centerline Dis	t. to Barrier:	52.0 feet		^	loise Sour	ce Elevatio	ons (in fe	eet)		
Centerline Dist. t	o Observer:	52.0 feet		F			0.000			
Barrier Distance to	o Observer:	0.0 feet			Medium T		2.297			
Observer Height (A	,	5.0 feet			Heavy T		8.004	Grade Ad	ustment.	0.0
	d Elevation:	0.0 feet		L						
	d Elevation:	0.0 feet		L	ane Equiv			eet)		
R	Road Grade:	0.0%					6.400			
	Left View:	-90.0 degre			Medium T		6.209			
	Right View:	90.0 degre	es		Heavy T	rucks: 4	6.228			
FHWA Noise Mode	I Calculation	ıs								
VehicleType	REMEL	Traffic Flow		tance	Finite Ro			Barrier Att		m Atten
Autos:	68.46			0.38		.20	-4.66	0.0		0.00
Medium Trucks:	79.45			0.41		.20	-4.87	0.0		0.00
Heavy Trucks:	84.25			0.41		.20	-5.41	0.0	00	0.00
Unmitigated Noise	•									
VehicleType Autos:	Leq Peak Ho	ur Leq Da 7.1	65.0	Leq Ev	ening 61.4	Leq Night	).3	Ldn 67.6		NEL 67.
Medium Trucks:		2.6	60.9		53.7		1.5	62.3		62.
Heavy Trucks:		2.2	70.2		63.4	-	5.6	72.8		72.
Vehicle Noise:		3.7	71.7		65.8		3.9	74.2		74.
Centerline Distanc	e to Noise C	ontour (in fee	t)							
		(111100	7	70 d	BA	65 dBA	6	i0 dBA	55	dBA
			Ldn:	10	0	215		462	q	196

Wednesday, October 17, 2018

FH\	WA-RD-77-108 HIG	HWAY	NOISE P	REDICTIO	ON MC	DEL			
Scenario: OY 2020 V Road Name: Agua Mans Road Segment: e/o Riversi	sa Rd.			Project N Job Nu					
SITE SPECIFIC IN	IPUT DATA			NO	DISE	MODE	L INPUT	S	
Highway Data			Site Con	ditions (i	Hard =	: 10, S	oft = 15)		
Average Daily Traffic (Adt):	9,637 vehicles					Autos:	15		
Peak Hour Percentage:	10%		Me	dium Trud	cks (2 .	Axles):	15		
Peak Hour Volume:	964 vehicles		He	avy Truck	ks (3+.	Axles):	15		
Vehicle Speed:	45 mph	ł	Vehicle I	Miv					
Near/Far Lane Distance:	82 feet	-		icleType		Day	Evening	Night	Daily
Site Data			*077		utos:	73.2%		18.6%	
Barrier Height:	0.0 feet		Me	edium Tru	ıcks:	82.2%		14.0%	
Barrier Height: Barrier Type (0-Wall, 1-Berm):	0.0 feet 0.0		ŀ	leavy Tru	ıcks:	76.5%		19.5%	
Centerline Dist. to Barrier:	60.0 feet								
Centerline Dist. to Observer:	60.0 feet		Noise So				eet)		
Barrier Distance to Observer:	0.0 feet			Autos:	-	000			
Observer Height (Above Pad):	5.0 feet			m Trucks:		297	0	ti t	
Pad Elevation:	0.0 feet		Heav	y Trucks:	8.	004	Grade Ad	ijustment	: 0.0
Road Elevation:	0.0 feet		Lane Eq	uivalent l	Distan	ce (in	feet)		
Road Grade:	0.0%	ĺ		Autos:	44	.091			
Left View:	-90.0 degrees		Mediui	m Trucks:	43	.890			
Right View:	90.0 degrees		Heav	y Trucks:	43	.909			
FHWA Noise Model Calculation	s								
VehicleType REMEL	Traffic Flow Di	stance	Finite	Road	Fresi	nel	Barrier At	ten Bei	m Atten
Autos: 68.46	-2.46	0.7	'2	-1.20		-4.69	0.0	000	0.000
Medium Trucks: 79.45	-18.02	0.7	5	-1.20		-4.88	0.0	000	0.000
Heavy Trucks: 84.25	-13.19	0.7	4	-1.20		-5.34	0.0	000	0.000
Unmitigated Noise Levels (with									
VehicleType Leq Peak Hot		Leq E	vening	Leq N	_		Ldn		NEL
Autos: 65			59.8		58.		66.		66.3
	.0 59.3		52.1		52.	-	60.		60.9
Heavy Trucks: 70			61.8		64.	_	71.:		71.3
Vehicle Noise: 72			64.2		65.	3	72.	6	72.8
Centerline Distance to Noise C	ontour (in feet)								
			dBA	65 d			60 dBA		dBA
	Ldn:		90	194			418		900
	CNEL:	9	92	199	9		428	5	923

	FH\	WA-RD-77-108	HIGH	HWAY	NOISE P	REDICT	TION MO	DDEL			
Road Nam	rio: OY 2020 V ne: 20th St. nt: e/o Rubido	,					t Name: Vumber:		Mansa		
	SPECIFIC IN	IPUT DATA							L INPUT	S	
Highway Data					Site Cor	nditions	(Hard	= 10, S	oft = 15)		
Average Daily	Traffic (Adt):	28,062 vehicle	es					Autos:	15		
Peak Hour	Percentage:	10%					rucks (2				
Peak F	lour Volume:	2,806 vehicle	S		He	eavy Tru	icks (3+	Axles):	15		
Ve	hicle Speed:	45 mph			Vehicle	Mix					
Near/Far La	ne Distance:	36 feet				icleTyp	е	Dav	Evening	Night	Daily
Site Data							Autos:	73.2%	Ü	18.69	
Ra	rrier Height:	0.0 feet			М	edium 7	rucks:	82.2%	3.9%	14.09	6 2.50%
Barrier Type (0-W	-	0.0				Heavy 7	rucks:	76.5%	4.0%	19.5%	6 7.60%
Centerline Di		50.0 feet									
Centerline Dist.	to Observer:	50.0 feet			Noise S				eet)		
Barrier Distance	to Observer:	0.0 feet				Auto		.000			
Observer Height	(Above Pad):	5.0 feet				m Truck		.297	Crada An	livotmon	4 0 0
	ad Elevation:	0.0 feet			Hear	vy Truck	ks: 8	.004	Grade Ad	justmen	t: 0.0
Ro	ad Elevation:	0.0 feet			Lane Eq	uivalen	nt Distai	nce (in	feet)		
	Road Grade:	0.0%				Auto	os: 46	.915			
	Left View:	-90.0 degre	es		Mediu	m Truck	ks: 46	.726			
	Right View:	90.0 degre			Hear	vy Truck	ks: 46	5.744			
FHWA Noise Mod	el Calculation	s									
VehicleType	REMEL	Traffic Flow	Dis	stance	Finite	Road	Fres	nel	Barrier Att	en Be	erm Atten
Autos:	68.46	2.18		0.3	31	-1.20		-4.65	0.0	000	0.000
Medium Trucks:	79.45	-13.38		0.3	34	-1.20		-4.87	0.0	000	0.000
Heavy Trucks:	84.25	-8.55		0.3	34	-1.20		-5.43	0.0	000	0.000
Unmitigated Nois	e Levels (with	out Topo and	barrie	er atte	nuation)						
VehicleType	Leq Peak Hou			Leq I	Evening	Leq	Night		Ldn		CNEL
Autos:	69	1.8	67.6		64.1		62	.9	70.:	2	70.5
Medium Trucks:	65	i.2	63.6		56.3		57.		64.	9	65.1
Heavy Trucks:	74	.8	72.9		66.1		68	.2	75.4	4	75.6
Vehicle Noise:	76	5.4	74.4		68.5		69	.6	76.	9	77.0
Centerline Distan	ce to Noise C	ontour (in feet	<del>'</del> )								
	-			70	dBA	65	dBA	- (	60 dBA	5	5 dBA
			Ldn:	1	144	3	309		667	1	,436
		C	NEL:	1	147	3	317		684	1	,473

0	OV 0000 M	(ith and Davis of				Danis at A		A			
	io: OY 2020 V ne: Market St.	vitnout Project				Project N Job Nu					
	nt: e/o Hall Av					JOD IVU	mber.	11213			
	SPECIFIC IN	IPUT DATA			04- 0				L INPUT	S	
Highway Data					Site Conditions (Hard = 10, Soft = 15)						
Average Daily	. ,	33,069 vehicle	es					Autos:			
	Percentage:	10%			Medium Trucks (2 Axles): 15						
	lour Volume:	3,307 vehicle	S		He	avy Truck	rs (3+	Axles):	15		
	hicle Speed:	45 mph			Vehicle	Mix					
Near/Far La	ne Distance:	36 feet		ı	Veh	icleType		Day	Evening	Night	Daily
Site Data						A	ıtos:	73.2%	8.1%	18.6%	89.90%
Ra	rrier Height:	0.0 feet			M	edium Tru	icks:	82.2%	3.9%	14.0%	2.50%
Barrier Type (0-W		0.0			F	Heavy Tru	icks:	76.5%	4.0%	19.5%	7.60%
Centerline Di		50.0 feet			M-1 0			/! 4	41		
Centerline Dist.	to Observer:	50.0 feet		-	Noise S	ource Ele			eet)		
Barrier Distance	to Observer:	0.0 feet				Autos:	-	.000			
Observer Height (	Above Pad):	5.0 feet				m Trucks:		.297	0		
	ad Elevation:	0.0 feet			Heav	y Trucks:		.004	Grade Ad	justment	0.0
Roa	ad Elevation:	0.0 feet		ĺ	Lane Eq	uivalent l	Dista	nce (in	feet)		
	Road Grade:	0.0%		ĺ		Autos:	46	.915			
	Left View:	-90.0 degree	es		Mediu	m Trucks:	46	.726			
	Right View:	90.0 degree	es		Heav	y Trucks:	46	5.744			
FHWA Noise Mod	el Calculation	ıs									
VehicleType	REMEL	Traffic Flow	Dis	stance	Finite	Road	Fres	nel	Barrier Att	en Ber	m Atten
Autos:	68.46	2.89		0.3	31	-1.20		-4.65	0.0	000	0.000
Medium Trucks:	79.45	-12.66		0.3	34	-1.20		-4.87	0.0	000	0.000
Heavy Trucks:	84.25	-7.84		0.3	34	-1.20		-5.43	0.0	000	0.000
Unmitigated Noise	e Levels (with	out Topo and	barri	er atte	nuation)						
VehicleType	Leq Peak Hou			Leq E	vening	Leq N	_		Ldn		NEL
Autos:	70		68.3		64.8		63	-	70.9		71.2
Medium Trucks:	65		64.3		57.0		57		65.		65.8
Heavy Trucks:	75		73.6		66.8		68		76.:		76.3
Vehicle Noise:	77	'.1	75.1		69.2		70	.3	77.0	6	77.8
Centerline Distan	ce to Noise C	ontour (in feet	)			05		-			10.4
			L		dBA	65 d		'	60 dBA		dBA
			Ldn:		60	34	-		744	,	602
		CI	NEL:	- 1	64	354	7		763	1,	644

	FH\	WA-RD-77-108	HIGHW.	AY NO	ISE PF	REDICTIO	N MOE	EL			
Scenario Road Name Road Segmen	e: 20th St.	Vithout Project Mansa Rd.				Project Na Job Nun			Mansa		
SITE S	SPECIFIC IN	IPUT DATA							L INPUT	S	
Highway Data				Si	te Con	ditions (H	ard =	10, So	ft = 15)		
Average Daily T Peak Hour I Peak Ho	. ,	24,282 vehicle 10% 2,428 vehicles				dium Truci avy Trucks	ks (2 A	,	15 15 15		
Vet	nicle Speed:	45 mph		1/4	ehicle l	Miv					
Near/Far Lar	e Distance:	36 feet		-		icleType		Dav	Evening	Night	Dailv
Site Data								73.2%	8.1%	18.6%	. ,
Ran	rier Heiaht:	0.0 feet			Me	edium Truc	ks: 8	32.2%	3.9%	14.0%	2.50%
Barrier Type (0-Wa	all, 1-Berm):	0.0			F	leavy Truc	ks: T	76.5%	4.0%	19.5%	7.60%
Centerline Dis		50.0 feet		N	oise Sc	ource Elev	ations	(in fe	et)		
Centerline Dist. t		50.0 feet				Autos:	0.0	00			
Barrier Distance t		0.0 feet			Mediur	m Trucks:	2.2	97			
Observer Height (/	,	5.0 feet			Heav	y Trucks:	8.0	04	Grade Adj	iustment	0.0
	d Elevation:	0.0 feet						- /! 4	41		
	d Elevation:	0.0 feet		Li	ane Eq	uivalent D			eet)		
F	Road Grade:	0.0%				Autos:	46.9				
	Left View: Right View:	-90.0 degree				m Trucks: ry Trucks:	46.7 46.7				
FHWA Noise Mode	l Calculation	ıs									
VehicleType	REMEL	Traffic Flow	Distar	ice	Finite	Road	Fresne	el l	Barrier Att	en Bei	m Atten
Autos:	68.46	1.55		0.31		-1.20	-	4.65	0.0	000	0.000
Medium Trucks:	79.45	-14.01		0.34		-1.20	-	4.87	0.0	000	0.000
Heavy Trucks:	84.25			0.34		-1.20	-	5.43	0.0	000	0.000
Unmitigated Noise										1	
	Leq Peak Hou			eq Eve		Leq Ni			Ldn		NEL
Autos:	69		67.0		63.5		62.3		69.6		69.9
Medium Trucks:	64		62.9		55.7		56.5		64.3		64.5
Heavy Trucks:	74		72.3		65.5		67.6		74.8		74.9
Vehicle Noise:	75		73.8		67.8		69.0		76.2	2	76.4
Centerline Distanc	e to Noise C	ontour (in feet,	)	70 45	o	65 dF		_	0 404		dBA
			l dn:	70 dE			М	-	0 dBA		
			Lan: VFI :	130		281 288			605 621		304
		Ci	VEL.	134		288			021	1,	338

Wednesday, October 17, 2018

	FH'	WA-RD-77-10	HIGI	HWAY I	NOISE P	REDICT	ION M	ODEL				
Road Nan	io: OY 2020 V ne: Market St. nt: e/o Rivera	Vithout Project St.				Project Job N		Agua I				
	SPECIFIC II	NPUT DATA							L INPUT	S		
Highway Data					Site Conditions (Hard = 10, Soft = 15)							
Average Daily	Traffic (Adt):	36,754 vehic	les					Autos:	15			
Peak Hour	Percentage:	10%			Me	edium Tr	ıcks (2	Axles):	15			
Peak F	lour Volume:	3,675 vehicle	es		He	eavy True	cks (3+	Axles):	15			
Ve	hicle Speed:	45 mph		-	Vehicle	Miv						
Near/Far La	ne Distance:	48 feet		1		icleType		Dav	Evening	Night	Daily	
Site Data							Autos:	73.2%			89.90%	
Pa	rrier Heiaht:	0.0 feet			М	edium T	rucks:	82.2%	3.9%	14.0%	2.50%	
Barrier Type (0-W		0.0				Heavy T	ucks:	76.5%	4.0%	19.5%	7.60%	
Centerline Di		50.0 feet		ļ.								
Centerline Dist.		50.0 feet		ļ.	Noise S				eet)			
Barrier Distance		0.0 feet				Auto		0.000				
Observer Height	(Above Pad):	5.0 feet				m Truck		2.297				
	ad Flevation:	0.0 feet			Heav	vy Truck	s: 8	3.004	Grade Ad	justmen	t: 0.0	
Ro	ad Elevation:	0.0 feet		Ī	Lane Eq	uivalen	Dista	nce (in	feet)			
	Road Grade:	0.0%		f		Auto	s: 44	1.147				
	Left View:	-90.0 degre	es		Mediu	m Truck	s: 43	3.947				
	Right View:	90.0 degre	es		Heav	vy Truck	s: 43	3.966				
FHWA Noise Mod	el Calculation	ıs										
VehicleType	REMEL	Traffic Flow	Di	stance	Finite	Road	Fres	snel	Barrier Att	en Be	rm Atten	
Autos:	68.46			0.7		-1.20		-4.65		000	0.000	
Medium Trucks:				0.7		-1.20		-4.87		000	0.000	
Heavy Trucks:	84.25	-7.38		0.7	'3	-1.20		-5.43	0.0	000	0.000	
Unmitigated Nois	e Levels (with	out Topo and	barri	ier attei	nuation)							
VehicleType	Leq Peak Ho	ur Leq Da	y	Leq E	vening	Leq	Night		Ldn		NEL	
Autos:		1.3	69.2		65.6		64	.5	71.8	3	72.1	
Medium Trucks:		8.8	65.1		57.9		58		66.5	-	66.7	
Heavy Trucks:	76	6.4	74.5		67.7		69	.8	77.0	)	77.1	
Vehicle Noise:	77	7.9	76.0		70.0		71	.2	78.4	4	78.6	
Centerline Distan	ce to Noise C	ontour (in fee	t)									
				70	dBA	65	dBA	(	60 dBA	55	dBA	
			Ldn:	1	83	3	94		848	1	,828	
		C	NEL:	1	88	4	04		870	1	,875	

	FH	WA-RD-77-108	HIGHV	VAY NO	DISE P	REDICT	ION M	ODEL			
	o: OY 2020 V e: Cedar Av. nt: n/o I-10 Fv							: Agua I : 11215	Mansa		
	SPECIFIC IN	NPUT DATA							L INPUT	S	
Highway Data				S	ite Cor	nditions	(Hard		oft = 15)		
Average Daily	Traffic (Adt):	44,507 vehicle	es					Autos:			
Peak Hour	Percentage:	10%				edium Tr					
Peak H	our Volume:	4,451 vehicle	S		He	eavy Tru	cks (3+	Axles):	15		
Ve	hicle Speed:	40 mph		ν	ehicle	Mix					
Near/Far Lai	ne Distance:	48 feet		Ė		icleType	9	Day	Evening	Night	Daily
Site Data							Autos:	73.2%	8.1%	18.6%	89.84%
Rai	rier Height:	0.0 feet			М	edium T	rucks:	82.2%	3.9%	14.0%	2.50%
Barrier Type (0-W	all, 1-Berm):	0.0				Heavy T	rucks:	76.5%	4.0%	19.5%	7.66%
Centerline Dis		52.0 feet		٨	oise S	ource E	levatio	ns (in f	eet)		
Centerline Dist.		52.0 feet				Auto	s: (	0.000			
Barrier Distance		0.0 feet			Mediu	m Truck	s: 2	2.297			
Observer Height (.	,	5.0 feet				vy Truck		3.004	Grade Ad	justmen	t: 0.0
	ad Elevation:	0.0 feet		_		•					
	ad Elevation:	0.0 feet		L	ane Eq	uivalen			feet)		
I	Road Grade:	0.0%				Auto		6.400			
	Left View:	-90.0 degre	es			m Truck		5.209			
	Right View:	90.0 degre	es		Hear	vy Truck	s: 46	5.228			
FHWA Noise Mode	el Calculation	ıs									
VehicleType	REMEL	Traffic Flow	Dista		Finite	Road	Fres		Barrier Att		rm Atten
Autos:	66.51			0.38		-1.20		-4.66		000	0.000
Medium Trucks:	77.72			0.41		-1.20		-4.87	0.0	000	0.000
Heavy Trucks:	82.99			0.41		-1.20		-5.41	0.0	000	0.000
Unmitigated Noise								_			
	Leq Peak Ho			Leq Ev			Night		Ldn		NEL
Autos:			68.2		64.7		63		70.	-	71.1
Medium Trucks:			64.4		57.2		58		65.8	-	66.0
Heavy Trucks:			74.2		67.4		69		76.		76.9
Vehicle Noise:			75.6		69.6		70	.8	78.	1	78.2
Centerline Distance	e to Noise C	ontour (in feet	)	70.0			10.4	1 .	00 101		
			L	70 dl			dBA		60 dBA		dBA
			Ldn:	179	-	_	86		831		,791
		C	VEL:	184	1	3	96		852	1	,836

Scenario: OY 2020 With Alt 1 Road Name: Cedar Av. Road Segment: s/o Slover Av.	Project Name: Agua Mansa Job Number: 11215					
SITE SPECIFIC INPUT DATA	NOISE MODEL INPUTS					
Highway Data	Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt): 32,277 vehicles	Autos: 15					
Peak Hour Percentage: 10%	Medium Trucks (2 Axles): 15					
Peak Hour Volume: 3,228 vehicles	Heavy Trucks (3+ Axles): 15					
Vehicle Speed: 40 mph	Vehicle Mix					
Near/Far Lane Distance: 48 feet	VehicleType Day Evening Night Daily					
Site Data	Autos: 73.2% 8.1% 18.6% 89.16					
Barrier Height: 0.0 feet	Medium Trucks: 82.2% 3.9% 14.0% 2.60					
Barrier Type (0-Wall, 1-Berm): 0.0	Heavy Trucks: 76.5% 4.0% 19.5% 8.25					
Centerline Dist. to Barrier: 52.0 feet	Noise Source Elevations (in feet)					
Centerline Dist. to Observer: 52.0 feet	Autos: 0.000					
Barrier Distance to Observer: 0.0 feet	Medium Trucks: 2.297					
Observer Height (Above Pad): 5.0 feet	Heavy Trucks: 8.004 Grade Adjustment: 0.0					
Pad Elevation: 0.0 feet	Lane Equivalent Distance (in feet)					
Road Elevation: 0.0 feet	Autos: 46.400					
Road Grade: 0.0%	Medium Trucks: 46.209					
Left View: -90.0 degrees Right View: 90.0 degrees	Heavy Trucks: 46.228					
FHWA Noise Model Calculations	<u> </u>					
VehicleType REMEL Traffic Flow Distant	Finite Road Fresnel Barrier Atten Berm Atter					
Autos: 66.51 3.26	38 -1.20 -4.66 0.000 0.00					
	41 -1.20 -4.87 0.000 0.00					
,	41 -1.20 -5.41 0.000 0.00					
Unmitigated Noise Levels (without Topo and barrier a						
	Evening Leq Night Ldn CNEL					
Autos: 69.0 66.8	63.3 62.1 69.4 69					
Medium Trucks: 64.8 63.2	55.9 56.7 64.6 64					
Heavy Trucks:         75.1         73.2           Vehicle Noise:         76.4         74.4	66.4 68.5 75.7 75 68.4 69.6 76.9 77					
Centerline Distance to Noise Contour (in feet)						
	0 dBA 65 dBA 60 dBA 55 dBA					
Ldn:	150 324 697 1,502					
	154 332 714 1,539					

	FHV	VA-RD-77-108	HIGHWA	AY NOI	SE PREDIC	TION N	IODEL			
	o: OY 2020 W e: Cedar Av. t: s/o I-10 Fw						e: Agua l r: 11215			
	PECIFIC IN	PUT DATA		011				L INPUT	S	
Veh	Percentage: our Volume: nicle Speed:	39,173 vehicl 10% 3,917 vehicle 40 mph			Medium T Heavy Tr	Trucks (	Autos: 2 Axles):	15 15		
Near/Far Lan	e Distance:	48 feet			VehicleTy	pe	Day	Evening	Night	Daily
Site Data  Barrier Type (0-Wa	rier Height: all, 1-Berm):	<b>0.0 feet</b> 0.0			Medium Heavy	Autos: Trucks: Trucks:	82.2%	3.9%	18.6% 14.0% 19.5%	
Centerline Dist. to Centerline Dist. to Barrier Distance to Observer Height (A Pa	o Observer: o Observer:	52.0 feet 52.0 feet 0.0 feet 5.0 feet 0.0 feet			se Source Au Medium Trud Heavy Trud	tos: cks:	0.000 2.297 8.004	eet) Grade Ad	ljustmeni	t: 0.0
R	d Elevation: Road Grade: Left View: Right View:	0.0 feet 0.0% -90.0 degre 90.0 degre			e <b>Equivale</b> Au Medium Trud Heavy Trud	tos: 4 cks: 4	6.400 6.209 6.228	feet)		
FHWA Noise Mode	I Calculation	•								
VehicleType	REMEL	Traffic Flow	Distan	ice I	inite Road	Fre	snel	Barrier Att	ten Be	rm Atter
Autos: Medium Trucks: Heavy Trucks:	66.51 77.72 82.99	4.11 -11.27 -6.29		0.38 0.41 0.41	-1.20 -1.20	0	-4.66 -4.87 -5.41	0.0	000	0.00
						J	-5.41	0.0	500	0.00
VehicleType	Leveis (with Leg Peak Hou			eq Even		g Night		Ldn		NEL
Autos:	69 Eeq reak		67.7	y LVEII	64.1		3.0	70.3		70.
Medium Trucks:	65	.7	64.0		56.7	5	7.6	65.4	4	65.
Heavy Trucks:	75	.9	74.0		67.2	6	9.3	76.5	5	76.
Vehicle Noise:	77	.2	75.2		69.2	7	0.4	77.	7	77.
Centerline Distance	e to Noise Co	ontour (in feet	)							
							1 -	00 10 4		
			Ldn:	70 dBA	6	5 dBA 366	(	60 dBA 788		697

Wednesday, October 17, 2018

	FH	WA-RD-77-108	HIGH	WAY	NOISE PI	REDICT	ION M	ODEL						
Road Na	ario: OY 2020 \ me: Cedar Av. ent: s/o Santa							: Agua : 11215						
SITE	SPECIFIC I	NPUT DATA				N	IOISE	MODE	L INPUT	s				
Highway Data					Site Con	ditions	(Hard	= 10, S	oft = 15)					
Average Dail	y Traffic (Adt):	32,812 vehicl	les		Autos: 15									
Peak Hou	ır Percentage:	10%			Medium Trucks (2 Axles): 15									
Peak	Hour Volume:	3,281 vehicle	es		Heavy Trucks (3+ Axles): 15									
١	ehicle Speed:	40 mph		-	Vahiala	Miss								
Near/Far L	ane Distance:	48 feet		1	Vehicle Mix  VehicleType Day Evening Night									
Site Data					Autos: 73.2% 8.1% 18.6%									
	arrier Height:	0.0 feet			Autos: 73.2% 8.1% 18.6% 88  Medium Trucks: 82.2% 3.9% 14.0% 2									
Barrier Type (0-		0.0 reet			Heavy Trucks: 76.5% 4.0% 19.5% 8.4									
	Dist. to Barrier:	52.0 feet												
	Centerline Dist. to Observer: 52.0 feet						Noise Source Elevations (in feet)							
	Barrier Distance to Observer: 0.0 feet					Autos: 0.000 Medium Trucks: 2.297								
	Barrier Distance to Observer: 0.0 feet  Observer Height (Above Pad): 5.0 feet							2.297						
	Pad Flevation:	0.0 feet			Heav	y Truck	S	3.004	Grade Ad	justment	: 0.0			
	oad Flevation:	0.0 feet		ı	Lane Eq	uivalent	Dista	nce (in	feet)					
	Road Grade:	0.0%		İ		Auto	s: 4	6.400						
	Left View:	-90.0 degre	es		Mediu	m Truck	s: 4	6.209						
	Right View:	90.0 degre			Heav	y Truck	s: 4	6.228						
FHWA Noise Mo	del Calculation	ns												
VehicleType	REMEL	Traffic Flow	Dis	tance	Finite	Road	Fre	snel	Barrier Att	en Ber	m Atten			
Autos	66.51	3.33		0.3	38	-1.20		-4.66	0.0	000	0.000			
Medium Trucks	s: 77.72	2 -11.98		0.4	11	-1.20		-4.87	0.0	000	0.000			
Heavy Trucks	82.99	-6.92		0.4	11	-1.20		-5.41	0.0	000	0.000			
Unmitigated Noi			barri											
VehicleType	Leq Peak Ho		,	Leq E	vening	Leq	Night		Ldn		NEL			
Autos		9.0	66.9		63.3			2.2	69.	-	69.8			
Medium Trucks		4.9	63.3		56.0			5.9	64.7		64.8			
Heavy Trucks		5.3	73.3		66.5			3.6	75.9		76.0			
Vehicle Noise: 76.5 74.6  Centerline Distance to Noise Contour (in feet)					68.5		68	8.0	77.0	J	77.2			
Centerline Dista	nce to Noise C	ontour (in fee	t)	70	dBA	65	dBA		60 dBA	55	dBA			
			I dn:						712		533			
				153 330 712 157 338 729			1,571							
		C	IVLL.		31	٥.	JO		123	١,	311			

	FH	WA-RD-77-108	HIGH	IWAY	NOISE P	REDICT	ION MO	DEL			
	io: OY 2020 V e: Cedar Av. nt: s/o Jurupa						t Name: . lumber:		Mansa		
SITE	SPECIFIC IN	NPUT DATA					NOISE N	/ODE	L INPUT	s	
Highway Data					Site Cor					_	
Average Daily	Traffic (Adt):	30,172 vehicl	es					Autos:	15		
Peak Hour	Percentage:	10%			Me	dium Tr	ucks (2 A	(xles	15		
Peak H	our Volume:	3,017 vehicle	s		He	avy Tru	cks (3+ A	Axles):	15		
Ve	hicle Speed:	50 mph			Vehicle	Miv					
Near/Far La	ne Distance:	48 feet				icleType	2	Dav	Evening	Night	Daily
Site Data					1011			73.2%		18.6%	
Rai	rier Height:	0.0 feet			М	edium T	rucks:	82.2%	3.9%	14.0%	2.61%
Barrier Type (0-W		0.0			1	Heavy T	rucks:	76.5%	4.0%	19.5%	8.43%
Centerline Dis		52.0 feet									
Centerline Dist.	to Observer:	52.0 feet			Noise S				eet)		
Barrier Distance	to Observer:	0.0 feet				Auto		000			
Observer Height (	Above Pad):	5.0 feet				m Truck		297	0	·	4. 0.0
• ,	ad Elevation:	0.0 feet			Heav	y Truck	s: 8.0	004	Grade Ad	justmen	t: 0.0
Roa	ad Elevation:	0.0 feet			Lane Eq	uivalen	t Distan	ce (in i	feet)		
i i	Road Grade:	0.0%				Auto	s: 46.	400			
	Left View:	-90.0 degre	es		Mediu	m Truck	s: 46.	209			
	Right View:	90.0 degre	es		Heav	y Truck	s: 46.	228			
FHWA Noise Mode	el Calculation	ıs									
VehicleType	REMEL	Traffic Flow	Dis	stance	Finite	Road	Fresn	iel	Barrier Att	en Be	rm Atten
Autos:	70.20			0.3		-1.20		-4.66		000	0.000
Medium Trucks:	81.00			0.4		-1.20		-4.87		000	0.000
Heavy Trucks:	85.38	-8.24		0.4	41	-1.20		-5.41	0.0	000	0.000
Unmitigated Noise	e Levels (with	out Topo and	barrie	er atte	nuation)						
VehicleType	Leq Peak Ho			Leq E	vening		Night		Ldn	_	NEL
Autos:			69.2		65.7		64.5		71.9	-	72.1
Medium Trucks:			65.2		58.0		58.8		66.6	-	66.8
Heavy Trucks:	76	5.3	74.4		67.6		69.7		76.9	9	77.1
Vehicle Noise:	77	7.9	75.9		70.0		71.1		78.4	4	78.6
Centerline Distant	ce to Noise C	ontour (in fee	)								
					dBA		dBA	$\epsilon$	0 dBA		5 dBA
			Ldn:		89		-08		878		,892
		C	NEL:	1	94	4	18		901	1	,942

	FHW	A-RD-77-108 H	IGHWAY	NOISE PI	REDICTION	MODEL			
Scenario: C Road Name: R Road Segment: s	ubidoux Bl.				Project Nar Job Numb	ne: Agua per: 11215			
	CIFIC INP	UT DATA		0:: 0			L INPUT	s	
Average Daily Traff Peak Hour Perc	entage:	2,838 vehicles 10%		Me	ditions (Ha	Autos (2 Axles)	: 15 : 15		
Peak Hour V Vehicle Near/Far Lane D	Speed:	5,284 vehicles 50 mph 48 feet		Vehicle I	avy Trucks ( Mix icleType	Day	Evening	Night	Daily
Site Data				VO11	Auto		0	18.6%	
Barrier Barrier Type (0-Wall, 1		0.0 feet 0.0			edium Truck Heavy Truck			14.0% 19.5%	2.77% 9.40%
Centerline Dist. to Centerline Dist. to O Barrier Distance to O Observer Height (Abov	bserver: bserver: ve Pad):	59.0 feet 59.0 feet 0.0 feet 5.0 feet		Mediu	Autos: m Trucks: ry Trucks:	0.000 2.297 8.004	<b>Grade Ad</b>	iustment:	0.0
Pad El Road El	levation: levation:	0.0 feet 0.0 feet		Lane Eq	uivalent Dis	stance (in	feet)		
Le	I Grade: eft View: ht View:	0.0% -90.0 degrees 90.0 degrees			Autos: m Trucks: ry Trucks:	54.129 53.966 53.982			
FHWA Noise Model Ca									
VehicleType R Autos: Medium Trucks: Heavy Trucks:	70.20 81.00 85.38	2.30 -12.71 -7.40	-0.6 -0.6	62 60	-1.20 -1.20 -1.20	resnel -4.69 -4.88 -5.35	0.0	en Ber 000 000 000	0.000 0.000 0.000
Unmitigated Noise Lev		ut Tono and h							
	Peak Hour	Leq Day		vening	Leq Nigl	nt	Ldn	CI	VEL
Autos: Medium Trucks:	70.7 66.5	64	3.5 1.9	65.0 57.6		63.8 58.4	71.2 66.2	2	71.4 66.4
Heavy Trucks: Vehicle Noise:	76.2 77.6		1.2 5.6	67.4 69.7		70.8	76.8 78.1		76.9 78.3
Centerline Distance to	Noise Con	tour (in feet)							
				dBA P05	65 dBA 442		60 dBA 953		dBA 053
		CNE		211	454		977	,	106

	FHV	VA-RD-77-108	HIGHV	VAY N	OISE P	REDICT	ION MO	DDEL			
	o: OY 2020 W						Name:				
Road Name Road Seamen	e: Rubidoux B					Job N	lumber:	11215			
Road Segmen	it: S/O EI RIVING	o Ra.									
	SPECIFIC IN	PUT DATA							L INPUT	S	
Highway Data				S	ite Cor	nditions	(Hard:	= 10, S	oft = 15)		
Average Daily	Traffic (Adt):	31,507 vehicl	es					Autos:	15		
Peak Hour I	Percentage:	10%				edium Ti	,	,			
Peak Ho	our Volume:	3,151 vehicle	S		He	avy Tru	cks (3+	Axles):	15		
Vel	nicle Speed:	50 mph		ν	/ehicle	Mix					
Near/Far Lar	ne Distance:	48 feet		F	Veh	icleType	9	Dav	Evening	Night	Dailv
Site Data							Autos:	73.2%	-	18.6%	87.22
Ran	rier Heiaht:	0.0 feet			М	edium 7	rucks:	82.2%	3.9%	14.0%	2.91
Barrier Type (0-Wa	all, 1-Berm):	0.0			1	Heavy T	rucks:	76.5%	4.0%	19.5%	9.87
Centerline Dis		59.0 feet		۸	loise S	ource E	levatio	ns (in f	eet)		
Centerline Dist. t		59.0 feet				Auto		.000	,		
Barrier Distance t		0.0 feet			Mediu	m Truck	s: 2	.297			
Observer Height (/	,	5.0 feet			Heav	v Truck	s: 8	.004	Grade Ad	iustment	0.0
	d Elevation:	0.0 feet		-		,					
	d Elevation:	0.0 feet		L	ane Eq				feet)		
F	Road Grade:	0.0%				Auto		.129			
	Left View:	-90.0 degre				m Truck		.966			
	Right View:	90.0 degre	es		Heav	y Truck	's: 53	.982			
FHWA Noise Mode		-									
VehicleType	REMEL	Traffic Flow	Dista			Road	Fres		Barrier Att		m Atter
Autos:	70.20	2.10		-0.62		-1.20		-4.69		000	0.00
Medium Trucks:	81.00	-12.67		-0.60		-1.20		-4.88		000	0.00
Heavy Trucks:	85.38	-7.37		-0.60		-1.20		-5.35	0.0	000	0.00
Unmitigated Noise VehicleType	Levels (withous Leg Peak Hou			attenu Leg Ev		100	Night	1	I dn		NEL
Autos:	70.		68.3	Ley Lv	64.8		63.	6	71.0		71
Medium Trucks:	66.	-	64.9		57.6		58.	-	66.3		66
Heavy Trucks:	76.		74.3		67.4		69		76.8		76
Vehicle Noise:	77.		75.6		69.6		70.		78.		78
Centerline Distanc	e to Noise Co	ntour (in feet	)								
				70 d	BA	65	dBA	(	60 dBA	55	dBA
			I dn:	20	5		41		951	2.	048
					_	-			00.	-,	

Wednesday, October 17, 2018

	FH\	WA-RD-77-108	HIGH	łWAY	NOISE PI	REDICT	ION M	ODEL					
Road Nar	rio: OY 2020 W me: Rubidoux E ent: s/o 20th St	31.						: Agua : 11215					
	SPECIFIC IN	IPUT DATA							L INPUT	S			
Highway Data					Site Con	ditions	(Hard	= 10, S	oft = 15)				
Average Daily	Traffic (Adt):	26,165 vehicl	es		Autos: 15								
Peak Hou	r Percentage:	10%			Me	dium Tr	ucks (2	Axles).	15				
Peak	Hour Volume:	2,616 vehicle	s		He	avy Tru	cks (3+	Axles).	15				
V	ehicle Speed:	50 mph			Vehicle Mix								
Near/Far La	ane Distance:	48 feet			VehicleType Day Evening Night								
Site Data					Autos: 73.2% 8.1% 18.6%								
D.	arrier Heiaht:	0.0 feet			M	edium T		82.2%	3.9%	14.0%			
Barrier Type (0-V		0.0 reet			- 1	Heavy T	rucks:	76.5%	4.0%	19.5%	8.63%		
,,,,	ist. to Barrier:	59.0 feet											
	Centerline Dist. to Observer: 59.0 feet					Noise Source Elevations (in feet)							
Barrier Distance	Parrier Distance to Observer: 0.0 feet					Auto		0.000					
Observer Height	bserver Height (Above Pad): 5.0 feet					m Truck		2.297					
	Pad Elevation:	0.0 feet			Heav	y Truck	s: 8	3.004	Grade Ad	justment	: 0.0		
Ro	oad Elevation:	0.0 feet			Lane Eq	uivalen	t Dista	nce (in	feet)				
	Road Grade:	0.0%				Auto.	s: 5	4.129					
	Left View:	-90.0 degre	es		Mediu	m Truck	s: 5	3.966					
	Right View:	90.0 degre	es		Heav	y Truck	s: 5	3.982					
FHWA Noise Mod	del Calculation	ıs											
VehicleType	REMEL	Traffic Flow	Dis	stance	Finite	Road	Fre	snel	Barrier Att	en Bei	m Atten		
Autos		1.36		-0.6		-1.20		-4.69		000	0.000		
Medium Trucks				-0.6		-1.20		-4.88		000	0.000		
Heavy Trucks	85.38	-8.76		-0.6	60	-1.20		-5.35	0.0	000	0.000		
Inmitigated Nois	e Levels (with	out Topo and	barri	er atte	nuation)								
VehicleType	Leq Peak Hou			Leq E	vening	Leq	Night		Ldn		NEL		
Autos			67.6		64.1 56.4		62		70.2	_	70.5		
	Medium Trucks: 65.3 63.7						57		65.0	-	65.2		
Heavy Trucks			72.9		66.1		68		75.4		75.6		
Vehicle Noise: 76.4 74.4  enterline Distance to Noise Contour (in feet)					68.5		69	0.0	76.9	9	77.0		
Centerline Distar	ice to Noise C	ontour (in feet	:)	70	dBA	er.	dBA	1	60 dBA		dBA		
			I do:				<i>aBA</i> 65		785		692		
					169 174		ნნ 74						
		C	NEL:	1	/4	3	/4		806	1,	736		

Wednesday, October 17, 2018

	FH\	WA-RD-77-108	HIGH	1 YAW	NOISE P	REDICT	ION MO	DEL			
Road Na	rio: OY 2020 V me: Rubidoux E ent: s/o 24th St	3I.					Name: . lumber:		Mansa		
	SPECIFIC IN	IPUT DATA							L INPUT	s	
Highway Data					Site Cor	ditions	(Hard =	10, Sc	oft = 15)		
Average Daily	/ Traffic (Adt):	26,673 vehicl	es					Autos:	15		
Peak Hou	r Percentage:	10%			Me	dium Tr	ucks (2 A	Axles):	15		
Peak	Hour Volume:	2,667 vehicle	s		He	avy Tru	cks (3+ A	Axles):	15		
V	ehicle Speed:	50 mph			Vehicle	Miv					
Near/Far L	ane Distance:	48 feet		-		icleType		Dav	Evening	Night	Daily
Site Data					Autos: 73.2% 8.1% 18.6% 8						
	arrier Height:	0.0 feet			М	edium T		82.2%		14.0%	
Barrier Type (0-1	-	0.0 1661				Heavy T	rucks:	76.5%	4.0%	19.5%	8.69%
	ist to Barrier:	59.0 feet		L							
Centerline Dist		59.0 feet		L	Noise S				eet)		
Barrier Distance		0.0 feet				Auto		000			
Observer Height		5.0 feet				m Truck		297			
	Pad Elevation:	0.0 feet			Heav	y Truck	s: 8.0	004	Grade Ad	justment	0.0
	nad Flevation:	0.0 feet			Lane Eq	uivalen	t Distan	ce (in i	feet)		
	Road Grade:	0.0%		Ī		Auto	s: 54.	129			
	Left View:	-90.0 degre	es		Mediu	m Truck	s: 53.	966			
	Right View:	90.0 degre	es		Heav	y Truck	s: 53.	982			
FHWA Noise Mod	del Calculation	ıs									
VehicleType	REMEL	Traffic Flow	Dis	stance	Finite	Road	Fresn	iel	Barrier Att	en Ber	m Atten
Autos	70.20	1.44		-0.6	2	-1.20		-4.69	0.0	000	0.000
Medium Trucks	: 81.00	-13.78		-0.6	0	-1.20		-4.88	0.0	000	0.000
Heavy Trucks	: 85.38	-8.65		-0.6	0	-1.20		-5.35	0.0	000	0.000
Unmitigated Nois	se Levels (with	out Topo and	barri	er atter	nuation)						
VehicleType	Leq Peak Hou			Leg E	vening	Leq	Night		Ldn		NEL
Autos		0.8	67.7		64.2		63.0		70.3		70.6
Medium Trucks			63.8		56.5		57.3		65.2	-	65.3
Heavy Trucks Vehicle Noise		i.9	73.0		66.2 68.6		68.3 69.7		75.5 77.0		75.7 77.1
Centerline Distar					00.0		09.7		77.0	,	77.1
Centernine Distar	ice to Noise C	ontour (in feet	1	70	dBA	65	dBA	-	60 dBA	55	dBA
			I dn:		72		70		798		719
	CNEL:							764			
		0			176 380			819		٠,	

Wednesday, October 17, 2018

	FHV	VA-RD-77-108	HIGH	1 YAWH	NOISE P	REDICT	ION M	ODEL			
	o: OY 2020 W e: Rubidoux B at: s/o 28th St.							Agua I 11215	Mansa		
	SPECIFIC IN	PUT DATA							L INPUT	S	
Highway Data					Site Cor	nditions	(Hard	= 10, S	oft = 15)		
Average Daily	Traffic (Adt):	28,820 vehicle	es					Autos:	15		
Peak Hour I	Percentage:	10%			Me	edium Tr	ucks (2	Axles):	15		
Peak He	our Volume:	2,882 vehicle	S		He	eavy Tru	cks (3+	Axles):	15		
Vel	hicle Speed:	50 mph		-	Vehicle	Miv					
Near/Far Lar	ne Distance:	48 feet				icleType		Day	Evening	Night	Daily
Site Data					Autos: 73.2% 8.1% 18.6% 8						88.749
Rar	rier Height:	0.0 feet			М	edium T	rucks:	82.2%	3.9%	14.0%	2.65%
Barrier Type (0-Wa		0.0				Heavy T	rucks:	76.5%	4.0%	19.5%	8.619
Centerline Dis	t. to Barrier:	59.0 feet		-	Noise S	ource E	levatio	ns (in f	eet)		
Centerline Dist. t	Centerline Dist. to Observer: 59.0 feet Barrier Distance to Observer: 0.0 feet							0.000	,		
Barrier Distance t	to Observer:		Mediu	m Truck		.297					
Observer Height (/	,	5.0 feet			Hear	vy Truck	s: 8	3.004	Grade Ad	ustment	0.0
	d Elevation:	0.0 feet		-							
	d Elevation:	0.0 feet		L	Lane Eq				teet)		
F	Road Grade:	0.0%				Auto		1.129			
	Left View:	-90.0 degree				m Truck		3.966			
	Right View:	90.0 degree	es		Hea	vy Truck	s: 53	3.982			
FHWA Noise Mode											
VehicleType	REMEL	Traffic Flow	Dis	stance		Road	Fres		Barrier Att		m Atten
Autos:	70.20	1.78		-0.6	-	-1.20		-4.69	0.0		0.00
Medium Trucks:	81.00	-13.46		-0.6		-1.20		-4.88	0.0		0.00
Heavy Trucks:	85.38	-8.35		-0.6	-	-1.20		-5.35	0.0	100	0.00
Unmitigated Noise	•										
VehicleType Autos:	Leq Peak Hou 70.		68.0	Leq E	vening 64.5		Night 63	2	Ldn 70.6		NEL 70.
Medium Trucks:	65.		64.1		56.8		57		65.5		65.
Heavy Trucks:	75.		73.3		66.5		68		75.8		76.
Vehicle Noise:	76.	_	74.8		68.9		70		77.3		77.
Centerline Distanc	e to Noise Co	ntour (in feet	)								
				70	dBA	65	dBA	- (	60 dBA	55	dBA
			Ldn:	18	80	3	88		837	1,	803
		-	VFI:		85		98		859		850

	FH\	WA-RD-77-108	HIGH	IWAY N	OISE PF	REDICTIO	ON MO	DEL			
	: OY 2020 W : Rubidoux E t: s/o 26th St	3I.				Project N Job Nu			Mansa		
	PECIFIC IN	IPUT DATA							L INPUTS	3	
Highway Data				5	Site Con	ditions (l	Hard =	10, So	oft = 15)		
Average Daily T	raffic (Adt):	27,524 vehicl	es					Autos:	15		
Peak Hour F	Percentage:	10%				dium Truc			15		
Peak Ho	ur Volume:	2,752 vehicle	:S		He	avy Truck	s (3+ A	xles):	15		
Veh	icle Speed:	50 mph		1	/ehicle l	Mix					
Near/Far Lan	e Distance:	48 feet		F	Vehi	icleType		Dav	Evening	Night	Daily
Site Data							ıtos:	73.2%	-	18.6%	,
Rarr	ier Height:	0.0 feet			Me	edium Tru	cks:	82.2%	3.9%	14.0%	2.66%
Barrier Type (0-Wa	II, 1-Berm):	0.0			F	leavy Tru	cks:	76.5%	4.0%	19.5%	8.65%
Centerline Dist		59.0 feet			loise Sc	ource Ele	vation	s (in fe	eet)		
Centerline Dist. to		59.0 feet				Autos:	0.0	000			
Barrier Distance to		0.0 feet			Mediur	m Trucks:	2.2	297			
Observer Height (A	,	5.0 feet			Heav	y Trucks:	8.0	004	Grade Adj	ustment	0.0
	d Elevation:	0.0 feet		۱.							
	d Elevation:	0.0 feet			ane Eq	uivalent l			reet)		
R	oad Grade:	0.0%				Autos:					
	Left View: Right View:	-90.0 degre 90.0 degre				m Trucks: vy Trucks:					
			C3		77007	y Traono.	55.	JU2			
FHWA Noise Model		-	D:		T =: :		_		D : 4	1.5	***
VehicleType Autos:	REMEL 70.20	Traffic Flow 1.58		tance -0.62	Finite	-1.20	Fresn	ei .	Barrier Atte		m Atten 0.000
Medium Trucks:	70.20 81.00			-0.62		-1.20		-4.69 -4.88	0.0		0.000
Heavy Trucks:	85.38			-0.60		-1.20		-4.00 -5.35	0.0		0.000
Unmitigated Noise			harrie	er atten	uation)						
-	ea Peak Hou			Leq Ev		Leg N	liaht		Ldn	C	NEL
Autos:	- 1	0.0	67.8	Log Li	64.3	Logit	63.1		70.4		70.7
Medium Trucks:	65	5.5	63.9		56.6		57.5		65.3		65.4
Heavy Trucks:	75	5.0	73.1		66.3		68.4		75.7		75.8
Vehicle Noise:	76	6.6	74.6		68.7		69.8		77.1		77.3
Centerline Distance	to Noise Co	ontour (in fee	t)								
				70 a	IBA .	65 di	BA	6	i0 dBA	55	dBA
	Ldn:			17	175 378		3		813		752
	CNEL:					180 387 834 1,798					798

Wednesday, October 17, 2018

Site Data		FH	WA-RD-77-108	HIGH	łWAY	NOISE PI	REDICT	ION M	ODEL			
Average Daily Traffic (Adi):   27,835 vehicles   Peak Hour Percentage:   10%   Autos:   15   Heavy Trucks (3+ Axles):   15	Road Nar	ne: Rubidoux E	BI.									
Average Daily Traffic (Adi):   27,835 vehicles   Peak Hour Percentage:   10%   Medium Trucks (2 Axles):   15		SPECIFIC IN	IPUT DATA								S	
Peak Hour Percentage:	Highway Data					Site Con	ditions	(Hard	= 10, S	oft = 15)		
Peak Hour Volume: Vehicle Speed: Near/Far Lane Distance: 48 feet	Average Daily	Traffic (Adt):	27,835 vehicle	es					Autos:	15		
Vehicle Speed:   S0 mph   Wehicle Mix   Vehicle Type   Day   Evening   Night   Day	Peak Hou	r Percentage:	10%			Me	dium Tr	ıcks (2	Axles).	15		
Near/Far Lane Distance:	Peak	Hour Volume:	2,784 vehicle	S		He	avy Tru	cks (3+	Axles).	15		
Near/Far Lane Distance:	V	ehicle Speed:	50 mph			Vahiola	Miv					
Autos: 73.2% 8.1% 18.6% 89.18errier Height: 0.0 feet   Medium Trucks: 82.2% 3.9% 14.0% 2.18errier Type (0-Wall, 1-Berm): 0.0   Heavy Trucks: 76.5% 4.0% 19.5% 7.18errier Type (0-Wall, 1-Berm): 0.0   Heavy Trucks: 82.2% 3.9% 14.0% 2.18errier Type (0-Wall, 1-Berm): 0.0   Heavy Trucks: 82.2% 3.9% 14.0% 2.18errier Type (0-Wall, 1-Berm): 0.0   Heavy Trucks: 82.2% 3.9% 14.0% 2.18errier Distance to Observer: 59.0 feet   Autos: 0.000   Medium Trucks: 2.297   Heavy Trucks: 2.297   Heavy Trucks: 8.004   Grade Adjustment: 0.0   Medium Trucks: 2.297   Heavy Trucks: 3.906   Heavy Trucks: 53.966   Heavy	Near/Far La	ane Distance:	48 feet						Dav	Evenina	Niaht	Daily
Barrier Type (0-Wall, 1-Berm): 0.0   Teet	Site Data											,
Barrier Type (0-Wall, 1-Berm):	D.	rrior Hoight:	0.0 foot			М			82.2%	3.9%		
Noise Source Elevations (in feet)   Noise Source Elevations (in feet)						- 1	Heavy T	ucks:	76.5%	4.0%	19.5%	7.67%
Centerline Dist. to Observer: 59.0 feet   Barrier Distance to Observer: 0.0 feet   Autos: 0.000   Medium Trucks: 2.297   Heavy Trucks: 8.004   Grade Adjustment: 0.0   Get   Centerline Distance for Observer Height (Above Pad): 5.0 feet   Pad Elevation: 0.0 feet   Road Grade: 0.0%   Left View: 90.0 degrees   Right View: 90.0 degrees   Right View: 90.0 degrees   Heavy Trucks: 53.986   Heavy Trucks: 53.986   Heavy Trucks: 53.982   Medium Trucks: 53.982   Medium Trucks: 53.982   Medium Trucks: 53.982   Medium Trucks: 63.982   Medium Trucks: 63.983   Mediu	,,,,	. ,										
Barrier Distance to Observer: 0.0   feet Observer Height (Above Pad): 5.0   feet Pad Elevation: 0.0   feet Road Elevation: 0.0   feet Road Elevation: 0.0   feet Road Flevation: 0.0			59.0 feet			Noise S				eet)		
Deserver Height (Above Pad);   5.0   feet   Pad Elevation:   0.0   feet   Road Elevation:   0.0   feet   Road Grade:   0.0   feet   Road   Fresnel   Barrier Atten   Feet   Road   Fresnel   Barrier Atten   Feet   Road   Fresnel   Barrier Atten   Feet   Road   Fresnel   Barrier Atten   Feet   Road   Fresnel   Barrier Atten   Feet   Road   Fresnel   Barrier Atten   Feet   Road   Fresnel   Feet	Barrier Distance											
Pad Elevation: 0.0 feet   Canal Equivalent Distance (in feet)	Observer Height	(Above Pad):	5.0 feet									
Road Grade: 0.0%		. ,	0.0 feet			Heav	ry Truck	S: 8	3.004	Grade Ad	justment	: 0.0
Left View:	Ro	ad Elevation:	0.0 feet			Lane Eq	uivalen	Dista	nce (in	feet)		
Right View: 90.0 degrees		Road Grade:	0.0%				Auto	s: 5	4.129			
Preserve   Preserve		Left View:	-90.0 degree	es		Mediu	m Truck	s: 5	3.966			
VehicleType   REMEL   Traffic Flow   Distance   Finite Road   Fresnel   Barrier Atten   Bern At Autos:   70.20   1.68   -0.62   -1.20   -4.69   0.000   0   0   0   0   0   0   0   0		Right View:	90.0 degree	es		Heav	y Truck	s: 5	3.982			
Autos:         70.20         1.68         -0.62         -1.20         -4.69         0.000         0           Medium Trucks:         81.00         -13.87         -0.60         -1.20         -4.88         0.000         0           Heavy Trucks:         85.38         -9.00         -0.60         -1.20         -5.35         0.000         0           Unmitigated Noise Levels (without Topo and barrier attenuation)         Leq Policy         Leq Right         Lon         CNEL           Autos:         70.1         67.9         64.4         63.2         70.5           Medium Trucks:         65.3         63.7         56.4         57.2         65.1           Heavy Trucks:         74.6         72.6         65.8         67.9         75.2           Vehicle Noise:         76.3         74.3         68.5         69.5         76.8           Centerline Distance to Noise Contour (in feet)         70 dBA         65 dBA         60 dBA         55 dBA	FHWA Noise Mod	del Calculation	s									
Medium Trucks: 81.00	VehicleType	REMEL	Traffic Flow	Dis	stance	Finite	Road	Fre	snel	Barrier Att	en Ber	m Atten
Heavy Trucks: 85.38						-						0.000
Inmitigated Noise   Levels (without Topo and barrier attenuation)   VehicleType   Leq Peak Hour   Leq Day   Leq Evening   Leq Night   Ldn   CNEL   Autos: 70.1   67.9   64.4   63.2   70.5   Medium Trucks: 65.3   63.7   56.4   57.2   65.1   Heavy Trucks: 74.6   72.6   65.8   67.9   75.2   Vehicle Noise: 76.3   74.3   68.5   69.5   76.8												0.000
VehicleType	Heavy Trucks	85.38	-9.00		-0.6	60	-1.20		-5.35	0.0	000	0.000
Autos:         70.1         67.9         64.4         63.2         70.5           Medium Trucks:         65.3         63.7         56.4         57.2         65.1           Heavy Trucks:         74.6         72.6         65.8         67.9         75.2           Vehicle Noise:         76.3         74.3         68.5         69.5         76.8           Centerline Distance to Noise Contour (in feet)           70 dBA         65 dBA         60 dBA         55 dBA	Unmitigated Nois			barri	er atte	nuation)						
Medium Trucks:         65.3         63.7         56.4         57.2         65.1           Heavy Trucks:         74.6         72.6         65.8         67.9         75.2           Vehicle Noise:         76.3         74.3         68.5         69.5         76.8           Centerline Distance to Noise Contour (in feet)           70 dBA         65 dBA         60 dBA         55 dBA	,,		, ,	_	Leq E		Leq					
Heavy Trucks:         74.6         72.6         65.8         67.9         75.2           Vehicle Noise:         76.3         74.3         68.5         69.5         76.8           Centerline Distance to Noise Contour (in feet)           TO dBA         65 dBA         60 dBA         55 dBA									-		-	70.8
Vehicle Noise:         76.3         74.3         68.5         69.5         76.8           Centerline Distance to Noise Contour (in feet)         70 dBA         65 dBA         60 dBA         55 dBA												65.2
Centerline Distance to Noise Contour (in feet)         70 dBA         65 dBA         60 dBA         55 dBA												75.3 76.9
70 dBA 65 dBA 60 dBA 55 dBA						00.0		00		, 0.0		70.5
	semeriirie Distar	ice to Noise C	ontour (III feet		70	dBA	65	dBA	т.	60 dBA	55	dBA
Lun. 167 359 774 1.067				Ldn:		67				774		667
CNEL: 171 369 794 1.711									,			

		FHW	A-RD-77-108	HIGI	HWAY	NOISE P	REDICT	ION MO	DDEL			
Road Na	ame:	OY 2020 Wi Rubidoux Bl s/o 34th St.						t Name: lumber:				
SIT	E SF	PECIFIC IN	PUT DATA							L INPUT	s	
Highway Data						Site Cor	nditions	(Hard:	= 10, S	oft = 15)		
Average Dai	ly Tr	affic (Adt): 2	21,033 vehicle	es					Autos:	15		
Peak Ho	ur Pe	ercentage:	10%			Me	edium Tr	ucks (2	Axles):	15		
Peak	(Нои	ır Volume:	2,103 vehicle	S		He	eavy Tru	cks (3+	Axles):	15		
1	Vehic	cle Speed:	50 mph			Vehicle	Mix					
Near/Far	Lane	Distance:	48 feet				icleType	9	Day	Evening	Night	Daily
Site Data								Autos:	73.2%	8.1%	18.6	% 89.80%
F	Rarrio	er Height:	0.0 feet			M	edium T	rucks:	82.2%	3.9%	14.0	% 2.50%
Barrier Type (0-		-	0.0				Heavy T	rucks:	76.5%	4.0%	19.5	% 7.70%
Centerline			59.0 feet			Noise S		lovotio	no (in f	0.041		
Centerline Dis	st. to	Observer:	59.0 feet			Noise 3	Auto			eet)		
Barrier Distance	ce to	Observer:	0.0 feet			11	Auto m Truck		.000			
Observer Heigh	nt (AL	oove Pad):	5.0 feet				m Truck vy Truck		.004	Grade Ad	iuetma	nt: 0.0
	Pad	Elevation:	0.0 feet			пеа	vy Truck	.s. o	.004	Orade Au	Justino	n. 0.0
F	Road	Elevation:	0.0 feet			Lane Eq	uivalen	t Distai	ıce (in	feet)		
	Ro	ad Grade:	0.0%				Auto	s: 54	.129			
		Left View:	-90.0 degre	es			m Truck		.966			
	R	Right View:	90.0 degre	es		Hea	vy Truck	s: 53	.982			
FHWA Noise Mo	odel	Calculations										
VehicleType			Traffic Flow	Di	stance		Road	Fres		Barrier Att	_	erm Atten
Auto		70.20	0.47		-0.		-1.20		-4.69		000	0.000
Medium Truck		81.00	-15.09		-0.0		-1.20		-4.88		000	0.000
Heavy Truck	S.	85.38	-10.20		-0.	60	-1.20		-5.35	0.0	000	0.000
Unmitigated No	ise L	.evels (witho	ut Topo and	barri	er atte	nuation)						
VehicleType	_	eq Peak Hour			Leq I	vening		Night		Ldn		CNEL
Auto		68.9	-	66.7		63.2		62	-	69.3		69.6
Medium Truck		64.	-	62.5		55.2		56	-	63.8	-	64.0
Heavy Truck		73.4		71.4		64.6		66		74.0		74.1
Vehicle Nois	e:	75.	1	73.1		67.2		68	.3	75.6	6	75.7
Centerline Dista	nce	to Noise Co.	ntour (in feet	)							_	
				L		dBA		dBA	- (	60 dBA		55 dBA
					139 298			643		1,385		
			CNEL:			142 306			660			1,422

	FHW	A-RD-77-108	HIGH	WAY N	OISE P	REDICT	ION MC	DDEL			
Road Nam	io: OY 2020 Wi le: Rivera St. nt: n/o Market S						Name: lumber:		Mansa		
	SPECIFIC IN	PUT DATA							LINPUT	5	
Highway Data					Site Cor	ditions	(Hard =	= 10, So	ft = 15)		
Average Daily	Traffic (Adt):	10,214 vehicle	es					Autos:	15		
Peak Hour	Percentage:	10%					ucks (2		15		
Peak H	lour Volume:	1,021 vehicle	S		He	avy Tru	cks (3+	Axles):	15		
Ve	hicle Speed:	30 mph		,	Vehicle	Mix					
Near/Far La	ne Distance:	12 feet				icleType	9	Day	Evening	Night	Daily
Site Data							Autos:	73.2%	8.1%	18.6%	90.00%
Rai	rrier Height:	0.0 feet			М	edium T	rucks:	82.2%	3.9%	14.0%	2.479
Barrier Type (0-W		0.0			1	Heavy T	rucks:	76.5%	4.0%	19.5%	7.52%
Centerline Dis	st. to Barrier:	33.0 feet		,	Voise S	ource F	levation	ns (in fe	et)		
Centerline Dist.	to Observer:	33.0 feet		F		Auto		.000			
Barrier Distance	Barrier Distance to Observer: 0.0 feet							.297			
Observer Height (	Above Pad):			vy Truck			Grade Ad	ustment	0.0		
Pa	ad Elevation:	0.0 feet		L							
Ros	ad Elevation:	0.0 feet		1	Lane Eq	uivalen			eet)		
1	Road Grade:	0.0%				Auto		.833			
	Left View:	-90.0 degre				m Truck		.562			
	Right View:	90.0 degre	es		Heav	y Truck	s: 32	.589			
FHWA Noise Mode	el Calculations										
VehicleType	REMEL	Traffic Flow	Dis	tance		Road	Fres		Barrier Atte		m Atten
Autos:	61.75	-0.44		2.64		-1.20		-4.52	0.0		0.00
Medium Trucks:	73.48	-16.05		2.69		-1.20		-4.86	0.0		0.00
Heavy Trucks:	79.92	-11.22		2.69	9	-1.20		-5.69	0.0	00	0.00
Unmitigated Noise											
VehicleType	Leq Peak Hour			Leq Ev		Leq	Night		Ldn		VEL
Autos:	62.		60.6		57.1		55.		63.2		63.
Medium Trucks:	58.		57.3		50.0		50.		58.7		58.
Heavy Trucks: Vehicle Noise:	70.: 71.:		68.2 69.2		61.4		63. 64.	-	70.8 71.7		70. 71.
Centerline Distance											
Contenine Distant	00 10 110/3E CO	inoui (iii ieei		70 d	iBA	65	dBA	6	0 dBA	55	dBA
			Ldn:	43	3		92	•	199	4	29
			CNEL:				44 95 204 439				

	FH\	VA-RD-77-108 I	HIGHW	AY N	OISE PI	REDICT	ION MO	DDEL			
Road Nar	rio: OY 2020 W me: Cactus Av. ent: n/o El Rivin						t Name: lumber:		Mansa		
	SPECIFIC IN	IPUT DATA							L INPUT	S	
Highway Data				S	ite Con	ditions	(Hard:		oft = 15)		
Average Daily		7,751 vehicles	3					Autos:			
	r Percentage:	10%					ucks (2	,			
	Hour Volume:	775 vehicles			He	avy Tru	cks (3+	Axles):	15		
	ehicle Speed:	40 mph		ν	ehicle	Mix					
Near/Far La	ane Distance:	11 feet			Veh	icleType	9	Day	Evening	Night	Daily
Site Data							Autos:	73.2%	8.1%	18.6%	90.27%
Ва	arrier Height:	0.0 feet			M	edium T	rucks:	82.2%	3.9%	14.0%	2.419
Barrier Type (0-V		0.0			I	Heavy T	rucks:	76.5%	4.0%	19.5%	7.329
Centerline D	ist. to Barrier:	30.0 feet			laina C	E	levatio	an (in f	0.041		
Centerline Dist.	to Observer:	30.0 feet		-	10/36 30	Auto		.000	cei)		
Barrier Distance	to Observer:	0.0 feet			Modiu	m Truck		.297			
Observer Height	(Above Pad):	5.0 feet				y Truck		.004	Grade Ad	iustment	. 0.0
P	Pad Elevation:	0.0 feet			i icas	y Truck	is. 0	.004	Orado ria,	juoumom	. 0.0
Ro	ad Elevation:	0.0 feet		L	ane Eq	uivalen	t Distar	ice (in	feet)		
	Road Grade:	0.0%				Auto	s: 29	.912			
	Left View:	-90.0 degrees	3		Mediu	m Truck	rs: 29	.615			
	Right View:	90.0 degrees	3		Heav	y Truck	rs: 29	.644			
FHWA Noise Mod	lel Calculation	s									
VehicleType	REMEL	Traffic Flow	Distar	nce	Finite	Road	Fres	nel	Barrier Att	en Bei	m Atten
Autos:	66.51	-2.88		3.24		-1.20		-4.49	0.0	000	0.00
Medium Trucks:	77.72	-18.62		3.31		-1.20		-4.86	0.0	000	0.00
Heavy Trucks:	82.99	-13.79		3.30		-1.20		-5.77	0.0	000	0.00
Unmitigated Nois	e Levels (with	out Topo and b	arrier a	attenu	ıation)						
VehicleType	Leq Peak Hou	. , . ,		eq Ev	ening	Leq	Night		Ldn		NEL
Autos:			3.5		60.0		58.	-	66.2	_	66.
Medium Trucks:		-	9.6		52.3		53.		60.9	-	61.
Heavy Trucks:			9.4		62.6		64.		71.9		72.
Vehicle Noise:			0.7		64.7		65.	9	73.2	2	73.
Centerline Distan	ce to Noise Co	ontour (in feet)		70.			10.4	_			
			- 1	70 di	BA	65	dBA	(	60 dBA	55	dBA

Wednesday, October 17, 2018

	FH\	WA-RD-77-108	HIGH	HWAY	NOISE PI	REDICT	ION M	ODEL			
Road Nam	io: OY 2020 W ne: Riverside A nt: n/o I-10 Fw	۱۷.						: Agua : 11215			
	SPECIFIC IN	IPUT DATA							L INPUT	S	
Highway Data					Site Con	ditions	(Hard	= 10, S	oft = 15)		
Average Daily	Traffic (Adt):	40,812 vehicle	es					Autos:	15		
Peak Hour	Percentage:	10%			Me	dium Tr	ıcks (2	Axles).	15		
Peak H	lour Volume:	4,081 vehicles	S		He	avy Tru	cks (3+	Axles).	15		
Ve	hicle Speed:	40 mph			Vehicle	Miss					
Near/Far La	ne Distance:	50 feet				icleType	. 1	Dav	Evening	Night	Daily
Site Data							Autos:	73.2%	-	18.6%	,
	rrier Heiaht:	0.0 feet			М	edium T		82.2%		14.0%	
Barrier Type (0-W		0.0 1001			1	Heavy T	ucks:	76.5%	4.0%	19.5%	7.68%
Centerline Di		60.0 feet									
Centerline Dist.		60.0 feet			Noise S				eet)		
Barrier Distance		0.0 feet				Auto.		0.000			
Observer Height		5.0 feet				m Truck		2.297			
	ad Flevation:	0.0 feet			Heav	ry Truck	s: 8	3.004	Grade Ad	justment	: 0.0
	ad Elevation:	0.0 feet			Lane Eq	uivalen	Dista	nce (in	feet)		
	Road Grade:	0.0%				Auto.	s: 5	1.772			
	Left View:	-90.0 degree	es		Mediu	m Truck	s: 5	4.610			
	Right View:	90.0 degree			Heav	y Truck	s: 5	4.626			
FHWA Noise Mod	el Calculation	s									
VehicleType	REMEL	Traffic Flow	Dis	stance		Road	Fre	snel	Barrier Att		m Atten
Autos:	66.51	4.32		-0.7	-	-1.20		-4.69		000	0.000
Medium Trucks:	77.72			-0.6		-1.20		-4.88		000	0.000
Heavy Trucks:	82.99	-6.36		-0.6	68	-1.20		-5.34	0.0	000	0.000
Unmitigated Noise	e Levels (with	out Topo and	barri	er atte	nuation)						
VehicleType	Leq Peak Hou	ır Leq Day	′	Leq E	vening	Leq	Night		Ldn	C	NEL
Autos:	68	.9	66.8		63.3		62	.1	69.4	4	69.7
Medium Trucks:	64	.6	63.0		55.7		56	.5	64.3	3	64.5
Heavy Trucks:	74	.7	72.8		66.0		68	.1	75.4	4	75.5
Vehicle Noise:	76	i.1	74.1		68.1		69	.3	76.6	6	76.8
Centerline Distan	ce to Noise C	ontour (in feet	)								
	-			70	dBA	65	dBA		60 dBA	55	dBA
			Ldn:	1	65	3	56		767	1,	653
	CNEL:				170 365			787			695

	FH\	WA-RD-77-108	HIGHV	1 YAV	NOISE P	REDICT	ION M	DDEL			
Road Nan	nio: OY 2020 W ne: Riverside A nt: s/o I-10 Fw	W.					t Name: lumber:				
	SPECIFIC IN	IPUT DATA							L INPUT	s	
Highway Data					Site Cor	nditions	(Hard:	= 10, S	oft = 15)		
Average Daily	Traffic (Adt):	46,352 vehicle	es					Autos.	15		
Peak Hour	Percentage:	10%			Me	edium Tr	ucks (2	Axles).	: 15		
Peak F	lour Volume:	4,635 vehicle	s		He	eavy Tru	cks (3+	Axles).	: 15		
Ve	hicle Speed:	50 mph		F	Vehicle	Miv					
Near/Far La	ne Distance:	50 feet		F		icleType	2	Dav	Evening	Night	Daily
Site Data							Autos:	73.29		18.6%	
Pa	rrier Height:	0.0 feet			М	edium T	rucks:	82.29	6 3.9%	14.0%	
Barrier Type (0-W		0.0				Heavy T	rucks:	76.5%	6 4.0%	19.5%	8.06%
Centerline Di		60.0 feet									
Centerline Dist.	to Observer:	60.0 feet			Noise S				eet)		
Barrier Distance	to Observer:	0.0 feet				Auto		.000			
Observer Height	(Above Pad):	5.0 feet				m Truck		.297	O d- A-		
	ad Elevation:	0.0 feet			Heav	vy Truck	:s: 8	.004	Grade Ad	justment	0.0
	ad Elevation:	0.0 feet		Ī	Lane Eq	uivalen	t Distai	nce (in	feet)		
	Road Grade:	0.0%				Auto	s: 54	.772			
	Left View:	-90.0 degree	es		Mediu	m Truck	s: 54	.610			
	Right View:	90.0 degree	es		Heav	vy Truck	s: 54	.626			
FHWA Noise Mod	el Calculation	s									
VehicleType	REMEL	Traffic Flow	Dista	ance	Finite	Road	Fres	nel	Barrier Att	en Bei	rm Atten
Autos:	70.20	3.88		-0.7	0	-1.20		-4.69	0.0	000	0.000
Medium Trucks:	81.00	-11.52		-0.6	i8	-1.20		-4.88	0.0	000	0.000
Heavy Trucks:	85.38	-6.57		-0.6	18	-1.20		-5.34	0.0	000	0.000
Unmitigated Nois	e Levels (with	out Topo and	barrier	atter	nuation)						
VehicleType	Leq Peak Hou			Leq E	vening		Night		Ldn		NEL
Autos:	72		70.0		66.5		65		72.		72.9
Medium Trucks:			66.0		58.7		59	-	67.3	-	67.5
Heavy Trucks:	76		75.0		68.2		70.		77.:		77.7
Vehicle Noise:	78	.5	76.6		70.7		71	.8	79.	1	79.2
Centerline Distan	ce to Noise Co	ontour (in feet	)								
					dBA		dBA		60 dBA		dBA
			Ldn:	_	41	-	19		1,119		410
	CNEL:				247 533 1,148 2,4			473			

Wednesday, October 17, 2018

	FHV	VA-RD-77-108	HIGI	HWAY I	NOISE P	REDICT	ION M	ODEL			
Road Nam	io: OY 2020 W e: Riverside A nt: s/o Santa A	iV.						: Agua   : 11215			
	SPECIFIC IN	IPUT DATA							L INPUT	S	
Highway Data					Site Cor	ditions	(Hard	= 10, S	oft = 15)		
Average Daily	Traffic (Adt):	34,607 vehicl	es					Autos:	15		
Peak Hour	Percentage:	10%				dium Tr					
Peak H	our Volume:	3,461 vehicle	es.		He	avy Tru	cks (3+	Axles):	15		
Ve	hicle Speed:	55 mph		ŀ	Vehicle	Mix					
Near/Far Lai	ne Distance:	52 feet		ŀ		icleType	9	Day	Evening	Night	Daily
Site Data							Autos:	73.2%	8.1%	18.6%	89.20%
Rai	rier Heiaht:	0.0 feet			М	edium T	rucks:	82.2%	3.9%	14.0%	2.60%
Barrier Type (0-W	'all, 1-Berm):	0.0				Heavy T	rucks:	76.5%	4.0%	19.5%	8.20%
Centerline Dis		52.0 feet		İ	Noise S	ource E	levatio	ns (in f	eet)		
	Centerline Dist. to Observer: 52.0 feet						s: (	0.000			
Barrier Distance		0.0 feet			Mediu	m Truck	s: 2	2.297			
Observer Height (	,	5.0 feet			Hear	y Truck	s: 8	3.004	Grade Ad	ustment	: 0.0
	ad Elevation:	0.0 feet		-	Lana Fa	ialan	4 Dioto	naa (in	foot)		
	ad Elevation:	0.0 feet			Lane Eq	Auto			ieet)		
,	Road Grade:	0.0%			11-4	Auto m Truck		5.310 5.114			
	Left View:	-90.0 degre				m rruck vy Truck		5.114			
	Right View:	90.0 degre	es		пеа	лу тиск	8. 40	0.100			
FHWA Noise Mode											
VehicleType	REMEL	Traffic Flow		stance		Road	Fres		Barrier Att		m Atten
Autos:	71.78	2.19		0.5		-1.20		-4.66	0.0		0.000
Medium Trucks:	82.40	-13.17		0.5		-1.20		-4.87	0.0		0.000
Heavy Trucks:	86.40	-8.18		0.5	-	-1.20		-5.41	0.0	100	0.000
Unmitigated Noise								_			
	Leq Peak Hou			Leq E	vening		Night	-	Ldn		NEL
Autos: Medium Trucks:	73 68		71.2 67.0		67.6 59.7		66 60		73.8 68.3		74.1 68.5
Heavy Trucks:	77		75.6		68.8		70		78.2		78.3
Vehicle Noise:	79		77.4		71.6		70		79.8		80.0
Centerline Distance	ce to Noise Co	ontour (in fee	t)								
		,		70	dBA	65	dBA	- (	60 dBA	55	dBA
			Ldn:	2	36	5	08		1,094	2	358
CNEL:				2	242 521 1,123 2,42			420			

	FHV	VA-RD-77-108	HIGHW	AY NO	DISE P	REDICT	ION M	ODEL			
	o: OY 2020 W e: Riverside A t: s/o Slover A	V.						: Agua : 11215			
	SPECIFIC IN	PUT DATA							L INPUT	S	
	. ,	42,964 vehicle 10% 4,296 vehicle 50 mph			Ме Не	dium Tr avy Tru	ucks (2	Autos: Axles). Axles).	15		
Near/Far Lar		52 feet		V	ehicle	<b>Mix</b> icleType	.	Dav	Evening	Night	Doilu
Site Data					ven		Autos:	73.2%	Ü		Daily 89.329
Barrier Type (0-Wa		0.0 feet 0.0				edium 7 Heavy 7		82.2% 76.5%		14.0% 19.5%	
Centerline Dist. t Centerline Dist. t Barrier Distance t Observer Height (	o Observer: o Observer:	52.0 feet 52.0 feet 0.0 feet 5.0 feet 0.0 feet		N	Mediu	Auto Truck y Truck	s: (	0.000 2.297 3.004	eet) Grade Ad	ljustmen	t: 0.0
	d Elevation:	0.0 feet		Li	ane Eq	uivalen	t Dista	nce (in	feet)		
F	Road Grade: Left View: Right View:	0.0% -90.0 degree 90.0 degree				Auto m Truck ry Truck	s: 4	5.310 5.114 5.133			
FHWA Noise Mode	l Calculation	S									
VehicleType	REMEL	Traffic Flow	Dista		Finite	Road	Fre	snel	Barrier At		rm Atter
Autos:	70.20	3.55		0.54		-1.20		-4.66		000	0.00
Medium Trucks: Heavy Trucks:	81.00 85.38	-11.84 -6.88		0.57		-1.20 -1.20		-4.87 -5.41		000	0.00
Unmitigated Noise			harriar		otion)	1.20		0.77			0.00
-	Leg Peak Hou			eq Eve		Lea	Night		Ldn		NEL
Autos:	73		70.9	,	67.4	209		5.2	73.		73.
Medium Trucks:	68	.5	66.9		59.6		60	).4	68.	3	68.
Heavy Trucks:	77	.9	75.9		69.1		71	.2	78.	5	78.
Vehicle Noise:	79	.5	77.5		71.6		72	2.7	80.	0	80
Centerline Distanc	e to Noise Co	ontour (in feet	)								
				70 dE			dBA	-	60 dBA	55	5 dBA
			Ldn:	241			19		1,117		,407
		C	VFI:	247	,		32		1,147	-	,470

Wednesday, October 17, 2018

	FH\	WA-RD-77-108 H	IGHWAY	NOISE PI	REDICTIO	ON MOD	EL			
	io: OY 2020 W				Project I	lame: Ag		ansa		
	nt: s/o Jurupa				300 140	iliber. I	1213			
	SPECIFIC IN	IPUT DATA		0:- 0				INPUT	S	
Highway Data				Site Con	ditions (					
Average Daily	. ,	39,426 vehicles					ıtos:	15		
	Percentage:	10%			dium Tru		/	15		
	lour Volume:	3,943 vehicles		He	avy Truci	(S (3+ Ax	les):	15		
	hicle Speed:	55 mph		Vehicle	Mix					
Near/Far La	ne Distance:	52 feet		Veh	icleType	D	ay I	Evening	Night	Daily
Site Data					A	itos: 7	3.2%	8.1%	18.6%	89.29%
Ba	rrier Heiaht:	0.0 feet		M	edium Tru	icks: 8	2.2%	3.9%	14.0%	2.59%
Barrier Type (0-W		0.0		I	Heavy Tru	icks: 7	6.5%	4.0%	19.5%	8.13%
Centerline Di		52.0 feet		Noise S	ource Ele	vations	(in fee	et)		
Centerline Dist.		52.0 feet 0.0 feet			Autos:	0.00	00			
Barrier Distance			Medium Trucks: 2.297							
Observer Height	. ,	5.0 feet		Heav	y Trucks.	8.00	14 (	Grade Ad	justment.	0.0
	ad Elevation:	0.0 feet		F		D/	/! #-	-41		
	ad Elevation:	0.0 feet		Lane Eq	uivalent		•	et)		
	Road Grade:	0.0%			Autos.		-			
	Left View:	-90.0 degrees			m Trucks.					
	Right View:	90.0 degrees		Heav	y Trucks.	45.13	33			
FHWA Noise Mod		-		,						
VehicleType	REMEL		Distance		Road	Fresne		arrier Att		m Atten
Autos:	71.78	2.76	0.6		-1.20		1.66		000	0.000
Medium Trucks:	82.40	-12.62	0.6		-1.20		1.87		000	0.000
Heavy Trucks:	86.40	-7.65	0.5		-1.20	-<	5.41	0.0	000	0.000
Unmitigated Nois VehicleType	e Levels (with Leg Peak Hou			nuation) vening	Leg N	limbs		_dn		VEL
venicie i ype Autos:	Leq Peak Hot			vening 68.2	Led I	67.0		_an 74.3		VEL 74.6
Medium Trucks:	69			60.2		61.1		68.9		69.0
Heavy Trucks:	78			69.4		71.5		78.7		78.8
Vehicle Noise:	79		-	72.1		73.1		80.4		80.6
Centerline Distan			.5	12.1		73.1		00.5	•	00.0
Centernile Distan	ce to NOISe C	ontour (in feet)	70	dBA	65 d	BA	60	) dBA	55	dBA
		La		56	55			.189		561
		CNE		63	56	_		.220		629
			_			-			_,	

FH	WA-RD-77-108	HIGH	WAY N	OISE P	REDICT	ION M	ODEL			
Scenario: OY 2020 Road Name: Rancho A Road Segment: n/o Agua	V.						: Agua   : 11215	Mansa		
SITE SPECIFIC I	NPUT DATA				ı	VOISE	MODE	L INPUT	S	
Highway Data			5	Site Cor	nditions	(Hard	= 10, S	oft = 15)		
Average Daily Traffic (Adt):	20,605 vehicl	es					Autos:	15		
Peak Hour Percentage:	10%			Me	edium Tr	ucks (2	Axles):	15		
Peak Hour Volume:	2,060 vehicle	s		He	avy Tru	cks (3+	- Axles):	15		
Vehicle Speed:	40 mph		1	/ehicle	Miv					
Near/Far Lane Distance:	52 feet		F.		icleType	э	Day	Evening	Night	Daily
Site Data						Autos:	73.2%	8.1%	18.6%	89.61%
Barrier Height:	0.0 feet			M	edium T	rucks:	82.2%	3.9%	14.0%	2.54%
Barrier Type (0-Wall, 1-Berm):	0.0				Heavy T	rucks:	76.5%	4.0%	19.5%	7.85%
Centerline Dist. to Barrier:	52.0 feet			Voise S	ource E	levatio	ns (in f	eet)		
Centerline Dist. to Observer:	52.0 feet				Auto		0.000	,		
Barrier Distance to Observer:	0.0 feet			Mediu	m Truck		2.297			
Observer Height (Above Pad):	5.0 feet				vy Truck		3.004	Grade Ad	justmen	t: 0.0
Pad Elevation:	0.0 feet		<u> </u>		•					
Road Elevation:	0.0 feet		L	ane Eq	uivalen			feet)		
Road Grade:	0.0%				Auto		5.310			
Left View:	-90.0 degre				m Truck		5.114			
Right View:	90.0 degre	es		Hea	vy Truck	s: 4	5.133			
FHWA Noise Model Calculation	-									
VehicleType REMEL	Traffic Flow		tance		Road	Fre		Barrier Att		rm Atten
Autos: 66.5			0.54		-1.20		-4.66		000	0.000
Medium Trucks: 77.7			0.57		-1.20		-4.87		000	0.000
Heavy Trucks: 82.9			0.56		-1.20		-5.41	0.0	000	0.000
Unmitigated Noise Levels (wit										
VehicleType Leq Peak Ho			Leq Ev			Night		Ldn		NEL
		65.0		61.5		60		67.		67.9
		61.3		54.0		54		62.		62.8
	3.1 4.4	71.2 72.5		64.4		66		73.1 75.0		73.9 75.1
Centerline Distance to Noise				30.4		0,		75.		70.1
Contenino Distance to Noise (	ontour (III lee	-	70 d	IBA	65	dBA		60 dBA	55	5 dBA
		Ldn:	11			40		516		.112
	С	NEL:	11	4	2	46		529		,140

Wednesday, October 17, 2018

FHW	/A-RD-77-108 HIC	1 YAWH	IOISE P	REDICT	ION MODEL			
Scenario: OY 2020 W Road Name: Slover Av. Road Segment: w/o Cedar A					Name: Agua lumber: 1121			
SITE SPECIFIC IN	PUT DATA			N	IOISE MOD	EL INPUTS	3	
Highway Data			Site Cor	nditions	(Hard = 10,	Soft = 15)		
Peak Hour Percentage:	14,016 vehicles 10% 1,402 vehicles				Auto ucks (2 Axles cks (3+ Axles	s): 15		
Vehicle Speed:	50 mph	H	Vehicle	Miv				
Near/Far Lane Distance:	48 feet	-		icleType	Dav	Evening	Night Daily	
Site Data					Autos: 73.2	% 8.1%	18.6% 90.06%	
Barrier Height:	0.0 feet			edium Ti			14.0% 2.46%	
Barrier Type (0-Wall, 1-Berm):	0.0		,	Heavy Ti	rucks: 76.5	% 4.0%	19.5% 7.48%	
Centerline Dist. to Barrier:	52.0 feet		Noise S	ource El	levations (in	feet)		
Centerline Dist. to Observer:	52.0 feet			Auto	s: 0.000			
Barrier Distance to Observer:	0.0 feet		Mediu	m Truck	s: 2.297			
Observer Height (Above Pad):	5.0 feet		Heav	vy Truck	s: 8.004	Grade Adju	ustment: 0.0	
Pad Elevation:	0.0 feet	L						
Road Elevation:	0.0 feet	-	Lane Eq		t Distance (i	n teet)		
Road Grade:	0.0%			Auto				
Left View: Right View:	-90.0 degrees 90.0 degrees			m Truck vy Truck				
FHWA Noise Model Calculations	3							
VehicleType REMEL	Traffic Flow [	Distance	Finite	Road	Fresnel	Barrier Atte	en Berm Atten	
Autos: 70.20	-1.28	0.3		-1.20	-4.6			
Medium Trucks: 81.00	-16.92	0.4	•	-1.20	-4.8			
Heavy Trucks: 85.38	-12.09	0.4		-1.20	-5.4	1 0.0	0.000	
Unmitigated Noise Levels (witho								
VehicleType Leq Peak Houl			vening	,	Night	Ldn	CNEL	
Autos: 68.			62.4		61.3	68.6	68.9	
Medium Trucks: 63.			54.4		55.2	63.0	63.2	
Heavy Trucks: 72. Vehicle Noise: 74.			63.7 66.4		65.9 67.4	73.1 74.7		
Centerline Distance to Noise Co		-	30.4		UT	14.1	14.5	
Centernine Distance to Noise Co	mour (in reet)	70	dBA	65	dBA	60 dBA	55 dBA	
	Ldn:					107 231 498 1,073		
	CNEL	: 1					1,101	

	FH\	VA-RD-77-108	HIGHV	VAY N	OISE P	REDICT	ION MO	DDEL			
Road Nar	rio: OY 2020 W ne: Rancho Av ent: s/o Agua M						t Name: lumber:		Mansa		
SITE	SPECIFIC IN	IPUT DATA					NOISE	MODE	L INPUT	s	
Highway Data				S	Site Cor	ditions	(Hard =	= 10, Sc	oft = 15)		
Average Daily	Traffic (Adt):	14,902 vehicle	s					Autos:	15		
Peak Hour	Percentage:	10%			Me	dium Ti	ucks (2	Axles):	15		
Peak I	Hour Volume:	1,490 vehicles	;		He	avy Tru	cks (3+	Axles):	15		
Ve	ehicle Speed:	40 mph		1	/ehicle	Miv					
Near/Far La	ane Distance:	52 feet		ļ.		icleTyp	9	Day	Evening	Night	Daily
Site Data							Autos:	73.2%	8.1%	18.6%	89.759
Ra	rrier Height:	0.0 feet			М	edium 7	rucks:	82.2%	3.9%	14.0%	2.529
Barrier Type (0-V		0.0				Heavy 7	rucks:	76.5%	4.0%	19.5%	7.749
	ist. to Barrier:	52.0 feet			/ C			/! #	4)		
Centerline Dist.	to Observer:	52.0 feet		,	voise S		levatio		eet)		
Barrier Distance	to Observer:	0.0 feet			11-5	Auto m Truck		.000			
Observer Height	(Above Pad):	5.0 feet						.004	Grade Ad	iuetmont	
P	ad Elevation:	0.0 feet			Heav	ry Truck	is: 8	.004	Grade Au,	usunen	0.0
Ro	ad Elevation:	0.0 feet		L	ane Eq	uivaler	t Distar	ice (in	feet)		
	Road Grade:	0.0%				Auto	s: 45	.310			
	Left View:	-90.0 degree	S		Mediu	m Truck	s: 45	.114			
	Right View:	90.0 degree	:S		Heav	ry Truck	s: 45	.133			
FHWA Noise Mod	lel Calculation	s									
VehicleType	REMEL	Traffic Flow	Dista	ance	Finite	Road	Fres	nel	Barrier Att	en Bei	m Atten
Autos:	66.51	-0.06		0.54	1	-1.20		-4.66	0.0	000	0.00
Medium Trucks:	77.72	-15.58		0.57		-1.20		-4.87	0.0	000	0.00
Heavy Trucks:	82.99	-10.71		0.56	;	-1.20		-5.41	0.0	000	0.00
Unmitigated Nois	e Levels (with	out Topo and	barrier	atteni	uation)						
VehicleType	Leq Peak Hou	- 1 - 7		Leq Ev		Leg	Night		Ldn		NEL
Autos:			3.6		60.1		58.	-	66.3	-	66.
Medium Trucks:			59.9		52.6		53.		61.2	-	61.
Heavy Trucks:			39.7		62.9		65.	-	72.3		72.
Vehicle Noise:			71.0		65.0		66.	2	73.5	5	73.
Centerline Distan	ce to Noise Co	ontour (in feet)									
				70 d	BA	65	dBA	6	60 dBA	55	dBA

Wednesday, October 17, 2018

	FH	WA-RD-77-108	HIGH	HWAY	NOISE PI	REDICTI	ON M	ODEL			
Road Nar	rio: OY 2020 V ne: Slover Av. ent: w/o Riversi					Project Job No		: Agua l : 11215			
	SPECIFIC IN	NPUT DATA							L INPUT	s	
Highway Data					Site Con	ditions (	Hard	= 10, S	oft = 15)		
Average Daily	Traffic (Adt):	11,390 vehicl	es					Autos:	15		
Peak Hour	r Percentage:	10%			Me	dium Tru	cks (2	Axles):	15		
Peak I	Hour Volume:	1,139 vehicle	s		He	avy Truc	ks (3+	- Axles):	15		
Ve	ehicle Speed:	50 mph			Vehicle	Miss					
Near/Far La	ane Distance:	48 feet				icleType		Dav	Evening	Night	Daily
Site Data					VCII		utos:	73.2%	-	18.6%	,
					1.4	edium Tr		82.2%		14.0%	
	arrier Height:	0.0 feet				Heavy Tr		76.5%		19.5%	
Barrier Type (0-V	. ,	0.0				icavy iii	ucno.	70.57	7.070	13.570	7.07 /
	ist. to Barrier:	52.0 feet			Noise So	ource Ele	evatio	ns (in f	eet)		
Centerline Dist.		52.0 feet				Autos	: (	0.000			
Barrier Distance		0.0 feet			Mediu	m Trucks	: :	2.297			
Observer Height	. ,	5.0 feet			Heav	y Trucks	: 1	3.004	Grade Ad	ljustment	0.0
-	Pad Elevation:	0.0 feet			Lane Eq	uivalant	Dieta	nco (in	foot)		
Ro	ad Elevation:	0.0 feet			Lane Ly	Autos		6.400	ieet)		
	Road Grade:	0.0%			14	Autos m Trucks		6.209			
	Left View:	-90.0 degre						6.209 6.228			
	Right View:	90.0 degre	es		Heav	y Trucks	: 4	0.228			
FHWA Noise Mod		-									
VehicleType	REMEL	Traffic Flow	Dis	stance		Road	Fre	snel	Barrier At		m Atten
Autos:				0.3		-1.20		-4.66		000	0.000
Medium Trucks:				0.4		-1.20		-4.87		000	0.000
Heavy Trucks:				0.4		-1.20		-5.41	0.0	000	0.000
Unmitigated Nois											
VehicleType	Leq Peak Ho			Leq E	vening	Leq I			Ldn		NEL
Autos:		7.2	65.1		61.5			).4	67.		67.9
Medium Trucks:		2.4	60.8		53.5		-	1.4	62.:	_	62.3
Heavy Trucks:		1.6	69.7		62.9			5.0	72.:		72.4
Vehicle Noise:		3.3	71.4		65.6		66	5.6	73.	9	74.0
Centerline Distan	ice to Noise C	ontour (in fee	)								
			L		dBA	65 c		(	60 dBA		dBA
			Ldn:		94	20	_		436	-	139
		С	NEL:		96	20	18		448	9	164

	FH\	WA-RD-77-108	HIGH	WAY N	OISE P	REDICT	ION M	ODEL			
	o: OY 2020 V e: Santa Ana nt: w/o Cedar	Av.						: Agua   : 11215			
	SPECIFIC IN	IPUT DATA							L INPUT	s	
Highway Data				S	ite Cor	nditions	(Hard		oft = 15)		
Average Daily	Traffic (Adt):	8,364 vehicle	es					Autos:			
Peak Hour	Percentage:	10%				edium Tr					
Peak H	our Volume:	836 vehicle	S		He	eavy Tru	cks (3+	Axles):	15		
Ve	hicle Speed:	40 mph		ν	ehicle	Mix					
Near/Far Lai	ne Distance:	36 feet		F	Veh	icleType	9	Day	Evening	Night	Daily
Site Data							Autos:	73.2%	8.1%	18.6%	89.12%
Rai	rier Height:	0.0 feet			M	edium T	rucks:	82.2%	3.9%	14.0%	2.62%
Barrier Type (0-W	all, 1-Berm):	0.0				Heavy T	rucks:	76.5%	4.0%	19.5%	8.27%
Centerline Dis		44.0 feet		٨	loise S	ource E	levatio	ns (in f	eet)		
Centerline Dist.		44.0 feet				Auto	s: (	0.000			
Barrier Distance		0.0 feet			Mediu	m Truck	s: 2	2.297			
Observer Height (	,	5.0 feet			Hear	vy Truck	s: 8	3.004	Grade Ad	justmen	t: 0.0
	ad Elevation:	0.0 feet				•					
	ad Elevation:	0.0 feet		L	ane Eq	uivalen			feet)		
I	Road Grade:	0.0%				Auto		0.460			
	Left View:	-90.0 degre	es			m Truck		0.241			
	Right View:	90.0 degre	es		Hear	vy Truck	s: 40	0.262			
FHWA Noise Mode	el Calculation	s		·							
VehicleType	REMEL	Traffic Flow	Dis	tance	Finite	Road	Fres	snel	Barrier Att	en Be	rm Atten
Autos:	66.51	-2.60		1.28		-1.20		-4.61		000	0.000
Medium Trucks:	77.72			1.31		-1.20		-4.87	0.0	000	0.000
Heavy Trucks:	82.99			1.31		-1.20		-5.50	0.0	000	0.000
Unmitigated Noise				er atteni	ıation)						
	Leq Peak Hou			Leq Ev			Night		Ldn		NEL
Autos:	64		61.8		58.3		57		64.	-	64.7
Medium Trucks:			58.3		51.0		51		59.	-	59.8
Heavy Trucks:			68.2		61.4		63		70.		70.9
Vehicle Noise:		**	69.5		63.4		64	.7	72.0	0	72.1
Centerline Distance	e to Noise C	ontour (in feet	*)	70 -	D.4	05	-10.4		00 -104		-104
			L -d	70 d			dBA		60 dBA	1	dBA
			Ldn: NFI:	59 128 276 61 131 282				594 508			
		Ci	VEL:	61		1	31		282		800

	FHV	WA-RD-77-108	HIGH	1 YAWI	IOISE P	REDICT	ION M	ODEL					
Road Nam	io: OY 2020 W e: Jurupa Av. nt: w/o Cedar					Project Job N		Agua 11215					
	SPECIFIC IN	IPUT DATA			a: a				L INPUT	s			
Highway Data					Site Cor	aitions	(Hara						
Average Daily	. ,	7,363 vehicle	es					Autos.					
	Percentage:	10%				dium Tr							
	our Volume:	736 vehicle	S		He	avy Tru	cks (3+	Axles).	: 15				
	hicle Speed:	40 mph		Ī	Vehicle	Mix							
Near/Far Lai	ne Distance:	48 feet		Ī	Veh	icleType	,	Day	Evening	Night	Daily		
Site Data						,	Autos:	73.29	6 8.1%	18.69	90.15%		
Bar	rier Heiaht:	0.0 feet			М	edium T	rucks:	82.29	6 3.9%	14.09	2.44%		
Barrier Type (0-W		0.0			1	Heavy T	rucks:	76.5%	6 4.0%	19.5%	7.41%		
Centerline Dis	st. to Barrier:	52.0 feet		F	Noiso S	ourco E	lovatio	ne (in t	inat)				
Centerline Dist.	to Observer:	52.0 feet		H	Noise Source Elevations (in feet)  Autos: 0.000								
Barrier Distance		Modiu	m Truck		.297								
Observer Height (.	Above Pad):	5.0 feet				v Truck		3.004	Grade Ad	liuetman	t: 0 0		
Pa	ad Elevation:	0.0 feet		L	Tical	ry Truck	s. c	.004	Orauc Au	justinon	i. 0.0		
Roa	ad Elevation:	0.0 feet			Lane Eq	uivalen	t Dista	nce (in	feet)				
I	Road Grade:	0.0%				Auto	s: 46	6.400					
	Left View:	-90.0 degree	es		Mediu	m Truck	s: 46	3.209					
	Right View:	90.0 degree	es		Heav	y Truck	s: 46	6.228					
FHWA Noise Mode	el Calculation			I									
VehicleType	REMEL	Traffic Flow	Dis	stance		Road	Fres		Barrier Att		rm Atten		
Autos:	66.51	-3.11		0.3		-1.20		-4.66		000	0.000		
Medium Trucks:	77.72	-18.78		0.4		-1.20		-4.87	0.0	000	0.000		
Heavy Trucks:	82.99	-13.96		0.4	1	-1.20		-5.41	0.0	000	0.000		
Unmitigated Noise			barri	er atter	nuation)								
VehicleType	Leq Peak Hou			Leq E	vening	Leq	Night		Ldn		NEL		
Autos:	62		60.4		56.9		55		63.		63.3		
Medium Trucks:	58		56.5		49.2		50		57.	-	58.0		
Heavy Trucks: Vehicle Noise:	68		66.3 67.6		59.5 61.7		61 62		68.8 70.1		69.0 70.3		
Centerline Distance					01.7		02	.0	70.		70.		
Centernile Distant	e to NOISE Co	ontour (in feet		70	dBA	65	dBA		60 dBA	5	5 dBA		
Ldn:					53 114 246				531				
		C	VFI:	5	54 117 253 54			544					

	FH\	VA-RD-77-108 I	HGHW.	AY NO	DISE PI	REDICT	ION MO	DDEL			
Road Nan	rio: OY 2020 W ne: Santa Ana ent: w/o Riversi	Av.					t Name: lumber:				
	SPECIFIC IN	IPUT DATA							L INPUT	S	
Highway Data				S	ite Con	ditions	(Hard:	= 10, S	oft = 15)		
Average Daily	. ,	5,154 vehicles	3					Autos:			
	Percentage:	10%					ucks (2	,			
Peak I	Hour Volume:	515 vehicles			He	avy Tru	cks (3+	Axles):	15		
Ve	ehicle Speed:	40 mph		V	ehicle	Mix					
Near/Far La	ane Distance:	36 feet				icleType	э	Day	Evening	Night	Daily
Site Data							Autos:	73.2%	8.1%	18.6%	90.00%
Ba	rrier Height:	0.0 feet			M	edium T	rucks:	82.2%	3.9%	14.0%	2.47%
Barrier Type (0-V		0.0			I	Heavy T	rucks:	76.5%	4.0%	19.5%	7.52%
	ist. to Barrier:	44.0 feet						/: 6	4		
Centerline Dist.	to Observer:	44.0 feet		N	orse S		levatio		eet)		
Barrier Distance	to Observer:	0.0 feet				Auto		.000			
Observer Height	(Above Pad):	5.0 feet				m Truck		.297	Grade Ad	ii rotmont	
P	ad Elevation:	0.0 feet			Heav	y Truck	is: 8	.004	Grade Ad	jusimeni	. 0.0
Ro	ad Elevation:	0.0 feet		L	ane Eq	uivalen	t Distar	nce (in	feet)		
	Road Grade:	0.0%				Auto	s: 40	.460			
	Left View:	-90.0 degrees	3		Mediu	m Truck	s: 40	.241			
	Right View:	90.0 degrees	3		Heav	y Truck	s: 40	.262			
FHWA Noise Mod	lel Calculation	s									
VehicleType	REMEL	Traffic Flow	Distar	ice	Finite	Road	Fres	nel	Barrier Att	en Bei	m Atten
Autos:	66.51	-4.66		1.28		-1.20		-4.61	0.0	000	0.000
Medium Trucks:	77.72	-20.27		1.31		-1.20		-4.87	0.0	000	0.000
Heavy Trucks:	82.99	-15.44		1.31		-1.20		-5.50	0.0	000	0.000
Unmitigated Nois	e Levels (with	out Topo and b	arrier a	ttenu	ation)						
VehicleType	Leq Peak Hou	ır Leq Day	Le	eq Eve	ening	Leq	Night		Ldn		NEL
Autos:			9.8		56.3		55.		62.4	•	62.7
Medium Trucks:			5.9		48.6		49.	-	57.3	-	57.4
Heavy Trucks:	67	.7 6	5.7		58.9		61.	.0	68.3	3	68.4
Vehicle Noise:	69	.0 6	7.0		61.0		62.	.2	69.5	5	69.7
Centerline Distan	ce to Noise Co	ontour (in feet)									
				70 dE	3A	65	dBA	1 6	60 dBA	55	dBA

Wednesday, October 17, 2018

	FH	WA-RD-77-108	HIGHV	VAY N	OISE PI	REDICTI	ON M	ODEL			
Road Nar	rio: OY 2020 V ne: El Rivino R ent: e/o Cedar	ld.						: Agua l : 11215			
	SPECIFIC IN	IPUT DATA							L INPUT	S	
Highway Data				5	Site Con	ditions	(Hard	= 10, S	oft = 15)		
Average Daily	Traffic (Adt):	11,781 vehicle	es					Autos:	15		
Peak Hou	r Percentage:	10%			Me	dium Tru	icks (2	Axles):	15		
Peak	Hour Volume:	1,178 vehicles	S		He	avy Truc	ks (3+	- Axles):	15		
V	ehicle Speed:	45 mph		١,	/ehicle	Miss					
Near/Far La	ane Distance:	36 feet				icleType		Dav	Evening	Night	Daily
Site Data					*011		utos:	73.2%	-	18.6%	,
	arrier Heiaht:	0.0 feet			M	edium Tr		82.2%		14.0%	
Barrier Type (0-V		0.0 feet			1	Heavy Tr	ucks:	76.5%	4.0%	19.5%	7.87%
	ist. to Barrier:	44.0 feet		-							
Centerline Dist		44.0 feet			Voise S	ource El		_ •	eet)		
Barrier Distance		0.0 feet				Autos		0.000			
Observer Height		5.0 feet				m Trucks		2.297			
	Pad Flevation:	0.0 feet			Heav	ry Trucks	E	3.004	Grade Ad	ljustment	: 0.0
-	ad Elevation:	0.0 feet		1	ane Eq	uivalent	Dista	nce (in	feet)		
,,,	Road Grade:	0.0%				Autos	: 4	0.460			
	I eft View:	-90.0 degree	es		Mediu	m Trucks	: 4	0.241			
	Right View:	90.0 degree			Heav	y Trucks	: 4	0.262			
FHWA Noise Mod	lel Calculation	ıs									
VehicleType	REMEL	Traffic Flow	Dista	ance	Finite	Road	Fre	snel	Barrier At	ten Bei	m Atten
Autos	68.46	-1.60		1.28	3	-1.20		-4.61	0.0	000	0.000
Medium Trucks	79.45	-17.33		1.31		-1.20		-4.87	0.0	000	0.000
Heavy Trucks	84.25	-12.17		1.31		-1.20		-5.50	0.0	000	0.000
Unmitigated Nois	e Levels (with	out Topo and	barrier	atten	uation)						
VehicleType	Leq Peak Ho	ur Leq Day	' I	Leg Ev	rening	Leq I	Night		Ldn	С	NEL
Autos		6.9	64.8		61.3		60	).1	67.	4	67.7
Medium Trucks			60.6		53.3		54		62.	-	62.1
Heavy Trucks	72	2.2	70.2		63.4		65	6.6	72.	8	72.9
Vehicle Noise	73	3.7	71.7		65.8		66	6.9	74.	2	74.3
Centerline Distar	ice to Noise C	ontour (in feet,	)								
				70 c		65 (		(	60 dBA		dBA
			Ldn:		83		30		388		35
		CI	VEL:	86	3	18	34		397	856	

	FH\	WA-RD-77-108	HIGH	WAY I	NOISE P	REDICT	ION M	ODEL			
Road Nan	io: OY 2020 W ne: El Rivino R nt: e/o Cactus	d.					t Name: Number:		Mansa		
SITE	SPECIFIC IN	IPUT DATA							L INPUT	s	
Highway Data					Site Cor	nditions	(Hard	= 10, S	oft = 15)		
Average Daily	Traffic (Adt):	7,739 vehicle	es					Autos:	15		
Peak Hour	Percentage:	10%			Me	edium Ti	rucks (2	Axles):	15		
Peak F	lour Volume:	774 vehicle	S		He	eavy Tru	icks (3+	Axles):	15		
Ve	hicle Speed:	45 mph		ŀ	Vehicle	Miv					
Near/Far La	ne Distance:	36 feet				icleTyp	е	Dav	Evening	Night	Daily
Site Data							Autos:	73.2%	Ü	18.6%	
Ra	rrier Height:	0.0 feet			М	edium 7	rucks:	82.2%	3.9%	14.0%	2.85%
Barrier Type (0-W		0.0				Heavy 1	rucks:	76.5%	4.0%	19.5%	10.26%
Centerline Di		44.0 feet									
Centerline Dist.	to Observer:	44.0 feet		H	Noise S				eet)		
Barrier Distance	to Observer:	0.0 feet				Auto		0.000			
Observer Height	(Above Pad):	5.0 feet			Medium Trucks: 2.297 Heavy Trucks: 8.004 Grade Adjustment: (					4. 0.0	
P	ad Elevation:	0.0 feet			, ,					ι. υ.υ	
Ro	ad Elevation:	0.0 feet			Lane Eq	uivalen	t Dista	nce (in	feet)		
	Road Grade:	0.0%				Auto	s: 40	0.460			
	Left View:	-90.0 degre	es		Mediu	m Truck	ks: 40	).241			
	Right View:	90.0 degre	es		Hear	vy Truck	(S: 4(	0.262			
FHWA Noise Mod	el Calculation	s									
VehicleType	REMEL	Traffic Flow	Dis	tance	Finite	Road	Fres	snel	Barrier Att	en Be	rm Atten
Autos:	68.46	-3.56		1.2	28	-1.20		-4.61	0.0	000	0.000
Medium Trucks:	79.45	-18.40		1.3	31	-1.20		-4.87	0.0	000	0.000
Heavy Trucks:	84.25	-12.84		1.3	31	-1.20		-5.50	0.0	000	0.000
<b>Unmitigated Nois</b>	e Levels (with	out Topo and	barrie	er atte	nuation)						
VehicleType	Leq Peak Hou			Leq E	vening		Night		Ldn		NEL
Autos:	65		62.8		59.3		58		65.4		65.7
Medium Trucks:	61	-	59.5		52.2		53		60.9	-	61.1
Heavy Trucks:	71		69.6		62.8		64		72.		72.3
Vehicle Noise:	72		70.7		64.6		65	.9	73.:	2	73.4
Centerline Distan	ce to Noise Co	ontour (in feet	)								
			L		dBA		dBA	(	60 dBA		5 dBA
			Ldn:		72 156			335		723	
		C	VEL:	7	74	1	60		344		740

Wednesday, October 17, 2018

	FH\	WA-RD-77-108	HIGH	I YAW	NOISE P	REDICT	ION M	ODEL					
	io: OY 2020 V e: Agua Mans nt: e/o 20th St	sa Rd.				Project Job N		Agua 11215					
	SPECIFIC IN	IPUT DATA							L INPUT	S			
Highway Data					Site Cor	ditions	(Hard	= 10, S	oft = 15)				
Average Daily	Traffic (Adt):	15,571 vehicl	es					Autos.	15				
Peak Hour	Percentage:	10%			Me	dium Tr	ucks (2	Axles).	15				
Peak H	lour Volume:	1,557 vehicle	s		He	avy Tru	cks (3+	Axles).	15				
Ve	hicle Speed:	45 mph		-	Vehicle	Wix							
Near/Far Lai	ne Distance:	36 feet		ŀ		icleType		Day	Evening	Night	Daily		
Site Data							Autos:	73.29	8.1%	18.6%	88.86%		
Rai	rier Height:	0.0 feet			М	edium T	rucks:	82.29	3.9%	14.0%	2.65%		
Barrier Type (0-W		0.0				leavy T	rucks:	76.5%	4.0%	19.5%	8.49%		
Centerline Dis	st. to Barrier:	50.0 feet		-	Noise S	urco E	lovatio	ne (in t	innt)				
Centerline Dist.	to Observer:	50.0 feet		-	Noise 3	Auto		0.000	eei)				
Barrier Distance	to Observer:		Modiu	Auto n Truck		2.297							
Observer Height (	Above Pad):	5.0 feet			Heavy Trucks: 8.004 Grade Adjustment: 0.0								
Pa	ad Elevation:	0.0 feet			пеан	y ITUCK	s. c	.004	Grade Ad	jusunen	ı. U.U		
Roa	ad Elevation:	0.0 feet			Lane Eq	uivalen	t Dista	nce (in	feet)				
I	Road Grade:	0.0%				Auto	s: 46	6.915					
	Left View:	-90.0 degre	es		Mediu	n Truck	s: 46	6.726					
	Right View:	90.0 degre	es		Heav	y Truck	s: 46	6.744					
FHWA Noise Mode	el Calculation	ıs											
VehicleType	REMEL	Traffic Flow	Dis	stance	Finite	Road	Fres	snel	Barrier Att	en Be	rm Atten		
Autos:	68.46	-0.43		0.3	1	-1.20		-4.65	0.0	000	0.00		
Medium Trucks:	79.45	-15.68		0.3	4	-1.20		-4.87	0.0	000	0.00		
Heavy Trucks:	84.25	-10.62		0.3	4	-1.20		-5.43	0.0	000	0.00		
Unmitigated Noise													
VehicleType	Leq Peak Hot			Leq E	vening	Leq	Night		Ldn		NEL		
Autos:	67		65.0		61.5		60		67.0	-	67.9		
Medium Trucks:	62		61.3		54.0		54		62.0		62.		
Heavy Trucks: Vehicle Noise:	72		70.8		64.0		66 67		73.4 74.1		73.		
					00.2		67	.4	74.	'	74.		
Centerline Distanc	e to Noise C	ontour (in fee	<i>'</i>	70	dBA	65	dBA		60 dBA	55	5 dBA		
			Ldn:	1	02	2	21		476	1	,024		
	Lan: CNFI:						105 226 488 1,						

	FHV	VA-RD-77-108	HIG	HWAY	NOISE P	REDICT	ION MO	DDEL			
Road Nan	rio: OY 2020 W ne: El Rivino R nt: e/o Hall Av.	d.					Name: lumber:				
	SPECIFIC IN	PUT DATA							L INPUT	S	
Highway Data					Site Cor	nditions	(Hard:	= 10, S	oft = 15)		
Average Daily	Traffic (Adt):	5,202 vehicle	es					Autos:			
Peak Hour	Percentage:	10%				dium Tr	,	,			
Peak H	lour Volume:	520 vehicles	S		He	avy Tru	cks (3+	Axles):	15		
Ve	ehicle Speed:	45 mph			Vehicle	Mix					
Near/Far La	ne Distance:	36 feet				icleType	9	Day	Evening	Night	Daily
Site Data						,	Autos:	73.2%	8.1%	18.6%	92.48%
Ba	rrier Heiaht:	0.0 feet			M	edium T	rucks:	82.2%	3.9%	14.0%	1.86%
Barrier Type (0-V		0.0				Heavy T	rucks:	76.5%	4.0%	19.5%	5.66%
	ist. to Barrier:	44.0 feet		-	Noise S	ouroo E	lovetio	no (in f	0.041		
Centerline Dist.	to Observer:	44.0 feet		-	Noise 3	Auto			eet)		
Barrier Distance	to Observer:	0.0 feet			14	Auto m Truck		.000			
Observer Height	(Above Pad):	5.0 feet				n Truck v Truck		.004	Grade Ad	iuetman	. 0.0
P	ad Elevation:	0.0 feet			пеа	ry Truck	s. o	.004	Orade Au	justinom	. 0.0
Ro	ad Elevation:	0.0 feet			Lane Eq	uivalen	t Distai	nce (in	feet)		
	Road Grade:	0.0%				Auto	s: 40	.460			
	Left View:	-90.0 degree	es		Mediu	m Truck	s: 40	.241			
	Right View:	90.0 degree	es		Hea	/y Truck	s: 40	.262			
FHWA Noise Mod	lel Calculation	s									
VehicleType	REMEL	Traffic Flow	Di	istance	Finite	Road	Fres	nel	Barrier Att	en Be	m Atten
Autos:	68.46	-5.02		1.2	28	-1.20		-4.61	0.0	000	0.000
Medium Trucks:	79.45	-21.98		1.3	31	-1.20		-4.87	0.0	000	0.000
Heavy Trucks:	84.25	-17.15		1.3	31	-1.20		-5.50	0.0	000	0.000
Unmitigated Nois	e Levels (with	out Topo and	barr	ier atte	nuation)						
VehicleType	Leq Peak Hou	- 1 - 7		Leq E	vening		Night		Ldn		NEL
Autos:			61.4		57.8		56.		64.0		64.3
Medium Trucks:			55.9		48.7		49.	-	57.3	-	57.5
Heavy Trucks:	67		65.3		58.5		60.		67.8		68.0
Vehicle Noise:	69	.1	67.1		61.4		62.	.3	69.6	6	69.8
Centerline Distan	ce to Noise Co	ontour (in feet	)								
				70	dRA	65	dRA	1 /	SO dRA	1 55	dRA

Wednesday, October 17, 20

	FH	WA-RD-77-108	HIGHV	VAY N	OISE PI	REDICT	ON M	ODEL			
Road Nam	io: OY 2020 V ne: Agua Man nt: w/o Brown	sa Rd.				Project Job N		Agua I 11215			
	SPECIFIC II	NPUT DATA							L INPUT	s	
Highway Data				S	ite Con	ditions	(Hard	= 10, S	oft = 15)		
Average Daily	Traffic (Adt):	15,441 vehicle	es					Autos:	15		
Peak Hour	Percentage:	10%			Me	dium Tru	ıcks (2	Axles):	15		
Peak H	lour Volume:	1,544 vehicle	S		He	avy Truc	cks (3+	Axles):	15		
Ve	hicle Speed:	45 mph		v	ehicle l	Wix					
Near/Far La	ne Distance:	36 feet		F		icleType		Day	Evening	Night	Daily
Site Data							Autos:	73.2%	8.1%	18.6%	88.77%
Ra	rrier Height:	0.0 feet			Me	edium Ti	rucks:	82.2%	3.9%	14.0%	2.67%
Barrier Type (0-W		0.0			F	leavy Ti	ucks:	76.5%	4.0%	19.5%	8.56%
Centerline Di	. ,	50.0 feet			·- · 0	5		/! 6			
Centerline Dist.	to Observer:	50.0 feet		^	ioise so	Auto:		ns (in 10 0.000	eet)		
Barrier Distance	to Observer:	0.0 feet				Auto: m Truck:		2.297			
Observer Height (	Above Pad):	5.0 feet				n Truck: v Truck:		3.004	Grade Ad	liuetmon	
P	ad Elevation:	0.0 feet								jusunen	. 0.0
Ro	ad Elevation:	0.0 feet		L	ane Eq	uivalent	Dista	nce (in	feet)		
	Road Grade:	0.0%				Auto	s: 46	3.915			
	Left View:	-90.0 degree	es			m Truck		5.726			
	Right View:	90.0 degree	es		Heav	y Truck:	s: 46	5.744			
FHWA Noise Mod	el Calculation	าร									
VehicleType	REMEL	Traffic Flow	Dista			Road	Fre		Barrier Att		rm Atten
Autos:	68.46			0.31		-1.20		-4.65		000	0.000
Medium Trucks:				0.34		-1.20		-4.87		000	0.000
Heavy Trucks:	84.25			0.34		-1.20		-5.43	0.0	000	0.000
Unmitigated Nois								_			
VehicleType	Leq Peak Ho			Leq Ev		Leq	Night		Ldn		NEL
Autos:	-		65.0		61.4		60		67.6		67.9
Medium Trucks:			61.3		54.0		54		62.6	-	62.8
Heavy Trucks:			70.8		64.0		66	• •	73.4	•	73.5
Vehicle Noise:		***	72.2		66.2		67	.4	74.	/	74.8
Centerline Distan	ce to Noise C	ontour (in feet	,	70 d	RΔ	65	dBA	_	60 dBA	EF	dBA
			I dn:	10:			20 20		475		.023
			VFI:	10	_	_	26		487		.049

	FH	WA-RD-77-108	HIGH	IWAY N	OISE P	REDICT	ION M	ODEL			
	o: OY 2020 V e: Agua Man nt: w/o Holly S	sa Rd.						: Agua I : 11215	Mansa		
	SPECIFIC II	NPUT DATA							L INPUT	s	
Highway Data				- 2	site Coi	nditions	(Hard				
Average Daily	. ,	15,659 vehicl	es					Autos:			
	Percentage:	10%				edium Tr					
	our Volume:	1,566 vehicle	S		He	eavy Tru	cks (3+	Axles):	15		
	hicle Speed:	45 mph		١	/ehicle	Mix					
Near/Far Lar	ne Distance:	48 feet			Vel	icleType	,	Day	Evening	Night	Daily
Site Data							Autos:	73.2%	8.1%	18.6%	88.74%
Ran	rier Height:	0.0 feet			M	edium T	rucks:	82.2%	3.9%	14.0%	2.68%
Barrier Type (0-W	all, 1-Berm):	0.0				Heavy T	rucks:	76.5%	4.0%	19.5%	8.58%
Centerline Dis		52.0 feet		1	Voise S	ource E	levatio	ns (in f	eet)		
Centerline Dist.		52.0 feet				Auto	s: (	0.000			
Barrier Distance		0.0 feet			Mediu	m Truck	s: 2	2.297			
Observer Height (	,	5.0 feet			Hea	vy Truck	s: 8	3.004	Grade Ad	justmen	t: 0.0
	d Elevation:	0.0 feet		۱.							
	d Elevation:	0.0 feet		- 4	.ane Eq	uivalen			teet)		
F	Road Grade:	0.0%				Auto		6.400			
	Left View:	-90.0 degre				m Truck		5.209			
	Right View:	90.0 degre	es		неа	vy Truck	S. 4t	5.228			
FHWA Noise Mode											
VehicleType	REMEL	Traffic Flow	Dis	tance		Road	Fres		Barrier Att		rm Atten
Autos:	68.46			0.38		-1.20		-4.66		000	0.000
Medium Trucks:	79.45			0.41		-1.20		-4.87		000	0.000
Heavy Trucks:	84.25			0.41		-1.20		-5.41	0.0	000	0.000
Unmitigated Noise			_								
	Leq Peak Ho			Leg Ev			Night		Ldn		NEL
Autos:	-	7.2	65.1		61.6		60		67.		68.0
Medium Trucks:		3.1	61.4		54.1		55		62.	-	62.9
Heavy Trucks:		2.9	70.9		64.1		66		73.		73.6
Vehicle Noise:		4.3	72.3		66.3		67	.5	74.	В	75.0
Centerline Distance	e to Noise C	ontour (in fee	t)	70 c	ID A	65	dBA		SO dBA		i dBA
			I dn:	10			ава 34		505 505	1	
		0	Lan: NFI:	10	-	_	34 40		505 518		,087
		C	IVEL:	11	1	2	40		310	1	,115

Scenario: OY 2020 With Alt 1	
Highway Data   Site Conditions (Hard = 10, Soft = 15)	
Average Daily Traffic (Adt): 20,239 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 2,024 vehicles Vehicle Speed: 45 mph Vehicle International Processing Seeds: 15 mph Vehicle International Processing Seeds: 15 mph Vehicle International Processing Seeds: 15 mph Vehicle International Processing Seeds: 15 mph Vehicle Mix	
Peak Hour Percentage: 10% Medium Trucks (2 Axies): 15 Peak Hour Volume: 2,024 vehicles Vehicle Speed: 45 mph Vehicle Mix  Vehicle Mix	
Peak Hour Volume: 2,024 vehicles Heavy Trucks (3+ Axles): 15  Vehicle Speed: 45 mph  Vehicle Mix	
Vehicle Speed: 45 mph  Vehicle Mix	
Near/For Lang Distance 92 feet	
Near/Fax Long Distance: 92 feet	
	Daily
Site Data Autos: 73.2% 8.1% 18.6%	
Barrier Height: 0.0 feet Medium Trucks: 82.2% 3.9% 14.09	% 2.72%
Barrier Type (0-Wall, 1-Berm): 0.0 Heavy Trucks: 76.5% 4.0% 19.59	% 8.98%
Controlling Diet to Danier CO O feet	
Contarling Diet to Observer: 60.0 feet	
Barrier Distance to Observer: 0.0 feet Autos: 0.000	
Observer Height (Above Pad): 5.0 feet Medium Trucks: 2.297	
Pad Elevation: 0.0 feet Heavy Trucks: 8.004 Grade Adjustmer	n: 0.0
Road Elevation: 0.0 feet Lane Equivalent Distance (in feet)	
Road Grade: 0.0% Autos: 44.091	
Left View: -90.0 degrees Medium Trucks: 43.890	
Right View: 90.0 degrees Heavy Trucks: 43.909	
FHWA Noise Model Calculations	
200	erm Atten
Autos: 68.46 0.68 0.72 -1.20 -4.69 0.000	0.000
Medium Trucks: 79.45 -14.43 0.75 -1.20 -4.88 0.000	0.000
Heavy Trucks: 84.25 -9.24 0.74 -1.20 -5.34 0.000	0.000
Unmitigated Noise Levels (without Topo and barrier attenuation)	
77 4 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	CNEL
Autos: 68.7 66.5 63.0 61.8 69.1	69.4
Medium Trucks: 64.6 62.9 55.6 56.5 64.3	64.5
Heavy Trucks:         74.6         72.6         65.8         67.9         75.2           Vehicle Noise:         75.9         73.9         67.9         69.1         76.4	75.3 76.6
Centerline Distance to Noise Contour (in feet)	70.0
	i5 dBA
70 dBA 65 dBA 60 dBA 5	1,603

Site Data		FH\	WA-RD-77-108	HIGHV	VAY NO	DISE PE	REDICT	ION MC	DEL			
Autos: 15   Auto	Road Name	e: Agua Mans	a Rd.									
Average Daily Traffic (Adt): 15,211 vehicles   Peak Hour Potentage: 10%   Medium Trucks (2 Axles): 15   Heavy Trucks (3 Axles): 15		SPECIFIC IN	IPUT DATA								S	
Near/Far Lane Distance:	Average Daily Peak Hour Peak H	Percentage: our Volume:	10% 1,521 vehicle		3	Me	dium Tı	rucks (2	Autos: Axles):	15 15		
Site Data   Barrier Height:   0.0   feet   Barrier Type (0-Wall, 1-Berm):   0.0   Centerline Dist. to Barrier:   52.0   feet   Centerline Dist. to Diserver:   52.0   feet   Centerline Dist. to Diserver:   52.0   feet   Centerline Dist. to Diserver:   52.0   feet   Centerline Dist. for Diserver:   52.0   feet   Centerline Distance for Diserver:   52.0   feet   Centerline Distance for Diserver:   52.0   feet   Centerline Distance for Diserver:   52.0   feet   Centerline Distance for Diserver:   52.0   feet   Centerline Distance for Diserver:   52.0   feet   Centerline Distance for Diserver:   52.0   feet   Centerline Distance for Diserver:   52.0   feet   Centerline Distance for Diserver:   52.0   feet   Centerline Distance for Diserver:   52.0   feet   Centerline Distance for Diserver:   52.0   feet   Centerline Distance for Diserver:   52.0   feet   Centerline Distance for Diserver:   52.0   feet   Centerline Distance for Diserver:   52.0   feet   Centerline Distance for Diserver:   52.0   feet   Centerline Distance for Diserver:   52.0   feet   Centerline Distance for Diserver:   52.0					V	ehicle l	Иіх					
Barrier Height:   0.0   feet		ie Distance.	40 1661			Vehi						Daily
Noise Source Elevations (in feet)   Noise Source Elevations (in feet)		rier Height:	0.0 feet			Ме						
Noise Source Elevations (in Teet)	Barrier Type (0-Wi	all, 1-Berm):	0.0			F	leavy T	rucks:	76.5%	4.0%	19.5%	8.179
Centerline Dist. to Observer: 52.0   feet   Barrier Distance to Observer Height (Above Pad): 5.0   feet   Pad Elevation: 0.0   feet   Road Elevation: 0.0   feet   Centerline Distance to Noise Pad Elevation: 0.0   feet   Centerline Distance to Noise Pad Elevation: 0.0   feet   Centerline Distance to Noise Pad Elevation: 0.0   feet   Centerline Distance to Noise Pad Elevation: 0.0   feet   Centerline Distance to Noise Pad Elevation: 0.0   feet   Centerline Distance to Noise Pad Elevation: 0.0   feet   Centerline Distance (In feet)   Cen			52.0 feet		N	oise Sc	ource E	levation	ns (in f	eet)		
Diserver Height (Above Pad):   5.0 feet Pad Elevation:   0.0 feet Road El										,		
Pad Elevation:						Mediur	n Truck	rs: 2	.297			
Road Elevation:		,				Heav	y Truck	s: 8	.004	Grade Ad	ljustmen	t: 0.0
Road Grade:					1.	ano Eas	uivalon	t Dietar	oo (in	foot)		
Left View:					-	ane Ly				ieet)		
FHWA Noise Model Calculations   Vehicle Type   REMEL   Traffic Flow   Distance   Finite Road   Freshel   Barrier Atten   Berm Attern   Autos: 68.46   -0.51   0.38   -1.20   -4.66   0.000   0.00	,			00		Mediur						
VehicleType												
Autos:   68.46   -0.51   0.38   -1.20   -4.66   0.000   0.00   Medium Trucks:   79.45   -15.84   0.41   -1.20   -4.87   0.000   0.00   Medium Trucks:   84.25   -10.89   0.41   -1.20   -5.41   0.000   0.00   Medium Trucks:   84.25   -10.89   0.41   -1.20   -5.41   0.000   0.00   Medium Trucks:   84.25   -10.89   0.41   -1.20   -5.41   0.000   0.00   Medium Trucks:   Well-cell-cell-cell-cell-cell-cell-cell-	FHWA Noise Mode	l Calculation	s									
Medium Trucks:   79,45   -15,84   0.41   -1,20   -4,87   0.000   0.00     Heavy Trucks:   84,25   -10,89   0.41   -1,20   -5,41   0.000   0.00     Unmitigated Noise Levels (without Tropo and barrier attenuation)	VehicleType	REMEL	Traffic Flow	Dista	ance	Finite	Road	Fres	nel	Barrier Att	ten Be	rm Atten
Heavy Trucks:   84.25   -10.89   0.41   -1.20   -5.41   0.000   0.000	Autos:	68.46	-0.51		0.38				-4.66	0.0	000	0.00
Unmitigated Noise   Levels (without   Topo and barrier attenuation)   VehicleType   Leq Peak Hour   Leq Day   Leq Evening   Leq Night   Ldn   CNEL												0.00
VehicleType	Heavy Trucks:	84.25	-10.89		0.41		-1.20		-5.41	0.0	000	0.00
Autos: 67.1 65.0 61.5 60.3 67.6 67  Medium Trucks: 62.8 61.2 53.9 54.7 62.6 62  Heavy Trucks: 72.6 70.6 63.8 65.9 73.2 73  Vehicle Noise: 74.0 72.0 66.1 67.2 74.5 74  Centerline Distance to Noise Contour (in feet)    70 dBA		•							_			
Medium Trucks:         62.8         61.2         53.9         54.7         62.6         62           Heavy Trucks:         72.6         70.6         63.8         65.9         73.2         73           Vehicle Noise:         74.0         72.0         66.1         67.2         74.5         74           Centerline Distance to Noise Contour (in feet)           Ldn:         104         224         483         1,041	,,				Leq Eve		Leq					
Heavy Trucks:   72.6   70.6   63.8   65.9   73.2   73									-		-	67.
Vehicle Noise:         74.0         72.0         66.1         67.2         74.5         74           Centerline Distance to Noise Contour (in feet)									-		-	
Centerline Distance to Noise Contour (in feet)     70 dBA   65 dBA   60 dBA   55 dBA   Ldn: 104   224   483   1,041	· · ·											73.
70 dBA 65 dBA 60 dBA 55 dBA Ldn: 104 224 483 1,041						00.1		J/.			-	
Ldn: 104 224 483 1,041	Centernine Distanc	e io ivoise Co	ontour (iii feet	,	70 dF	3 <i>A</i>	65	dBA		50 dBA	55	5 dBA
				Ldn:					,			
			C				_					, -

Wednesday, October 17, 2018

	FH	WA-RD-77-108	HIGHV	VAY N	IOISE PI	REDICT	ION MOD	EL			
	o: OY 2020 V e: Agua Man t: e/o Riversi	sa Rd.					t Name: A lumber: 1		Mansa		
SITE S	PECIFIC II	NPUT DATA				ľ	NOISE M	ODE	L INPUTS		
Highway Data				5	Site Con	nditions	(Hard = 1	0, Sc	ft = 15)		
Average Daily 1 Peak Hour I Peak Ho	. ,	10,279 vehicle 10% 1,028 vehicle					Ai ucks (2 Ax cks (3+ Ax	,	15 15 15		
Veh	icle Speed:	45 mph		1	Vehicle	Mix					
Near/Far Lan	e Distance:	82 feet		F	Veh	icleType	) E	ay	Evening N	light	Daily
Site Data							Autos: 7	3.2%	8.1% 1	8.6%	89.10%
Ran	rier Height:	0.0 feet			M	edium T	rucks: 8	2.2%	3.9% 1	4.0%	2.60%
Barrier Type (0-Wa		0.0			I	Heavy T	rucks: 7	6.5%	4.0% 1	9.5%	8.30%
Centerline Dis	t. to Barrier:	60.0 feet		,	Voise Si	ource F	levations	(in fe	et)		
Centerline Dist. to	o Observer:	60.0 feet		F.	10,00 0	Auto					
Barrier Distance to	o Observer:	0.0 feet			Modiu	m Truck		-			
Observer Height (A	Above Pad):	5.0 feet				vy Truck			Grade Adjus	tment.	0.0
Pa	d Elevation:	0.0 feet									0.0
Roa	d Elevation:	0.0 feet		I	Lane Eq	uivalen	t Distance	(in f	eet)		
R	Road Grade:	0.0%				Auto	s: 44.09	91			
	Left View:	-90.0 degre	es		Mediu	m Truck	s: 43.89	90			
	Right View:	90.0 degre	es		Heav	y Truck	s: 43.90	9			
FHWA Noise Mode	l Calculation	าร									
VehicleType	REMEL	Traffic Flow	Dista	nce	Finite	Road	Fresne		Barrier Atten	Bern	n Atten
Autos:	68.46	-2.22		0.72	2	-1.20	-4	1.69	0.000	)	0.000
Medium Trucks:	79.45	-17.57		0.75	5	-1.20	-4	1.88	0.000	)	0.000
Heavy Trucks:	84.25	-12.53		0.74	1	-1.20	-4	5.34	0.000	)	0.000
Unmitigated Noise	Levels (with	hout Topo and	barrier	atten	uation)						
VehicleType	Leq Peak Ho	ur Leq Daj	/ 1	Leq Ev	ening/	Leq	Night		Ldn	CN	EL
Autos:	65	5.8	63.6		60.1		58.9		66.2		66.5
Medium Trucks:	6	1.4	59.8		52.5		53.3		61.2		61.3
Heavy Trucks:		1.3	69.3		62.5		64.6		71.9		72.0
Vehicle Noise:	72	2.7	70.7		64.7	,	65.9		73.2	,	73.4
Centerline Distanc	e to Noise C	ontour (in fee	*)								
			L	70 c	IBA .	65	dBA	6	0 dBA	55 c	/BA
			Ldn:	98	В	2	11		455	98	31

	FH\	WA-RD-77-108	HIGH	HWAY	NOISE P	REDICT	ION M	ODEL			
Road Nan	io: OY 2020 V ne: 20th St. nt: e/o Rubido						t Name: lumber:		Mansa		
	SPECIFIC IN	IPUT DATA							L INPUT	S	
Highway Data					Site Cor	nditions	(Hard:	= 10, S	oft = 15)		
Average Daily	Traffic (Adt):	30,783 vehicle	es					Autos:	15		
Peak Hour	Percentage:	10%				edium Ti					
Peak F	lour Volume:	3,078 vehicle	S		He	eavy Tru	icks (3+	Axles):	15		
Ve	hicle Speed:	45 mph			Vehicle	Mix					
Near/Far La	ne Distance:	36 feet				icleTyp	е	Dav	Evening	Night	Daily
Site Data							Autos:	73.2%	Ü	18.69	
Ra	rrier Height:	0.0 feet			М	edium 7	rucks:	82.2%	3.9%	14.09	6 2.67%
Barrier Type (0-W		0.0				Heavy 7	rucks:	76.5%	4.0%	19.5%	6 8.70%
Centerline Di		50.0 feet									
Centerline Dist.	to Observer:	50.0 feet			Noise S				eet)		
Barrier Distance	to Observer:	0.0 feet				Auto		0.000			
Observer Height	(Above Pad):	5.0 feet				m Truck		2.297	0		
	ad Elevation:	0.0 feet			Hear	vy Truck	rs: 8	3.004	Grade Ad	justmer	IT: 0.0
	ad Elevation:	0.0 feet			Lane Eq	uivalen	t Distai	nce (in	feet)		
	Road Grade:	0.0%				Auto	s: 46	6.915			
	Left View:	-90.0 degre	es		Mediu	m Truck	ks: 46	6.726			
	Right View:	90.0 degre			Hear	vy Truck	rs: 46	6.744			
FHWA Noise Mod	el Calculation	ıs									
VehicleType	REMEL	Traffic Flow	Dis	stance	Finite	Road	Fres	snel	Barrier Att	en Be	erm Atten
Autos:	68.46	2.52		0.3	31	-1.20		-4.65	0.0	000	0.000
Medium Trucks:	79.45	-12.70		0.3	34	-1.20		-4.87	0.0	000	0.000
Heavy Trucks:	84.25	-7.56		0.3	34	-1.20		-5.43	0.0	000	0.000
Unmitigated Nois	e Levels (with	out Topo and	barri	er atte	nuation)						
VehicleType	Leq Peak Hou			Leq E	Evening	Leq	Night		Ldn		CNEL
Autos:	70	1.1	68.0		64.4		63	.3	70.0	6	70.8
Medium Trucks:	65	i.9	64.2		57.0		57	.8	65.0	6	65.8
Heavy Trucks:	75	i.8	73.9		67.1		69	.2	76.	4	76.6
Vehicle Noise:	77	.2	75.2		69.2		70	.4	77.	7	77.9
Centerline Distan	ce to Noise C	ontour (in feet	)								
				70	dBA	65	dBA	(	60 dBA	5	5 dBA
			Ldn:	1	63	3	352		758	1	1,633
		C	NEL:	1	67	3	861		777	1	,674

Wednesday, October 17, 2018

FH	WA-RD-77-108 HI	GHWAY I	NOISE PI	REDICT	ON MODEL		
Scenario: OY 2020 \ Road Name: Market St Road Segment: e/o Hall A					Name: Agua umber: 1121:		
SITE SPECIFIC I	NPUT DATA			N	OISE MOD	EL INPUTS	
Highway Data			Site Con	ditions	(Hard = 10, S	Soft = 15)	
Average Daily Traffic (Adt): Peak Hour Percentage:	36,336 vehicles 10%		Me	dium Tri	Autos ucks (2 Axles		
Peak Hour Volume:	3,634 vehicles		He	avy Truc	cks (3+ Axles	): 15	
Vehicle Speed:	45 mph	ŀ	Vehicle				
Near/Far Lane Distance:	36 feet	-		icleType	Dav	Evening	Night Daily
Site Data			ven		Autos: 73.29		18.6% 88.38%
Barrier Height:	0.0 feet		M	edium Ti	ucks: 82.2°	% 3.9%	14.0% 2.71%
Barrier Type (0-Wall, 1-Berm):	0.0		ŀ	Heavy T	rucks: 76.5°	% 4.0%	19.5% 8.91%
Centerline Dist. to Barrier:	50.0 feet		Noise So	ource E	evations (in	feet)	
Centerline Dist. to Observer:	50.0 feet	t		Auto		,	
Barrier Distance to Observer:	0.0 feet		Mediu	m Truck			
Observer Height (Above Pad):	5.0 feet			y Truck		Grade Adju	stment: 0.0
Pad Elevation:	0.0 feet	-	F.		Di-1 (i-		
Road Elevation:	0.0 feet	-	Lane Eq		Distance (in	reet)	
Road Grade:	0.0%			Auto			
Left View:	-90.0 degrees			m Truck			
Right View:	90.0 degrees		Heav	y Truck	s: 46.744		
FHWA Noise Model Calculation		·					
VehicleType REMEL		Distance		Road	Fresnel	Barrier Atter	
Autos: 68.46		0.3		-1.20	-4.65		
Medium Trucks: 79.45		0.3		-1.20	-4.87		
Heavy Trucks: 84.25		0.3		-1.20	-5.43	0.00	0.000
Unmitigated Noise Levels (with				1 -	A Contra	1.4-	ONE
VehicleType Leq Peak Ho			ening	Leq	Night	Ldn	CNEL
	0.8 68. 6.7 65.		65.1 57.8		64.0 58.6	71.3 66.4	71.6 66.6
	6.7 74.		67.9		70.0	77.3	
	8.0 76.		70.0		71.2	77.5	77.4 78.7
Centerline Distance to Noise C	Contour (in feet)						
	, ,		dBA		dBA	60 dBA	55 dBA
	Ld	n· 1	85	3	98	857	1.847
	CNE		89		08	879	1,894

ı	HWA-I	RD-77-108	HIGH	N YAWI	OISE PF	REDICTIO	N MOI	DEL			
Scenario: OY 202	With A	Alt 1				Project N			lansa		
Road Name: 20th St.						Job Nur	nber: '	11215			
Road Segment: e/o Agu	a Mans	a Rd.									
SITE SPECIFIC	INPU	T DATA							INPUT	S	
Highway Data					Site Con	ditions (F					
Average Daily Traffic (Adt		549 vehicle	es.					Autos:	15		
Peak Hour Percentage		10%				dium Truc			15		
Peak Hour Volume	,	55 vehicles	3		He	avy Truck	s (3+ A	(xles	15		
Vehicle Speed		45 mph		- 1	Vehicle I	Mix					
Near/Far Lane Distance	¢.	36 feet			Vehi	icleType		Day	Evening	Night	Daily
Site Data						Au	tos:	73.2%	8.1%	18.6%	87.89
Barrier Heigh		0.0 feet			Me	edium True	cks:	82.2%	3.9%	14.0%	2.78
Barrier Type (0-Wall, 1-Berm	):	0.0			F	leavy Tru	cks:	76.5%	4.0%	19.5%	9.33
Centerline Dist. to Barrie	_	0.0 feet		1	Voise Sc	ource Elev	/ation:	s (in fe	et)		
Centerline Dist. to Observe		0.0 feet				Autos:	0.0	000			
Barrier Distance to Observe	-	0.0 feet			Mediur	n Trucks:	2.2	297			
Observer Height (Above Pad		5.0 feet			Heav	y Trucks:	8.0	004	Grade Ad	justmeni	. 0.0
Pad Elevation		0.0 feet		H		· · · · · · · · · · · · · · · · · · · ·		- /! 4			
Road Elevation	-	0.0 feet		H	Lane Eq	uivalent E			eet)		
Road Grade		0.0%			A deceller	Autos: n Trucks:	46.9				
Left Viev		0.0 degree					46.7				
Right Viev		0.0 degree	es .		пеач	y Trucks:	46.7	744			
FHWA Noise Model Calculat		E	D:		Len		_				***
VehicleType REMEL  Autos: 68	_	affic Flow 2.00	DIS	stance 0.31	Finite	-1.20	Fresn	ei i	Barrier Att		rm Atte
Medium Trucks: 79.		-13.00		0.3		-1.20		-4.65 -4.87		000	0.0
Heavy Trucks: 79.		-7.74		0.34		-1.20		-4.87 -5.43		000	0.0
Unmitigated Noise Levels (w			t		-	-1.20		-5.43	0.0	J00	0.00
VehicleType Lea Peak		Leg Day	_	Leq E		Leg Ni	aht		Ldn	0	NEL
Autos:	69.6		67.4	LUY LI	63.9	Log IVI	62.7		70.0		70
Medium Trucks:	65.6		33.9		56.7		57.5		65.3		65
Heavy Trucks:	75.7		73.7		66.9		69.0		76.3		76
Vehicle Noise:	76.9		75.0		68.9		70.2		77.	5	77
Centerline Distance to Noise	Conto	our (in feet)	)								
				70 c		65 dE	3A	6	0 dBA	55	dBA
			Ldn:	15	7	200			730	- 1	.572
			Luii.	10	17	339			130	1,	,312

Wednesday, October 17, 2018

	FHV	VA-RD-77-108	HIGH	1 YAW	NOISE P	REDICTION	ON MC	DEL			
Scenario: ( Road Name:   Road Segment: (	Market St.					Project I Job Nu					
SITE SPI	ECIFIC IN	PUT DATA				N	OISE	MODE	L INPUT	S	
Highway Data					Site Cor	nditions (	Hard =	: 10, S	oft = 15)		
Average Daily Tra	ffic (Adt):	39,917 vehicle	s					Autos:	15		
Peak Hour Per	centage:	10%			Me	dium Tru	cks (2	Axles).	15		
Peak Hour	Volume:	3,992 vehicles	8		He	avy Truc	ks (3+	Axles).	15		
Vehicle	e Speed:	45 mph			Vehicle	Miss					
Near/Far Lane L	Distance:	48 feet		H		icleType		Day	Evening	Night	Daily
Site Data					***		utos:	73.2%		18.6%	_
Parria	r Height:	0.0 feet			М	edium Tri	ucks:	82.2%	3.9%	14.0%	
Barrier Type (0-Wall,		0.0 reet				Heavy Tri	ucks:	76.5%	4.0%	19.5%	
Centerline Dist. to	,	50.0 feet									
Centerline Dist. to (		50.0 feet			Noise S	ource Ele			eet)		
Barrier Distance to C	Observer:	0.0 feet				Autos		000			
Observer Height (Abo		5.0 feet				m Trucks		297			
	Elevation:	0.0 feet			Hea	y Trucks	: 8	004	Grade Ad	justmeni	:: 0.0
Road E	levation:	0.0 feet		Ī	Lane Eq	uivalent	Distar	ce (in	feet)		
Roa	d Grade:	0.0%		Ī		Autos	: 44	147			
L	.eft View:	-90.0 degree	s		Mediu	m Trucks	: 43	.947			
Ri	ght View:	90.0 degree	s		Hea	y Trucks	: 43	.966			
FHWA Noise Model C	alculation	s									
VehicleType I	REMEL	Traffic Flow	Dis	tance	Finite	Road	Fres	nel	Barrier At	ten Be	rm Atten
Autos:	68.46	3.64		0.7	1	-1.20		-4.65	0.0	000	0.000
Medium Trucks:	79.45	-11.52		0.7	4	-1.20		-4.87	0.0	000	0.000
Heavy Trucks:	84.25	-6.37		0.7	3	-1.20		-5.43	0.0	000	0.000
Unmitigated Noise Le			barrie								
,,	q Peak Hou		_	Leg E	vening	Leq I			Ldn		NEL
Autos:	71		69.5		65.9		64.	-	72.	•	72.4
Medium Trucks:	67		55.8		58.6		59.		67.	_	67.4
Heavy Trucks:	77		75.5		68.7		70.	_	78.	-	78.2
Vehicle Noise:	78	.8 7	76.8		70.8		72.	0	79.	3	79.4
Centerline Distance t	o Noise Co	ontour (in feet)	)			r		,		1	
			L		dBA	65 c		'	60 dBA		dBA
		-	Ldn:	_	08	44	-		965		,079
		CN	IEL:	2	13	45	9		989	2	,131

	FH	WA-RD-77-108	HIGH	WAY N	OISE P	REDICT	ION M	ODEL			
	o: OY 2020 V e: Cedar Av. nt: n/o I-10 Fv							Agua I 11215	Mansa		
	SPECIFIC IN	NPUT DATA							L INPUT	s	
Highway Data				S	ite Cor	nditions	(Hard	= 10, S	oft = 15)		
Average Daily	Traffic (Adt):	44,507 vehicle	es					Autos:	15		
Peak Hour	Percentage:	10%			Me	edium Tr	ucks (2	Axles):	15		
Peak H	our Volume:	4,451 vehicle	S		He	eavy Tru	cks (3+	Axles):	15		
Ve	hicle Speed:	40 mph		ν	ehicle	Mix					
Near/Far Lai	ne Distance:	48 feet		F		icleType	9	Day	Evening	Night	Daily
Site Data							Autos:	73.2%	8.1%	18.6%	89.84%
Rai	rier Height:	0.0 feet			М	edium T	rucks:	82.2%	3.9%	14.0%	2.50%
Barrier Type (0-W	all, 1-Berm):	0.0				Heavy T	rucks:	76.5%	4.0%	19.5%	7.66%
Centerline Dis		52.0 feet		۸	loise S	ource E	levatio	ns (in f	eet)		
Centerline Dist.		52.0 feet				Auto	s: C	0.000			
Barrier Distance		0.0 feet			Mediu	m Truck	s: 2	.297			
Observer Height (	,	5.0 feet			Hear	vy Truck	s: 8	3.004	Grade Ad	justmen	t: 0.0
	d Elevation:	0.0 feet		١.		•			,		
	d Elevation:	0.0 feet		L	ane Eq	uivalen			reet)		
I	Road Grade:	0.0%				Auto		6.400			
	Left View:	-90.0 degre				m Truck		5.209			
	Right View:	90.0 degre	es		Hear	vy Truck	s: 46	5.228			
FHWA Noise Mode	el Calculation	ıs		·							
VehicleType	REMEL	Traffic Flow	Dist	ance		Road	Fres		Barrier Att		rm Atten
Autos:	66.51			0.38		-1.20		-4.66		000	0.000
Medium Trucks:	77.72			0.41		-1.20		-4.87		000	0.000
Heavy Trucks:	82.99			0.41		-1.20		-5.41	0.0	000	0.000
Unmitigated Noise											
	Leq Peak Ho			Leq Ev			Night		Ldn		NEL
Autos:			68.2 64.4		64.7		63		70.9	-	71.1
Medium Trucks:			0		57.2		58		65.8	-	66.0
Heavy Trucks: Vehicle Noise:			74.2 75.6		67.4 69.6		69 70		76.8 78.1		76.9 78.2
Centerline Distance					09.0		70	.0	70.	'	10.2
Centernine Distant	e to Noise C	omour (iii feet	,	70 d	RA.	65	dBA		SO dBA	55	dBA
			I dn:	179			86		831		.791
			NEL:	184	-	_	96		852		,836

	FH\	WA-RD-77-108	HIGHV	WAY N	OISE P	REDICT	ION M	DDEL			
	o: OY 2020 W e: Cedar Av. nt: s/o Slover					Project Job N		Agua 11215			
	SPECIFIC IN	IPUT DATA							L INPUT	s	
Highway Data					Site Cor	ditions	(Hard :		oft = 15)		
Average Daily	. ,	32,277 vehicl	es					Autos.			
	Percentage:	10%				dium Tr					
Peak H	our Volume:	3,228 vehicle	S		He	avy Tru	cks (3+	Axles).	: 15		
Vel	hicle Speed:	40 mph		1	/ehicle	Mix					
Near/Far Lar	ne Distance:	48 feet			Veh	icleType		Day	Evening	Night	Daily
Site Data							Autos:	73.29	6 8.1%	18.6%	89.16%
Rar	rier Heiaht:	0.0 feet			М	edium T	rucks:	82.29	6 3.9%	14.0%	2.60%
Barrier Type (0-W		0.0			-	Heavy T	rucks:	76.5%	6 4.0%	19.5%	8.25%
Centerline Dis	st. to Barrier:	52.0 feet		,	Voise S	ource E	levatio	ns (in t	eet)		
Centerline Dist.	to Observer:	52.0 feet		F		Auto		.000	,		
Barrier Distance	to Observer:	0.0 feet			Mediu	m Truck		.297			
Observer Height (A	Above Pad):	5.0 feet				vy Truck		.004	Grade Ad	iustmen	t 0.0
Pa	ad Elevation:	0.0 feet				•				Juoumon	. 0.0
Roa	ad Elevation:	0.0 feet		L	.ane Eq	uivalen	t Distai	nce (in	feet)		
F	Road Grade:	0.0%				Auto	s: 46	3.400			
	Left View:	-90.0 degre	es		Mediu	m Truck	s: 46	.209			
	Right View:	90.0 degre	es		Heav	y Truck	s: 46	5.228			
FHWA Noise Mode	el Calculation	s									
VehicleType	REMEL	Traffic Flow	Dista	ance	Finite	Road	Fres	nel	Barrier Att	en Be	rm Atten
Autos:	66.51	3.26		0.38	3	-1.20		-4.66	0.0	000	0.000
Medium Trucks:	77.72	-12.09		0.41		-1.20		-4.87	0.0	000	0.000
Heavy Trucks:	82.99	-7.07		0.41		-1.20		-5.41	0.0	000	0.000
Unmitigated Noise			barrier	r atten	uation)						
VehicleType	Leq Peak Hou			Leq Ev		Leq	Night		Ldn	_ ~	NEL
Autos:	69		66.8		63.3		62		69.		69.7
Medium Trucks:	64	.8	63.2		55.9		56		64.0	6	64.7
Heavy Trucks: Vehicle Noise:	75 76		73.2 74.4		66.4		68		75. <sup>1</sup>		75.9 77.1
					08.4		69	.0	76.	,	77.
Centerline Distance	e to Noise Co	ontour (in fee	)	70 c	IBA	65	dBA	1	60 dBA	55	5 dBA
			I dn:	15			24		697		.502

	FH\	WA-RD-77-108	HIGH	WAY NO	ISE P	REDICTIO	N MO	DEL			
	o: OY 2020 V e: Cedar Av. nt: s/o I-10 Fw					Project No Job Nur			lansa		
	SPECIFIC IN	NPUT DATA							INPUT	S	
Highway Data				Si	te Con	ditions (H	lard =	10, So	ft = 15)		
Average Daily	Traffic (Adt):	39,173 vehicle	es				,	Autos:	15		
Peak Hour	Percentage:	10%				dium Truc		,	15		
	our Volume:	3,917 vehicle	S		He	avy Trucks	s (3+ A	(xles	15		
	nicle Speed:	40 mph		Ve	ehicle l	Wix					
Near/Far Lar	ne Distance:	48 feet			Veh	icleType		Day	Evening	Night	Daily
Site Data						Au	tos:	73.2%	8.1%	18.6%	89.28%
Bar	rier Heiaht:	0.0 feet			Me	edium Truc	cks:	82.2%	3.9%	14.0%	2.58%
Barrier Type (0-W		0.0			F	leavy Truc	cks:	76.5%	4.0%	19.5%	8.14%
Centerline Dis	t. to Barrier:	52.0 feet		N	nise Sr	ource Elev	ation	s (in fe	et)		
Centerline Dist. t	o Observer:	52.0 feet			,,,,,	Autos:		000	0.,		
Barrier Distance t	o Observer:	0.0 feet			Mediu	n Trucks:		297			
Observer Height (	,	5.0 feet				y Trucks:			Grade Ad	justment	: 0.0
	d Elevation:	0.0 feet		_							
	d Elevation:	0.0 feet		Lá	ne Eq	uivalent D			eet)		
F	Road Grade:	0.0%				Autos:	46.				
	Left View:	-90.0 degree				n Trucks:	46.				
	Right View:	90.0 degree	es		Heav	y Trucks:	46.	228			
FHWA Noise Mode	l Calculation	ıs									
VehicleType	REMEL	Traffic Flow	Dist	ance	Finite	Road	Fresn	el l	Barrier Att	en Bei	m Atten
Autos:	66.51	4.11		0.38		-1.20		-4.66	0.0	000	0.000
Medium Trucks:	77.72			0.41		-1.20		-4.87		000	0.000
Heavy Trucks:	82.99	-6.29		0.41		-1.20		-5.41	0.0	000	0.000
Unmitigated Noise	Levels (with	out Topo and	barrie	r attenu	ation)						
	Leq Peak Ho			Leq Eve		Leq Ni			Ldn		NEL
Autos:			67.7		64.1		63.0		70.3		70.6
Medium Trucks:			64.0		56.7		57.6		65.4		65.5
Heavy Trucks:			74.0		67.2		69.3		76.5		76.6
Vehicle Noise:		-	75.2		69.2		70.4		77.7	7	77.9
Centerline Distance	e to Noise C	ontour (in feet	)								
			L	70 dE		65 dE		6	0 dBA		dBA
			Ldn:	170		366			788		697
		Ci	VEL:	174		375			807	1,	739

Thursday, October 18, 2018

	FH'	WA-RD-	77-108	HIGH	WAY I	NOISE F	REDICT	ION N	MODEL			
Road Nar	rio: OY 2020 V ne: Cedar Av. ent: s/o Santa		A						e: Agua l er: 11215			
	SPECIFIC II	NPUT D	АТА							L INPUT	s	
Highway Data						Site Co	nditions	(Hard	1 = 10, S	oft = 15)		
Average Daily	Traffic (Adt):	32,812	vehicle	s					Autos:	15		
Peak Hour	Percentage:	10%	•			М	edium Tr	ucks (	2 Axles):	15		
Peak I	Hour Volume:	3,281 \	ehicles	3		Н	eavy True	cks (3	+ Axles):	15		
Ve	ehicle Speed:	40 r	mph		-	Vehicle	Miv					
Near/Far La	ane Distance:	48 f	eet				hicleType	•	Dav	Evening	Night	Daily
Site Data						-		Autos:	- ,	-	18.6%	,
D.	rrier Height:	0.0	feet			٨	ledium T	rucks:	82.2%	3.9%	14.0%	
Barrier Type (0-V		0.0	ieet				Heavy T	rucks:	76.5%	4.0%	19.5%	8.40%
	ist. to Barrier:	52.0	feet									
Centerline Dist.		52.0			-	Noise S	ource E			eet)		
Barrier Distance			feet				Auto.		0.000			
Observer Height			feet				ım Truck		2.297			
	ad Flevation:	0.0	feet			Hea	vy Truck	s:	8.004	Grade Ad	ijustment	: 0.0
Ro	ad Flevation:	0.0	feet		İ	Lane E	quivalen	t Dist	ance (in	feet)		
	Road Grade:	0.09	%		İ		Auto.	s: 4	16.400			
	Left View:	-90.0	dearee	s		Media	ım Truck	s: 4	16.209			
	Right View:	90.0	degree	s		Hea	vy Truck	s: 4	16.228			
FHWA Noise Mod	lel Calculation	ıs										
VehicleType	REMEL	Traffic	Flow	Dis	tance	Finite	e Road	Fre	esnel	Barrier At	ten Ber	m Atten
Autos:	66.51		3.33		0.3	18	-1.20		-4.66	0.0	000	0.000
Medium Trucks:	77.72		-11.98		0.4	1	-1.20		-4.87	0.0	000	0.000
Heavy Trucks:	82.99		-6.92		0.4	1	-1.20		-5.41	0.0	000	0.000
Unmitigated Nois			o and l	barrie	er atte	nuation)						
VehicleType	Leq Peak Ho		eq Day	_	Leq E	vening		Night		Ldn		NEL
Autos:		9.0		6.9		63.3		-	2.2	69.	-	69.8
Medium Trucks:	-	1.9		3.3		56.0		-	6.9	64.		64.8
Heavy Trucks:		5.3		73.3		66.	5	6	8.6	75.	9	76.0
Vehicle Noise:		6.5		74.6		68.	5	6	9.8	77.	0	77.2
Centerline Distan	ce to Noise C	ontour (	in feet)	)			_					
				L		dBA		dBA	(	60 dBA		dBA
			-	Ldn:		53	-	30		712	,	533
			C٨	IEL:	1	57	3	38		729	1,	571

Thursday, October 18, 2018

	FH\	WA-RD-77-108	HIGH	IWAY	NOISE P	REDICT	TION M	DDEL			
Road Nan	io: OY 2020 V ne: Cedar Av. nt: s/o Jurupa						t Name: Number:		Mansa		
SITE	SPECIFIC IN	IPUT DATA							L INPUT	s	
Highway Data					Site Cor	ditions	(Hard	= 10, S	oft = 15)		
Average Daily	Traffic (Adt):	30,172 vehicle	es					Autos:	15		
Peak Hour	Percentage:	10%			Me	dium Ti	rucks (2	Axles):	15		
Peak F	lour Volume:	3,017 vehicle	s		He	avy Tru	icks (3+	Axles):	15		
Ve	hicle Speed:	50 mph			Vehicle	Miv					
Near/Far La	ne Distance:	48 feet				icleTyp	e	Dav	Evening	Night	Daily
Site Data							Autos:	73.2%	-	18.6%	
Pa	rrier Height:	0.0 feet			М	edium 7	rucks:	82.2%	3.9%	14.0%	2.61%
Barrier Type (0-W		0.0				Heavy 7	rucks:	76.5%	4.0%	19.5%	8.43%
Centerline Di		52.0 feet									
Centerline Dist.		52.0 feet			Noise S				eet)		
Barrier Distance		0.0 feet				Auto		.000			
Observer Height		5.0 feet			Medium Trucks: 2.297						
	ad Elevation:	0.0 feet			Hear	y Truck	rs: 8	.004	Grade Ad	justmen	t: 0.0
	ad Flevation:	0.0 feet			Lane Eq	uivalen	t Dista	nce (in	feet)		
	Road Grade:	0.0%				Auto	s: 46	.400	,		
	Left View:	-90.0 degre	es		Mediu	m Truck	ks: 46	.209			
	Right View:	90.0 degre			Hear	y Truck	s: 46	5.228			
FHWA Noise Mod	el Calculation	ıs									
VehicleType	REMEL	Traffic Flow	Dis	stance	Finite	Road	Fres	nel	Barrier Att	en Be	rm Atten
Autos:	70.20	1.99		0.3	38	-1.20		-4.66	0.0	000	0.000
Medium Trucks:	81.00	-13.33		0.4	41	-1.20		-4.87	0.0	000	0.000
Heavy Trucks:	85.38	-8.24		0.4	41	-1.20		-5.41	0.0	000	0.000
Unmitigated Nois	e Levels (with	out Topo and	barrie	er atte	nuation)						
VehicleType	Leq Peak Hou	ur Leq Day	/	Leq E	vening	Leq	Night		Ldn	(	NEL
Autos:	71	.4	69.2		65.7		64	.5	71.9	9	72.1
Medium Trucks:	66	i.9	65.2		58.0		58	.8	66.6	3	66.8
Heavy Trucks:	76	i.3	74.4		67.6		69	.7	76.9	9	77.1
Vehicle Noise:	77	'.9	75.9		70.0		71	.1	78.4	1	78.6
Centerline Distan	ce to Noise C	ontour (in feet	)								
				70	dBA	65	dBA	(	60 dBA	55	5 dBA
			Ldn:	1	89	4	804		878	1	,892
		C	NEL:	1	94	4	118		901	1	,942

	FHV	VA-RD-77-108	HIG	HWAY	NOISE P	REDICTI	ON MO	DEL				
	io: OY 2020 W					Project						
	e: Rubidoux E					Job N	umber:	11215				
Road Segme	nt: s/o Product	ion Circle										
	SPECIFIC IN	IPUT DATA			04- 0				L INPUTS	6		
Highway Data					Site Cor	aitions	(Hard =					
Average Daily	. ,	32,615 vehicl	es		Autos: 15							
Peak Hour	Percentage:	10%			Medium Trucks (2 Axles): 15							
Peak H	lour Volume:	3,262 vehicle	S		He	avy Truc	cks (3+	Axles):	15			
Ve	hicle Speed:	50 mph			Vehicle	Mix						
Near/Far La	ne Distance:	48 feet				icleType		Day	Evening	Night	Daily	
Site Data							lutos:	73.2%	8.1%	18.69	6 88.27%	
Ra	rrier Height:	0.0 feet			М	edium Tı	ucks:	82.2%	3.9%	14.0%	6 2.70%	
Barrier Type (0-W	-	0.0			-	Heavy Ti	ucks:	76.5%	4.0%	19.5%	6 9.04%	
Centerline Di	. ,	59.0 feet										
Centerline Dist.	Centerline Dist. to Observer: 59.0 feet					Noise Source Elevations (in feet)						
Barrier Distance	Barrier Distance to Observer: 0.0 feet					Autos: 0.000 Medium Trucks: 2.297						
Observer Height (		5.0 feet						.297				
	ad Elevation:	0.0 feet			Heav	y Trucks	s: 8	.004	Grade Adj	ustmen	t: 0.0	
	ad Elevation:	0.0 feet			Lane Eq	uivalent	Distar	ce (in	feet)			
	Road Grade:	0.0%				Autos	s: 54	.129				
	I eft View:	-90.0 degre	es		Mediu	m Truck	s: 53	.966				
	Right View:	90.0 degre			Heav	y Truck	s: 53	.982				
FHWA Noise Mod	el Calculation	s										
VehicleType	REMEL	Traffic Flow	Di	stance	Finite Road Fre			nel	Barrier Atte	en Be	erm Atten	
Autos:	70.20	2.30		-0.6	62	-1.20		-4.69	0.0	00	0.000	
Medium Trucks:	81.00	-12.85		-0.6	60	-1.20		-4.88	0.0	00	0.000	
Heavy Trucks:	85.38	-7.60		-0.6	60	-1.20		-5.35	0.0	00	0.000	
Unmitigated Noise	e Levels (with	out Topo and	barr	ier atte	nuation)							
VehicleType	Leq Peak Hou	ır Leq Daj	/	Leq E	vening	Leq	Night		Ldn	(	CNEL	
Autos:	70	.7	68.5		65.0		63.	8	71.2	!	71.4	
Medium Trucks:	66	.3	64.7		57.4		58.	3	66.1		66.2	
Heavy Trucks:		74.0		67.2		69.	-	76.6		76.7		
Vehicle Noise:	77	.4	75.5		69.5		70.	7	78.0	1	78.	
Centerline Distan	ce to Noise Co	ontour (in fee	t)					,				
					70 dBA 65 dBA		- (	60 dBA		5 dBA		
	Ldn:			2				2,004				
	CNEL:				206 443 954 2,0							

	FH'	WA-RD-77-108	HIGH	WAY N	OISE PR	EDICTION	ON MC	DEL			
	: OY 2020 V : Rubidoux I : s/o El Rivir	BI.				Project I Job Nu			Mansa		
	PECIFIC II	NPUT DATA							L INPUT	S	
Highway Data					Site Con	ditions (	Hard =				
Average Daily T	. ,	32,547 vehicl	les					Autos:	15		
Peak Hour P		10%				lium Tru			15		
	ur Volume:	3,255 vehicle	es		Hea	vy Truci	ks (3+	Axles):	15		
	icle Speed:	50 mph		1	/ehicle N	lix					
Near/Far Lane	e Distance:	48 feet			Vehi	cleType		Day	Evening	Night	Daily
Site Data						Α	utos:	73.2%	8.1%	18.6%	88.159
Barr	ier Height:	0.0 feet			Me	dium Tru	ıcks:	82.2%	3.9%	14.0%	2.739
Barrier Type (0-Wa	II, 1-Berm):	0.0			H	leavy Tru	ıcks:	76.5%	4.0%	19.5%	9.12
Centerline Dist		59.0 feet		1	Voise So	urce Ele	vation	ıs (in fe	eet)		
Centerline Dist. to		59.0 feet				Autos	: 0	.000			
Barrier Distance to		0.0 feet			Mediun	n Trucks	: 2	297			
Observer Height (A	,	5.0 feet			Heav	/ Trucks	: 8	.004	Grade Ad	justment	0.0
	d Elevation:	0.0 feet		L							
	d Elevation:	0.0 feet		1	.ane Equ				reet)		
Ri	oad Grade:	0.0%				Autos		.129			
ı	Left View: Right View:	-90.0 degre 90.0 degre				n Trucks / Trucks		.966 .982			
FHWA Noise Model	Calculation	15									
VehicleType	REMEL	Traffic Flow	Dist	ance	Finite	Road	Fres	nel	Barrier Att	en Ber	m Atten
Autos:	70.20	2.28		-0.62	)	-1.20		-4.69	0.0	000	0.00
Medium Trucks:	81.00	-12.82		-0.60	)	-1.20		-4.88	0.0	000	0.00
Heavy Trucks:	85.38	-7.57		-0.60	)	-1.20		-5.35	0.0	000	0.00
Unmitigated Noise	•		barrie	r atten	uation)			,			
	.eq Peak Ho			Leg Ev		Leq N			Ldn		NEL
Autos:		0.7	68.5		65.0		63.	-	71.1		71.
Medium Trucks:		6.4	64.7		57.5		58.	-	66.		66.
Heavy Trucks:		6.0	74.0		67.2		69.		76.6	_	76.
Vehicle Noise:		7.5	75.5		69.6		70.	7	78.0	)	78.
	e to Noise C	ontour (in fee	t)	70 c	IDΛ	65 a	IDΛ	- 6	i0 dBA	55	dBA
Centerline Distance											
Centerline Distance			I dn:	20		43			933		011

F	HWA-RD-77	-108 HIGI	I YAWH	NOISE PE	REDICTION	ON M	ODEL				
Scenario: OY 2020 Road Name: Rubidoux Road Segment: s/o 20th	BI.				Project I Job Nu		Agua I				
SITE SPECIFIC	INPUT DA	TA						L INPUT	S		
Highway Data				Site Con	ditions (	Hard	= 10, S	oft = 15)			
Average Daily Traffic (Adt):	25,917 ve	ehicles					Autos:	15			
Peak Hour Percentage:	10%			Me	dium Tru	cks (2	Axles):	15			
Peak Hour Volume:	2,592 ve	hicles		He	avy Truci	ks (3+	Axles):	15			
Vehicle Speed:	50 mp	oh		Vehicle I	Miss						
Near/Far Lane Distance:	48 fee	et			icleType		Day	Evening	Night	Daily	
Site Data				VCII		utos:	73.2%	-	18.6%	,	
				1.4	edium Tri		82.2%		14.0%		
Barrier Height:		et			deavy Tru		76.5%	,.	19.5%		
Barrier Type (0-Wall, 1-Berm):					icavy in	ions.	10.07	7.070	13.570	0.7270	
Centerline Dist. to Barrier.			L	Noise So	ource Ele	vatio	ns (in f	eet)			
Centerline Dist. to Observer.  Barrier Distance to Observer.					Autos	: (	0.000				
				Medium Trucks: 2.297							
Observer Height (Above Pad).  Pad Flevation.				Heav	y Trucks	: 8	3.004	Grade Ad	justment	0.0	
Pad Elevation: Road Flevation:			ŀ	Lane Eq	uivalent	Dieta	nce (in	foot)			
Road Elevation: Road Grade:		et	ŀ	Lane Ly	Autos		1.129	icci)			
Road Grade:				Modiu	m Trucks		3.966				
					n Trucks v Trucks		3.982				
Right View:	90.0 d	egrees		пеач	y Hucks	. 50	0.902				
HWA Noise Model Calculation	ons										
VehicleType REMEL	Traffic FI		stance		Road	Fres		Barrier Att		m Atten	
Autos: 70.2	-	1.32	-0.6	_	-1.20		-4.69		000	0.000	
Medium Trucks: 81.0	-	3.90	-0.6	-	-1.20		-4.88		000	0.000	
Heavy Trucks: 85.3	8 -	8.76	-0.6	0	-1.20		-5.35	0.0	000	0.000	
Inmitigated Noise Levels (wi	thout Topo	and barri	er atter	nuation)							
VehicleType Leq Peak H	our Leq	Day	Leq E	vening	Leq N	light		Ldn	C	NEL	
	69.7	67.6		64.0		62		70.2	_	70.4	
	65.3	63.7		56.4		57	-	65.0	-	65.2	
Heavy Trucks:	74.8	72.9		66.1 68.2 75.4				75.6			
Vehicle Noise:	76.3	74.4		68.5		69	.6	76.9	9	77.0	
Centerline Distance to Noise	Contour (in	feet)									
				dBA	65 a		(	60 dBA		dBA	
Ldn:				169 364 78							
	Ldn: CNFI:				36 37			784 805	,	690 733	

Thursday, October 18, 2018

	FH	WA-RD-77-108	HIGHW	VAY N	OISE PI	REDICT	ION MO	DEL			
Road Na	ario: OY 2020 V me: Rubidoux I ent: s/o 24th St	BI.					Name: lumber:		Mansa		
SITI	SPECIFIC IN	NPUT DATA				N	IOISE I	ИODE	L INPUT	s	
Highway Data				S	ite Cor	ditions	(Hard =	10, Sc	oft = 15)		
Average Dail	y Traffic (Adt):	26,673 vehicle	es					Autos:	15		
Peak Hou	ır Percentage:	10%			Me	dium Tr	ucks (2 /	Axles):	15		
Peak	Hour Volume:	2,667 vehicles	S		He	avy Tru	cks (3+ /	Axles):	15		
١	ehicle Speed:	50 mph		1	ehicle	Miss					
Near/Far L	ane Distance:	48 feet		V		icleType		Dav	Evening	Night	Dailv
Site Data					Veri		Autos:	73.2%	-	18.6%	. ,
					M	edium T		82.2%		14.0%	
	arrier Height:	0.0 feet				Heavy T		76.5%		19.5%	
Barrier Type (0-		0.0			,	icavy i	dons.	70.070	4.070	13.570	0.0070
	Dist. to Barrier:	59.0 feet		٨	loise S	ource E	levation	s (in fe	eet)		
	t. to Observer:	59.0 feet				Auto	s: 0.	000			
Barrier Distanc		0.0 feet			Medium Trucks: 2.297						
Observer Heigh		5.0 feet			Heav	y Truck	s: 8.	004	Grade Adj	iustment	0.0
	Pad Elevation: oad Elevation:	0.0 feet		,	one Fe	uhalan	t Distan	aa (in i	foot)		
K	Road Grade:	0.0 feet		-	ane Ly	Auto		129	eei)		
	Left View:	0.0%			Madiu	m Truck		966			
		-90.0 degree									
	Right View:	90.0 degree	es		Heat	y Truck	s: 53.	982			
FHWA Noise Mo											
VehicleType	REMEL	Traffic Flow	Dista			Road	Fresr		Barrier Att	_	m Atten
Autos				-0.62		-1.20		-4.69	0.0		0.000
Medium Trucks				-0.60		-1.20		-4.88		000	0.000
Heavy Trucks				-0.60		-1.20		-5.35	0.0	000	0.000
Unmitigated Noi											
VehicleType	Leq Peak Ho			Leq Ev		Leq	Night		Ldn		NEL
Autos			67.7		64.2		63.0		70.3		70.6
Medium Trucks			63.8		56.5		57.3		65.2	-	65.3
Heavy Trucks			73.0		66.2		68.3		75.5		75.7
Vehicle Noise	e: 76	3.5	74.5		68.6		69.7	7	77.0	)	77.1
Centerline Dista	nce to Noise C	ontour (in feet	)	70.			10.4				10.1
	<u> </u>								dBA		
			Ldn:	172 370 798			1,719				
		CI	VEL:	176	ь	380 819 1,764				/64	

	FH\	WA-RD-77-108	HIGH	A YAWH	IOISE P	REDICT	ION M	ODEL				
Road Nam	io: OY 2020 We: Rubidoux Ent: s/o 28th St	BI.						Agua   11215	Mansa			
	SPECIFIC IN	IPUT DATA							L INPUT	s		
Highway Data					Site Cor	ditions	(Hard	= 10, S	oft = 15)			
Average Daily	Traffic (Adt):	28,820 vehic	les					Autos:	15			
Peak Hour	Percentage:	10%			Me	dium Tr	ucks (2	Axles):	15			
Peak H	our Volume:	2,882 vehicle	es		He	avy Tru	cks (3+	Axles):	15			
Ve	hicle Speed:	50 mph		-	Vehicle	Mix						
Near/Far Lai	ne Distance:	48 feet		Ė		icleType	Э	Day	Evening	Night	Daily	
Site Data					Autos: 73.2% 8.1% 18.6% 8							
Rai	rier Height:	0.0 feet			Medium Trucks: 82.2% 3.9% 14.0% 2.							
Barrier Type (0-W		0.0			1	Heavy T	rucks:	76.5%	4.0%	19.5%	8.61%	
Centerline Dis	st. to Barrier:	59.0 feet			Noise S	ourco E	lovatio	ne (in f	not)			
Centerline Dist.	to Observer:	59.0 feet		H'	VUISE S	Auto		0.000	eet)			
Barrier Distance	Barrier Distance to Observer: 0.0 feet					Medium Trucks: 2.297						
Observer Height (.	Above Pad):	5.0 feet			Heavy Trucks: 8.004 Grade Adjustment: 0.0							
Pa	ad Elevation:	0.0 feet			rical	ry Truch	io. (	5.004	Orade Ad	jusunone	. 0.0	
Roa	ad Elevation:	0.0 feet		1	Lane Eq	uivalen	t Dista	nce (in	feet)			
I	Road Grade:	0.0%				Auto	s: 54	1.129				
	Left View:	-90.0 degre	es		Mediu	m Truck	is: 50	3.966				
	Right View:	90.0 degre	es		Heav	y Truck	s: 50	3.982				
FHWA Noise Mode	el Calculation	s										
VehicleType	REMEL	Traffic Flow	Dis	stance	Finite	Road	Fres	snel	Barrier At	en Bei	rm Atten	
Autos:	70.20	1.78		-0.62	2	-1.20		-4.69	0.	000	0.000	
Medium Trucks:	81.00	-13.46	i	-0.60	)	-1.20		-4.88	0.	000	0.000	
Heavy Trucks:	85.38	-8.35		-0.60	)	-1.20		-5.35	0.	000	0.000	
Unmitigated Noise												
,,	Leq Peak Hou		_	Leg E			Night		Ldn		NEL	
Autos:	70		68.0		64.5		63		70.	-	70.9	
Medium Trucks:	65		64.1		56.8		57		65.		65.6	
Heavy Trucks: Vehicle Noise:	75 76		73.3		66.5 68.9		68 70		75. 77.		76.0 77.4	
Centerline Distance					00.5		70		,,,		11.	
Cerneriirie Distant	e to Noise C	ontour (in ree	ı)	70 0	iBA	65	dBA		60 dBA	55	dBA	
			Ldn:	18	30	3	88		837	1.	803	
	Lan: CNFI:				185 398 859 1,							

F	HWA-RD-77-108	HIGHWAY	NOISE PI	REDICTIO	N MODE	L		
Scenario: OY 2020 Road Name: Rubidoux Road Segment: s/o 26th	BI.			Project Na Job Nun	ame: Agi nber: 112			
SITE SPECIFIC	INPUT DATA					DEL INPUT	'S	
Highway Data			Site Con	ditions (H	ard = 10	, Soft = 15)		
Average Daily Traffic (Adt):		S	Ma	dium Truci	Aut			
Peak Hour Percentage:				avy Trucks				
Peak Hour Volume:	,		пе	avy Trucks	(3+ AXI	38). 15		
Vehicle Speed:			Vehicle	Mix				
Near/Far Lane Distance:	48 feet		Veh	icleType	Da	y Evening	Night	Daily
Site Data				Au	tos: 73	.2% 8.1%	18.6%	88.69%
Barrier Height:	0.0 feet		M	edium Truc	ks: 82	.2% 3.9%	14.0%	2.66%
Barrier Type (0-Wall, 1-Berm).			,	Heavy Truc	ks: 76	.5% 4.0%	19.5%	8.65%
Centerline Dist. to Barrier.			Noise So	ource Elev	ations (i	in feet)		
Centerline Dist. to Observer.	00.0 1001			Autos:	0.000	)		
Barrier Distance to Observer.	0.0 1001		Mediu	m Trucks:	2.297	,		
Observer Height (Above Pad).			Heav	y Trucks:	8.004	Grade A	djustmen	t: 0.0
Pad Elevation.	0.0 1001		I one Ea	uivalent D	latanaa	(in foot)		
Road Elevation:	0.0 1001		Lane Eq	Autos:	54.129	. ,		
Road Grade: Left View			Modiu	m Trucks:	53.966			
Right View.	00.0 dog.00			y Trucks:	53.982	-		
FHWA Noise Model Calculation	ons							
VehicleType REMEL	Traffic Flow	Distance	Finite	Road	Fresnel	Barrier At	ten Be	rm Atten
Autos: 70.2	0 1.58	-0.	.62	-1.20	-4.	69 0.	000	0.00
Medium Trucks: 81.0	0 -13.65	-0	.60	-1.20	-4.	88 0.	000	0.00
Heavy Trucks: 85.3	8 -8.53	-0	.60	-1.20	-5.	35 0.	000	0.00
Unmitigated Noise Levels (wi	thout Topo and I	barrier atte	enuation)					
VehicleType Leq Peak H	our Leq Day	Leq	Evening	Leq Ni	ght	Ldn	C	NEL
Autos:	70.0 €	7.8	64.3		63.1	70.	.4	70.
Medium Trucks:	65.5	3.9	56.6		57.5	65.	.3	65.
Heavy Trucks:	75.0 7	3.1	66.3		68.4	75.	.7	75.
Vehicle Noise:	76.6 7	4.6	68.7		69.8	77.	.1	77.
Centerline Distance to Noise	Contour (in feet)			1				
			) dBA	65 dE		60 dBA		5 dBA
			175	378		813		,752
	CN	IEL:	180	387		834	1	,798

Thursday, October 18, 2018

	FH\	WA-RD-77-108	HIGI	HWAY	NOISE PI	REDICTI	ON M	IODEL			
Road Nan	io: OY 2020 W ne: Rubidoux E nt: s/o SR-60	31.						e: Agua I r: 11215			
	SPECIFIC IN	IPUT DATA							L INPUT	S	
Highway Data					Site Con	ditions	(Hard	= 10, S	oft = 15)		
Average Daily	Traffic (Adt):	27,835 vehicl	es					Autos:	15		
Peak Hour	Percentage:	10%			Me	dium Tru	icks (2	2 Axles):	15		
Peak F	lour Volume:	2,784 vehicle	S		He	avy Truc	ks (3-	+ Axles):	15		
Ve	hicle Speed:	50 mph			Vehicle	Miv					
Near/Far La	ne Distance:	48 feet				icleType		Dav	Evening	Night	Daily
Site Data							lutos:	- ' '	-	18.6%	,
- Po	rrier Height:	0.0 feet			M	edium Tı	ucks:	82.2%	3.9%	14.0%	2.50%
Barrier Type (0-V		0.0			- 1	leavy Tr	ucks:	76.5%	4.0%	19.5%	7.67%
Centerline Di		59.0 feet									
Centerline Dist.	to Observer:	59.0 feet			Noise S				eet)		
Barrier Distance	to Observer:	0.0 feet				Autos		0.000			
Observer Height	(Above Pad):	5.0 feet				m Trucks		2.297			
	ad Flevation:	0.0 feet			Heav	y Trucks	S.:	8.004	Grade Ad	ijustment	: 0.0
Ro	ad Elevation:	0.0 feet			Lane Eq	uivalent	Dista	nce (in	feet)		
	Road Grade:	0.0%				Autos	s: 5	4.129			
	Left View:	-90.0 degre	es		Mediu	m Trucks	s: 5	3.966			
	Right View:	90.0 degre	es		Heav	y Trucks	s: 5	3.982			
FHWA Noise Mod	el Calculation	ıs									-
VehicleType	REMEL	Traffic Flow	Di	stance	Finite	Road	Fre	snel	Barrier At	ten Ber	m Atten
Autos:		1.68		-0.6	62	-1.20		-4.69	0.0	000	0.000
Medium Trucks:	81.00	-13.87		-0.6	60	-1.20		-4.88	0.0	000	0.000
Heavy Trucks:	85.38	-9.00		-0.6	30	-1.20		-5.35	0.0	000	0.000
Unmitigated Nois	e Levels (with	out Topo and	barri	ier atte	nuation)						
VehicleType	Leq Peak Hou	ur Leq Day	′	Leq E	vening	Leq	Night		Ldn	C	NEL
Autos:	70	).1	67.9		64.4		63	3.2	70.	5	70.8
Medium Trucks:	65	5.3	63.7		56.4		57	7.2	65.		65.2
Heavy Trucks:	74	1.6	72.6		65.8		67	7.9	75.:	2	75.3
Vehicle Noise:	76	5.3	74.3		68.5		69	9.5	76.	В	76.9
Centerline Distan	ce to Noise C	ontour (in feet	)								
				70	dBA	65 (	dBA	-	60 dBA	55	dBA
			Ldn:		67	35			774	,	667
		C	VEL:	1	71	369 794 1,711				711	

Thursday, October 18, 2018

	FH\	WA-RD-77-108	HIGH	WAY	NOISE P	REDICT	ION M	DDEL			
Road Nan	rio: OY 2020 V ne: Rubidoux E nt: s/o 34th St	3I.					t Name: lumber:		Mansa		
	SPECIFIC IN	IPUT DATA							L INPUT	S	
Highway Data					Site Cor	nditions	(Hard:	= 10, S	oft = 15)		
Average Daily	Traffic (Adt):	21,033 vehicle	es					Autos:	15		
Peak Hour	Percentage:	10%			Me	edium Tr	ucks (2	Axles):	15		
Peak F	lour Volume:	2,103 vehicle	S		He	eavy Tru	cks (3+	Axles):	15		
Ve	hicle Speed:	50 mph			Vehicle	Miv					
Near/Far La	ne Distance:	48 feet				icleType	9	Dav	Evening	Night	Daily
Site Data							Autos:	73.2%	-	18.6%	
Pa	rrier Height:	0.0 feet			М	edium T	rucks:	82.2%	3.9%	14.0%	2.50%
Barrier Type (0-W	-	0.0				Heavy T	rucks:	76.5%	4.0%	19.5%	7.70%
	ist. to Barrier:	59.0 feet									
Centerline Dist.		59.0 feet			Noise S				eet)		
Barrier Distance		0.0 feet				Auto		.000			
Observer Height		5.0 feet			Medium Trucks: 2.297						
	ad Elevation:				Hear	vy Truck	:s: 8	.004	Grade Ad	justmen	t: 0.0
	ad Flevation:	0.0 feet			Lane Eq	uivalen	t Distai	nce (in	feet)		
	Road Grade:	0.0%				Auto	s: 54	.129	,		
	Left View:	-90.0 degre	es		Mediu	m Truck	s: 53	3.966			
	Right View:	90.0 degre			Hear	vy Truck	s: 53	3.982			
FHWA Noise Mod	el Calculation	ıs									
VehicleType	REMEL	Traffic Flow	Dis	tance	Finite	Road	Fres	nel	Barrier Att	en Be	rm Atten
Autos:	70.20	0.47		-0.6	32	-1.20		-4.69	0.0	000	0.000
Medium Trucks:	81.00	-15.09		-0.6	60	-1.20		-4.88	0.0	000	0.000
Heavy Trucks:	85.38	-10.20		-0.6	60	-1.20		-5.35	0.0	000	0.000
Unmitigated Nois	e Levels (with	out Topo and	barrie	er atte	nuation)						
VehicleType	Leq Peak Hot			Leq E	vening		Night		Ldn		NEL
Autos:	68	1.9	66.7		63.2		62	.0	69.3	3	69.6
Medium Trucks:	64	.1	62.5		55.2		56	-	63.8	3	64.0
Heavy Trucks:	73	3.4	71.4		64.6		66	.7	74.0	)	74.1
Vehicle Noise:	75	5.1	73.1		67.2		68	.3	75.6	6	75.7
Centerline Distan	ce to Noise C	ontour (in feet	)								
	-		T	70	dBA	65	dBA	- (	60 dBA	55	5 dBA
			Ldn:	1	39	2	98		643	1	,385
		C	VEL:	1	42	3	06		660	1	,422

	FH\	WA-RD-77-10	8 HIGI	HWAY N	IOISE P	REDICT	ION M	ODEL					
Road Nam	io: OY 2020 W e: Rivera St. nt: n/o Market							Agua 11215					
	SPECIFIC IN	IPUT DATA							L INPUT	S			
Highway Data					Site Cor	nditions	(Hard	= 10, S	oft = 15)				
Average Daily	Traffic (Adt):	10,214 vehic	les					Autos:	15				
Peak Hour	Percentage:	10%			Me	edium Tr	ucks (2	Axles):	15				
Peak H	our Volume:	1,021 vehicle	es		He	eavy Tru	cks (3+	Axles):	15				
Ve	hicle Speed:	30 mph		-	Vehicle	Mix							
Near/Far La	ne Distance:	12 feet		İ		icleType	9	Day	Evening	Night	Daily		
Site Data					Autos: 73.2% 8.1% 18.6% 9								
Rai	rier Height:	0.0 feet			М	edium T	rucks:	82.2%	3.9%	14.0%	2.47%		
Barrier Type (0-W		0.0				Heavy T	rucks:	76.5%	4.0%	19.5%	7.52%		
Centerline Dis	st. to Barrier:	33.0 feet		H	Noise S	ourco E	lovatio	ne (in f	not)				
Centerline Dist.	to Observer:	33.0 feet		F.	VOISE 3	Auto		0.000	eei)				
Barrier Distance	Barrier Distance to Observer: 0.0				Medium Trucks: 2,297								
Observer Height (	Above Pad):	5.0 feet			Heavy Trucks: 8.004 Grade Adjustment: 0.0								
Pa	ad Elevation:	0.0 feet			rica	y ITUCK	s. c	5.004	Orado Au	usunon	. 0.0		
Roa	ad Elevation:	0.0 feet		1	Lane Eq	uivalen	t Dista	nce (in	feet)				
	Road Grade:	0.0%				Auto	s: 32	2.833					
	Left View:	-90.0 degre	ees		Mediu	m Truck	s: 32	2.562					
	Right View:	90.0 degre	ees		Hear	vy Truck	s: 32	2.589					
FHWA Noise Mode	el Calculation	s											
VehicleType	REMEL	Traffic Flow	Di	stance		Road	Fres	snel	Barrier Att	en Bei	m Atten		
Autos:	61.75	-0.44	1	2.64	4	-1.20		-4.52	0.0	000	0.000		
Medium Trucks:	73.48	-16.05		2.69	-	-1.20		-4.86		000	0.000		
Heavy Trucks:	79.92	-11.22	2	2.69	9	-1.20		-5.69	0.0	000	0.000		
Unmitigated Noise													
VehicleType	Leq Peak Hou		,	Leq E			Night		Ldn		NEL		
Autos:	62		60.6		57.1		55		63.2		63.		
Medium Trucks:	58		57.3		50.0		50		58.7		58.8		
Heavy Trucks: Vehicle Noise:	70		68.2 69.2		61.4		63 64		70.8 71.7		70.9		
					03.0		04	.4	/1		71.		
Centerline Distant	ce to Noise Co	ontour (in fee	t)	70 0	1BA	65	dBA	т.	60 dBA	55	dBA		
			Later	4							29		
	Ldn: CNFI:						92		199				

	FHV	VA-RD-77-108	HIG	HWAY	NOISE P	REDICT	ION M	ODEL			
Road Nam	io: OY 2020 W ne: Cactus Av. nt: n/o El Rivin							: Agua l : 11215	Mansa		
	SPECIFIC IN	PUT DATA			01: 0				L INPUT	s	
Highway Data					Site Cor	nditions	(Hard				
Average Daily		7,751 vehicle	S					Autos:	15		
	Percentage:	10%						Axles):			
	lour Volume:	775 vehicles	6		He	eavy Iru	icks (3-	- Axles):	15		
	hicle Speed:	40 mph			Vehicle	Mix					
Near/Far La	ne Distance:	11 feet			Veh	icleTyp	е	Day	Evening	Night	Daily
Site Data							Autos:	73.2%	8.1%	18.6%	90.27%
Bai	rrier Heiaht:	0.0 feet			М	ledium 1	rucks:	82.2%	3.9%	14.0%	2.419
Barrier Type (0-W	/all. 1-Berm):	0.0				Heavy 7	rucks:	76.5%	4.0%	19.5%	7.329
Centerline Dis	st. to Barrier:	30.0 feet			Noise S	E	loventie	no (in f	0.041		
Centerline Dist.	to Observer:	30.0 feet			Noise 3	Auto		0.000	cei)		
Barrier Distance	to Observer:	0.0 feet			Modiu	m Truck		2.297			
Observer Height (	Above Pad):	5.0 feet				vy Truck		3.004	Grade Ad	iustment	. 00
Pa	ad Elevation:	0.0 feet								,	- 0.0
Roa	ad Elevation:	0.0 feet			Lane Eq				feet)		
i i	Road Grade:	0.0%				Auto		9.912			
	Left View:	-90.0 degree	s			m Truck	-	9.615			
	Right View:	90.0 degree	s		Hea	vy Truck	(S: 2	9.644			
FHWA Noise Mode											
VehicleType	REMEL	Traffic Flow	Di	stance	_	Road	Fre	snel	Barrier Att		m Atten
Autos:	66.51	-2.88		3.2		-1.20		-4.49		000	0.00
Medium Trucks:	77.72	-18.62		3.3		-1.20		-4.86		000	0.00
Heavy Trucks:	82.99	-13.79		3.3		-1.20		-5.77	0.0	000	0.00
Unmitigated Noise	•		_								
VehicleType	Leq Peak Hou			Leq E	Evening		Night		Ldn		NEL
Autos:	65.		3.5		60.0			3.8	66.2	_	66.
Medium Trucks:	61.		59.6		52.3			3.1	60.9		61.
Heavy Trucks: Vehicle Noise:	71.		70.7		62.6			i.7 i.9	71.9 73.2		72. 73.
Centerline Distant					04.7		00	,.J	13.	-	13.
Centernile Distant	Le to NOISE CO	intour (III leet)	_	70	dBA	65	dBA	т,	60 dBA	55	dBA

Thursday, October 18, 2018

	FH\	WA-RD-77-108	HIGI	HWAY	NOISE P	REDICTI	ON M	ODEL			
Road Nan	rio: OY 2020 W ne: Riverside A nt: n/o I-10 Fw	۸v.						: Agua I : 11215			
	SPECIFIC IN	IPUT DATA							L INPUT	S	
Highway Data					Site Con	ditions	(Hard	= 10, S	oft = 15)		
Average Daily	Traffic (Adt):	40,812 vehicl	es					Autos:	15		
Peak Hour	Percentage:	10%			Me	dium Tru	icks (2	2 Axles):	15		
Peak F	lour Volume:	4,081 vehicle	S		He	avy Truc	ks (3-	+ Axles):	15		
Ve	ehicle Speed:	40 mph			Vehicle I	Miv					
Near/Far La	ne Distance:	50 feet		1		icleType		Dav	Evening	Night	Dailv
Site Data						Α.	utos:	73.2%	8.1%	18.6%	89.81%
Ra	rrier Height:	0.0 feet			Me	edium Tr	ucks:	82.2%	3.9%	14.0%	2.51%
Barrier Type (0-V		0.0			F	leavy Tr	ucks:	76.5%	4.0%	19.5%	7.68%
,,,,,	ist. to Barrier:	60.0 feet		-	Noise So	roo El	o rodie	no (in f	0.041		
Centerline Dist.	to Observer:	60.0 feet			Noise 30	Autos		0.000	eet)		
Barrier Distance	to Observer:	0.0 feet			1.4						
Observer Height	(Above Pad):	5.0 feet			Medium Trucks: 2.297 Heavy Trucks: 8.004 Grade Adjustment: 0.0						
P	ad Elevation:	0.0 feet			Heav	y rrucks		8.004	Grade Ad	jusimeni	0.0
Ro	ad Elevation:	0.0 feet			Lane Eq	uivalent	Dista	nce (in	feet)		
	Road Grade:	0.0%		ĺ		Autos	: 5	4.772			
	Left View:	-90.0 degre	es		Mediui	n Trucks	3: 5	4.610			
	Right View:	90.0 degre	es		Heav	y Trucks	: 5	4.626			
FHWA Noise Mod	lel Calculation	ıs									
VehicleType	REMEL	Traffic Flow	Di	stance	Finite		Fre	snel	Barrier At		m Atten
Autos:		4.32		-0.7	-	-1.20		-4.69		000	0.000
Medium Trucks:				-0.6		-1.20		-4.88		000	0.000
Heavy Trucks:	82.99	-6.36		-0.6	88	-1.20		-5.34	0.0	000	0.000
Unmitigated Nois			barri	er atte	nuation)						
VehicleType	Leq Peak Hou			Leq E	vening	Leq I			Ldn		VEL
Autos:	68		66.8		63.3			2.1	69.		69.7
Medium Trucks:	-		63.0		55.7			6.5	64.	-	64.5
Heavy Trucks:			72.8		66.0			3.1	75.		75.5
Vehicle Noise:	76	5.1	74.1		68.1		69	9.3	76.	6	76.8
Centerline Distan	ce to Noise C	ontour (in fee	)								
			L		dBA	65 (		(	60 dBA		dBA
			Ldn:		65	35	-		767	,	653
		С	NEL:	1	70	36	35		787	1,	695

Thursday, October 18, 2018

	FH	WA-RD-77-108	HIGH	IWAY	NOISE P	REDICT	ION MO	DEL			
	io: OY 2020 V e: Riverside A nt: s/o I-10 Fw	Av.					t Name: . lumber:		Mansa		
	SPECIFIC IN	NPUT DATA							L INPUT	S	
Highway Data					Site Cor	ditions	(Hard =	10, Sc	oft = 15)		
Average Daily	Traffic (Adt):	46,352 vehicle	es					Autos:	15		
Peak Hour	Percentage:	10%			Me	dium Tr	ucks (2 A	(xles	15		
Peak H	our Volume:	4,635 vehicle	s		He	avy Tru	cks (3+ A	(xles	15		
Ve	hicle Speed:	50 mph		ł	Vehicle	Miv					
Near/Far La	ne Distance:	50 feet				icleType	9	Dav	Evening	Night	Daily
Site Data								73.2%		18.69	
Rai	rier Height:	0.0 feet			М	edium T	rucks:	82.2%	3.9%	14.09	6 2.58%
Barrier Type (0-W		0.0			1	Heavy T	rucks:	76.5%	4.0%	19.59	6 8.06%
Centerline Dis		60.0 feet							.,		
Centerline Dist.	to Observer:	60.0 feet			Noise S				eet)		
Barrier Distance	to Observer:	0.0 feet				Auto		000			
Observer Height (	Above Pad):	5.0 feet				m Truck		297	Crada As	livotmo	a4: 0 0
Pa	ad Elevation:	0.0 feet			Heat	y Truck	s: 8.0	004	Grade Ad	ijusiiriei	n. 0.0
Roa	ad Elevation:	0.0 feet		ĺ	Lane Eq	uivalen	t Distan	ce (in i	feet)		
1	Road Grade:	0.0%		ĺ		Auto	s: 54.	772			
	Left View:	-90.0 degre	es		Mediu	m Truck	s: 54.	610			
	Right View:	90.0 degre	es		Heav	y Truck	s: 54.	626			
FHWA Noise Mode	el Calculation	18									
VehicleType	REMEL	Traffic Flow	Dis	tance	Finite	Road	Fresn	el	Barrier At	ten B	erm Atten
Autos:	70.20	3.88		-0.7	70	-1.20		-4.69	0.	000	0.000
Medium Trucks:	81.00			-0.6		-1.20		-4.88		000	0.000
Heavy Trucks:	85.38	-6.57		-0.6	88	-1.20		-5.34	0.	000	0.000
Unmitigated Noise	e Levels (with	out Topo and	barrie	er atte	nuation)						
VehicleType	Leq Peak Ho	ur Leq Day	′	Leq E	vening	Leq	Night		Ldn		CNEL
Autos:			70.0		66.5		65.3		72.		72.9
Medium Trucks:			66.0		58.7		59.5		67.	-	67.5
Heavy Trucks:	76	6.9	75.0		68.2		70.3		77.	5	77.7
Vehicle Noise:	78	3.5	76.6		70.7		71.8		79.	1	79.2
Centerline Distance	ce to Noise C	ontour (in feet	)								
			I	70	dBA	65	dBA	6	60 dBA	5	5 dBA
			Ldn:	2	41	5	19		1,119		2,410
		C	VEL:	2	47	5	33		1,148		2,473

		WA-RD-77-108									
	o: OY 2020 V					Project					
	Riverside					JOD IN	umber.	11215			
Road Segmen	t: s/o Santa	Ana Av.									
	PECIFIC II	VPUT DATA							L INPUT	S	
Highway Data					Site Cor	ditions	(Hard	= 10, S	oft = 15)		
Average Daily T	raffic (Adt):	34,607 vehic	les					Autos			
Peak Hour I		10%				dium Tr					
Peak Ho	our Volume:	3,461 vehicle	es		He	avy Tru	cks (3+	Axles)	: 15		
	icle Speed:	55 mph		- 1	Vehicle	Wix					
Near/Far Lar	e Distance:	52 feet		ŀ	Veh	icleType		Day	Evening	Night	Daily
Site Data							Autos:	73.29	6 8.1%	18.69	6 89.20%
Ran	rier Heiaht:	0.0 feet			М	edium T	rucks:	82.29	6 3.9%	14.09	6 2.60%
Barrier Type (0-Wa	all, 1-Berm):	0.0			1	leavy T	rucks:	76.59	4.0%	19.59	6 8.20%
Centerline Dis		52.0 feet		Ī	Noise S	ource E	levatio	ns (in i	feet)		
Centerline Dist. t		52.0 feet				Auto	s: C	0.000			
Barrier Distance t		0.0 feet			Mediu	n Truck	s: 2	.297			
Observer Height (A	,	5.0 feet			Heav	y Truck	s: 8	3.004	Grade Ad	ljustmer	t: 0.0
	d Elevation:	0.0 feet		-	Lane Eq	ialan	Diete	naa (in	foot)		
	d Elevation:	0.0 feet			Lane Eq				ieet)		
F	Road Grade:	0.0%				Auto n Truck		5.310			
	Left View:	-90.0 degre									
	Right View:	90.0 degre	es		Heat	y Truck	S: 45	5.133			
FHWA Noise Mode		-									
VehicleType	REMEL	Traffic Flow		stance		Road	Fres		Barrier At		erm Atten
Autos:	71.78			0.5		-1.20		-4.66		000	0.00
Medium Trucks:	82.40			0.5		-1.20		-4.87		000	0.00
Heavy Trucks:	86.40			0.5	-	-1.20		-5.41	0.	000	0.00
Unmitigated Noise								-			21/5/
VehicleType Autos:	Leq Peak Ho	ur Leq Da	71.2	Leq E	vening 67.6	Leq	Night 66	-	Ldn 73.		ONEL 74.
Medium Trucks:		3.6	67.0		59.7		60		73. 68.		68.5
Heavy Trucks:		7.6	75.6		68.8		70		78.	-	78.3
Vehicle Noise:		9.3	77.4		71.6		70		78.		80.0
Centerline Distanc	e to Noise C	ontour (in fee	t)								
	5 .10.00 0		-/	70	dBA	65	dBA		60 dBA	5.	5 dBA
			Ldn:	2	36	5	08		1,094	2	2,358
		_	NFI:	_	42	-	21		1.123	,	2.420

	FH\	WA-RD-77-108	HIGHW	AY NO	DISE PE	REDICTIO	N MO	DEL			
	o: OY 2020 W e: Riverside A nt: s/o Slover	۱۷.				Project N Job Nui			Mansa		
SITE S	SPECIFIC IN	IPUT DATA				NC	DISE N	/IODE	L INPUT	s	
Highway Data				S	ite Con	ditions (F	lard =	10, Sc	oft = 15)		
Average Daily	Traffic (Adt):	42,964 vehicle	s				,	Autos:	15		
Peak Hour	Percentage:	10%			Me	dium Truc	ks (2 A	(xles	15		
Peak H	our Volume:	4,296 vehicles			He	avy Truck	s (3+ A	(xles	15		
Vel	hicle Speed:	50 mph		1/	ehicle l	Miv					
Near/Far Lar	ne Distance:	52 feet				icleType		Dav	Evening	Night	Daily
Site Data					* 0111			73.2%	0	18.6%	,
	rier Height:	0.0 feet			Me	edium Tru	cks:	82.2%	3.9%	14.0%	
Barrier Type (0-W		0.0 reet			F	leavy Tru	cks:	76.5%	4.0%	19.5%	8.09%
Centerline Dis		52.0 feet									
Centerline Dist. 1		52.0 feet		N	oise Sc	ource Ele			eet)		
Barrier Distance		0.0 feet				Autos:		000			
Observer Height (		5.0 feet				n Trucks:		297			
, ,	d Flevation:	0.0 feet			Heav	y Trucks:	8.0	004	Grade Ad	justmeni	: 0.0
Roa	d Elevation:	0.0 feet		L	ane Eq	uivalent L	Distan	ce (in i	feet)		
F	Road Grade:	0.0%				Autos:	45.3	310			
	Left View:	-90.0 degree	s		Mediur	m Trucks:	45.	114			
	Right View:	90.0 degree	s		Heav	y Trucks:	45.	133			
FHWA Noise Mode	el Calculation	s									
VehicleType	REMEL	Traffic Flow	Dista	nce	Finite	Road	Fresn	el	Barrier Att	en Be	rm Atten
Autos:	70.20	3.55		0.54		-1.20		-4.66		000	0.000
Medium Trucks:	81.00	-11.84		0.57		-1.20		-4.87		000	0.000
Heavy Trucks:	85.38	-6.88		0.56		-1.20		-5.41	0.0	000	0.000
Unmitigated Noise										1	
	Leq Peak Hou	- 1 - 7		.eq Eve		Leq N			Ldn		NEL
Autos:	73		70.9 36.9		67.4		66.2		73.6		73.8
Medium Trucks:	68 77		75.9		59.6 69.1		71.2		68.3 78.5		68.4 78.6
Heavy Trucks:  Vehicle Noise:	79		77.5		71.6		71.2		78.5		78.6 80.2
Centerline Distance					11.0		12.1		00.0	,	00.2
Centernile Distant	e to Moise Ci	ontour (III leet)		70 dE	84	65 dl	84	6	i0 dBA	55	dBA
			dn:	241		519			1.117		.407
			IFI :	241		532			1,147		470
		O/		241		302	-		.,	-	

Thursday, October 18, 2018

	FH\	WA-RD-77-108	HIGI	HWAY	NOISE PI	REDICTI	ON M	ODEL			
Road Nar	rio: OY 2020 W ne: Riverside A ent: s/o Jurupa	۸v.				Project Job No		: Agua l : 11215	Mansa		
	SPECIFIC IN	IPUT DATA							L INPUT	s	
Highway Data					Site Con	ditions (	Hard	= 10, S	oft = 15)		
Average Daily	Traffic (Adt):	39,426 vehicle	es					Autos:	15		
Peak Hour	Percentage:	10%			Me	dium Tru	icks (2	Axles):	15		
Peak I	lour Volume:	3,943 vehicle	S		He	avy Truc	ks (3+	- Axles):	15		
Ve	ehicle Speed:	55 mph			Vehicle	Miv					
Near/Far La	ane Distance:	52 feet				icleType	П	Dav	Evening	Night	Daily
Site Data							utos:	73.2%	-	18.6%	,
P.	rrier Height:	0.0 feet			М	edium Tr	ucks:	82.2%	3.9%	14.0%	
Barrier Type (0-V		0.0 reet			- 1	Heavy Tr	ucks:	76.5%	4.0%	19.5%	8.13%
	ist. to Barrier:	52.0 feet									
Centerline Dist.		52.0 feet			Noise S			_ •	eet)		
Barrier Distance		0.0 feet				Autos		0.000			
Observer Height		5.0 feet				m Trucks		2.297			
	ad Flevation:	0.0 feet			Heav	ry Trucks		3.004	Grade Ad	ljustment	0.0
-	ad Elevation:	0.0 feet			Lane Eq	uivalent	Dista	nce (in	feet)		
	Road Grade:	0.0%				Autos	: 4	5.310			
	Left View:	-90.0 degree	es		Mediu	m Trucks	: 4	5.114			
	Right View:	90.0 degree	es		Heav	y Trucks	: 4	5.133			
FHWA Noise Mod	lel Calculation	ıs									
VehicleType	REMEL	Traffic Flow	Di	stance		Road	Fre	snel	Barrier At		m Atten
Autos:		2.76		0.5		-1.20		-4.66		000	0.000
Medium Trucks:				0.5		-1.20		-4.87		000	0.000
Heavy Trucks:	86.40	-7.65		0.5	56	-1.20		-5.41	0.0	000	0.000
Unmitigated Nois	e Levels (with	out Topo and	barri	er atte	nuation)						
VehicleType	Leq Peak Hou			Leq E	vening	Leq I	Vight		Ldn		NEL
Autos:		3.9	71.7		68.2		67	.0	74.	3	74.6
Medium Trucks:	69	0.1	67.5		60.2		61	.1	68.	9	69.0
Heavy Trucks:	78	3.1	76.2		69.4		71	.5	78.	7	78.8
Vehicle Noise:	79	0.9	77.9		72.1		73	3.1	80.	4	80.6
Centerline Distan	ce to Noise C	ontour (in feet	)								
				70	dBA	65 c	IBA	(	60 dBA	55	dBA
			Ldn:		56	55	_		1,189	,	561
		CI	VEL:	2	263 566				1,220 2,6		

Thursday, October 18, 2018

	FH\	WA-RD-77-108	HIGH	HWAY	NOISE P	REDICT	ION M	ODEL			
Road Nan	rio: OY 2020 V ne: Rancho Av nt: n/o Agua N						t Name: Number:		Mansa		
SITE	SPECIFIC IN	IPUT DATA							L INPUT	s	
Highway Data					Site Cor	nditions	(Hard	= 10, S	oft = 15)		
Average Daily	Traffic (Adt):	20,605 vehicle	es					Autos:	15		
Peak Hour	Percentage:	10%			Me	edium Ti	rucks (2	Axles):	15		
Peak F	lour Volume:	2,060 vehicle	S		He	eavy Tru	icks (3+	Axles):	15		
Ve	hicle Speed:	40 mph			Vehicle	Miv					
Near/Far La	ne Distance:	52 feet				icleTyp	e	Dav	Evening	Night	Daily
Site Data					*0		Autos:	73.2%	-	18.6%	
Pa	rrier Height:	0.0 feet			М	edium 7	rucks:	82.2%	3.9%	14.0%	
Barrier Type (0-W	-	0.0				Heavy 7	rucks:	76.5%	4.0%	19.5%	7.85%
	ist. to Barrier:	52.0 feet									
Centerline Dist.	to Observer:	52.0 feet			Noise S				eet)		
Barrier Distance	to Observer:	0.0 feet				Auto		0.000			
Observer Height	(Above Pad):	5.0 feet				m Truck		2.297			
	ad Elevation:	0.0 feet			Hear	vy Truck	rs: 8	3.004	Grade Ad	justmen	t: 0.0
	ad Flevation:	0.0 feet			Lane Eq	uivalen	t Dista	nce (in	feet)		
	Road Grade:	0.0%				Auto	s: 45	5.310	-		
	Left View:	-90.0 degre	es		Mediu	m Truck	ks: 45	5.114			
	Right View:	90.0 degre			Hear	vy Truck	(S: 45	5.133			
FHWA Noise Mod	el Calculation	ıs									
VehicleType	REMEL	Traffic Flow	Dis	stance	Finite	Road	Fres	snel	Barrier Att	en Be	rm Atten
Autos:	66.51	1.34		0.	54	-1.20		-4.66	0.0	000	0.000
Medium Trucks:	77.72	-14.14		0.	57	-1.20		-4.87	0.0	000	0.000
Heavy Trucks:	82.99	-9.24		0.	56	-1.20		-5.41	0.0	000	0.000
Unmitigated Nois	e Levels (with	out Topo and	barri	er atte	nuation)						
VehicleType	Leq Peak Hou			Leq I	Evening		Night		Ldn		NEL
Autos:	67	.2	65.0		61.5		60	.3	67.7	7	67.9
Medium Trucks:	62	2.9	61.3		54.0		54	.9	62.7	7	62.8
Heavy Trucks:	73	3.1	71.2		64.4		66	.5	73.7	7	73.9
Vehicle Noise:	74	1.4	72.5		66.4		67	.7	75.0	)	75.1
Centerline Distan	ce to Noise C	ontour (in feet	·)								
	-			70	dBA	65	dBA	(	60 dBA	55	5 dBA
			Ldn:	1	111	2	240		516	1	,112
		C	NEL:	1	114	2	246		529	1	,140

		WA-RD-77-10									
	io: OY 2020 W	ith Alt 1A				Project					
	e: Slover Av.					Job No	umber.	11215			
Road Segmer	nt: w/o Cedar	AV.									
	SPECIFIC IN	IPUT DATA							L INPUT	S	
Highway Data					Site Con	ditions	(Hard	= 10, S	oft = 15)		
Average Daily	Traffic (Adt):	14,016 vehic	les					Autos:	15		
Peak Hour	Percentage:	10%			Me	dium Tru	icks (2	Axles):	15		
Peak H	our Volume:	1,402 vehicle	es		He	avy Truc	ks (3+	Axles):	15		
Ve	hicle Speed:	50 mph		ŀ	Vehicle	Miv					
Near/Far Lai	ne Distance:	48 feet		1		icleType		Day	Evening	Night	Daily
Site Data							utos:	73.2%		18.6%	,
Par	rier Heiaht:	0.0 feet			M	edium Tr	ucks:	82.2%	3.9%	14.0%	2.46%
Barrier Type (0-W		0.0 feet			ı	Heavy Tr	ucks:	76.5%	4.0%	19.5%	7.48%
Centerline Dis		52.0 feet									
Centerline Dist.		52.0 feet			Noise So			_	eet)		
Barrier Distance		0.0 feet				Autos m Trucks		0.000			
	Observer Height (Above Pad): 5.0 feet						-	2.297			
	ad Flevation:	0.0 feet			Heav	y Trucks	:: 8	3.004	Grade Ad	ljustment	: 0.0
Ros	ad Flevation:	0.0 feet			Lane Eq	uivalent	Dista	nce (in	feet)		
·	Road Grade:	0.0%		i		Autos	: 46	6.400			
	Left View:	-90.0 degre	ees		Mediu	m Trucks	: 46	6.209			
	Right View:	90.0 degre	ees		Heav	y Trucks	: 46	5.228			
FHWA Noise Mode		-									
VehicleType	REMEL	Traffic Flow		istance		Road	Fres		Barrier Att		m Atten
Autos:	70.20	-1.28		0.3		-1.20		-4.66		000	0.000
Medium Trucks:	81.00	-16.92	-	0.4		-1.20		-4.87		000	0.000
Heavy Trucks:	85.38	-12.09	,	0.4	11	-1.20		-5.41	0.0	000	0.000
Unmitigated Noise	e Levels (with	out Topo and	l barr	ier atte	nuation)						
,,	Leq Peak Hou		,	Leq E	vening	Leq I			Ldn		NEL
Autos:	68		66.0		62.4		61		68.0		68.9
Medium Trucks:	63		61.6		54.4		55	-	63.0	-	63.2
Heavy Trucks:	72		70.5		63.7		65		73.		73.2
Vehicle Noise:	74	.2	72.2		66.4		67	.4	74.	7	74.9
Centerline Distand	ce to Noise Co	ontour (in fee	t)								
				70	dBA	65 6	iBA	- (	60 dBA	55	dBA
			Ldn:		07	23			498	1,	073
			NFI:	1	10	23	87		511	1	101

	FH\	WA-RD-77-108	HIGHW	VAY NO	DISE P	REDICT	ION M	ODEL			
	rio: OY 2020 W							: Agua I	Mansa		
Road Nan	ne: Rancho Av					Job I	Vumber	11215			
Road Segme	nt: s/o Agua N	lansa Rd.									
	SPECIFIC IN	IPUT DATA			·- 0				L INPUT	S	
Highway Data				3	ite Cor	iaitions	(Hara		oft = 15)		
Average Daily	. ,	14,902 vehicle	:S					Autos:			
	Percentage:	10%						Axles):			
	lour Volume:	1,490 vehicles			He	avy Tru	icks (3+	- Axles):	15		
	ehicle Speed:	40 mph		V	ehicle	Mix					
Near/Far La	ne Distance:	52 feet			Veh	icleTyp	е	Day	Evening	Night	Daily
Site Data							Autos:	73.2%	8.1%	18.6%	89.75%
Ba	rrier Height:	0.0 feet			М	edium 7	rucks:	82.2%	3.9%	14.0%	2.52%
Barrier Type (0-V	Vall, 1-Berm):	0.0			ı	Heavy 7	rucks:	76.5%	4.0%	19.5%	7.74%
Centerline Di	ist. to Barrier:	52.0 feet		A.	oioo C	E	lovetio	ns (in f	0.041		
Centerline Dist.	to Observer:	52.0 feet		/4	orse s	Auto		0.000	eel)		
Barrier Distance	to Observer:	0.0 feet			Modiu	m Truck		2.297			
Observer Height	(Above Pad):	5.0 feet				n muci v Truck		3.004	Grade Ad	iuetmant	. 0.0
P	ad Elevation:	0.0 feet			пеач	ry Truci	18. 0	5.004	Orado Ad,	usunon	0.0
Ro	ad Elevation:	0.0 feet		Li	ane Eq	uivaler	t Dista	nce (in	feet)		
	Road Grade:	0.0%				Auto	s: 4	5.310			
	Left View:	-90.0 degree	S		Mediu	m Truck	ks: 4	5.114			
	Right View:	90.0 degree	·S		Heav	y Truck	(S: 4	5.133			
FHWA Noise Mod	lel Calculation	s									
VehicleType	REMEL	Traffic Flow	Dista	nce	Finite	Road	Fre	snel	Barrier Att	en Ber	m Atten
Autos:	66.51	-0.06		0.54		-1.20		-4.66	0.0	000	0.000
Medium Trucks:	77.72	-15.58		0.57		-1.20		-4.87	0.0	000	0.000
Heavy Trucks:	82.99	-10.71		0.56		-1.20		-5.41	0.0	000	0.000
Unmitigated Nois	e Levels (with	out Topo and	barrier	attenu	ation)						
VehicleType	Leq Peak Hou			Leq Eve		Leg	Night		Ldn		NEL
Autos:			3.6		60.1		58		66.3		66.5
Medium Trucks:			59.9		52.6		53		61.2		61.4
Heavy Trucks:			9.7		62.9		65		72.3		72.4
Vehicle Noise:			71.0		65.0		66	.2	73.5	5	73.7
Centerline Distan	ce to Noise C	ontour (in feet,									
				70 dE	3A	ı 65	dBA	1 6	30 dBA	1 55	dBA

Thursday, October 18, 2018

	FH	WA-RD-77-108	HIGH	HWAY	NOISE PI	REDICTI	ON M	ODEL			
Road Nar	rio: OY 2020 V ne: Slover Av. ent: w/o Riversi					Project Job No		: Agua l :: 11215			
	SPECIFIC IN	IPUT DATA							L INPUT	s	
Highway Data					Site Con	ditions (	Hard	= 10, S	oft = 15)		
Average Daily	Traffic (Adt):	11,390 vehicl	es					Autos:	15		
Peak Hour	r Percentage:	10%			Me	dium Tru	cks (2	2 Axles):	15		
Peak I	Hour Volume:	1,139 vehicle	S		He	avy Truc	ks (3-	Axles):	15		
Ve	ehicle Speed:	50 mph			Vehicle	Miss					
Near/Far La	ane Distance:	48 feet				icleType		Dav	Evening	Night	Daily
Site Data					V C//		utos:	73.2%	-	18.6%	
					M	edium Tr				14.0%	2.49%
	arrier Height:	0.0 feet 0.0				leavy Tr				19.5%	7.57%
Barrier Type (0-V	vall, 1-Berm): ist. to Barrier:	0.0 52.0 feet				icavy iii	ucns.	70.57	7.070	13.570	7.57 70
Centerline Di		52.0 feet			Noise S	ource Ele	evatio	ns (in f	eet)		
Barrier Distance		0.0 feet				Autos	ď	0.000			
		5.0 feet			Mediu	m Trucks	: :	2.297			
Observer Height	(Above Pad): Pad Flevation:	0.0 feet			Heav	y Trucks	:	8.004	Grade Ad	ljustment	0.0
-	ad Elevation: ad Flevation:	0.0 feet			Lane Eq	uivalent	Diets	nce (in	foot)		
AC.	Road Grade:	0.0%			zano zq	Autos		6.400	,,,,		
	Left View:	-90.0 degre			Modiu	n Trucks		6.209			
	Right View:	90.0 degre				y Trucks		6.228			
	ragni view.	30.0 degre	53		77001	y Trucks		0.220			
FHWA Noise Mod	del Calculation	ıs									
VehicleType	REMEL	Traffic Flow	Dis	stance		Road	Fre	snel	Barrier At		m Atten
Autos:		-2.19		0.3		-1.20		-4.66		000	0.000
Medium Trucks:				0.4		-1.20		-4.87		000	0.000
Heavy Trucks:	85.38	-12.94		0.4	11	-1.20		-5.41	0.0	000	0.000
Unmitigated Nois	e Levels (with	out Topo and	barri	er atte	nuation)						
VehicleType	Leq Peak Ho	ur Leq Day	′	Leq E	vening	Leq I	Vight		Ldn	C	VEL
Autos:	67	.2	65.1		61.5		60	).4	67.	7	67.9
Medium Trucks:	62	2.4	60.8		53.5		54	1.4	62.:	2	62.3
Heavy Trucks:	71	.6	69.7		62.9		65	5.0	72.:	2	72.4
Vehicle Noise:	73	3.3	71.4		65.6		66	6.6	73.	9	74.0
Centerline Distan	ce to Noise C	ontour (in feet	)								
				70	dBA	65 c	<i>IBA</i>		60 dBA	55	dBA
			Ldn:		94	20	_		436	-	39
			96 208				448 964				

Thursday, October 18, 2018

	FH\	WA-RD-77-108	HIGH	WAY	NOISE P	REDICT	ION M	DDEL			
Road Nan	rio: OY 2020 W ne: Santa Ana nt: w/o Cedar	Av.					t Name: lumber:		Mansa		
SITE	SPECIFIC IN	IPUT DATA							L INPUT	s	
Highway Data					Site Cor	ditions	(Hard:	= 10, S	oft = 15)		
Average Daily	Traffic (Adt):	8,364 vehicle	es					Autos:	15		
Peak Hour	Percentage:	10%				dium Ti					
Peak F	lour Volume:	836 vehicle	S		He	avy Tru	icks (3+	Axles):	15		
Ve	hicle Speed:	40 mph		F	Vehicle	Miv					
Near/Far La	ne Distance:	36 feet		ŀ		icleTyp	e	Dav	Evening	Night	Daily
Site Data							Autos:	73.2%	Ü	18.6%	
Pa	rrier Height:	0.0 feet			М	edium 7	rucks:	82.2%	3.9%	14.0%	2.62%
Barrier Type (0-W	-	0.0				Heavy 7	rucks:	76.5%	4.0%	19.5%	8.27%
Centerline Di		44.0 feet		-							
Centerline Dist.	to Observer:	44.0 feet		-	Noise S				eet)		
Barrier Distance	to Observer:	0.0 feet				Auto		.000			
Observer Height	(Above Pad):	5.0 feet				m Truck		.297			
	ad Elevation:	0.0 feet			Heav	y Truck	rs: 8	.004	Grade Ad	justmen	t: 0.0
	ad Flevation:	0.0 feet		Ī	Lane Eq	uivalen	t Distai	nce (in	feet)		
	Road Grade:	0.0%		Ī		Auto	os: 40	.460			
	Left View:	-90.0 degre	es		Mediu	m Truck	ks: 40	.241			
	Right View:	90.0 degre			Heav	y Truck	(S: 40	.262			
FHWA Noise Mod	el Calculation	s									
VehicleType	REMEL	Traffic Flow	Dist	tance	Finite	Road	Fres	nel	Barrier Att	en Be	rm Atten
Autos:	66.51	-2.60		1.2	28	-1.20		-4.61	0.0	000	0.000
Medium Trucks:	77.72	-17.93		1.3	31	-1.20		-4.87	0.0	000	0.000
Heavy Trucks:	82.99	-12.93		1.3	31	-1.20		-5.50	0.0	000	0.000
Unmitigated Nois	e Levels (with	out Topo and	barrie	er atte	nuation)						
VehicleType	Leq Peak Hou			Leq E	vening		Night		Ldn		NEL
Autos:	64	.0	61.8		58.3		57.	.1	64.	5	64.7
Medium Trucks:	59	.9	58.3		51.0		51.	.8	59.0	6	59.8
Heavy Trucks:	70	.2	68.2		61.4		63	.5	70.8	В	70.9
Vehicle Noise:	71	.4	69.5		63.4		64	.7	72.0	0	72.1
Centerline Distan	ce to Noise Co	ontour (in feet	)								
				70	dBA	65	dBA	(	60 dBA	55	5 dBA
			Ldn:		59	1	28		276	- :	594
		C	VEL:	6	61	1	31		282		808

Thursday, October 18, 2018

	FH\	WA-RD-77-108	HIGH	WAY N	IOISE P	REDICTI	ON M	ODEL			
	o: OY 2020 V e: Jurupa Av. nt: w/o Cedar					Project Job N		: Agua : 11215			
	SPECIFIC IN	IPUT DATA							L INPUT	S	
Highway Data					Site Cor	ditions	Hard	= 10, S	oft = 15)		
Average Daily	Traffic (Adt):	7,363 vehicle	es					Autos.	15		
Peak Hour	Percentage:	10%			Me	dium Tru	icks (2	Axles).	15		
Peak H	our Volume:	736 vehicles	S		He	avy Truc	ks (3+	Axles).	15		
Ve	hicle Speed:	40 mph			Vehicle	Miv					
Near/Far Lai	ne Distance:	48 feet		F		icleType		Day	Evening	Night	Daily
Site Data							utos:	73.29	6 8.1%	18.6%	90.15%
Rai	rier Height:	0.0 feet			М	edium Tr	ucks:	82.29	6 3.9%	14.0%	2.44%
Barrier Type (0-W		0.0				Heavy Tr	ucks:	76.5%	4.0%	19.5%	7.41%
Centerline Dis	. ,	52.0 feet			Noise S	ourco El	ovatio	ne (in t	inat)		
Centerline Dist.	to Observer:	52.0 feet		H.	WOISE SI	Autos		0.000	eei)		
Barrier Distance	to Observer:			Modiu	m Trucks		2.297				
Observer Height (	Above Pad):	5.0 feet				y Trucks	-	3.004	Grade Ad	liuetmon	+ 0.0
Pa	ad Elevation:	0.0 feet			пеан	y Trucks	i. c	5.004	Grade Ad	jusunen	. 0.0
Roa	ad Elevation:	0.0 feet		1	Lane Eq	uivalent	Dista	nce (in	feet)		
I	Road Grade:	0.0%				Autos	: 46	6.400			
	Left View:	-90.0 degree	es		Mediu	m Trucks	: 46	6.209			
	Right View:	90.0 degree	es		Heav	y Trucks	: 46	6.228			
FHWA Noise Mode	el Calculation	s									
VehicleType	REMEL	Traffic Flow	Dist	ance	Finite	Road	Fres		Barrier Att	en Be	rm Atten
Autos:	66.51	-3.11		0.38	В	-1.20		-4.66	0.0	000	0.00
Medium Trucks:	77.72	-18.78		0.4	1	-1.20		-4.87	0.0	000	0.000
Heavy Trucks:	82.99	-13.96		0.4	1	-1.20		-5.41	0.0	000	0.000
Unmitigated Noise											
VehicleType	Leq Peak Hou	.,.,	_	Leq E	vening	Leq			Ldn		NEL
Autos:	62		60.4		56.9		55		63.		63.3
Medium Trucks:	58		56.5		49.2		50		57.		58.0
Heavy Trucks: Vehicle Noise:	68	-	66.3 67.6		59.5 61.7		61 62		68.8 70.1		69.0 70.:
					01.7		02	.0	70.		70.
Centerline Distanc	e to Noise C	ontour (in feet	, 	70 0	dBA	65 (	iBA		60 dBA	55	dBA
			Ldn:	5	3	11	4		246	1 .	531
	CNFI:						54 117 253 54				

	FHV	VA-RD-77-108	HIGI	HWAY	NOISE P	REDICT	ON M	ODEL			
Road Nan	nio: OY 2020 W ne: Santa Ana . nt: w/o Riversi	Av.				Project Job N		Agua 11215			
	SPECIFIC IN	PUT DATA							L INPUT	s	
Highway Data					Site Cor	ditions	(Hard				
Average Daily		5,154 vehicle	es					Autos:			
	Percentage:	10%				dium Tru					
	lour Volume:	515 vehicles	S		He	avy Truc	cks (3+	Axles).	15		
	ehicle Speed:	40 mph		İ	Vehicle	Mix					
Near/Far La	ne Distance:	36 feet				icleType		Day	Evening	Night	Daily
Site Data						-	Autos:	73.2%	8.1%	18.6%	90.00%
Ba	rrier Heiaht:	0.0 feet			М	edium Ti	rucks:	82.2%	3.9%	14.0%	2.47%
Barrier Type (0-V		0.0				Heavy Ti	rucks:	76.5%	4.0%	19.5%	7.52%
Centerline Di	ist. to Barrier:	44.0 feet		-	Noise S	ourco El	lovatio	ne (in f	innt)		
Centerline Dist.	to Observer:	44.0 feet		ŀ	NOISE S	Auto:		0.000	eei)		
Barrier Distance	to Observer:	0.0 feet			Modiu	m Truck:		2.297			
Observer Height	(Above Pad):	5.0 feet				y Truck		3.004	Grade Ad	iustmen	. 00
P	ad Elevation:	0.0 feet			rica	y Trucks	s. (	5.004	0/440 / 14	judumom	. 0.0
Ro	ad Elevation:	0.0 feet			Lane Eq	uivalent	Dista	nce (in	feet)		
	Road Grade:	0.0%				Auto	s: 40	0.460			
	Left View:	-90.0 degree	es		Mediu	m Truck	s: 4(	).241			
	Right View:	90.0 degree	es		Heav	y Truck	s: 4(	0.262			
FHWA Noise Mod	lel Calculation	s									
VehicleType	REMEL	Traffic Flow	Di	stance	Finite	Road	Fre	snel	Barrier Att	en Be	rm Atten
Autos:	66.51	-4.66		1.2	28	-1.20		-4.61	0.0	000	0.000
Medium Trucks:	77.72	-20.27		1.3	31	-1.20		-4.87	0.0	000	0.000
Heavy Trucks:	82.99	-15.44		1.3	31	-1.20		-5.50	0.0	000	0.000
Unmitigated Nois	e Levels (with	out Topo and	barri	ier atte	nuation)						
VehicleType	Leq Peak Hou	ır Leq Day	,	Leq E	vening	Leq	Night		Ldn	С	NEL
Autos:	61	.9	59.8		56.3		55	.1	62.4	4	62.7
Medium Trucks:	57	.6	55.9		48.6		49	.5	57.3	3	57.4
Heavy Trucks:	67	.7	65.7		58.9		61	.0	68.3	3	68.4
Vehicle Noise:	69	.0	67.0		61.0	,	62	.2	69.	5	69.7
Centerline Distan	ce to Noise Co	ontour (in feet	)								
				70	AD A	65	AD A	1 .	60 dRA	56	dRΔ

Thursday, October 18, 2018

	FH	WA-RD-77-108	HIGI	HWAY	NOISE PI	REDICT	ION MO	DDEL			
Road Nam	io: OY 2020 V ne: El Rivino R nt: e/o Cedar	Rd.						Agua I 11215			
SITE	SPECIFIC IN	NPUT DATA				N	IOISE	MODE	L INPUT	S	
Highway Data					Site Con	ditions	(Hard:	= 10, Sc	oft = 15)		
Average Daily	Traffic (Adt):	14,577 vehicle	es					Autos:	15		
Peak Hour	Percentage:	10%			Me	dium Tr	ucks (2	Axles):	15		
Peak H	lour Volume:	1,458 vehicles	S		He	avy Tru	cks (3+	Axles):	15		
Ve	hicle Speed:	45 mph		-	Vehicle	Miv					
Near/Far La	ne Distance:	36 feet				icleType		Dav	Evening	Night	Daily
Site Data							Autos:	73.2%	-	18.6%	,
Po-	vviov Holeshte	0.0 feet			М	edium T		82.2%		14.0%	
Barrier Type (0-W	rrier Height:	0.0 1661			1	leavy T	rucks:	76.5%	4.0%	19.5%	11.62%
Centerline Di	. ,	44.0 feet									
Centerline Dist.		44.0 feet			Noise S			- 1	eet)		
Barrier Distance		0.0 feet				Auto		.000			
Observer Height		5.0 feet				m Truck		.297			
	ad Flevation:	0.0 feet			Heav	y Truck	s: 8	.004	Grade Adj	iustment	: 0.0
	ad Elevation:	0.0 feet			Lane Eq	uivalen	t Distar	nce (in	feet)		
	Road Grade:	0.0%				Auto	s: 40	.460			
	Left View:	-90.0 degree	25		Mediu	n Truck	s: 40	.241			
	Right View:	90.0 degree			Heav	y Truck	s: 40	.262			
FHWA Noise Mod	el Calculation	ıs									
VehicleType	REMEL	Traffic Flow	Di	stance	Finite	Road	Fres	nel	Barrier Att	en Bei	m Atten
Autos:	68.46	-0.89		1.2	28	-1.20		-4.61	0.0	000	0.000
Medium Trucks:	79.45	-15.31		1.3	31	-1.20		-4.87	0.0	000	0.000
Heavy Trucks:	84.25	-9.55		1.3	31	-1.20		-5.50	0.0	000	0.000
Unmitigated Noise	e Levels (with	out Topo and	barri	er atte	nuation)						
VehicleType	Leq Peak Ho			Leq E	vening	Leq	Night		Ldn		NEL
Autos:	67	7.6	65.5		62.0		60.	.8	68.1		68.4
Medium Trucks:	-		62.6		55.3		56.	_	64.0		64.1
Heavy Trucks:	74	1.8	72.9		66.1		68.	.2	75.4	ļ.	75.6
Vehicle Noise:	75	5.9	73.9		67.7		69.	.1	76.4	ļ	76.6
Centerline Distan	ce to Noise C	ontour (in feet	)								
			I	70	dBA	65	dBA	(	60 dBA	55	dBA
			Ldn:		18	_	54		547		178
	CNEL:						121 260 560 1,200				206

	FHW	/A-RD-77-108	HIGHV	1 YAV	NOISE PI	REDICT	ION MO	DEL			
Road Nan	io: OY 2020 W ne: El Rivino Ro nt: e/o Cactus	i.					Name: lumber:				
SITE	SPECIFIC IN	PUT DATA				ı	IOISE I	MODE	L INPUT	S	
Highway Data					Site Con	ditions	(Hard =	10, S	oft = 15)		
Average Daily	Traffic (Adt):	7,739 vehicle	es					Autos	15		
Peak Hour	Percentage:	10%			Me	dium Tr	ucks (2 )	4xles)	: 15		
Peak F	lour Volume:	774 vehicle	s		He	avy Tru	cks (3+ )	4xles)	: 15		
Ve	hicle Speed:	45 mph		H	Vehicle	Miv					
Near/Far La	ne Distance:	36 feet		H		icleType		Dav	Evening	Night	Daily
Site Data					*0//		Autos:	73.29		18.69	
Pa	rrier Height:	0.0 feet			M	edium T	rucks:	82.29	6 3.9%	14.09	6 2.85%
Barrier Type (0-W		0.0			F	Heavy T	rucks:	76.59	6 4.0%		6 10.26%
Centerline Di		44.0 feet		- 1							
Centerline Dist.		44.0 feet		-	Noise So				eet)		
Barrier Distance	to Observer:	0.0 feet				Auto		000			
Observer Height	(Above Pad):	5.0 feet				m Truck		297			
	ad Elevation:	0.0 feet			Heav	y Truck	s: 8.	004	Grade Adj	ustmer	it: 0.0
	ad Elevation:	0.0 feet			Lane Eq	uivalen	t Distan	ce (in	feet)		
	Road Grade:	0.0%				Auto	s: 40.	460			
	Left View:	-90.0 degree	es		Mediu	m Truck	s: 40.	241			
	Right View:	90.0 degree	es		Heav	y Truck	s: 40.	262			
FHWA Noise Mod	el Calculations	5									
VehicleType	REMEL	Traffic Flow	Dista	ance	Finite	Road	Fresi	nel	Barrier Atte	en Be	erm Atten
Autos:	68.46	-3.56		1.2	8	-1.20		-4.61	0.0	000	0.000
Medium Trucks:	79.45	-18.40		1.3	1	-1.20		-4.87	0.0	000	0.000
Heavy Trucks:	84.25	-12.84		1.3	1	-1.20		-5.50	0.0	000	0.000
Unmitigated Nois	e Levels (with	out Topo and	barrier	atter	nuation)						
VehicleType	Leq Peak Hou	r Leq Day	′ I	Leq E	vening	Leq	Night		Ldn	(	CNEL
Autos:	65.	0	62.8		59.3		58.	1	65.4	ĺ	65.7
Medium Trucks:	61.	2	59.5		52.2		53.1	1	60.9	)	61.1
Heavy Trucks:	71.	5	69.6		62.8		64.9	9	72.1		72.3
Vehicle Noise:	72.	7	70.7		64.6		65.9	9	73.2	2	73.4
Centerline Distan	ce to Noise Co	ntour (in feet	)								
				70	dBA	65	dBA		60 dBA	5.	5 dBA
			Ldn:		72	1	56		335		723
		CI	VEL:	7	74	1	60		344		740

Thursday, October 18, 2018

	FHW	VA-RD-77-108	HIGI	A YAWH	IOISE P	REDICT	ION M	DDEL			
Road Nam	o: OY 2020 W e: Agua Mans nt: e/o 20th St.							Agua I 11215	Mansa		
	SPECIFIC IN	PUT DATA							L INPUT	S	
Highway Data					Site Cor	ditions	(Hard:	= 10, Sc	oft = 15)		
Average Daily	Traffic (Adt):	15,918 vehicl	es					Autos:	15		
Peak Hour	Percentage:	10%				dium Tr					
Peak H	our Volume:	1,592 vehicle	s		He	avy Tru	cks (3+	Axles):	15		
Vel	hicle Speed:	45 mph		-	Vehicle	Mix					
Near/Far Lar	ne Distance:	36 feet		Ė		icleType	•	Day	Evening	Night	Daily
Site Data							Autos:	73.2%	8.1%	18.6%	87.25%
Bar	rier Height:	0.0 feet			М	edium T	rucks:	82.2%	3.9%	14.0%	2.92%
Barrier Type (0-W		0.0			- 1	Heavy T	rucks:	76.5%	4.0%	19.5%	9.83%
Centerline Dis	st. to Barrier:	50.0 feet		- h	Noise S	ource F	lovatio	ne (in f	not)		
Centerline Dist.	to Observer:	50.0 feet		F.	140/36 0	Auto		.000	501)		
Barrier Distance	to Observer:	0.0 feet			Madiu	m Truck		.297			
Observer Height (A	Above Pad):	5.0 feet				v Truck		.004	Grade Ad	iustment	. 0.0
Pa	ad Elevation:	0.0 feet								douriorit	. 0.0
Roa	ad Elevation:	0.0 feet		1	Lane Eq	uivalen	t Distai	nce (in	feet)		
F	Road Grade:	0.0%				Auto		3.915			
	Left View:	-90.0 degre	es			m Truck		5.726			
	Right View:	90.0 degre	es		Heav	y Truck	s: 46	5.744			
FHWA Noise Mode	el Calculations	S									
VehicleType	REMEL	Traffic Flow		stance		Road	Fres		Barrier Att		m Atten
Autos:	68.46	-0.41		0.3		-1.20		-4.65	0.0	000	0.00
Medium Trucks:	79.45	-15.16		0.3		-1.20		-4.87		000	0.000
Heavy Trucks:	84.25	-9.89		0.3	4	-1.20		-5.43	0.0	000	0.000
Unmitigated Noise	•										
,,	Leq Peak Hou			Leq E	vening	Leq	Night		Ldn		NEL
Autos:	67.		65.0		61.5		60		67.6		67.9
Medium Trucks:	63.		61.8		54.5		55		63.2		63.3
Heavy Trucks: Vehicle Noise:	73. 74.	-	71.5 72.8		64.7 66.7		66		74.1 75.3		74.2
Centerline Distance								-	70.0	-	70.
Contenine Distant	e to Noise Co	anour (iii leei	'	70 0	dBA	65	dBA	6	60 dBA	55	dBA
	Ldn:				112 241 52		520	1,	121		
	CNEL:						115 247 533 1,149				

Autos: 73.2% 8.1% 18.6% 92.4		FHV	VA-RD-77-108	HIGI	YAWH	NOISE P	REDICT	TION M	ODEL			
Autos: 15   Auto	Road Nam	e: El Rivino R	d.							Mansa		
Average Daily Traffic (Adt): 5,202 vehicles   Peak Hour Percentage: 10%   Medium Trucks (2 Axles): 15   Vehicle Speed: Vehicle Speed: 45 mph   Vehicle Type   Day   Evening   Night   Dail Stance   Vehicle Mix   Vehicle Type   Day   Evening   Night   Dail Night   D		SPECIFIC IN	PUT DATA			01: 0					s	
Peak Hour Percentage:						Site Coi	naitions	(Hard				
Peak Hour Volume: Vehicle Speed: 45 mph   Vehicle Mix		. ,	.,	s								
Vehicle Speed: Near/Far Lane Distance: 36 feet   Vehicle Mix   Vehicle Type   Day   Evening   Night   Day   Evening   Night   Day   Evening   Night   Day   Evening   Night   Day   Evening   Night   Day   Evening   Night   Day   Evening   Night   Day   Evening   Night   Day   Evening   Night   Night   Day   Evening   Night   Day   Evening   Night   Day   Evening   Night   Day   Evening   Night   Day   Evening   Night   Day   Evening   Night   Night   Day   Evening   Night   Day   Evening   Night   Day   Evening   Night   Day   Evening   Night   Day   Evening   Night   Day   Evening   Night   Day   Evening   Night   Day   Evening   Night   Day   Night									,			
Near/Far Lane Distance:   36 feet     VehicleType   Day   Evening   Night   Dai   Site Data     VehicleType   Day   Evening   Night   Dai   Site Data     No.0   Neath   No.0   Neath   Near   Neath				3		He	eavy Iru	ICKS (34	+ Axies):	15		
Site Data						Vehicle	Mix					
Barrier Height:   0.0 feet   Medium Trucks: 8.2.2%   3.9%   14.0%   1.8 min   1.9 min   1.0 mi	Near/Far La	ne Distance:	36 feet			Veh	icleTyp	е	Day	Evening	Night	Daily
Barrier Trype (C-Wall, 1-Berr)   0.0   Centerline Dist. to Barrier:   44.0   feet   44.0   feet   Autos:   0.000   Medium Trucks:   76.5%   4.0%   19.5%   5.6   Noise Source Elevations (in feet)	Site Data							Autos:	73.2%	8.1%	18.6%	92.48%
Noise Source Elevations (in feet)   Autos: 0.000	Ba	rrier Heiaht:	0.0 feet			М	ledium 1	rucks:	82.2%	3.9%	14.0%	1.86%
Noise   Nois	Barrier Type (0-W	/all. 1-Berm):	0.0				Heavy 7	rucks:	76.5%	4.0%	19.5%	5.66%
Autos:   Campile   Campi	Centerline Di	st. to Barrier:	44.0 feet			Maina C	E	lovotio	no (in f	0.041		
Barrier Distance to Observer: 0.0 feet   Distance   D	Centerline Dist.	to Observer:	44.0 feet			Noise 3			_ •	cei)		
Diserver Height (Above Pad):	Barrier Distance	to Observer:	0.0 feet			Modiu						
Pad Elevation:	Observer Height (	Above Pad):	5.0 feet							Grade Ad	iustmen	. 0.0
Road Grade:	Pi	ad Elevation:	0.0 feet								judumom	. 0.0
Left View: Right View: 90.0 degrees   Heavy Trucks: 40.241   Heavy Trucks: 40.241   Heavy Trucks: 40.262   Heavy	Ro	ad Elevation:	0.0 feet			Lane Eq	uivaler	t Dista	nce (in	feet)		
Heavy Trucks:   40,262     Heavy Trucks:   40,262     Heavy Trucks:   40,262   Heavy Trucks:   40,262   Heavy Trucks:   40,262   Heavy Trucks:   40,262   Heavy Trucks:   40,262   Heavy Trucks:   40,262   Heavy Trucks:   40,262   Heavy Trucks:   68,46   5,02   1,28   1,20   -4,61   0,000   0,000   Heavy Trucks:   79,45   -21,98   1,31   -1,20   -4,87   0,000   0,000   Heavy Trucks:   84,25   -17,15   1,31   -1,20   -5,50   0,000   0,000   Heavy Trucks:   84,25   -17,15   1,31   -1,20   -5,50   0,000   0,000   Heavy Trucks:   63,5   61,4   57,8   56,7   64,0   60,60   67,8   Heavy Trucks:   67,2   65,3   58,5   60,6   67,8   60,6   67,8   60,6   67,8   Heavy Trucks:   67,2   65,3   58,5   60,6   67,8   Heavy Trucks:   67,2   65,3   58,5   60,6   67,8   Heavy Trucks:   67,2   65,3   58,5   Heavy Trucks:   67,2   65,3   58,5   Heavy Trucks:   67,2   67,2   67,2   Heavy Trucks:   67,2   67,2   67,2   Heavy Trucks:   67,2		Road Grade:	0.0%						0.460			
VehicleType   REMEL   Traffic Flow   Distance   Finite Road   Fresnel   Barrier Atten   Berm Atti   Autos: 68.46   -5.02   1.28   -1.20   -4.61   0.000   0.000     Medium Trucks: 79.45   -21.98   1.31   -1.20   -4.67   0.000   0.000     Heavy Trucks: 84.25   -17.15   1.31   -1.20   -5.50   0.000   0.000     Unmitigated Noise   Levels (without Topo and barrier attenuation)   VehicleType   Leq Peak Hour   Leq Day   Leq Evening   Leq Night   Ldn   CNEL     Autos: 63.5   61.4   57.8   56.7   64.0   64.0     Medium Trucks: 57.6   55.9   48.7   49.5   57.3   56.0     Heavy Trucks: 67.2   65.3   58.5   60.6   67.8   66.6		Left View:	-90.0 degree	s		Mediu	m Truck	ks: 4	0.241			
VehicleType		Right View:	90.0 degree	s		Hea	vy Truck	(S: 4)	0.262			
Autos: 68.46   -5.02   1.28   -1.20   -4.61   0.000   0.000   0.00000   0.0000   0.0000   0.0000   0.0000   0.0000   0.0000   0.00000   0.00000   0.0000   0.0000   0.0000   0.0000   0.0000   0.0000   0.0000   0.0000   0.0000   0.0000   0.0000   0.0000   0.0000   0.0000   0.0000   0.0000   0.0000   0.00000   0.0000   0.0000   0.000000   0.00000   0.0000   0.0000   0.0000   0.0000   0.0000   0.00	FHWA Noise Mod	el Calculation:	s									
Medium Trucks:         79.45         -21.98         1.31         -1.20         -4.87         0.000         0.0           Heavy Trucks:         84.25         -17.15         1.31         -1.20         -5.50         0.000         0.0           Unmitigated Noise Levels (without Topo and barrier attenuation)           VehicleType         Leq Peak Hour         Leq Day         Leq Evening         Leq Night         Ldn         CNEL           Autos:         63.5         61.4         57.8         56.7         64.0         CNEL           Medium Trucks:         57.6         55.9         48.7         49.5         57.3         5           Heavy Trucks:         67.2         65.3         58.5         60.6         67.8         6	,,			Di		_		Fre				
Heavy Trucks:   84.25   -17.15   1.31   -1.20   -5.50   0.000   0.000   0.000												0.00
Unmitigated Noise Levels (without Topo and barrier attenuation)           VehicleType         Leq Peak Hour         Leq Day         Leq Evening         Leq Night         Ldn         CNEL           Autos:         63.5         61.4         57.8         56.7         64.0         6           Medium Trucks:         57.6         55.9         48.7         49.5         57.3         5           Heavy Trucks:         67.2         65.3         58.5         60.6         67.8         6												0.00
VehicleType         Leq Peak Hour         Leq Day         Leq Evening         Leq Night         Ldn         CNEL           Autos:         63.5         61.4         57.8         56.7         64.0         6           Medium Trucks:         57.6         55.9         48.7         49.5         57.3         5           Heavy Trucks:         67.2         65.3         58.5         60.6         67.8         6							-1.20		-5.50	0.0	000	0.00
Autos:         63.5         61.4         57.8         56.7         64.0         6           Medium Trucks:         57.6         55.9         48.7         49.5         57.3         5           Heavy Trucks:         67.2         65.3         58.5         60.6         67.8         6	Unmitigated Nois	e Levels (with	out Topo and I	barri	er atte	nuation)						
Medium Trucks:         57.6         55.9         48.7         49.5         57.3         5           Heavy Trucks:         67.2         65.3         58.5         60.6         67.8         6	,,				Leq I							
Heavy Trucks: 67.2 65.3 58.5 60.6 67.8 6											-	64.
											-	57.
												68.
	Vehicle Noise:	69		67.1		61.4		62	2.3	69.6	5	69.
Centerline Distance to Noise Contour (in feet)         70 dBA         65 dBA         60 dBA         55 dBA	Centerline Distan	ce to Noise Co	ontour (in feet)	)	70	AD A	0.5	- ADA		20 4B4		dD1

Thursday, October 18, 2018

	FH	WA-RD-77-108	HIGH	WAY I	NOISE PI	REDICTION	ON M	ODEL			
	o: OY 2020 V e: Agua Mans t: w/o Brown	sa Rd.				Project I Job Nu		: Agua N : 11215	Mansa		
	PECIFIC IN	IPUT DATA							L INPUT	S	
Highway Data					Site Con	ditions (	Hard	= 10, Sc	oft = 15)		
Average Daily T	raffic (Adt):	15,918 vehicl	es					Autos:	15		
Peak Hour F	Percentage:	10%				dium Tru					
Peak Ho	our Volume:	1,592 vehicle	S		He	avy Truci	ks (3+	- Axles):	15		
Veh	icle Speed:	45 mph		-	Vehicle	Miv					
Near/Far Lan	e Distance:	36 feet				icleType		Day	Evening	Night	Daily
Site Data						A	utos:	73.2%	8.1%	18.6%	87.25%
Ran	ier Height:	0.0 feet			M	edium Tru	ıcks:	82.2%	3.9%	14.0%	2.92%
Barrier Type (0-Wa		0.0			1	leavy Tru	ıcks:	76.5%	4.0%	19.5%	9.83%
Centerline Dis	. ,	50.0 feet		-	Noise So	<b>-</b>		( 6	41		
Centerline Dist. to	Observer:	50.0 feet		}	Noise S				eet)		
Barrier Distance to	Observer:	0.0 feet				Autos		0.000			
Observer Height (A	Above Pad):	5.0 feet				n Trucks		2.297	0	E	
	d Elevation:	0.0 feet			Heav	y Trucks	:	3.004	Grade Ad	ijustment	0.0
Road	d Elevation:	0.0 feet		ĺ	Lane Eq	uivalent	Dista	nce (in	feet)		
R	oad Grade:	0.0%		ĺ		Autos	: 4	6.915			
	Left View:	-90.0 degre	es		Mediu	m Trucks	: 4	6.726			
	Right View:	90.0 degre	es		Heav	y Trucks	: 4	6.744			
FHWA Noise Mode											
VehicleType	REMEL	Traffic Flow	Dis	tance		Road	Fre		Barrier At		m Atten
Autos:	68.46			0.3		-1.20		-4.65		000	0.000
Medium Trucks:	79.45			0.3		-1.20		-4.87		000	0.000
Heavy Trucks:	84.25	-9.89		0.3	34	-1.20		-5.43	0.0	000	0.000
Unmitigated Noise											
	Leq Peak Ho			Leq E	vening	Leq N	_		Ldn		VEL
Autos:			65.0		61.5			0.3	67.		67.9
Medium Trucks:			61.8		54.5			i.3	63.:	_	63.3
Heavy Trucks:			71.5		64.7			5.9	74.		74.2
Vehicle Noise:			72.8		66.7		68	3.0	75.	3	75.4
Centerline Distance	e to Noise C	ontour (in feet	)	70	-ID 4	05 -	ID 4		20 -/04		-10.4
			L		dBA	65 a		6	60 dBA		dBA
		_	Ldn:		12 15	24			520 533	,	121
		C	NEL:	- 1	15	24	/		533	1,	149

	FH\	WA-RD-77-108	HIGH	WAY	NOISE P	REDICT	ION M	ODEL			
Road Nan	rio: OY 2020 V ne: Agua Mans nt: w/o Holly S	sa Rd.					t Name: Number:		Mansa		
	SPECIFIC IN	NPUT DATA							L INPUT	S	
Highway Data					Site Cor	nditions	(Hard	= 10, S	oft = 15)		
Average Daily	Traffic (Adt):	15,585 vehicle	es					Autos:	15		
Peak Hour	Percentage:	10%				edium Tr					
Peak F	lour Volume:	1,559 vehicle	S		He	eavy Tru	icks (3+	Axles):	15		
Ve	hicle Speed:	45 mph		ŀ	Vehicle	Mix					
Near/Far La	ne Distance:	48 feet		ŀ		icleType	е	Dav	Evening	Night	Daily
Site Data							Autos:	73.2%	-	18.6%	
Ra	rrier Height:	0.0 feet			М	edium T	rucks:	82.2%	3.9%	14.0%	2.61%
Barrier Type (0-W	-	0.0				Heavy T	rucks:	76.5%	4.0%	19.5%	8.23%
Centerline Di		52.0 feet									
Centerline Dist.	to Observer:	52.0 feet		ŀ	Noise S				eet)		
Barrier Distance	to Observer:	0.0 feet				Auto		0.000			
Observer Height	(Above Pad):	5.0 feet				m Truck		2.297	Grade Ad	ii rotmon	4 0 0
P	ad Elevation:	0.0 feet			Hear	vy Truck	(S. E	3.004	Grade Ad	jusunen	. 0.0
Ro	ad Elevation:	0.0 feet			Lane Eq	uivalen	t Dista	nce (in	feet)		
	Road Grade:	0.0%				Auto	s: 46	6.400			
	Left View:	-90.0 degre	es		Mediu	m Truck	rs: 46	6.209			
	Right View:	90.0 degre	es		Hear	vy Truck	rs: 46	6.228			
FHWA Noise Mod	el Calculation	ıs									
VehicleType	REMEL	Traffic Flow	Dist	tance	Finite	Road	Fres	snel	Barrier Att	en Be	rm Atten
Autos:	68.46	-0.41		0.3	38	-1.20		-4.66	0.0	000	0.000
Medium Trucks:	79.45	-15.75		0.4	11	-1.20		-4.87	0.0	000	0.000
Heavy Trucks:	84.25	-10.76		0.4	11	-1.20		-5.41	0.0	000	0.000
<b>Unmitigated Nois</b>	e Levels (with	out Topo and	barrie	r atte	nuation)						
VehicleType	Leq Peak Hou			Leq E	vening		Night		Ldn		NEL
Autos:	67		65.1		61.6		60		67.7		68.0
Medium Trucks:			61.3		54.0		54		62.6	-	62.8
Heavy Trucks:	72		70.7		63.9		66		73.3		73.4
Vehicle Noise:			72.2		66.2		67	.4	74.6	3	74.8
Centerline Distan	ce to Noise C	ontour (in feet	)	70	10.4		10.4			-	
			L -1		dBA		dBA	(	60 dBA		dBA
			Ldn:		06	_	229		493		,061
		C	NEL:	1	09	2	235		505	1	,089

		VA-RD-77-108	HIGH	IWAY N	IOISE P						
	o: OY 2020 W e: Agua Mans nt: e/o El Rivin	a Rd.				Project Job N		Agua 11215			
SITE S	SPECIFIC IN	IPUT DATA				ı	IOISE	MODE	L INPUT	S	
Highway Data					Site Cor	ditions	(Hard	= 10, S	oft = 15)		
Average Daily	Traffic (Adt):	20,239 vehicl	es					Autos	: 15		
Peak Hour I	Percentage:	10%			Me	dium Tr	ucks (2	Axles)	: 15		
Peak He	our Volume:	2,024 vehicle	s		He	avy Tru	cks (3+	Axles)	: 15		
Vel	nicle Speed:	45 mph		-	Vehicle	Miv					
Near/Far Lar	ne Distance:	82 feet		H'		icleType		Dav	Evening	Night	Dailv
Site Data				_			Autos:	73.29	0		88.30%
Par	rier Height:	0.0 feet			М	edium T	rucks:	82.29	6 3.9%	14.0%	2.72%
Barrier Type (0-Wa		0.0				Heavy T	rucks:	76.59	6 4.0%	19.5%	8.98%
Centerline Dis		60.0 feet		L.							
Centerline Dist. t	o Observer:	60.0 feet			Noise S				reet)		
Barrier Distance t	o Observer:	0.0 feet			A 4 15 - 1	Auto m Truck		2.297			
Observer Height (/	Above Pad):	5.0 feet				m ⊤ruck ∧v Truck		3.004	Grade Ad	iuctmon	+ 0.0
Pa	d Elevation:	0.0 feet			пеан	ry Truck	S. C	.004	Grade Au,	usunem	. 0.0
Roa	d Elevation:	0.0 feet		I	Lane Eq	uivalen	t Dista	nce (in	feet)		
F	Road Grade:	0.0%				Auto	s: 44	1.091			
	Left View:	-90.0 degre	es		Mediu	m Truck	s: 43	3.890			
	Right View:	90.0 degre	es		Heav	y Truck	s: 43	3.909			
FHWA Noise Mode	l Calculation	s									
VehicleType	REMEL	Traffic Flow	Dis	stance	Finite	Road	Fres	snel	Barrier Att	en Be	rm Atten
Autos:	68.46	0.68		0.72		-1.20		-4.69		000	0.00
Medium Trucks:	79.45	-14.43		0.75	-	-1.20		-4.88		100	0.00
Heavy Trucks:	84.25	-9.24		0.74	4	-1.20		-5.34	0.0	000	0.00
Unmitigated Noise				er atten	uation)						
	Leq Peak Hοι			Leq E		Leq	Night		Ldn	_	NEL
Autos:	68		66.5		63.0		61		69.1		69.4
Medium Trucks:	64		62.9		55.6		56		64.3		64.
Heavy Trucks: Vehicle Noise:	74 75		72.6 73.9		65.8 67.9		67 69		75.2 76.4		75.3 76.0
					07.9		09	. 1	70.2	•	76.
	e to Noise C	ontour (in fee	t)	70 c	4DA	65	dBA		60 dBA	56	dBA
Centerline Distanc											
Centerline Distanc			Ldn:	16			45		744		.603

	FHV	VA-RD-77-108	HIGH	IWAY N	OISE PI	REDICTION	ом мо	DEL			
Scenario: Road Name: Road Segment:		a Rd.				Project i Job Nu	Name: umber:		Mansa		
SITE SI	PECIFIC IN	PUT DATA				N	OISE I	/IODE	L INPUT	S	
Highway Data					Site Con	ditions (	Hard =	10, Sc	oft = 15)		
Average Daily Tr Peak Hour Pe Peak Hou	. ,	15,604 vehicle 10% 1,560 vehicle				dium Tru avy Truc	cks (2 )		15 15 15		
Vehic	cle Speed:	45 mph		1	/ehicle l	Miv					
Near/Far Lane	Distance:	48 feet		H.		icleType		Dav	Evening	Night	Daily
Site Data					* 011		utos:	73.2%	-	18.6%	
Barri Barrier Type (0-Wal	er Height: I, 1-Berm):	0.0 feet 0.0				edium Tri Jeavy Tri		82.2% 76.5%		14.0% 19.5%	3.00%
Centerline Dist.		52.0 feet		1	loise So	ource Ele	evation	s (in fe	eet)		
	Observer: bove Pad): Elevation:	52.0 feet 0.0 feet 5.0 feet 0.0 feet			Mediui Heav	Autos m Trucks ry Trucks	: 0. : 2. : 8.	000 297 004	Grade Ad	justmen	t: 0.0
	Elevation:	0.0 feet		1	ane Eq	uivalent			feet)		
	oad Grade: Left View: Right View:	0.0% -90.0 degree 90.0 degree				Autos m Trucks ry Trucks	: 46.	400 209 228			
FHWA Noise Model	Calculation	s									
VehicleType	REMEL	Traffic Flow	Dis	stance	Finite	Road	Fresr	nel	Barrier Att	en Be	rm Atten
Autos:	68.46	-0.51		0.38	}	-1.20		-4.66	0.0	000	0.00
Medium Trucks:	79.45	-15.14		0.41		-1.20		-4.87	0.0	000	0.00
Heavy Trucks:	84.25	-9.89		0.41		-1.20		-5.41	0.0	000	0.00
Unmitigated Noise L	Levels (with	out Topo and	barrie	er atten	uation)						
VehicleType L	eq Peak Hou	r Leg Day	/	Leg Ev	ening	Leg N	Vight		Ldn	С	NEL
Autos:	67	.1	65.0		61.5		60.3	3	67.6	6	67.
Medium Trucks:	63	.5	61.9		54.6		55.4	ļ	63.3	3	63.
Heavy Trucks:	73	.6	71.6		64.8		66.9	)	74.2	2	74.
Vehicle Noise:	74	.8	72.8		66.7		68.0	)	75.3	3	75.
Centerline Distance	to Noise Co	ontour (in feet	:)								
		•		70 c	IBA .	65 c	IBA	6	i0 dBA	55	dBA
			Ldn:	11	8	25	i3		546	1	,176
		Ci	NEL:	12	1	26	0		560	1	,206

Thursday, October 18, 2018

	FH	WA-RD-77-108	HIGHW	AY N	OISE PI	REDICTI	ON M	ODEL			
Road Nar	rio: OY 2020 V ne: Agua Mans ent: e/o Riversi	sa Rd.						: Agua : 11215			
	SPECIFIC IN	IPUT DATA							L INPUT	S	
Highway Data					Site Con	ditions	(Hard	= 10, S	oft = 15)		
Average Daily	Traffic (Adt):	10,279 vehicle	es					Autos:	15		
Peak Hour	Percentage:	10%			Me	dium Tru	icks (2	2 Axles).	15		
Peak I	Hour Volume:	1,028 vehicles	S		He	avy Truc	ks (3+	Axles).	15		
Ve	ehicle Speed:	45 mph		١,	/ehicle	Miss					
Near/Far La	ane Distance:	82 feet		- 1		icleType	- 1	Dav	Evening	Night	Daily
Site Data				$\dashv$	* 011		lutos:	73.2%	-	18.6%	,
	rrier Heiaht:	0.0 feet		$\neg$	М	edium Tr		82.2%		14.0%	
Barrier Type (0-V		0.0 feet			1	leavy Tr	ucks:	76.5%	4.0%	19.5%	8.30%
	ist. to Barrier:	60.0 feet		_ <u> </u> _							
Centerline Dist.		60.0 feet		1	loise S	ource El		_ •	eet)		
Barrier Distance		0.0 feet				Autos		0.000			
Observer Height		5.0 feet				m Trucks		2.297			
	ad Flevation:	0.0 feet			Heav	y Trucks	S.:	8.004	Grade Ad	justment	: 0.0
-	ad Elevation:	0.0 feet		I	ane Eq	uivalent	Dista	nce (in	feet)		
710	Road Grade:	0.0%				Autos	s: 4	4.091			
	I eft View:	-90.0 degree	es		Mediu	m Trucks	s: 4	3.890			
	Right View:	90.0 degree			Heav	y Trucks	s: 4	3.909			
FHWA Noise Mod	lel Calculation	ıs									
VehicleType	REMEL	Traffic Flow	Distai	псе	Finite	Road	Fre	snel	Barrier Att	en Bei	m Atten
Autos:	68.46	-2.22		0.72	!	-1.20		-4.69	0.0	000	0.000
Medium Trucks:	79.45	-17.57		0.75	,	-1.20		-4.88	0.0	000	0.000
Heavy Trucks:	84.25	-12.53		0.74		-1.20		-5.34	0.0	000	0.000
Unmitigated Nois	e Levels (with	out Topo and	barrier a	atten	uation)						
VehicleType	Leq Peak Ho	ur Leq Day	' L	eq Ev	ening	Leq	Night		Ldn	С	NEL
Autos:		5.8	63.6		60.1		58	3.9	66.2	2	66.5
Medium Trucks:			59.8		52.5			3.3	61.2	_	61.3
Heavy Trucks:	71	.3	69.3		62.5		64	1.6	71.9	9	72.0
Vehicle Noise:	72	2.7	70.7		64.7		65	5.9	73.2	2	73.4
Centerline Distan	ce to Noise C	ontour (in feet,	)								
		-		70 c			dBA		60 dBA		dBA
	Ldn:				98		11		455		81
		10	101 217 467 1,			006					

	FH\	WA-RD-77-108	HIGH	WAY N	OISE P	REDICT	ION M	DDEL			
Scenario. Road Name. Road Segment							Name: lumber:		Mansa		
	PECIFIC IN	NPUT DATA							L INPUT	s	
Highway Data					Site Cor	nditions	(Hard:	= 10, S	oft = 15)		
Average Daily Ti	raffic (Adt):	30,525 vehicl	es					Autos:			
Peak Hour P	ercentage:	10%				edium Tr					
Peak Ho	ur Volume:	3,053 vehicle	s		He	eavy Tru	cks (3+	Axles):	15		
Vehi	icle Speed:	45 mph		,	Vehicle	Mix					
Near/Far Lane	e Distance:	36 feet		F	Veh	icleType	,	Day	Evening	Night	Daily
Site Data							Autos:	73.2%	8.1%	18.6%	88.79%
Rarr	ier Height:	0.0 feet			М	edium T	rucks:	82.2%	3.9%	14.0%	2.64%
Barrier Type (0-Wa	II, 1-Berm):	0.0				Heavy T	rucks:	76.5%	4.0%	19.5%	8.57%
Centerline Dist.		50.0 feet		1	Voise S	ource E	levatio	ns (in f	eet)		
Centerline Dist. to		50.0 feet				Auto	s: 0	.000			
Barrier Distance to		0.0 feet			Mediu	m Truck	s: 2	.297			
Observer Height (A	,	5.0 feet			Hear	vy Truck	s: 8	.004	Grade Ad	justmen	t: 0.0
	l Elevation:	0.0 feet		Η.			4 Di-4-	/!	f4\		
	d Elevation:	0.0 feet			_ane Eq	uivalen Auto		.915	reet)		
R	oad Grade:	0.0%				Auto m Truck					
	Left View: Right View:	-90.0 degre				m rruck vy Truck		.726			
		90.0 degre	es		Heat	ry Truck	s. 4t	.744			
FHWA Noise Model											
VehicleType	REMEL	Traffic Flow		tance		Road	Fres		Barrier Att	_	rm Atten
Autos: Medium Trucks:	68.46 79.45			0.31		-1.20 -1.20		-4.65 -4.87		000	0.000
Heavy Trucks:	79.45 84.25			0.34		-1.20		-4.87 -5.43		000	0.000
Unmitigated Noise					-	-1.20		-0.43	0.0	J00	0.000
	eq Peak Ho		_	Leg E		Lea	Night	1	l dn		NFI
Autos:		).1	67.9	LUY L	64.4		63	2	70.5		70.8
Medium Trucks:	65	5.8	64.2		56.9		57	7	65.	5	65.7
Heavy Trucks:	75	5.7	73.8		67.0		69	1	76.	3	76.5
Vehicle Noise:	77	7.1	75.1		69.1		70	.3	77.	6	77.8
Centerline Distance	to Noise C	ontour (in fee	t)								
				70 c	IBA	65	dBA	- (	60 dBA	55	5 dBA
			Ldn:	16	i1	3	47		748	1	,612
		С	NEL:	16	5	3	56		767	1	,653

Thursday, October 18, 2018

	FH\	WA-RD-77-108	HIGHWAY	NOISE P	REDICTION	MODEL			
Road Nam	io: OY 2020 W e: Market St. nt: e/o Hall Av					me: Agua ber: 11215			
	SPECIFIC IN	IPUT DATA					L INPUT	s	
Highway Data				Site Cor	nditions (Ha				
Average Daily	. ,	36,336 vehicle	:S			Autos			
	Percentage:	10%			edium Truck				
	our Volume:	3,634 vehicles	3	He	eavy Trucks	(3+ Axles)	: 15		
	hicle Speed:	45 mph		Vehicle	Mix				
Near/Far Lai	ne Distance:	36 feet		Veh	icleType	Day	Evening	Night	Daily
Site Data					Auto	os: 73.29	6 8.1%	18.6%	88.38%
Rai	rier Heiaht:	0.0 feet		М	edium Truc	ks: 82.29	6 3.9%	14.0%	2.71%
Barrier Type (0-W		0.0			Heavy Truc	ks: 76.5%	4.0%	19.5%	8.91%
Centerline Dis	st. to Barrier:	50.0 feet		Maica S	ource Elev	ations (in	foot)		
Centerline Dist.	to Observer:	50.0 feet		Worse St	Autos:	0.000	eei)		
Barrier Distance	to Observer:	0.0 feet		Modiu	m Trucks:	2.297			
Observer Height (	Above Pad):	5.0 feet				8.004	Grade Ad	livotmont	
	ad Elevation:	0.0 feet		Heat	vy Trucks:	8.004	Grade Ad	jusuneni.	0.0
Roa	ad Elevation:	0.0 feet		Lane Eq	uivalent Di	istance (in	feet)		
I	Road Grade:	0.0%			Autos:	46.915			
	Left View:	-90.0 degree	es.	Mediu	m Trucks:	46.726			
	Right View:	90.0 degree	:S	Heav	vy Trucks:	46.744			
FHWA Noise Mode	el Calculation	s		1					
VehicleType	REMEL	Traffic Flow	Distance	e Finite	Road	Fresnel	Barrier Att	en Ber	m Atten
Autos:	68.46	3.23	0	.31	-1.20	-4.65	0.0	000	0.000
Medium Trucks:	79.45	-11.90	0	.34	-1.20	-4.87	0.0	000	0.000
Heavy Trucks:	84.25	-6.73	0	.34	-1.20	-5.43	0.0	000	0.000
Unmitigated Noise	e Levels (with	out Topo and	barrier att	enuation)					
VehicleType	Leq Peak Hou			Evening	Leq Nig	ıht	Ldn	CI	VEL
Autos:	70	.8	68.7	65.1		64.0	71.3	3	71.6
Medium Trucks:	66	.7	65.0	57.8		58.6	66.4		66.6
Heavy Trucks:	76	.7	74.7	67.9		70.0	77.:	3	77.4
Vehicle Noise:	78	.0	76.0	70.0		71.2	78.	5	78.7
Centerline Distanc	ce to Noise Co	ontour (in feet)							
				0 dBA	65 dB	4	60 dBA		dBA
Ldn:				185 398 857					
		CN	IEL:	189 408 879 1,89				894	

	FH	WA-RD-77-108	HIGHV	WAY NO	ISE PF	REDICTIO	N MOE	DEL			
Scenari Road Nam Road Segmer						Project Na Job Nun			lansa		
	SPECIFIC IN	NPUT DATA							INPUTS	S	
Highway Data				Si	te Con	ditions (H	ard =	10, So	ft = 15)		
	Traffic (Adt): Percentage: our Volume:	27,549 vehicle 10% 2,755 vehicles				dium Truck avy Trucks	ks (2 A	,	15 15 15		
Vei	hicle Speed:	45 mph		1/	ehicle I	Miss					
Near/Far Lar	ne Distance:	36 feet		V-		cleType		Dav	Evening	Night	Daily
Site Data					VCIII	Au		73.2%	8.1%	18.6%	. ,
Par	rier Height:	0.0 feet			Ме	edium Truc	ks: 8	32.2%	3.9%	14.0%	2.78%
Barrier Type (0-W	all, 1-Berm):	0.0			F	łeavy Truc	ks: 7	76.5%	4.0%	19.5%	9.33%
Centerline Dis		50.0 feet		N	oise So	urce Elev	ations	(in fe	et)		
Centerline Dist.		50.0 feet				Autos:	0.0	00			
Barrier Distance		0.0 feet			Mediur	n Trucks:	2.2	97			
Observer Height (	Above Pad): ad Flevation:	5.0 feet 0.0 feet			Heav	y Trucks:	8.0	04	Grade Adj	ustment	0.0
	ad Elevation:	0.0 feet		Li	ne Ear	uivalent D	istanc	e (in f	eet)		
	Road Grade:	0.0%				Autos:	46.9		,		
	Left View:	-90.0 degree	20		Mediur	n Trucks:	46.7				
	Right View:	90.0 degree			Heav	y Trucks:	46.7				
FHWA Noise Mode	el Calculation	IS									
VehicleType	REMEL	Traffic Flow	Dista	ance	Finite	Road	Fresne	el l	Barrier Atte	en Ber	m Atten
Autos:	68.46	2.00		0.31		-1.20	-	4.65	0.0	00	0.000
Medium Trucks:	79.45	-13.00		0.34		-1.20	-	4.87	0.0	00	0.000
Heavy Trucks:	84.25	-7.74		0.34		-1.20	-	-5.43	0.0	00	0.000
Unmitigated Noise											
	Leq Peak Ho	. , . ,		Leq Eve		Leq Ni			Ldn		NEL
Autos:			67.4		63.9		62.7		70.0		70.3
Medium Trucks:			63.9		56.7		57.5		65.3		65.5
Heavy Trucks:			73.7		66.9		69.0		76.3		76.4
Vehicle Noise:			75.0		68.9		70.2		77.5	•	77.6
Centerline Distance	e to Noise C	ontour (in feet	)	70 "		05 15	. 1	_	0 -104		-ID 4
				70 dE		65 dB			0 dBA		dBA
	Ldn: CNFL:					157 339 730 161 347 748			,	572	
		CI	VEL:	161		347			748	1,	611

Thursday, October 18, 2018

	FH	WA-RD-77-108	HIGHW	VAY N	IOISE PI	REDICTI	ON M	ODEL			
Road Nar	rio: OY 2020 V ne: Market St. ent: e/o Rivera							: Agua l : 11215			
	SPECIFIC IN	IPUT DATA							L INPUT	S	
Highway Data					Site Con	ditions	(Hard	= 10, S	oft = 15)		
Average Daily	Traffic (Adt):	39,917 vehicle	es					Autos:	15		
Peak Hou	r Percentage:	10%			Me	dium Tru	icks (2	Axles):	15		
Peak I	Hour Volume:	3,992 vehicles	3		He	avy Truc	ks (3+	- Axles):	15		
Ve	ehicle Speed:	45 mph		-	Vehicle	Miv					
Near/Far La	ane Distance:	48 feet		F		icleType	1	Dav	Evening	Night	Daily
Site Data							utos:	73.2%	-	18.6%	,
D.	arrier Heiaht:	0.0 feet			M	edium Tr	ucks:	82.2%	3.9%	14.0%	2.70%
Barrier Type (0-V		0.0 1661			- 1	leavy Tr	ucks:	76.5%	4.0%	19.5%	8.82%
	ist to Barrier:	50.0 feet									
Centerline Dist.		50.0 feet		Ľ	Voise S	ource El		_ •	eet)		
Barrier Distance		0.0 feet				Autos		0.000			
Observer Height		5.0 feet				m Trucks		2.297			
	Pad Flevation:	0.0 feet			Heav	y Trucks		3.004	Grade Ad	justment	: 0.0
	ad Elevation:	0.0 feet		- 1	Lane Eq	uivalent	Dista	nce (in	feet)		
	Road Grade:	0.0%				Autos	: 4	4.147			
	Left View:	-90.0 degree	es		Mediu	m Trucks	s: 4	3.947			
	Right View:	90.0 degree	es		Heav	y Trucks	: 4	3.966			
FHWA Noise Mod	del Calculation	ıs									
VehicleType	REMEL	Traffic Flow	Dista			Road	Fre	snel	Barrier Att		m Atten
Autos.		3.64		0.7		-1.20		-4.65		000	0.000
Medium Trucks.				0.74		-1.20		-4.87		000	0.000
Heavy Trucks.	84.25	-6.37		0.73	3	-1.20		-5.43	0.0	000	0.000
Unmitigated Nois	e Levels (with	out Topo and	barrier	atten	uation)						
VehicleType	Leq Peak Ho	ur Leq Day	·	Leq E	/ening	Leq I	Vight		Ldn	_	NEL
Autos.			69.5		65.9		-	8.	72.		72.4
Medium Trucks.			65.8		58.6			).4	67.2	_	67.4
Heavy Trucks.	77	'.4	75.5		68.7		70	0.8	78.0	)	78.2
Vehicle Noise.	78	3.8	76.8		70.8		72	2.0	79.3	3	79.4
Centerline Distan	ice to Noise C	ontour (in feet,	)								
				70 c		65 (		(	60 dBA		dBA
			Ldn:	20	-	44	-		965		079
	CNEL:					213 459 989 2,			131		

	FH\	WA-RD-77-108	HIGH	HWAY	NOISE P	REDICT	ION M	ODEL			
Road Nan	rio: Year 2035 ne: Cedar Av. nt: n/o I-10 Fw	Without Projec	t				t Name: Number:		Mansa		
SITE	SPECIFIC IN	IPUT DATA							L INPUT	s	
Highway Data					Site Cor	nditions	(Hard	= 10, S	oft = 15)		
Average Daily	Traffic (Adt):	46,297 vehicle	es					Autos:	15		
Peak Hour	Percentage:	10%			Me	edium Ti	rucks (2	Axles):	15		
Peak F	lour Volume:	4,630 vehicle	S		He	eavy Tru	icks (3+	Axles):	15		
Ve	hicle Speed:	40 mph			Vehicle	Miv					
Near/Far La	ne Distance:	48 feet				icleTyp	e	Dav	Evening	Night	Daily
Site Data							Autos:	73.2%	Ü	18.6%	
Pa	rrier Height:	0.0 feet			М	edium 7	rucks:	82.2%	3.9%	14.0%	2.50%
Barrier Type (0-W	-	0.0				Heavy 7	rucks:	76.5%	4.0%	19.5%	7.60%
Centerline Di		52.0 feet									
Centerline Dist.	to Observer:	52.0 feet			Noise S				eet)		
Barrier Distance	to Observer:	0.0 feet				Auto		0.000			
Observer Height	(Above Pad):	5.0 feet				m Truck		2.297			
	ad Elevation:	0.0 feet			Hear	vy Truck	rs: 8	3.004	Grade Ad	justmen	t: 0.0
	ad Flevation:	0.0 feet			Lane Eq	uivalen	t Dista	nce (in	feet)		
	Road Grade:	0.0%				Auto	s: 46	6.400			
	Left View:	-90.0 degre	es		Mediu	m Truck	(S: 4f	5.209			
	Right View:	90.0 degre			Hear	vy Truck	rs: 46	5.228			
FHWA Noise Mod	el Calculation	s									
VehicleType	REMEL	Traffic Flow	Dis	stance	Finite	Road	Fres	snel	Barrier Att	en Be	rm Atten
Autos:	66.51	4.87		0.3	38	-1.20		-4.66	0.0	000	0.000
Medium Trucks:	77.72	-10.69		0.	41	-1.20		-4.87	0.0	000	0.000
Heavy Trucks:	82.99	-5.86		0.	41	-1.20		-5.41	0.0	000	0.000
Unmitigated Nois	e Levels (with	out Topo and	barri	er atte	nuation)						
VehicleType	Leq Peak Hou	ur Leq Day	/	Leq I	Evening	Leq	Night		Ldn	C	NEL
Autos:	70	1.6	68.4		64.9		63	.7	71.0	0	71.3
Medium Trucks:	66	i.2	64.6		57.3		58	.1	66.0	0	66.1
Heavy Trucks:	76	i.3	74.4		67.6		69	.7	76.	9	77.1
Vehicle Noise:	77	'.7	75.7		69.7		70	.9	78.	2	78.4
Centerline Distan	ce to Noise C	ontour (in feet	)								
				70	dBA	65	dBA	(	60 dBA	55	5 dBA
			Ldn:	1	183	3	395		850	1	,832
		C	NEL:	1	188	4	105		872	1	,878

Wednesday, October 17, 2018

	FH\	WA-RD-77-108 H	IIGHWAY	NOISE P	REDICT	ION MODEL				
	e: Cedar Av.	Without Project Av.				Name: Agui lumber: 112				
SITE S	PECIFIC IN	IPUT DATA			N	IOISE MOD	EL INPUT	S		
Highway Data				Site Cor	nditions	(Hard = 10,	Soft = 15)			
Average Daily T Peak Hour I Peak Ho	. ,	30,518 vehicles 10% 3,052 vehicles	<b>;</b>			Auto ucks (2 Axles cks (3+ Axles	s): 15			
Vet	icle Speed:	40 mph		Vehicle	Miv					
Near/Far Lar	e Distance:	48 feet			icleType	Dav	Evening	Night Daily		
Site Data						Autos: 73.2	% 8.1%	18.6% 89.90%		
Barr	rier Height:	0.0 feet			edium Ti			14.0% 2.50%		
Barrier Type (0-Wa	all, 1-Berm):	0.0			Heavy Ti	rucks: 76.5	% 4.0%	19.5% 7.60%		
Centerline Dis		52.0 feet		Noise S	ource E	levations (in	feet)			
Centerline Dist. t		52.0 feet			Auto		,			
Barrier Distance t	o Observer:	0.0 feet		Medium Trucks: 2.297						
Observer Height (A	,	5.0 feet		Hear	vy Truck	s: 8.004	Grade Ad	iustment: 0.0		
	d Elevation:	0.0 feet								
	d Elevation:	0.0 feet		Lane Eq		t Distance (i	n teet)			
F	Road Grade:	0.0%			Auto					
	Left View: Right View:	-90.0 degrees			m Truck vy Truck					
FHWA Noise Mode	l Calculation	ıs								
VehicleType	REMEL	Traffic Flow	Distance		Road	Fresnel	Barrier Atte			
Autos:	66.51	3.06		38	-1.20	-4.6				
Medium Trucks:	77.72			41	-1.20	-4.8				
Heavy Trucks:	82.99	-7.67		41	-1.20	-5.4	1 0.0	0.000		
Unmitigated Noise				,						
,,	Leq Peak Hou			Evening	,	Night	Ldn	CNEL		
Autos:	68		6.6	63.1		61.9	69.2			
Medium Trucks:	64		2.8	55.5		56.3	64.2			
Heavy Trucks:	74		2.6	65.8		67.9	75.1			
Vehicle Noise:	75		3.9	67.9		69.1	76.4	76.6		
Centerline Distanc	e to Noise Co	ontour (in feet)	7(	) dBA	65	dBA	60 dBA	55 dBA		
	I dn:					139 299 644				
		CNI					1,423			
					-			, .==		

	FHV	VA-RD-77-108	HIGHW	AY NO	ISE P	REDICTIC	N MO	DEL			
	o: Year 2035 \ e: Cedar Av. t: s/o I-10 Fw	•	t			Project N Job Nui			Mansa		
SITE S	SPECIFIC IN	PUT DATA				NC	ISE N	10DE	L INPUT	'S	
Highway Data				Si	te Con	ditions (F	lard =	10, S	oft = 15)		
Average Daily 1	Fraffic (Adt):	37,699 vehicl	es				,	Autos:	15		
Peak Hour F	Percentage:	10%			Me	dium Truc	ks (2 A	xles):	15		
Peak Ho	our Volume:	3,770 vehicle	S		He	avy Truck	s (3+ A	(xles	15		
Veh	nicle Speed:	40 mph		V	ehicle l	Mix					
Near/Far Lan	e Distance:	48 feet			Veh	icleType		Dav	Evening	Night	Daily
Site Data							itos:	73.2%		18.6%	89.90
Ran	rier Heiaht:	0.0 feet			Me	edium Tru	cks:	82.2%	3.9%	14.0%	2.50
Barrier Type (0-Wa	all, 1-Berm):	0.0			F	leavy Tru	cks:	76.5%	4.0%	19.5%	7.60
Centerline Dis		52.0 feet		N	oise So	ource Ele	vation	s (in f	eet)		
Centerline Dist. to		52.0 feet				Autos:	0.0	000			
Barrier Distance to		0.0 feet			Mediu	m Trucks:	2.2	297			
Observer Height (A	,	5.0 feet			Heav	y Trucks:	8.0	004	Grade Ad	djustmen	t: 0.0
	d Elevation:	0.0 feet			no Fa	uivalent L	Noton	o (in	foot)		
	d Elevation: Road Grade:	0.0 feet		Le	ine Eq	Autos:		_	ieei)		
, n	l eft View:	0.0%			Modiuu	n Trucks:					
	Right View:	-90.0 degre 90.0 degre				y Trucks:					
FHWA Noise Mode	l Calculation:	s									
VehicleType	REMEL	Traffic Flow	Dista	nce	Finite	Road	Fresn	el	Barrier At	ten Be	rm Atte
Autos:	66.51	3.97		0.38		-1.20		-4.66	0.	000	0.0
Medium Trucks:	77.72	-11.58		0.41		-1.20		-4.87		000	0.00
Heavy Trucks:	82.99	-6.75		0.41		-1.20		-5.41	0.	000	0.00
Unmitigated Noise	•									1 -	
VehicleType Autos:	Leq Peak Hou 69		/ L 67.5	.eq Eve	ning 64.0	Leq N	ight 62.8		Ldn 70.		NEL 70
Autos: Medium Trucks:	65		67.5		56.4		57.3		70. 65.		70 65
Heavy Trucks:	75.	-	73.5		66.7		68.8		76.		76
Vehicle Noise:	76.		74.8		68.8		70.0		77.		77
Centerline Distanc	e to Noise Co	ntour (in fee	)								
				70 dE	BA .	65 dl	BA	6	60 dBA	55	dBA
			Ldn:	160		344	. —		741	1	,597
						04-					

Wednesday, October 17, 2018

	FH'	WA-RD-77-108	HIGH	WAY I	NOISE P	REDICTI	ON M	ODEL			
Road Nan	rio: Year 2035 ne: Cedar Av. ent: s/o Santa	Without Projec	t					e: Agua I r: 11215	Mansa		
	SPECIFIC II	NPUT DATA							L INPUT	S	
Highway Data					Site Cor	ditions (	Hard	= 10, Sc	oft = 15)		
Average Daily	Traffic (Adt):	30,707 vehicle	es					Autos:	15		
Peak Hour	r Percentage:	10%			Me	dium Tru	cks (2	2 Axles):	15		
Peak I	Hour Volume:	3,071 vehicles	S		He	avy Truc	ks (3-	+ Axles):	15		
Ve	ehicle Speed:	40 mph		ł	Vehicle	Miv					
Near/Far La	ane Distance:	48 feet				icleType		Dav	Evening	Night	Daily
Site Data							utos:	73.2%	-	18.6%	,
D.	arrier Height:	0.0 feet			М	edium Tr	ucks:	82.2%	3.9%	14.0%	
Barrier Type (0-V		0.0 1661				Heavy Tr	ucks:	76.5%	4.0%	19.5%	7.60%
	ist. to Barrier:	52.0 feet									
Centerline Dist.		52.0 feet			Noise S	ource Ele			eet)		
Barrier Distance		0.0 feet				Autos		0.000			
Observer Height		5.0 feet				m Trucks		2.297			
	Pad Flevation:	0.0 feet			Heav	ry Trucks		8.004	Grade Ad	justment	0.0
-	ad Elevation:	0.0 feet			Lane Eq	uivalent	Dista	nce (in	feet)		
710	Road Grade:	0.0%		ı		Autos	: 4	6.400			
	I eft View:	-90.0 degree	es		Mediu	m Trucks	: 4	6.209			
	Right View:	90.0 degree			Heav	y Trucks	: 4	6.228			
FHWA Noise Mod	lel Calculation	ıs									
VehicleType	REMEL	Traffic Flow	Dis	stance	Finite	Road	Fre	snel	Barrier At	en Ber	m Atten
Autos:	66.51	3.08		0.3	38	-1.20		-4.66	0.0	000	0.000
Medium Trucks:	77.72	-12.47		0.4	11	-1.20		-4.87	0.0	000	0.000
Heavy Trucks:	82.99	-7.65		0.4	11	-1.20		-5.41	0.0	000	0.000
Unmitigated Nois	e Levels (with	out Topo and	barri	er atte	nuation)						
VehicleType	Leq Peak Ho	ur Leq Day	,	Leq E	vening	Leq I	Vight		Ldn	C	NEL
Autos:			66.6		63.1		-	1.9	69.	-	69.5
Medium Trucks:	-		62.8		55.5		-	6.4	64.:	_	64.3
Heavy Trucks:			72.6		65.8		67	7.9	75.:	2	75.3
Vehicle Noise:	75	5.9	73.9		67.9		69	9.1	76.	4	76.6
Centerline Distan	ce to Noise C	ontour (in feet	)							_	
			L		dBA	65 c		6	60 dBA		dBA
			Ldn:		39	30	-		647	,	393
		CI	VEL:	1	43	308 663					428

	FH\	WA-RD-77-108	HIGH	IWAY	NOISE P	REDICT	ION MO	DEL			
Road Nam	io: Year 2035 ne: Cedar Av. nt: s/o Jurupa	Without Project	t				Name: lumber:		Mansa		
	SPECIFIC IN	IPUT DATA							L INPUT	s	
Highway Data					Site Cor	nditions	(Hard:	= 10, S	oft = 15)		
Average Daily	Traffic (Adt):	27,873 vehicle	es					Autos:	15		
Peak Hour	Percentage:	10%			Me	edium Tr	ucks (2	Axles):	15		
Peak H	lour Volume:	2,787 vehicle	s		He	avy Tru	cks (3+	Axles):	15		
Ve	hicle Speed:	50 mph			Vehicle	Mix					
Near/Far La	ne Distance:	48 feet				icleType	,	Dav	Evening	Nigh	t Daily
Site Data							Autos:	73.2%	Ü	18.6	
Rai	rrier Height:	0.0 feet			М	edium T	rucks:	82.2%	3.9%	14.0	0% 2.50%
Barrier Type (0-W	-	0.0				Heavy T	rucks:	76.5%	4.0%	19.5	7.60%
Centerline Dis		52.0 feet			M-! 0			/! 6	41		
Centerline Dist.	to Observer:	52.0 feet			Noise S				eet)		
Barrier Distance	to Observer:	0.0 feet			11-15	Auto m Truck		.000			
Observer Height (	Above Pad):	5.0 feet						.004	Grade Ad	livotma	ont 0.0
Pa	ad Elevation:	0.0 feet			Hea	vy Truck	S: 8	.004	Grade Ad	jusune	THE U.U
Ros	ad Elevation:	0.0 feet			Lane Eq	uivalen	t Distar	ice (in	feet)		
1	Road Grade:	0.0%				Auto	s: 46	.400			
	Left View:	-90.0 degre	es		Mediu	m Truck	s: 46	.209			
	Right View:	90.0 degre	es		Hear	vy Truck	s: 46	.228			
FHWA Noise Mode	el Calculation	IS									
VehicleType	REMEL	Traffic Flow	Dis	tance	Finite	Road	Fres	nel	Barrier Att	en E	Berm Atten
Autos:	70.20	1.69		0.3		-1.20		-4.66		000	0.000
Medium Trucks:	81.00			0.4		-1.20		-4.87		000	0.000
Heavy Trucks:	85.38	-9.04		0.4	41	-1.20		-5.41	0.0	000	0.000
Unmitigated Noise										,	
VehicleType	Leq Peak Hou			Leq E	Evening		Night		Ldn		CNEL
Autos:	71		68.9		65.4		64.		71.0		71.8
Medium Trucks:	66		64.7		57.4		58.		66.	-	66.2
Heavy Trucks:	75		73.6		66.8		68.	-	76.:		76.3
Vehicle Noise:	77		75.3		69.4		70.	5	77.8	В	77.9
Centerline Distant	ce to Noise C	ontour (in feet	)								
			L		dBA		dBA	- (	60 dBA		55 dBA
			Ldn:		71	-	68		794		1,710
		C	NEL:	1	75	3	78		815		1,755

	FH\	WA-RD-77-108	HIGHWAY	NOISE P	REDICTION	ом М	ODEL			
Road Nam	io: Year 2035 ne: Rubidoux E nt: s/o Produc				Project I Job Nu		: Agua   : 11215			
	SPECIFIC IN	IPUT DATA						L INPUT	S	
Highway Data				Site Cor	nditions (	Hard	= 10, S	oft = 15)		
Average Daily	Traffic (Adt):	28,156 vehicle	S				Autos:			
Peak Hour	Percentage:	10%			edium Tru					
Peak H	lour Volume:	2,816 vehicles	;	He	eavy Truci	ks (3+	- Axles):	15		
Ve	hicle Speed:	50 mph		Vehicle	Mix					
Near/Far La	ne Distance:	48 feet			icleType		Day	Evening	Night	Daily
Site Data					A	utos:	73.2%	8.1%	18.6%	89.90%
Rai	rrier Height:	0.0 feet		М	edium Tru	ıcks:	82.2%	3.9%	14.0%	2.50%
Barrier Type (0-W		0.0			Heavy Tru	ıcks:	76.5%	4.0%	19.5%	7.60%
Centerline Di		59.0 feet								
Centerline Dist.	to Observer:		Noise Source Elevations (in feet)							
Barrier Distance	to Observer:	0.0 feet		Autos: 0.000 Medium Trucks: 2.297						
Observer Height (	Above Pad):	5.0 feet					2.297	0		
Pa	ad Elevation:	0.0 feet		Heat	vy Trucks	: 8	3.004	Grade Ad	justment	. 0.0
Roa	ad Elevation:	0.0 feet		Lane Eq	uivalent	Dista	nce (in	feet)		
	Road Grade:	0.0%			Autos	: 5	4.129			
	Left View:	-90.0 degree	s	Mediu	m Trucks	: 5	3.966			
	Right View:	90.0 degree	s	Heav	vy Trucks	5	3.982			
FHWA Noise Mode	el Calculation	ıs								
VehicleType	REMEL	Traffic Flow	Distance		Road	Fre		Barrier Att		m Atten
Autos:	70.20	1.74		62	-1.20		-4.69		000	0.000
Medium Trucks:	81.00		-	60	-1.20		-4.88		000	0.000
Heavy Trucks:	85.38	-8.99	-0.	60	-1.20		-5.35	0.0	000	0.000
Unmitigated Noise									,	
VehicleType	Leq Peak Hou			Evening	Leq N			Ldn	_	NEL
Autos:			0.88	64.4		63		70.0	-	70.9
Medium Trucks:			3.7	56.5		57		65.		65.3
Heavy Trucks: Vehicle Noise:			72.6	65.8 68.5		68		75.: 76.:		75.3 77.0
Centerline Distant				00.0		00		70.		77.0
semernne Distant	ce to worse C	untour (In reet)		) dBA	65 d	BA		60 dBA	55	dBA
	dn:	167	36	0		776	1,	673		
		IFI:	172	370 797 1,717				717		

	FH\	WA-RD-77-108	HIGHW	AY NO	ISE PF	REDICTIO	N MO	DEL			
	e: Rubidoux E		1			Project N Job Nur			Mansa		
	SPECIFIC IN	IPUT DATA							L INPUT	S	
Highway Data				Si	te Con	ditions (F	lard =	10, So	oft = 15)		
Average Daily	Traffic (Adt):	28,439 vehicle	es					Autos:	15		
Peak Hour	Percentage:	10%				dium Truc		/	15		
	our Volume:	2,844 vehicles	3		He	avy Truck	s (3+ A	Axles):	15		
	hicle Speed:	50 mph		Ve	ehicle l	Mix					
Near/Far Lai	ne Distance:	48 feet			Vehi	icleType		Day	Evening	Night	Daily
Site Data						Au	tos:	73.2%	8.1%	18.6%	89.90%
Bar	rier Heiaht:	0.0 feet			Me	edium True	cks:	82.2%	3.9%	14.0%	2.50%
Barrier Type (0-W		0.0			F	leavy True	cks:	76.5%	4.0%	19.5%	7.60%
Centerline Dis	st. to Barrier:	59.0 feet		N	oise Sc	ource Elev	/ation	s (in fe	eet)		
Centerline Dist.		59.0 feet		-		Autos:		000			
Barrier Distance		0.0 feet			Mediur	n Trucks:		297			
Observer Height (	,	5.0 feet				y Trucks:		004	Grade Ad	justment	: 0.0
	ad Elevation:	0.0 feet		l-							
	ad Elevation:	0.0 feet		Lá	ne Eq	uivalent E			reet)		
F	Road Grade:	0.0%				Autos:	54.				
	Left View: Right View:	-90.0 degree				n Trucks: y Trucks:	53. 53.	966 982			
						,					
VehicleType	REMEL	Traffic Flow	Dista	nce	Finite	Road	Fresr	nel le	Barrier Att	on Ro	m Atten
Autos:	70.20	1.78	Dista	-0.62	1 IIIIC	-1.20		-4.69		000	0.000
Medium Trucks:	81.00	-13.78		-0.60		-1.20		-4.88	0.0	000	0.000
Heavy Trucks:	85.38	-8.95		-0.60		-1.20		-5.35	0.0	000	0.000
Unmitigated Noise	Levels (with	out Topo and	barrier	attenu	ation)						
VehicleType	Leq Peak Ho	ur Leq Day	· L	eq Eve	ening	Leq Ni	ght		Ldn	C	NEL
Autos:	70	0.2	0.86		64.5		63.3	3	70.6	3	70.9
Medium Trucks:	65		63.8		56.5		57.3		65.2	-	65.3
Heavy Trucks:	74		72.7		65.9		68.0		75.2		75.4
Vehicle Noise:	76	3.3	74.3		68.5		69.5	5	76.8	3	77.0
Centerline Distance	e to Noise C	ontour (in feet	)	70.		05.					
				70 dE		65 dE		6	0 dBA		dBA
			Ldn:	168		363			782		684
		CI	VEL:	173		372 802 1,7				729	

Wednesday, October 17, 2018

	FH\	WA-RD-77-108	HIGH	HWAY	NOISE PI	REDICT	ION M	ODEL			
Road Nan	rio: Year 2035 ne: Rubidoux E ent: s/o 20th St	31.	t					: Agua I : 11215			
SITE	SPECIFIC IN	IPUT DATA				N	IOISE	MODE	L INPUT	s	
Highway Data					Site Con	ditions	(Hard	= 10, S	oft = 15)		
Average Daily	Traffic (Adt):	23,621 vehicl	es					Autos:	15		
Peak Hour	Percentage:	10%			Me	dium Tru	icks (2	Axles):	15		
Peak I	Hour Volume:	2,362 vehicle	s		He	avy Truc	cks (3+	Axles):	15		
Ve	ehicle Speed:	50 mph			Vehicle	Miv					
Near/Far La	ane Distance:	48 feet				icleType		Day	Evening	Night	Daily
Site Data					*011		Autos:	73.2%	-	18.6%	,
D.	rrier Heiaht:	0.0 feet			М	edium Ti		82.2%	3.9%	14.0%	
Barrier Type (0-V		0.0 reet			1	leavy Ti	ucks:	76.5%	4.0%	19.5%	7.60%
	ist. to Barrier:	59.0 feet									
Centerline Dist.		59.0 feet			Noise S				eet)		
Barrier Distance		0.0 feet				Auto		0.000			
Observer Height	(Above Pad):	5.0 feet				m Truck		2.297	0		
	ad Elevation:	0.0 feet			Heav	y Truck	s: 8	3.004	Grade Ad	justment	: 0.0
Ro	ad Elevation:	0.0 feet			Lane Eq	uivalent	Dista	nce (in	feet)		
	Road Grade:	0.0%				Auto	s: 5	4.129			
	Left View:	-90.0 degre	es		Mediu	m Truck	s: 5	3.966			
	Right View:	90.0 degre	es		Heav	y Truck	s: 5	3.982			
FHWA Noise Mod	lel Calculation	ıs									
VehicleType	REMEL	Traffic Flow	Dis	stance		Road	Fre.	snel	Barrier Att		m Atten
Autos:		0.98		-0.6	-	-1.20		-4.69		000	0.000
Medium Trucks:				-0.6		-1.20		-4.88		000	0.000
Heavy Trucks:	85.38	-9.75		-0.6	60	-1.20		-5.35	0.0	000	0.000
Unmitigated Nois	e Levels (with	out Topo and	barri	er atte	nuation)						
VehicleType	Leq Peak Hou			Leq E	vening	Leq	Night		Ldn		NEL
Autos:			67.2		63.7		62		69.8	-	70.1
Medium Trucks:			63.0		55.7		56		64.4		64.5
Heavy Trucks:			71.9		65.1		67		74.4		74.6
Vehicle Noise:	75	5.5	73.5		67.7		68	.7	76.0	0	76.2
Centerline Distan	ce to Noise C	ontour (in feet	)								
			L		dBA		dBA	(	60 dBA		dBA
			Ldn:		49		21		691		488
		C	VEL:	1	53	32	29		709	1,	527

Wednesday, October 17, 2018

FH	WA-RD-77-108	HIGHV	YAY 1	NOISE P	REDICT	ION MC	DEL			
Scenario: Year 2035 Road Name: Rubidoux Road Segment: s/o 24th St	BI.	t				t Name: lumber:		Mansa		
SITE SPECIFIC II	NPUT DATA				1	NOISE	MODE	L INPUT	s	
Highway Data				Site Cor	ditions	(Hard =	= 10, S	oft = 15)		
Average Daily Traffic (Adt):	24,377 vehicle	es					Autos:	15		
Peak Hour Percentage:	10%			Me	dium Tr	ucks (2	Axles):	15		
Peak Hour Volume:	2,438 vehicle	s		He	avy Tru	cks (3+	Axles):	15		
Vehicle Speed:	50 mph		F	Vehicle	Miv					
Near/Far Lane Distance:	48 feet		F		icleType	9	Dav	Evening	Night	Daily
Site Data						Autos:	73.2%		18.69	_
Barrier Height:	0.0 feet			М	edium T	rucks:	82.2%	3.9%	14.09	6 2.50%
Barrier Type (0-Wall, 1-Berm):	0.0			1	Heavy T	rucks:	76.5%	4.0%	19.59	6 7.60%
Centerline Dist. to Barrier:	59.0 feet		F							
Centerline Dist. to Observer:	59.0 feet		F	Noise S				eet)		
Barrier Distance to Observer:	0.0 feet				Auto		.000			
Observer Height (Above Pad):	5.0 feet				m Truck		.297	Crodo Ad	i interna	4 0 0
Pad Elevation:	0.0 feet			Heav	y Truck	s: 8	.004	Grade Ad	usuner	n. 0.0
Road Elevation:	0.0 feet			Lane Eq	uivalen	t Distar	ice (in	feet)		
Road Grade:	0.0%				Auto	s: 54	.129			
Left View:	-90.0 degree	es		Mediu	m Truck	s: 53	.966			
Right View:	90.0 degree	es		Heav	y Truck	s: 53	.982			
FHWA Noise Model Calculation	ıs									
VehicleType REMEL	Traffic Flow	Dista			Road	Fres		Barrier Att		erm Atten
Autos: 70.20			-0.6		-1.20		-4.69		000	0.000
Medium Trucks: 81.00			-0.6	-	-1.20		-4.88		000	0.000
Heavy Trucks: 85.38	-9.62		-0.6	0	-1.20		-5.35	0.0	000	0.000
Unmitigated Noise Levels (with		barrier	atter	nuation)						
VehicleType Leq Peak Ho			Leq E	vening	Leq	Night		Ldn		CNEL
		67.4		63.8		62.		70.0		70.2
		63.1		55.8		56.		64.5		64.6
		72.0 73.7		65.2 67.9		67. 68.		74.6 76.2		74.7 76.3
Centerline Distance to Noise C	•••			07.5		00.	J	70.2	-	70.5
Contenine Distance to Noise C	omour (III leet		70	dBA	65	dBA	Τ (	60 dBA	5	5 dBA
		Ldn:		52	3	27		705	·	1,520
	CI	VEL:	1	56	3	36		724		1,560

	FH\	VA-RD-77-108	HIGHWAY	NOISE P	REDICTIO	ON MC	DDEL				
	e: Rubidoux E		:		Project N Job Nu						
	SPECIFIC IN	IPUT DATA						L INPUT	s		
Highway Data				Site Cor	iditions (l	Hard =	= 10, S	oft = 15)			
Average Daily	Traffic (Adt):	27,400 vehicle	:S				Autos:	15			
Peak Hour	Percentage:	10%		Me	dium Truc	ks (2	Axles):	15			
Peak H	our Volume:	2,740 vehicles	3	He	avy Truck	s (3+	Axles):	15			
Vel	hicle Speed:	50 mph		Vehicle	Mix						
Near/Far Lar	ne Distance:	48 feet			icleType		Day	Evening	Night	Daily	
Site Data					AL	ıtos:	73.2%	8.1%	18.6%	89.90%	
Rar	rier Height:	0.0 feet		М	edium Tru	cks:	82.2%	3.9%	14.0%	2.50%	
Barrier Type (0-W		0.0			Heavy Tru	cks:	76.5%	4.0%	19.5%	7.60%	
Centerline Dis		59.0 feet		Maine C	ourse Ele	rotio	an (in f	0.041			
Centerline Dist.	to Observer:		Noise Source Elevations (in feet)  Autos: 0.000								
Barrier Distance	to Observer:		Modiu		-						
Observer Height (	Above Pad):	5.0 feet		Medium Trucks: 2.297 Heavy Trucks: 8.004 Grade Adjustment: 0.0							
Pa	d Elevation:	0.0 feet		,							
Roa	d Elevation:	0.0 feet		Lane Eq	uivalent l	Distar	ice (in	feet)			
F	Road Grade:	0.0%			Autos:	54	.129				
	Left View:	-90.0 degree	:S	Mediu	m Trucks:	53	.966				
	Right View:	90.0 degree	s	Heav	y Trucks:	53	.982				
FHWA Noise Mode	el Calculation	s		1							
VehicleType	REMEL	Traffic Flow	Distance		Road	Fres		Barrier Att		m Atten	
Autos:	70.20	1.62	-0.		-1.20		-4.69		000	0.000	
Medium Trucks:	81.00	-13.94	-0.		-1.20		-4.88		000	0.000	
Heavy Trucks:	85.38	-9.11	-0.	60	-1.20		-5.35	0.0	000	0.000	
Unmitigated Noise							_				
,,	Leq Peak Hou			Evening	Leq N	_		Ldn		NEL	
Autos:	70		67.9	64.3		63.		70.	-	70.8	
Medium Trucks:	65	63.6	56.3		57.		65.0		65.2		
Heavy Trucks: Vehicle Noise:	74 76		72.5 74.2	65.7 68.4		67. 69.		75. <sup>-</sup> 76. <sup>-</sup>		75.2 76.8	
Centerline Distance				00.4		00.	•	70.	•	70.0	
semernne pistant	e to Noise C	mour (iii ieet)		) dBA	65 di	BA		60 dBA	55	dBA	
	dn:	164 354			354 763		1,	1,643			
		IFI:	169	363 783 1,686							

	FHV	/A-RD-77-108	HIGH	WAY NO	DISE PI	REDICTI	ON MO	DEL				
Scenario: Year 2 Road Name: Rubido Road Segment: s/o 26	oux B		t			Project of Job No	Name: umber:					
SITE SPECIFI	C IN	PUT DATA							L INPUT	s		
Highway Data				S	ite Cor	ditions (	Hard =	10, S	oft = 15)			
Average Daily Traffic (A	tt):	25,227 vehicl	es					Autos:	15			
Peak Hour Percentag	ge:	10%				dium Tru		/				
Peak Hour Volun	ne:	2,523 vehicle	S		He	avy Truc	ks (3+ /	4xles).	15			
Vehicle Sper	ed:	50 mph		V	ehicle	Mix						
Near/Far Lane Distan	ce:	48 feet		-		icleType		Dav	Evening	Nig	ht	Dailv
Site Data							utos:	73.2%		_		89.90%
Barrier Heig	ht·	0.0 feet			M	edium Tr	ucks:	82.2%	3.9%	14.	0%	2.50%
Barrier Type (0-Wall, 1-Ber	n):	0.0			I	Heavy Tr	ucks:	76.5%	4.0%	19.	5%	7.60%
Centerline Dist. to Barr		59.0 feet		N	oise S	ource Ele	evation	s (in f	eet)			
Centerline Dist. to Observ		59.0 feet				Autos	: 0.	000				
Barrier Distance to Observ		0.0 feet			Mediu	m Trucks	: 2.	297				
Observer Height (Above Pa	,	5.0 feet			Heav	y Trucks	: 8.	004	Grade A	djustm	ent:	0.0
Pad Elevati		0.0 feet		-			<b>.</b>					
Road Elevati		0.0 feet		Li	ane Eq	uivalent		_	teet)			
Road Gra		0.0%				Autos		129				
Left Vie		-90.0 degre				m Trucks		966				
Right Vie		90.0 degre	es		Heav	y Trucks	: 53.	982				
FHWA Noise Model Calcula												
VehicleType REME	_	Traffic Flow	Dis	stance	Finite	Road	Fresr		Barrier A		Bern	n Atten
	0.20	1.26		-0.62		-1.20		-4.69		000		0.00
	1.00	-14.30		-0.60		-1.20		-4.88		000		0.000
	5.38	-9.47		-0.60		-1.20		-5.35	0.	000		0.00
Unmitigated Noise Levels										_	-	
VehicleType Leq Peal Autos:	69.		67.5	Leq Eve	ening 64.0	Leq I	vignt 62.8		Ldn 70	4	CN	EL 70.4
Medium Trucks:	64.	-	63.3		56.0		56.8	-	64			64.
Heavy Trucks:	74.	-	72.2		65.3		67.5	-	74	-		74.8
Vehicle Noise:	75.		73.8		68.0		69.0		76			76.
Centerline Distance to Nois	e Co	ntour (in feet	:)									
				70 dE	BA	65 0	IBA		60 dBA		55 c	IBA
			Ldn:	155	5	33	15		722		1,5	55

Wednesday, October 17, 2018

	FH	WA-RD-77-108	HIGH	HWAY N	OISE P	REDICT	ION M	ODEL			
Road Nan	rio: Year 2035 ne: Rubidoux l ent: s/o SR-60		t					Agua I 11215	Mansa		
	SPECIFIC II	NPUT DATA							L INPUT	S	
Highway Data					Site Cor	nditions	(Hard	= 10, Sc	oft = 15)		
Average Daily	Traffic (Adt):	27,778 vehicl	es					Autos:			
Peak Hour	Percentage:	10%				edium Tr		,			
Peak I	Hour Volume:	2,778 vehicle	S		He	eavy Tru	cks (3+	Axles):	15		
Ve	ehicle Speed:	50 mph		١,	/ehicle	Miv					
Near/Far La	ane Distance:	48 feet		F		icleType	,	Dav	Evening	Night	Daily
Site Data							Autos:	73.2%	-	18.6%	,
D-	rrier Height:	0.0 feet			М	edium T	rucks:	82.2%	3.9%	14.0%	2.50%
Barrier Type (0-V		0.0				Heavy T	rucks:	76.5%	4.0%	19.5%	7.60%
	ist. to Barrier:	59.0 feet		-							
Centerline Dist.	to Observer:	59.0 feet		μ'	voise S	ource E			eet)		
Barrier Distance	to Observer:	0.0 feet				Auto		0.000			
Observer Height	(Above Pad):	5.0 feet				m Truck		2.297	0		
	ad Elevation:	0.0 feet			Heav	vy Truck	s: 8	3.004	Grade Ad	justment	. 0.0
Ro	ad Elevation:	0.0 feet		7	ane Eq	uivalen	t Dista	nce (in	feet)		
	Road Grade:	0.0%				Auto	s: 54	1.129			
	Left View:	-90.0 degre	es		Mediu	m Truck	s: 53	3.966			
	Right View:	90.0 degre	es		Heav	vy Truck	s: 53	3.982			
FHWA Noise Mod	lel Calculation	18									
VehicleType	REMEL	Traffic Flow	Dis	stance	Finite	Road	Fres	snel	Barrier At	ten Bei	m Atten
Autos:	70.20	1.68		-0.62	2	-1.20		-4.69	0.0	000	0.000
Medium Trucks:	81.00	-13.88		-0.60	)	-1.20		-4.88	0.0	000	0.000
Heavy Trucks:	85.38	-9.05		-0.60	)	-1.20		-5.35	0.0	000	0.000
Unmitigated Nois	e Levels (with	out Topo and	barri	er atten	uation)						
VehicleType	Leq Peak Ho	ur Leq Day	′	Leg E	rening	Leq	Night		Ldn		NEL
Autos:			67.9		64.4		63		70.	-	70.8
Medium Trucks:	65	5.3	63.7		56.4		57	.2	65.	1	65.2
Heavy Trucks:			72.6		65.8		67	.9	75.	1	75.3
Vehicle Noise:	76	5.2	74.2		68.4		69	.4	76.	7	76.9
Centerline Distan	ce to Noise C	ontour (in feet	)								
			L	70 c			dBA	6	60 dBA		dBA
			Ldn:	16	-	-	57		769		658
		C	NEL:	17	0	3	67		790	1,	702

Wednesday, October 17, 2018 Wednesday, October 17, 2018

	FH	WA-RD-77-108	HIGH	HWAY	NOISE P	REDICT	ION MO	DEL			
	e: Rubidoux I		t				t Name: i lumber:		Mansa		
	SPECIFIC IN	NPUT DATA							L INPUT	s	
Highway Data					Site Cor	nditions	(Hard =	10, Sc	oft = 15)		
Average Daily	Traffic (Adt):	20,503 vehicl	es				,	Autos:	15		
Peak Hour	Percentage:	10%			Me	edium Tr	ucks (2 A	(xles	15		
Peak H	our Volume:	2,050 vehicle	S		He	eavy Tru	cks (3+ A	(xles	15		
Ve	hicle Speed:	50 mph			Vehicle	Miv					
Near/Far La	ne Distance:	48 feet				icleType	9	Dav	Evening	Night	Daily
Site Data								73.2%		18.69	
Rai	rier Height:	0.0 feet			М	edium T	rucks:	82.2%	3.9%	14.09	% 2.50%
Barrier Type (0-W		0.0				Heavy T	rucks:	76.5%	4.0%	19.59	% 7.60%
Centerline Dis		59.0 feet									
Centerline Dist.	to Observer:	59.0 feet			Noise S		levation		eet)		
Barrier Distance	to Observer:	0.0 feet				Auto		000			
Observer Height (	Above Pad):	5.0 feet				m Truck		297	Crada Ad	licotmo	o4: 0 0
Pa	ad Elevation:	0.0 feet			Hear	vy Truck	s: 8.0	004	Grade Ad	jusurier	n. 0.0
Roa	ad Elevation:	0.0 feet			Lane Eq	uivalen	t Distand	ce (in i	feet)		
1	Road Grade:	0.0%				Auto	s: 54.	129			
	Left View:	-90.0 degre	es		Mediu	m Truck	s: 53.9	966			
	Right View:	90.0 degre	es		Hear	vy Truck	s: 53.9	982			
FHWA Noise Mode	el Calculation	ıs									
VehicleType	REMEL	Traffic Flow	Dis	stance	Finite	Road	Fresn	el	Barrier Att	en Be	erm Atten
Autos:	70.20			-0.		-1.20		-4.69		000	0.000
Medium Trucks:	81.00			-0.		-1.20		-4.88		000	0.000
Heavy Trucks:	85.38	-10.37		-0.	60	-1.20		-5.35	0.0	000	0.000
Unmitigated Noise	e Levels (with	out Topo and	barri	er atte	nuation)						
VehicleType	Leq Peak Ho	ur Leq Daj	/	Leq I	Evening	Leq	Night		Ldn		CNEL
Autos:	68	3.7	66.6		63.1		61.9	1	69.2	2	69.5
Medium Trucks:	64	1.0	62.4		55.1		55.9	1	63.7	7	63.9
Heavy Trucks:	73	3.2	71.3		64.4		66.6	i	73.8	В	73.9
Vehicle Noise:	74	1.9	72.9		67.1		68.1		75.4	4	75.6
Centerline Distance	ce to Noise C	ontour (in fee	)								
				70	dBA	65	dBA	$\epsilon$	0 dBA	5	5 dBA
			Ldn:	1	35	2	92		628	-	1,354
		C	NEL:	1	39	2	99		645		1,390

Wednesday, October 17, 2018

	FHV	WA-RD-77-108	HIGH	IWAY N	OISE P	REDICT	ION M	DDEL			
Road Nam	io: Year 2035 e: Rivera St. nt: n/o Market	Without Project	t			Project Job N		Agua 11215			
	SPECIFIC IN	IPUT DATA			2: 0				L INPUT	s	
Highway Data				- ;	Site Cor	ditions	(Hard		oft = 15)		
Average Daily	. ,	10,110 vehicle	es					Autos.			
	Percentage:	10%				dium Tri					
	lour Volume:	1,011 vehicle	S		He	avy Truc	cks (3+	Axles).	: 15		
	hicle Speed:	30 mph		1	Vehicle .	Mix					
Near/Far Lai	ne Distance:	12 feet			Veh	icleType		Day	Evening	Night	Daily
Site Data						,	Autos:	73.29	6 8.1%	18.69	89.90%
Bar	rier Heiaht:	0.0 feet			М	edium Ti	rucks:	82.29	6 3.9%	14.09	2.50%
Barrier Type (0-W		0.0			-	Heavy Ti	rucks:	76.5%	6 4.0%	19.5%	7.60%
Centerline Dis	st. to Barrier:	33.0 feet		,	Voise S	ource E	levatio	ns (in t	eet)		
Centerline Dist.	to Observer:	33.0 feet		-		Auto		.000	001)		
Barrier Distance	to Observer:	0.0 feet			Mediu	m Truck		.297			
Observer Height (	Above Pad):	5.0 feet				v Truck		.004	Grade Ad	liustmen	t: 0.0
Pa	ad Elevation:	0.0 feet				,				,	
Roa	ad Elevation:	0.0 feet		I	Lane Eq	uivalen	t Dista	nce (in	feet)		
I	Road Grade:	0.0%				Auto		2.833			
	Left View:	-90.0 degre	es			m Truck		2.562			
	Right View:	90.0 degre	es		Heav	y Truck	s: 32	2.589			
FHWA Noise Mode	el Calculation	s									
VehicleType	REMEL	Traffic Flow	Dis	tance	Finite	Road	Fres	nel	Barrier Att	en Be	rm Atten
Autos:	61.75	-0.49		2.64	1	-1.20		-4.52	0.0	000	0.000
Medium Trucks:	73.48	-16.05		2.69	9	-1.20		-4.86	0.0	000	0.000
Heavy Trucks:	79.92	-11.22		2.69	9	-1.20		-5.69	0.0	000	0.000
Unmitigated Noise			barrie	er atten	uation)						
VehicleType	Leq Peak Hou			Leq E		,	Night		Ldn		CNEL
Autos:	62		60.6		57.0		55		63.2		63.4
Medium Trucks:	58		57.3		50.0		50	-	58.7		58.8
Heavy Trucks: Vehicle Noise:	70 71		68.2 69.2		61.4		63 64		70.8 71.7	_	70.9
		-			63.0		64	.4	71.	′	71.8
Centerline Distance	ce to Noise Co	ontour (in feet	)	70 c	IBA	65	dBA	1	60 dBA	5	5 dBA
			I dn:	4:			12		199		429
	Lan: CNFI:					43 92 199 44 95 204				439	
		Ci	VEL:	44	+	٤	13		204		439

	FH\	VA-RD-77-108 I	IIGHW	AY NO	DISE P	REDICT	ION MO	ODEL			
Road Nar	rio: Year 2035 ne: Cactus Av. ent: n/o El Rivin	Without Project o Rd.						Agua I 11215			
	SPECIFIC IN	IPUT DATA							L INPUT	S	
Highway Data				S	ite Con	ditions	(Hard	= 10, S	oft = 15)		
Average Daily	Traffic (Adt):	7,464 vehicles	3					Autos:	15		
Peak Hour	Percentage:	10%				dium Ti		/			
Peak I	Hour Volume:	746 vehicles			He	avy Tru	cks (3+	Axles):	15		
Ve	ehicle Speed:	40 mph		V	ehicle l	Mix					
Near/Far La	ane Distance:	11 feet		-		icleType	9	Day	Evening	Night	Daily
Site Data							Autos:	73.2%	8.1%	18.6%	89.90%
Ra	rrier Height:	0.0 feet			Me	edium T	rucks:	82.2%	3.9%	14.0%	2.50%
Barrier Type (0-V		0.0			F	Heavy T	rucks:	76.5%	4.0%	19.5%	7.60%
	ist. to Barrier:	30.0 feet			·- · · ·			(! 6	4		
Centerline Dist.	to Observer:	30.0 feet		N	orse so	ource E		n <b>s (in</b> 10	eet)		
Barrier Distance	to Observer:	0.0 feet				Auto m Truck		.297			
Observer Height	(Above Pad):	5.0 feet							Grade Ad	iustmont	
P	ad Elevation:	0.0 feet			Heav	ry Truck	is: e	.004	Grade Au	justinent	. 0.0
Ro	ad Elevation:	0.0 feet		L	ane Eq	uivalen	t Dista	nce (in	feet)		
	Road Grade:	0.0%				Auto	s: 29	9.912			
	Left View:	-90.0 degrees	3		Mediui	m Truck	rs: 29	9.615			
	Right View:	90.0 degrees	3		Heav	y Truck	s: 29	.644			
FHWA Noise Mod	lel Calculation	s									
VehicleType	REMEL	Traffic Flow	Distar	псе	Finite	Road	Fres	inel	Barrier Att	en Bei	m Atten
Autos:	66.51	-3.06		3.24		-1.20		-4.49	0.0	000	0.000
Medium Trucks:	77.72	-18.62		3.31		-1.20		-4.86	0.0	000	0.000
Heavy Trucks:	82.99	-13.79		3.30		-1.20		-5.77	0.0	000	0.000
Unmitigated Nois	e Levels (with	out Topo and b	arrier a	attenu	ation)						
VehicleType	Leq Peak Hou	ır Leq Day	L	eq Eve	ening	Leq	Night		Ldn		NEL
Autos:	65	.5 6	3.4		59.8		58	.7	66.0	)	66.2
Medium Trucks:		-	9.6		52.3		53		60.9	-	61.1
Heavy Trucks:	71	.3 6	9.4		62.6		64	.7	71.9	9	72.0
Vehicle Noise:	72	.6 7	0.7		64.7		65	.9	73.2	2	73.3
Centerline Distan	ce to Noise Co	ontour (in feet)									
			- 1	70 dl	BA	65	dBA	1 6	60 dBA	55	dBA

Wednesday, October 17, 2018

	FH	WA-RD-77-108	HIGHV	VAY N	IOISE P	REDICTI	ON M	ODEL				
Road Nar	rio: Year 2035 me: Riverside A ent: n/o I-10 Fw		t			Project Job Ni		: Agua : 11215				
	SPECIFIC IN	IPUT DATA							L INPUT	S		
Highway Data					Site Cor	ditions	(Hard	= 10, S	oft = 15)			
Average Daily	Traffic (Adt):	49,604 vehicle	es					Autos:	15			
Peak Hou	r Percentage:	10%			Me	dium Tru	icks (2	Axles).	15			
Peak	Hour Volume:	4,960 vehicles	3		He	avy Truc	ks (3+	- Axles).	15			
V	ehicle Speed:	40 mph		-	Vehicle	Miv						
Near/Far La	ane Distance:	50 feet		F		icleType	1	Dav	Evening	Night	Daily	
Site Data							utos:	73.2%	-	18.6%	,	
D.	arrier Heiaht:	0.0 feet			М	edium Tr		82.2%	3.9%	14.0%		
Barrier Type (0-V		0.0 1001				Heavy Tr	ucks:	76.5%	4.0%	19.5%	7.60%	
	ist to Barrier:	60.0 feet		L								
Centerline Dist		60.0 feet		Ľ	Voise S	ource Ele Autos			eet)			
	Barrier Distance to Observer: 0.0 feet							0.000				
Observer Height	(Above Pad):			Medium Trucks: 2.297 Heavy Trucks: 8,004 Grade Adjustment: 0.								
	Pad Flevation:	0.0 feet			Heav	ry Trucks	E	3.004	Grade Ad	justment	: 0.0	
Ro	ad Elevation:	0.0 feet		1	Lane Equivalent Distance (in feet)							
	Road Grade:	0.0%			Autos: 54.772							
	Left View:	-90.0 degree	es		Mediu	m Trucks	: 5	4.610				
	Right View:	90.0 degree	es		Heav	y Trucks	: 5	4.626				
FHWA Noise Mod	del Calculation	ıs										
VehicleType	REMEL	Traffic Flow	Dista			Road	Fre	snel	Barrier Att		m Atten	
Autos		5.17		-0.70	-	-1.20		-4.69		000	0.000	
Medium Trucks				-0.6	-	-1.20		-4.88		000	0.000	
Heavy Trucks	82.99	-5.56		-0.6	3	-1.20		-5.34	0.0	000	0.000	
Unmitigated Nois	e Levels (with	out Topo and	barrier	atten	uation)							
VehicleType	Leq Peak Ho	ur Leq Day	'   1	Leq E	ening/	Leq I	Vight		Ldn	C	NEL	
Autos			67.6		64.1			2.9	70.3		70.5	
Medium Trucks			63.8		56.5			'.4	65.2	_	65.3	
Heavy Trucks	75	5.6	73.6		66.8		68	3.9	76.2	2	76.3	
Vehicle Noise	76	5.9	74.9		68.9		70	).1	77.4	4	77.6	
Centerline Distar	ce to Noise C	ontour (in feet,	)									
				70 c		65 (			60 dBA		dBA	
Ldn:					17 12	404			869		873	
	CNEL:					41	4		892	1,	921	

	FH\	WA-RD-77-108	HIGH	WAY	NOISE P	REDICT	ION M	DDEL			
Road Nan	io: Year 2035 ne: Riverside A nt: s/o I-10 Fw		t				t Name: lumber:		Mansa		
SITE	SPECIFIC IN	IPUT DATA							L INPUT	s	
Highway Data					Site Cor	nditions	(Hard:	= 10, Sc	oft = 15)		
Average Daily	Traffic (Adt):	54,989 vehicle	es					Autos:	15		
Peak Hour	Percentage:	10%			Me	edium Tr	ucks (2	Axles):	15		
Peak F	lour Volume:	5,499 vehicle	S		He	eavy Tru	cks (3+	Axles):	15		
Ve	hicle Speed:	50 mph		F	Vehicle	Miv					
Near/Far La	ne Distance:	50 feet		ŀ		icleType	9	Dav	Evening	Night	Daily
Site Data							Autos:	73.2%	Ü	18.6%	
Pa	rrier Height:	0.0 feet			М	edium T	rucks:	82.2%	3.9%	14.0%	2.50%
Barrier Type (0-W		0.0				Heavy T	rucks:	76.5%	4.0%	19.5%	7.60%
Centerline Di		60.0 feet									
Centerline Dist.		60.0 feet		l l	Noise S				eet)		
Barrier Distance		0.0 feet				Auto		.000			
Observer Height		5.0 feet				m Truck		.297			
	ad Elevation:	0.0 feet			Hear	vy Truck	s: 8	.004	Grade Ad	justmen	t: 0.0
	ad Flevation:	0.0 feet		Ī	Lane Eq	uivalen	t Distai	nce (in	feet)		
	Road Grade:	0.0%		Ī		Auto	s: 54	.772			
	Left View:	-90.0 degree	es		Mediu	m Truck	s: 54	.610			
	Right View:	90.0 degree			Hear	vy Truck	s: 54	.626			
FHWA Noise Mod	el Calculation	s									
VehicleType	REMEL	Traffic Flow	Dis	tance	Finite	Road	Fres	nel	Barrier Att	en Be	rm Atten
Autos:	70.20	4.65		-0.7	70	-1.20		-4.69	0.0	000	0.000
Medium Trucks:	81.00	-10.91		-0.6	88	-1.20		-4.88	0.0	000	0.000
Heavy Trucks:	85.38	-6.08		-0.6	88	-1.20		-5.34	0.0	000	0.000
Unmitigated Nois	e Levels (with	out Topo and	barrie	er atte	nuation)						
VehicleType	Leq Peak Hou	ır Leq Day	′	Leq E	vening	Leq	Night		Ldn	(	NEL
Autos:	73	3.0	70.8		67.3		66	.1	73.4	1	73.7
Medium Trucks:	68	3.2	66.6		59.3		60	.1	67.	9	68.1
Heavy Trucks:	77	'.4	75.5		68.7		70	.8	78.	)	78.2
Vehicle Noise:	79	0.1	77.1		71.3		72	.3	79.0	3	79.8
Centerline Distan	ce to Noise C	ontour (in feet	)								
				70	dBA	65	dBA	6	60 dBA	55	5 dBA
			Ldn:	2	:63	5	66		1,219	2	,627
		CI	VEL:	2	70	5	81		1,251	2	,696

	FHV	VA-RD-77-108 I	IIGHW <i>A</i>	Y NO	DISE PE	REDICTI	ON M	DDEL				
Road Nam	o: Year 2035 ve: Riverside Ant: s/o Santa A					Project I Job No		Agua I 11215	Mansa			
	SPECIFIC IN	PUT DATA							L INPUT	S		
Highway Data				S	ite Con	ditions (	Hard	= 10, S	oft = 15)			
Average Daily	Traffic (Adt):	43,651 vehicles	3					Autos:	15			
Peak Hour	Percentage:	10%				dium Tru						
Peak H	our Volume:	4,365 vehicles			He	avy Truc	ks (3+	Axles):	15			
Ve	hicle Speed:	55 mph		ν	ehicle l	Mix						
Near/Far Lai	ne Distance:	52 feet		Ė		icleType		Day	Evening	Night	Daily	
Site Data						Α	utos:	73.2%	8.1%	18.6%	89.90%	
Rai	rier Height:	0.0 feet			Me	edium Tr	ıcks:	82.2%	3.9%	14.0%	2.50%	
Barrier Type (0-W		0.0			F	Heavy Tr	ıcks:	76.5%	4.0%	19.5%	7.60%	
Centerline Dis		52.0 feet			laina Ca	ource Ele	atia	no (in f	0.041			
Centerline Dist.	to Observer:	52.0 feet		/	orse sc	Autos		.000	eet)			
Barrier Distance	to Observer:	0.0 feet			Madiu	Autos m Trucks		.297				
Observer Height (	Above Pad):	5.0 feet				v Trucks		.004	Grade Ad	liustmont	. 0.0	
Pa	ad Elevation:	0.0 feet		пеач	y Trucks		.004	Grade Ad	jusunem	. 0.0		
Roa	ad Elevation:	0.0 feet		L	ane Eq	uivalent	Dista	nce (in	feet)			
I	Road Grade:	0.0%			Autos: 45.310							
	Left View:	-90.0 degrees	3		Mediui	m Trucks	: 45	5.114				
	Right View:	90.0 degrees	3		Heav	y Trucks	: 45	5.133				
FHWA Noise Mode	el Calculation	s										
VehicleType	REMEL	Traffic Flow	Distan	се	Finite	Road	Fres	nel	Barrier Att	en Ber	m Atten	
Autos:	71.78	3.23		0.54		-1.20		-4.66	0.0	000	0.000	
Medium Trucks:	82.40	-12.33		0.57		-1.20		-4.87	0.0	000	0.000	
Heavy Trucks:	86.40	-7.50		0.56		-1.20		-5.41	0.0	000	0.000	
Unmitigated Noise												
VehicleType	Leq Peak Hou	, ,		q Ev	ening	Leq I			Ldn		NEL	
Autos:	74		2.2		68.7		67		74.		75.1	
Medium Trucks: 69.4 67.8 Heavy Trucks: 78.3 76.3					60.5		61		69.		69.3	
Heavy Trucks: Vehicle Noise:	78		6.3 8.2		69.5 72.4		71 73		78.9 80.0	_	79.0 80.8	
Centerline Distanc			-				. 0	-	30.	-		
Jenne mie Distant	10 110/36 00	mour (m reet)		70 di	BA	65 c	ΙBΑ	-	60 dBA	55	dBA	
Ldn:					266 573			573 1,234		2,	2,658	
	CNEL:				3	588 1,267 2,730						

	FH	WA-RD-77-108	HIGHW	AY NO	DISE PREDIC	TION MOI	DEL		
Road Nam	io: Year 2035 ie: Riverside A nt: s/o Slover		t			ct Name: i Number: '		ansa	
	SPECIFIC IN	IPUT DATA						INPUTS	
Highway Data				S	ite Condition	s (Hard =	10, Sof	t = 15)	
Peak H	Percentage: lour Volume:	51,021 vehicle 10% 5,102 vehicle			Medium T Heavy Tri	rucks (2 A		15 15 15	
	hicle Speed:	50 mph		V	ehicle Mix				
Near/Far La	ne Distance:	52 feet			VehicleTyp	e	Day I	Evening 1	Vight Daily
Site Data						Autos:	73.2%	8.1%	18.6% 89.90
Bai	rrier Height:	0.0 feet			Medium	Trucks:	82.2%	3.9%	14.0% 2.50
Barrier Type (0-W	'all, 1-Berm):	0.0			Heavy	Trucks:	76.5%	4.0%	19.5% 7.60
Centerline Dis	st. to Barrier:	52.0 feet		N	loise Source I	Flevation	s (in fee	of)	
Centerline Dist.	to Observer:	52.0 feet		-	Aut		000	,,,	
Barrier Distance	to Observer:	0.0 feet			Medium Truc		97		
Observer Height (	,	5.0 feet			Heavy Truc			Grade Adjus	stment: 0,0
	ad Elevation:	0.0 feet		L					
	ad Elevation:	0.0 feet		L	ane Equivale		_	eet)	
1	Road Grade:	0.0%			Aut				
	Left View: Right View:	-90.0 degree			Medium Truc Heavy Truc				
	•	90.0 degree	es		ricavy rruc	ns. 45.	133		
FHWA Noise Mode									1
VehicleType	REMEL	Traffic Flow	Distan		Finite Road -1.20	Fresn		Barrier Atten	
Autos: Medium Trucks:	70.20 81.00	4.32 -11.24		0.54			-4.66 -4.87	0.00	
Heavy Trucks:	85.38			0.56			-4.07 -5.41	0.00	
Unmitigated Noise		****	h!				0.41	0.00	0.0
VehicleType	Leg Peak Ho			eq Eve		n Night		Ldn	CNEL
Autos:			71.7	y LV	68.2	4 rvigrit 67.0		74.3	CIVEL 74
Medium Trucks:			67.5		60.2	61.0		68.9	69
Heavy Trucks:			76.4		69.6	71.7		78.9	79
Vehicle Noise:	80	0.0	78.1		72.2	73.2		80.5	80
Centerline Distance	ce to Noise C	ontour (in feet	)						
				70 dl	BA 65	5 dBA	60	) dBA	55 dBA
			Ldn:	262	2	565	1,	,216	2,620
	CNEL:								2,690

Wednesday, October 17, 2018

	FH\	WA-RD-77-108 HIG	I YAWH	NOISE PE	REDICTION	ON MODE	EL		
Road Nan	rio: Year 2035 ne: Riverside A nt: s/o Jurupa					Vame: Ag mber: 11	jua Mansa 215		
SITE	SPECIFIC IN	IPUT DATA			N	DISE MO	DEL INPU	TS	
Highway Data				Site Con	ditions (	Hard = 10	0, Soft = 15)		
Average Daily	Traffic (Adt):	43,651 vehicles				AL	itos: 15		
Peak Hour	Percentage:	10%		Me	dium Tru	cks (2 Ax	les): 15		
Peak H	Hour Volume:	4,365 vehicles		He	avy Truci	ks (3+ Ax	les): 15		
Ve	ehicle Speed:	55 mph		Vehicle I	Miv				
Near/Far La	ne Distance:	52 feet	-		icleType	D	ay Evening	Night	Daily
Site Data							3.2% 8.19	, ,	
Pa	rrier Heiaht:	0.0 feet		Me	edium Tru	icks: 82	2.2% 3.9%	6 14.0%	2.50%
Barrier Type (0-W		0.0		F	Heavy Tru	icks: 76	6.5% 4.0%	6 19.5%	7.60%
	ist. to Barrier:	52.0 feet	-	Maina Ca	ouros Ele	vations	(in foot)		
Centerline Dist.	to Observer:	52.0 feet		Noise St	Autos		,		
Barrier Distance	to Observer:	0.0 feet		Modiu	m Trucks				
Observer Height	(Above Pad):	5.0 feet			v Trucks			Adjustment	. 00
P	ad Elevation:	0.0 feet			,			iajaoumom	. 0.0
Ro	ad Elevation:	0.0 feet		Lane Eq	uivalent	Distance	(in feet)		
	Road Grade:	0.0%			Autos		-		
	Left View:	-90.0 degrees			m Trucks		•		
	Right View:	90.0 degrees		Heav	y Trucks	45.13	3		
FHWA Noise Mod		-							
VehicleType	REMEL		istance		Road	Fresnel			rm Atten
Autos:		3.23	0.5		-1.20			0.000	0.000
Medium Trucks:		-12.33	0.5		-1.20			0.000	0.000
Heavy Trucks:		-7.50	0.5		-1.20	-5	.41 (	0.000	0.000
		out Topo and barr				1			
VehicleType Autos:	Leq Peak Hou	, ,		vening 68.7	Leq N	light 67.5	Ldn	1.8	NEL 75.1
Autos: Medium Trucks:				60.5		67.5		1.8 9.2	75.1 69.3
Heavy Trucks:				69.5		71.6		9.2 3.9	79.0
Vehicle Noise:				72.4		73.3		0.6	80.8
				12.4		13.3	80	7.0	00.8
Centerline Distan	ce to Noise C	ontour (in feet)	70	dBA	65 o	BA .	60 dBA	55	dBA
		I dn:		66	57		1,234		.658
		CNEL:	_	73	58	-	1,267		.730
		O/VLL.	_	-	50	-	1,201	-	. 50

	FH\	WA-RD-77-108	HIGH	lWAY	NOISE P	REDICT	ION M	ODEL			
Road Nan	rio: Year 2035 ne: Rancho Av nt: n/o Agua N		t				t Name: Number:		Mansa		
SITE	SPECIFIC IN	IPUT DATA							L INPUT	s	
Highway Data					Site Cor	nditions	(Hard	= 10, S	oft = 15)		
Average Daily	Traffic (Adt):	23,148 vehicle	es					Autos:	15		
Peak Hour	Percentage:	10%			Me	edium Ti	rucks (2	Axles):	15		
Peak F	lour Volume:	2,315 vehicle	s		He	eavy Tru	icks (3+	Axles):	15		
Ve	hicle Speed:	40 mph			Vehicle	Miv					
Near/Far La	ne Distance:	52 feet				icleTyp	e	Dav	Evening	Night	Daily
Site Data							Autos:	73.2%	-	18.6%	
Pa	rrier Height:	0.0 feet			М	edium 7	rucks:	82.2%	3.9%	14.0%	2.50%
Barrier Type (0-W	-	0.0				Heavy 7	rucks:	76.5%	4.0%	19.5%	7.60%
Centerline Di		52.0 feet									
Centerline Dist.	to Observer:	52.0 feet			Noise S				eet)		
Barrier Distance	to Observer:	0.0 feet				Auto		0.000			
Observer Height	(Above Pad):	5.0 feet				m Truck		2.297			
	ad Elevation:	0.0 feet			Hear	vy Truck	s: 8	3.004	Grade Ad	justmen	t: 0.0
	ad Flevation:	0.0 feet			Lane Eq	uivalen	t Dista	nce (in	feet)		
	Road Grade:	0.0%				Auto	s: 45	5.310	-		
	Left View:	-90.0 degre	es		Mediu	m Truck	ks: 45	5.114			
	Right View:	90.0 degre			Hear	vy Truck	(S: 45	5.133			
FHWA Noise Mod	el Calculation	s									
VehicleType	REMEL	Traffic Flow	Dis	stance	Finite	Road	Fres	snel	Barrier Att	en Be	rm Atten
Autos:	66.51	1.86		0.5	54	-1.20		-4.66	0.0	000	0.000
Medium Trucks:	77.72	-13.70		0.5	57	-1.20		-4.87	0.0	000	0.000
Heavy Trucks:	82.99	-8.87		0.4	56	-1.20		-5.41	0.0	000	0.000
Unmitigated Nois	e Levels (with	out Topo and	barrie	er atte	nuation)						
VehicleType	Leq Peak Hou			Leq E	Evening	Leq	Night		Ldn		NEL
Autos:	67	.7	65.6		62.0		60	.9	68.2	2	68.5
Medium Trucks:	63	.4	61.7		54.5		55	.3	63.	1	63.3
Heavy Trucks:	73	.5	71.5		64.7		66	.9	74.	1	74.2
Vehicle Noise:	74	.8	72.9		66.9		68	.1	75.3	3	75.5
Centerline Distan	ce to Noise C	ontour (in feet	)								
				70	dBA	65	dBA	(	60 dBA	55	5 dBA
			Ldn:	1	18	2	255		549	1	,182
		C	VEL:	1	21	2	261		562	1	,212

	FHV	WA-RD-77-108	HIGHWA	Y NOISE F	REDICT	ION MODEL			
	e: Slover Av.	Without Project Av.				Name: Agua lumber: 1121			
SITE S	PECIFIC IN	IPUT DATA			N	IOISE MOD	EL INPUTS		
Highway Data				Site Co.	nditions	(Hard = 10,	Soft = 15)		
Average Daily 1 Peak Hour I Peak Ho	. ,	16,818 vehicle 10% 1.682 vehicles				Auto ucks (2 Axles cks (3+ Axles	:): 15		
	icle Speed:	50 mph							
Near/Far Lar		48 feet		Vehicle		D	[ Complete	Minha Doile	
Site Data				Vei	hicleType	Day Autos: 73.2	-	Night Daily 18.6% 89.90%	
				٠.	ر 1edium Ti			14.0% 89.90%	
	rier Height:	0.0 feet			Heavy Ti			19.5% 7.60%	
Barrier Type (0-Wa		0.0			neavy II	ucks. 76.5	76 4.0%	19.5% 7.00%	
Centerline Dis		52.0 feet		Noise S	ource E	levations (in	feet)		
Centerline Dist. t Barrier Distance t Observer Height (A	o Observer: Above Pad):	52.0 feet 0.0 feet 5.0 feet			Auto im Truck vy Truck	s: 2.297	Grade Adjı	ıstment: 0.0	
	d Elevation:	0.0 feet							
	d Elevation:	0.0 feet		Lane Ed		t Distance (i	n feet)		
F	Road Grade:	0.0%			Auto				
	Left View: Right View:	-90.0 degree 90.0 degree			ım Truck vy Truck				
FHWA Noise Mode	l Calculation	s		-1					
VehicleType	REMEL	Traffic Flow	Distanc	e Finite	Road	Fresnel	Barrier Atte	n Berm Atten	
Autos:	70.20	-0.50		0.38	-1.20	-4.6	6 0.00	0.000	
Medium Trucks:	81.00	-16.06		0.41	-1.20	-4.8	7 0.00	0.000	
Heavy Trucks:	85.38	-11.23		0.41	-1.20	-5.4	1 0.00	0.000	
Unmitigated Noise	Levels (with	out Topo and	barrier at	tenuation)	1				
VehicleType	Leq Peak Hou	ır Leq Day	Le	g Evening	Leq	Night	Ldn	CNEL	
Autos:	68	.9 6	66.7	63.2	2	62.0	69.4	69.6	
Medium Trucks:	64	.2	32.5	55.2	2	56.1	63.9	64.0	
Heavy Trucks:	73	.4 7	71.4	64.6	3	66.7	74.0	74.1	
Vehicle Noise:	75	.1	73.1	67.3	3	68.3	75.6	75.7	
Centerline Distanc	e to Noise Co	ontour (in feet)	1						
				70 dBA	65	dBA	60 dBA	55 dBA	
			dn:	122	2	63	567	1,221	
				125 270 582 1,253					

	FHV	VA-RD-77-108	HIGHW	AY NO	DISE PI	REDICT	ION M	ODEL			
	e: Rancho Av.		t					: Agua : 11215			
	PECIFIC IN	PUT DATA							L INPUT	S	
Highway Data				S	ite Cor	nditions	(Hard	= 10, S	oft = 15)		
Average Daily 1	. ,	18,802 vehicl	es					Autos:			
Peak Hour F		10%				dium Tr		,			
	our Volume:	1,880 vehicle	S		He	avy Tru	cks (3+	Axles).	15		
	icle Speed:	40 mph		V	ehicle	Mix					
Near/Far Lan	e Distance:	52 feet			Veh	icleType	,	Day	Evening	Night	Daily
Site Data							Autos:	73.2%	8.1%	18.6%	89.90
Ran	rier Heiaht:	0.0 feet			M	edium T	rucks:	82.2%	3.9%	14.0%	2.50
Barrier Type (0-Wa	all, 1-Berm):	0.0			1	Heavy T	rucks:	76.5%	4.0%	19.5%	7.60
Centerline Dis		52.0 feet		Ν	oise S	ource E	levatio	ns (in f	eet)		
Centerline Dist. t		52.0 feet				Auto	s: (	0.000			
Barrier Distance to		0.0 feet			Mediu	m Truck	s: 2	2.297			
Observer Height (A	,	5.0 feet			Heav	v Truck	s: 8	3.004	Grade Ac	ljustmeni	: 0.0
	d Elevation:	0.0 feet					. Di	//	f4\		
	d Elevation:	0.0 feet		L	ane Eq	uivalen			reet)		
H	Road Grade:	0.0%			14	Auto		5.310			
	Left View:	-90.0 degre				m Truck		5.114			
	Right View:	90.0 degre	es		Heav	y Truck	S: 4:	5.133			
FHWA Noise Mode											
VehicleType	REMEL	Traffic Flow	Dista		Finite	Road	Fre.	snel	Barrier At		rm Atte
Autos:	66.51 77.72	0.95		0.54		-1.20 -1.20		-4.66		000	0.0
Medium Trucks:		-14.60 -9.78		0.57		-1.20 -1.20		-4.87 -5.41		000	0.0
Heavy Trucks: Inmitigated Noise	82.99	****	h!		-411	-1.20		-5.41	0.	000	0.0
	Leveis (with		_	eq Eve		Lea	Night	T	Ldn	C	NEL
Autos:	66.		64.7		61.1	209	60	.0	67.		67
Medium Trucks:	62.	.5	60.8		53.6		54	.4	62.	2	62
Heavy Trucks:	72.	.6	70.6		63.8		65	.9	73.	2	73
Vehicle Noise:	73	.9	72.0		66.0		67	.2	74.	4	74
Centerline Distanc	e to Noise Co	ntour (in feet	)								
				70 dl			dBA	-	60 dBA	55	dBA
			Ldn:	103	}	2	22		478	1,	,029
			NFI:	105			27		490		.055

Wednesday, October 17, 2018

	FH	WA-RD-77-108	HIGH	1 YAW	NOISE PI	REDICTI	ON M	ODEL				
Road Nar	rio: Year 2035 ne: Slover Av. ent: w/o Riversi	Without Projec	t					e: Agua I r: 11215	Mansa			
	SPECIFIC IN	IPUT DATA							L INPUT	S		
Highway Data					Site Con	ditions (	Hard	= 10, Sc	oft = 15)			
Average Daily	Traffic (Adt):	11,621 vehicle	es					Autos:	15			
Peak Hou	r Percentage:	10%			Me	dium Tru	cks (2	2 Axles):	15			
Peak I	Hour Volume:	1,162 vehicles	S		He	avy Truc	ks (3-	+ Axles):	15			
Ve	ehicle Speed:	50 mph		H	Vehicle	Miv						
Near/Far La	ane Distance:	48 feet		ŀ		icleType		Dav	Evening	Night	Daily	
Site Data				_			utos:	- ' /	-	18.6%		
	arrier Height:	0.0 feet			М	edium Tr	ucks:	82.2%	3.9%	14.0%	2.50%	
Barrier Type (0-V		0.0			- 1	Heavy Tr	ucks:	76.5%	4.0%	19.5%	7.60%	
	ist. to Barrier:	52.0 feet										
	Centerline Dist. to Observer: 52.0 feet							ons (in f	eet)			
	Barrier Distance to Observer: 0.0 feet							0.000				
	Barrier Distance to Observer: 0.0 teet  Observer Height (Above Pad): 5.0 feet							2.297				
	Pad Flevation:	0.0 feet			Heav	ry Trucks		8.004	Grade Ad	justment	0.0	
	ad Elevation:	0.0 feet		İ	Lane Equivalent Distance (in feet)							
710	Road Grade:	0.0%		ľ	Autos: 46.400							
	I eft View:	-90.0 degree	es		Medium Trucks: 46,209							
	Right View:	90.0 degree			Heav	y Trucks	: 4	6.228				
FHWA Noise Mod	lel Calculation	ıs										
VehicleType	REMEL	Traffic Flow	Dist	ance	Finite	Road	Fre	snel	Barrier At	en Ber	m Atten	
Autos.	70.20	-2.10		0.3	8	-1.20		-4.66	0.0	000	0.000	
Medium Trucks.	81.00	-17.66		0.4	1	-1.20		-4.87	0.0	000	0.000	
Heavy Trucks.	85.38	-12.83		0.4	1	-1.20		-5.41	0.0	000	0.000	
Unmitigated Nois	e Levels (with	out Topo and	barrie	r atter	nuation)							
VehicleType	Leq Peak Hot	ur Leq Day	′	Leq E	vening	Leq I	Vight		Ldn	C	VEL	
Autos.		'.3	65.1		61.6		60	0.4	67.	-	68.0	
Medium Trucks.	62	2.5	60.9		53.6		54	4.5	62.	3	62.4	
Heavy Trucks.			69.8		63.0		65	5.1	72.		72.5	
Vehicle Noise.	73	3.4	71.5		65.6		66	6.7	74.	)	74.1	
Centerline Distan	ce to Noise C	ontour (in feet	)								-	
					dBA 95	65 c		(	60 dBA		dBA	
	Ldn:					20	-		443 455	_	54	
	con: CNEL:						211			9	979	

Wednesday, October 17, 2018 Wednesday, October 17, 2018

	FH\	WA-RD-77-108	HIGH	WAY	NOISE P	REDICT	ION M	DDEL			
Road Nam	rio: Year 2035 ne: Santa Ana nt: w/o Cedar		t					Agua I 11215	Mansa		
	SPECIFIC IN	IPUT DATA			a: a				L INPUT	s	
Highway Data					Site Cor	aitions	(Hard				
Average Daily	. ,	8,787 vehicle	es					Autos:			
	Percentage:	10%				dium Tr					
Peak F	lour Volume:	879 vehicle	S		He	avy Tru	cks (3+	Axles):	15		
Ve	hicle Speed:	40 mph			Vehicle	Mix					
Near/Far La	ne Distance:	36 feet			Ver	icleType	,	Dav	Evening	Night	Daily
Site Data							Autos:	73.2%	8.1%	18.6%	89.90%
Pa	rrier Height:	0.0 feet			М	edium T	rucks:	82.2%	3.9%	14.0%	2.50%
Barrier Type (0-W	-	0.0				Heavy T	rucks:	76.5%	4.0%	19.5%	7.60%
Centerline Di		44.0 feet									
Centerline Dist.		44.0 feet			Noise S				eet)		
Barrier Distance		0.0 feet				Auto		.000			
Observer Height	(Above Pad):	5.0 feet				m Truck		.297			
	ad Elevation:	0.0 feet			Hear	ry Truck	s: 8	.004	Grade Ad	justment	0.0
	ad Flevation:	0.0 feet			Lane Eq	uivalen	t Dista	nce (in	feet)		
	Road Grade:	0.0%				Auto	s: 40	.460	,		
	Left View:	-90.0 degre	es		Mediu	m Truck	s: 40	.241			
	Right View:	90.0 degre			Hear	y Truck	s: 40	).262			
FHWA Noise Mod	el Calculation	s									
VehicleType	REMEL	Traffic Flow	Dis	stance	Finite	Road	Fres	nel	Barrier Att	en Bei	rm Atten
Autos:	66.51	-2.35		1.3	28	-1.20		-4.61	0.0	000	0.000
Medium Trucks:	77.72	-17.91		1.3	31	-1.20		-4.87	0.0	000	0.000
Heavy Trucks:	82.99	-13.08		1.3	31	-1.20		-5.50	0.0	000	0.000
<b>Unmitigated Nois</b>	e Levels (with	out Topo and	barrie	er atte	nuation)						
VehicleType	Leq Peak Hot		/	Leq E	vening	Leq	Night		Ldn	С	NEL
Autos:	64	.2	62.1		58.6		57	.4	64.7	7	65.0
Medium Trucks:	59	1.9	58.3		51.0		51	.8	59.7	7	59.8
Heavy Trucks:	70	1.0	68.1		61.3		63	.4	70.6	3	70.8
Vehicle Noise:	71	.4	69.4		63.4		64	.6	71.9	9	72.0
Centerline Distan	ce to Noise C	ontour (in feet	)								
				70	dBA	65	dBA	(	60 dBA	55	dBA
			Ldn:		59	1.	27		273	5	588
		C	NEL:		60	1	30		280	6	603

	FHV	VA-RD-77-108	HIGHWAY	NOISE P	REDICTIO	N MC	DDEL			
Road Nam	io: Year 2035 ve: Jurupa Av. nt: w/o Cedar /	,	t .		Project N Job Nu					
	SPECIFIC IN	PUT DATA						L INPUT	S	
Highway Data				Site Cor	iditions (l	Hard :	= 10, S	oft = 15)		
Average Daily	Traffic (Adt):	7,370 vehicle	es				Autos:	15		
Peak Hour	Percentage:	10%		Me	dium Truc	ks (2	Axles):	15		
Peak H	lour Volume:	737 vehicles	3	He	avy Truck	s (3+	Axles):	15		
Ve	hicle Speed:	40 mph		Vehicle	Mix					
Near/Far La	ne Distance:	48 feet			icleType		Day	Evening	Night	Daily
Site Data					Αι	ıtos:	73.2%	8.1%	18.6%	89.90%
Rai	rier Height:	0.0 feet		М	edium Tru	cks:	82.2%	3.9%	14.0%	2.50%
Barrier Type (0-W		0.0			Heavy Tru	cks:	76.5%	4.0%	19.5%	7.60%
Centerline Dis	st. to Barrier:	52.0 feet		Maine C	ource Ele	rotio	no (in f	0.041		
Centerline Dist.	to Observer:	52.0 feet		Noise 3	Autos:		.000	eet)		
Barrier Distance	to Observer:	0.0 feet		Madiu		-	.297			
Observer Height (	Above Pad):	5.0 feet		Medium Trucks: 2.297 Heavy Trucks: 8.004 Grade Adjustment: 0.0						
Pa	ad Elevation:	0.0 feet		пеан	ry Trucks.	٥	.004	Grade Ad	justinent	. 0.0
Ros	ad Elevation:	0.0 feet		Lane Eq	uivalent l	Distar	nce (in	feet)		
I	Road Grade:	0.0%			Autos:	46	.400			
	Left View:	-90.0 degree	es	Mediu	m Trucks:	46	.209			
	Right View:	90.0 degree	es	Heav	y Trucks:	46	.228			
FHWA Noise Mode	el Calculation	S		1						
VehicleType	REMEL	Traffic Flow	Distance		Road	Fres		Barrier Att		m Atten
Autos:	66.51	-3.11		.38	-1.20		-4.66		000	0.00
Medium Trucks:	77.72	-18.67	-	.41	-1.20		-4.87		000	0.00
Heavy Trucks:	82.99	-13.84	0.	.41	-1.20		-5.41	0.0	000	0.00
Unmitigated Noise										
VehicleType	Leq Peak Hou			Evening	Leq N	_		Ldn		NEL
Autos: Medium Trucks:	62	-	60.4 56.6	56.9		55.		63.		63.3 58.3
	58 68		66.4	49.3 59.6		50. 61.		58.0 69.0		69.
Heavy Trucks: Vehicle Noise:	69		67.7	61.7		62.		70.		70.4
Centerline Distant	e to Noise Co	ntour (in feet	)							
		(111 1001)		) dBA	65 di	BA	-	60 dBA	55	dBA
	Ldn:				116	3		250	5	38
		IFI:	55			256 552				

	FHV	VA-RD-77-108	HIGI	HWAY	NOISE P	REDICT	ION M	ODEL			
Road Nan	io: Year 2035 \ ne: Santa Ana i nt: w/o Riversio	Av.						: Agua : 11215			
	SPECIFIC IN	PUT DATA							L INPUT	s	
Highway Data					Site Cor	nditions	(Hard	= 10, S	oft = 15)		
Average Daily	Traffic (Adt):	5,102 vehicle	es					Autos:			
Peak Hour	Percentage:	10%				edium Tr					
	lour Volume:	510 vehicles	3		He	avy Tru	cks (3+	Axles).	15		
Ve	hicle Speed:	40 mph		İ	Vehicle	Mix					
Near/Far La	ne Distance:	36 feet			Veh	icleType	9	Day	Evening	Night	Daily
Site Data							Autos:	73.2%	8.1%	18.6%	89.90%
Ba	rrier Heiaht:	0.0 feet			М	edium T	rucks:	82.2%	3.9%	14.0%	2.50%
Barrier Type (0-W		0.0				Heavy T	rucks:	76.5%	4.0%	19.5%	7.60%
Centerline Di	st. to Barrier:	44.0 feet		-	Noise S	ourco E	lovatio	ne (in f	oot)		
Centerline Dist.	to Observer:	44.0 feet		ŀ	NOISE S	Auto		0.000	eei)		
Barrier Distance	to Observer:	0.0 feet			Modiu	m Truck		2.297			
Observer Height	(Above Pad):	5.0 feet				vy Truck		8.004	Grade Ad	iustmen	. 00
P	ad Elevation:	0.0 feet				•				,	. 0.0
Ro	ad Elevation:	0.0 feet			Lane Eq	uivalen	t Dista	nce (in	feet)		
	Road Grade:	0.0%				Auto		0.460			
	Left View:	-90.0 degree	es		Mediu	m Truck	s: 4	0.241			
	Right View:	90.0 degree	es		Heav	/y Truck	s: 4	0.262			
FHWA Noise Mod	el Calculation:	S									
VehicleType	REMEL	Traffic Flow	Di	stance	Finite	Road	Fre	snel	Barrier Att	en Be	rm Atten
Autos:	66.51	-4.71		1.2	28	-1.20		-4.61	0.0	000	0.00
Medium Trucks:	77.72	-20.27		1.3	31	-1.20		-4.87	0.0	000	0.00
Heavy Trucks:	82.99	-15.44		1.3	31	-1.20		-5.50	0.0	000	0.00
Unmitigated Nois	e Levels (with	out Topo and	barri	ier atte	nuation)						
VehicleType	Leq Peak Hou			Leg E	vening		Night		Ldn		NEL
Autos:	61.		59.7		56.2			5.0	62.4		62.
Medium Trucks:	57.		55.9		48.6			9.5	57.3	-	57.
Heavy Trucks:	67.	.7	65.7		58.9		61	1.0	68.3	3	68.
Vehicle Noise:	69	.0	67.0		61.0		62	2.2	69.5	5	69.
Centerline Distan	ce to Noise Co	ontour (in feet	)								
				70	dRA	65	dRA	1 1	SO dRA	55	dRA

Wednesday, October 17, 2018

	FH	WA-RD-77-10	B HIGI	HWAY	NOISE PI	REDICTI	ON M	ODEL			
Road Nan	rio: Year 2035 ne: El Rivino R ent: e/o Cedar	Rd.	ct			Project Job No		: Agua I : 11215			
	SPECIFIC IN	NPUT DATA							L INPUT	S	
Highway Data					Site Con	ditions (	Hard	= 10, S	oft = 15)		
Average Daily	Traffic (Adt):	10,771 vehic	les					Autos:	15		
Peak Hour	Percentage:	10%				dium Tru					
Peak I	Hour Volume:	1,077 vehicle	es		He	avy Truc	ks (3+	+ Axles):	15		
Ve	ehicle Speed:	45 mph			Vehicle	Miv					
Near/Far La	ane Distance:	36 feet				icleType		Dav	Evening	Night	Daily
Site Data							utos:	73.2%	-	18.6%	,
D-	rrier Height:	0.0 feet			M	edium Tr	ucks:	82.2%	3.9%	14.0%	2.50%
Barrier Type (0-V		0.0			1	Heavy Tr	ucks:	76.5%	4.0%	19.5%	7.60%
,, ,	ist. to Barrier:	44.0 feet			M-1 0	·		//- 6	41		
Centerline Dist.	to Observer:	44.0 feet			Noise S				eet)		
Barrier Distance	to Observer:	0.0 feet				Autos		0.000			
Observer Height	(Above Pad):	5.0 feet				m Trucks		2.297	0		
	ad Elevation:	0.0 feet			Heav	y Trucks		8.004	Grade Ad	justment	0.0
Ro	ad Elevation:	0.0 feet			Lane Eq	uivalent	Dista	nce (in	feet)		
	Road Grade:	0.0%				Autos	: 4	0.460			
	Left View:	-90.0 degre	es		Mediu	m Trucks	: 4	0.241			
	Right View:	90.0 degre	ees		Heav	y Trucks	: 4	0.262			
FHWA Noise Mod	lel Calculation	ıs									
VehicleType	REMEL	Traffic Flow		stance		Road	Fre	snel	Barrier At		m Atten
Autos:				1.2		-1.20		-4.61		000	0.000
Medium Trucks:				1.3		-1.20		-4.87		000	0.000
Heavy Trucks:	84.25	-12.71		1.3	31	-1.20		-5.50	0.0	000	0.000
Unmitigated Nois			l barri	ier atte	nuation)						
VehicleType	Leq Peak Ho		_	Leq E	vening	Leq I			Ldn		NEL
Autos:		6.6	64.4		60.9			9.7	67.	-	67.3
Medium Trucks:		2.0	60.4		53.1			3.9	61.	-	61.9
Heavy Trucks:		1.7	69.7		62.9			5.0	72.		72.4
Vehicle Noise:	73	3.2	71.2		65.3		66	6.4	73.	7	73.9
Centerline Distan	ce to Noise C	ontour (in fee	t)								
			Ĺ		dBA	65 c			60 dBA		dBA
			Ldn:		77	16			360		75
		С	NEL:		79	17	1		369	7	95

Wednesday, October 17, 2018 Wednesday, October 17, 2018



	FH\	WA-RD-77-108	HIGH	WAY	NOISE P	REDICT	ION M	DDEL			
Road Nan	rio: Year 2035 ne: El Rivino R nt: e/o Cactus	d.	t				t Name: lumber:		Mansa		
SITE	SPECIFIC IN	IPUT DATA							L INPUT	s	
Highway Data					Site Cor	nditions	(Hard:	= 10, S	oft = 15)		
Average Daily	Traffic (Adt):	6,236 vehicle	es					Autos:	15		
Peak Hour	Percentage:	10%			Me	edium Ti	rucks (2	Axles):	15		
Peak F	lour Volume:	624 vehicle	S		He	eavy Tru	icks (3+	Axles):	15		
Ve	hicle Speed:	45 mph		1	Vehicle	Miv					
Near/Far La	ne Distance:	36 feet		ł		icleTyp	е	Dav	Evening	Night	Daily
Site Data							Autos:	73.2%	Ü	18.6%	
Ra	rrier Height:	0.0 feet			М	edium 7	rucks:	82.2%	3.9%	14.0%	2.50%
Barrier Type (0-W	-	0.0				Heavy 7	rucks:	76.5%	4.0%	19.5%	7.60%
Centerline Di		44.0 feet		-							
Centerline Dist.	to Observer:	44.0 feet		-	Noise S				eet)		
Barrier Distance	to Observer:	0.0 feet				Auto		.000			
Observer Height	(Above Pad):	5.0 feet				m Truck		.297	0		4. 0.0
	ad Elevation:	0.0 feet			Hear	vy Truck	rs: 8	.004	Grade Ad	justmen	t: 0.0
	ad Elevation:	0.0 feet		İ	Lane Eq	uivalen	t Distai	nce (in	feet)		
	Road Grade:	0.0%		İ		Auto	s: 40	.460			
	Left View:	-90.0 degre	es		Mediu	m Truck	ks: 40	.241			
	Right View:	90.0 degre			Hear	vy Truck	rs: 40	.262			
FHWA Noise Mod	el Calculation	s									
VehicleType	REMEL	Traffic Flow	Dis	tance	Finite	Road	Fres	nel	Barrier Att	en Be	rm Atten
Autos:	68.46	-4.35		1.2	28	-1.20		-4.61	0.0	000	0.000
Medium Trucks:	79.45	-19.91		1.3	31	-1.20		-4.87	0.0	000	0.000
Heavy Trucks:	84.25	-15.08		1.3	31	-1.20		-5.50	0.0	000	0.000
Unmitigated Nois	e Levels (with	out Topo and	barrie	er atte	nuation)						
VehicleType	Leq Peak Hou			Leq E	vening	Leq	Night		Ldn		NEL
Autos:	64	.2	62.0		58.5		57	.3	64.	7	64.9
Medium Trucks:			58.0		50.7		51.	-	59.		59.5
Heavy Trucks:	69	.3	67.3		60.5		62	.6	69.	9	70.0
Vehicle Noise:	70	.8	68.8		62.9		64	.0	71.	3	71.5
Centerline Distan	ce to Noise Co	ontour (in feet	)							,	
					dBA		dBA	(	60 dBA		5 dBA
			Ldn:		54		16		250		538
		C	VEL:		55	1	19		256		552

Wednesday, October 17, 2018

	FHV	VA-RD-77-108	HIGHV	VAY N	OISE PI	REDICTIO	ON MO	DDEL			
Road Nam	io: Year 2035 Ne: Agua Mans nt: e/o 20th St.					Project I Job Nu					
	SPECIFIC IN	PUT DATA							L INPUT	s	
Highway Data					Site Con	ditions (	Hard :	= 10, S	oft = 15)		
Average Daily	Traffic (Adt):	18,802 vehicle	s					Autos:			
Peak Hour	Percentage:	10%				dium Tru					
Peak H	lour Volume:	1,880 vehicles			He	avy Truck	ks (3+	Axles):	15		
Ve	hicle Speed:	45 mph		-	Vehicle	Mix					
Near/Far La	ne Distance:	36 feet		F		icleType		Day	Evening	Night	Daily
Site Data						A	ıtos:	73.2%	8.1%	18.6%	89.90%
Rai	rrier Height:	0.0 feet			M	edium Tru	icks:	82.2%	3.9%	14.0%	2.50%
Barrier Type (0-W		0.0			F	Heavy Tru	icks:	76.5%	4.0%	19.5%	7.60%
Centerline Di		50.0 feet		Η.	Vaisa C	ource Ele	votio	no (in f	0.041		
Centerline Dist.	to Observer:	50.0 feet		- '	voise so	Autos:		.000	eet)		
Barrier Distance	to Observer:	0.0 feet			Modiu	Autos: m Trucks	-	.000			
Observer Height (	Above Pad):	5.0 feet				v Trucks:	_	.004	Grade Ad	liustmont	. 0.0
Pa	ad Elevation:	0.0 feet			Heav	y Trucks.	8	.004	Grade Ad	jusuneni	0.0
Roa	ad Elevation:	0.0 feet		1	Lane Eq	uivalent	Distai	nce (in	feet)		
	Road Grade:	0.0%				Autos:	46	.915			
	Left View:	-90.0 degree	S		Mediu	m Trucks.	46	.726			
	Right View:	90.0 degree	s		Heav	y Trucks.	46	.744			
FHWA Noise Mod	el Calculation	s									
VehicleType	REMEL	Traffic Flow	Dista	nce	Finite	Road	Fres	nel	Barrier Att	en Ber	m Atten
Autos:	68.46	0.44		0.31		-1.20		-4.65	0.0	000	0.000
Medium Trucks:	79.45	-15.12		0.34	1	-1.20		-4.87	0.0	000	0.000
Heavy Trucks:	84.25	-10.29		0.34	1	-1.20		-5.43	0.0	000	0.000
Unmitigated Nois											
VehicleType	Leq Peak Hou	, ,		Leg E	rening	Leq N	_		Ldn	-	NEL
Autos:	68		55.9		62.3		61		68.		68.8
Medium Trucks:	63		31.8		54.6		55		63.		63.4
Heavy Trucks: Vehicle Noise:	73 74		71.1		64.3 66.7		66 67	-	73.° 75.°		73.8 75.3
Centerline Distant					30.7			-		•	70.0
Jerner mie Distant	56 10 110136 OC	miour (III leet)		70 c	iBA	65 d	BA	-	60 dBA	55	dBA
		L	dn:	11	0	23	7		510	1,	100
		CA	IFI:	11	2	24	3 524			1,128	

	FHV	VA-RD-77-108	HIGH	WAY I	NOISE P	REDICT	ION MO	DEL			
Road Nam	io: Year 2035 \ ne: El Rivino Ro nt: e/o Hall Av.						Name: lumber:		Mansa		
	SPECIFIC IN	PUT DATA							L INPUT	5	
Highway Data					Site Con	ditions	(Hard :	= 10, Sc			
Average Daily	Traffic (Adt):	3,874 vehicle	s					Autos:	15		
Peak Hour	Percentage:	10%				dium Tr		,			
Peak H	lour Volume:	387 vehicles	3		He	avy Tru	cks (3+	Axles):	15		
	hicle Speed:	45 mph		ı	Vehicle I	Vix					
Near/Far La	ne Distance:	36 feet		ı	Veh	icleType	•	Day	Evening	Night	Daily
Site Data						,	Autos:	73.2%	8.1%	18.6%	89.90%
Bai	rrier Height:	0.0 feet			Me	edium T	rucks:	82.2%	3.9%	14.0%	2.50%
Barrier Type (0-W		0.0			F	leavy T	rucks:	76.5%	4.0%	19.5%	7.60%
Centerline Dis	st. to Barrier:	44.0 feet		ŀ	Noise So	urco E	lovatio	ne (in fe	not)		
Centerline Dist.	to Observer:	44.0 feet		ŀ	140/36 00	Auto		.000	,		
Barrier Distance	to Observer:	0.0 feet			Modiuu	n Truck		.297			
Observer Height (	Above Pad):	5.0 feet				y Truck		.004	Grade Ad	ustment	: 0.0
Pa	ad Elevation:	0.0 feet		L		•					
Ros	ad Elevation:	0.0 feet		L	Lane Eq				feet)		
1	Road Grade:	0.0%				Auto.		.460			
	Left View:	-90.0 degree	s			m Truck	10	.241			
	Right View:	90.0 degree	s		Heav	y Truck	s: 40	.262			
FHWA Noise Mode				-							
VehicleType	REMEL	Traffic Flow	Dis	tance		Road	Fres		Barrier Att	_	m Atten
Autos:	68.46	-6.42		1.2	-	-1.20		-4.61	0.0		0.000
Medium Trucks:	79.45	-21.98		1.3		-1.20		-4.87	0.0		0.000
Heavy Trucks:	84.25	-17.15		1.3	1	-1.20		-5.50	0.0	00	0.000
Unmitigated Noise	•		barrie					,			
	Leq Peak Hou			Leq E	vening	Leq	Night		Ldn		NEL
Autos:	62.		0.0		56.4		55.	-	62.6		62.9
Medium Trucks:	57.		55.9		48.7		49.	-	57.3		57.5
Heavy Trucks:	67.		35.3		58.5		60.		67.8		68.0
Vehicle Noise:	68.		66.8		60.8		62.	0	69.2	!	69.4
Centerline Distant	ce to Noise Co	ntour (in feet)	)					,			

Wednesday, October 17, 2018

FH\	VA-RD-77-108 HIG	HWAY	NOISE P	REDICTION	ON MOD	DEL			
Scenario: Year 2035 Road Name: Agua Mans Road Segment: w/o Brown	a Rd.			Project I Job Nu	Name: F Imber: 1				
SITE SPECIFIC IN	IPUT DATA			N	OISE N	IODE	L INPUT	S	
Highway Data			Site Cor	ditions (	Hard =	10, S	oft = 15)		
Average Daily Traffic (Adt):	18,802 vehicles				A	Autos:	15		
Peak Hour Percentage:	10%		Me	dium Tru	cks (2 A	xles):	15		
Peak Hour Volume:	1,880 vehicles		He	avy Truc	ks (3+ A	xles):	15		
Vehicle Speed:	45 mph		Vehicle	Miss					
Near/Far Lane Distance:	36 feet	ł		icleType		Dav	Evening	Night	Daily
Site Data			*01.			73.2%		18.6%	-
	0.0 feet		М	edium Tn		B2.2%		14.0%	
Barrier Height: Barrier Type (0-Wall, 1-Berm):	0.0 reet 0.0			Heavy Tr	ucks:	76.5%	4.0%	19.5%	
Centerline Dist. to Barrier:	50.0 feet			,					
Centerline Dist. to Observer:	50.0 feet		Noise S	ource Ele			eet)		
Barrier Distance to Observer:	0.0 feet			Autos					
Observer Height (Above Pad):	5.0 feet			m Trucks					
Pad Flevation:	0.0 feet		Heav	ry Trucks	: 8.0	104	Grade Ad	ljustment	: 0.0
Road Flevation:	0.0 feet		Lane Eq	uivalent	Distanc	e (in	feet)		
Road Grade:	0.0%		-	Autos	: 46.9	915			
Left View:	-90.0 degrees		Mediu	m Trucks	: 46.7	726			
Right View:	90.0 degrees		Heav	y Trucks	: 46.7	44			
FHWA Noise Model Calculation	s								
VehicleType REMEL	Traffic Flow D	istance	Finite	Road	Fresn	el	Barrier Att	ten Bei	m Atten
Autos: 68.46	0.44	0.3	1	-1.20		4.65	0.0	000	0.000
Medium Trucks: 79.45	-15.12	0.3	4	-1.20		4.87	0.0	000	0.000
Heavy Trucks: 84.25	-10.29	0.3	4	-1.20		-5.43	0.0	000	0.000
Unmitigated Noise Levels (with	out Topo and barr	rier atte	nuation)						
VehicleType Leq Peak Hou	ır Leq Day	Leq E	vening	Leq N	Vight		Ldn	C	NEL
Autos: 68	.0 65.9		62.3		61.2		68.	5	68.8
Medium Trucks: 63			54.6		55.4		63.2	_	63.4
Heavy Trucks: 73			64.3		66.5		73.7		73.8
Vehicle Noise: 74	.6 72.6		66.7		67.8		75.	1	75.3
Centerline Distance to Noise Co	ontour (in feet)								
			dBA	65 c		- (	60 dBA		dBA
	Ldn:			110 237			510		100
	CNEL:	: 1	13	24	3 524			1,128	

	FH\	WA-RD-77-108	HIGH	HWAY	NOISE P	REDICT	ION M	ODEL			
Road Nan	io: Year 2035 ne: Agua Mans nt: w/o Holly S		t				t Name: Number:		Mansa		
	SPECIFIC IN	IPUT DATA							L INPUT	S	
Highway Data					Site Cor	nditions	(Hard	= 10, S	oft = 15)		
Average Daily	Traffic (Adt):	18,519 vehicle	es					Autos:	15		
Peak Hour	Percentage:	10%			Me	edium Ti	rucks (2	Axles):	15		
Peak F	lour Volume:	1,852 vehicle	S		He	eavy Tru	icks (3+	Axles):	15		
Ve	hicle Speed:	45 mph			Vehicle	Miv					
Near/Far La	ne Distance:	48 feet				icleTyp	e	Dav	Evening	Night	Daily
Site Data							Autos:	73.2%	Ü	18.69	-
Pa	rrier Height:	0.0 feet			М	edium 7	rucks:	82.2%	3.9%	14.09	6 2.50%
Barrier Type (0-W		0.0				Heavy 7	rucks:	76.5%	4.0%	19.5%	6 7.60%
Centerline Di		52.0 feet									
Centerline Dist.	to Observer:	52.0 feet			Noise S				eet)		
Barrier Distance	to Observer:	0.0 feet				Auto		0.000			
Observer Height		5.0 feet				m Truck		2.297			
	ad Elevation:	0.0 feet			Hear	vy Truck	s: 8	3.004	Grade Ad	justmen	t: 0.0
	ad Flevation:	0.0 feet			Lane Eq	uivalen	t Dista	nce (in	feet)		
	Road Grade:	0.0%				Auto	s: 46	6.400			
	Left View:	-90.0 degre	es		Mediu	m Truck	ks: 46	5.209			
	Right View:	90.0 degre			Hear	vy Truck	rs: 46	5.228			
FHWA Noise Mod	el Calculation	ıs									
VehicleType	REMEL	Traffic Flow	Dis	stance	Finite	Road	Fres	snel	Barrier Att	en Be	erm Atten
Autos:	68.46	0.38		0.3	38	-1.20		-4.66	0.0	000	0.000
Medium Trucks:	79.45	-15.18		0.	41	-1.20		-4.87	0.0	000	0.000
Heavy Trucks:	84.25	-10.35		0.	41	-1.20		-5.41	0.0	000	0.000
Unmitigated Nois	e Levels (with	out Topo and	barri	er atte	nuation)						
VehicleType	Leq Peak Hou	ur Leq Day	/	Leq I	Evening	Leq	Night		Ldn	(	CNEL
Autos:	68	3.0	65.9		62.3		61	.2	68.	5	68.8
Medium Trucks:	63	1.5	61.8		54.6		55	.4	63.2	2	63.4
Heavy Trucks:	73	3.1	71.2		64.3		66	.5	73.	7	73.8
Vehicle Noise:	74	1.6	72.7		66.7		67	.9	75.	1	75.3
Centerline Distan	ce to Noise C	ontour (in feet	)								
				70	dBA	65	dBA	(	60 dBA	5	5 dBA
			Ldn:	1	114	2	247		531	1	,145
		C	NEL:	1	117	2	253		545	1	,174

	FH\	WA-RD-77-108	HIGHV	VAY N	OISE PI	REDICTIO	ON MO	DDEL			
	e: Agua Mans		l			Project N Job Nu					
	SPECIFIC IN	IPUT DATA							L INPUT	S	
Highway Data					Site Con	ditions (i	Hard :				
Average Daily	Traffic (Adt):	22,582 vehicle	es					Autos:			
Peak Hour	Percentage:	10%				dium Truc					
Peak H	our Volume:	2,258 vehicles	3		He	avy Truck	ıs (3+	Axles):	15		
Ve	hicle Speed:	45 mph		1	/ehicle	Mix					
Near/Far Lai	ne Distance:	82 feet		F		icleType		Day	Evening	Night	Daily
Site Data						Au	ıtos:	73.2%	8.1%	18.6%	89.90%
Rai	rier Height:	0.0 feet			M	edium Tru	icks:	82.2%	3.9%	14.0%	2.50%
Barrier Type (0-W		0.0			F	Heavy Tru	icks:	76.5%	4.0%	19.5%	7.60%
Centerline Dis	st. to Barrier:	60.0 feet		,	Voico S	ource Ele	vatio	ne (in f	innt)		
Centerline Dist.	to Observer:	60.0 feet		·	V0/36 30	Autos:		.000	eei)		
Barrier Distance	to Observer:	0.0 feet			Modiu	m Trucks:	_	.297			
Observer Height (.	Above Pad):	5.0 feet				vy Trucks:		.004	Grade Ad	liuetmant	. 0.0
Pa	ad Elevation:	0.0 feet			Heav	y ITUCKS.	0	.004	Orade Ad	justinent	. 0.0
Roa	ad Elevation:	0.0 feet		L	Lane Eq	uivalent l	Distai	nce (in	feet)		
I	Road Grade:	0.0%				Autos:	44	.091			
	Left View:	-90.0 degree	es		Mediu	m Trucks:	43	3.890			
	Right View:	90.0 degree	es		Heav	y Trucks:	43	3.909			
FHWA Noise Mode	el Calculation	s									
VehicleType	REMEL	Traffic Flow	Dista	ance	Finite	Road	Fres	nel	Barrier Att	en Ber	m Atten
Autos:	68.46	1.24		0.72		-1.20		-4.69		000	0.000
Medium Trucks:	79.45	-14.32		0.75		-1.20		-4.88		000	0.000
Heavy Trucks:	84.25	-9.49		0.74	1	-1.20		-5.34	0.0	000	0.000
Unmitigated Noise											
,,	Leq Peak Hou			Leg Ev		Leq N	_		Ldn		NEL
Autos:	69		67.1		63.5		62		69.		70.0
Medium Trucks:	64		63.0		55.8		56		64.4		64.6
Heavy Trucks: Vehicle Noise:	74 75		72.3 73.9		65.5 67.9		67 69		74.9 76.3		75.0 76.5
Centerline Distance					37.3		00		70.		70.0
centerine Distant	e to Noise Ci	omour (m reet)	<u> </u>	70 a	iBA	65 d	BA	-	60 dBA	55	dBA
	Ldn:				159 3		2		737	1,	587
		C1	IFI:	16	2	25	351 756 1,628				

	FHV	VA-RD-77-108	HIGHWA	AY NO	ISE PREDIC	CTION N	MODEL			
Scenario: Road Name: Road Segment:	Agua Mans		t				e: Agua r: 11215			
	ECIFIC IN	PUT DATA		0.0				L INPUT	S	
Highway Data				Sit	e Condition	ıs (Hard				
Average Daily Tra	. ,	18,519 vehicle	es				Autos:			
Peak Hour Pei		10%			Medium	,	,			
Peak Hour		1,852 vehicle	S		Heavy T	rucks (3	+ Axies).	15		
venici Near/Far Lane i	e Speed:	45 mph		Ve	hicle Mix					
ivear/Far Lane i	Distance:	48 feet			VehicleTy	pe	Day	Evening	Night	Daily
Site Data						Autos:	73.2%	8.1%	18.6%	89.909
Barrie	r Height:	0.0 feet			Medium	Trucks:	82.2%	3.9%	14.0%	2.509
Barrier Type (0-Wall,	1-Berm):	0.0			Heavy	Trucks	76.5%	4.0%	19.5%	7.609
Centerline Dist. t	o Barrier:	52.0 feet		No	ise Source	Flovati	one (in f	oot)		
Centerline Dist. to 0	Observer:	52.0 feet		740			0.000	eei)		
Barrier Distance to 0	Observer:	0.0 feet			Medium Tru		2.297			
Observer Height (Abo	ove Pad):	5.0 feet		- 1 '	Heavy Tru		8.004	Grade Ac	liustmeni	f: 0.0
Pad E	Elevation:	0.0 feet							,	. 0.0
Road E	Elevation:	0.0 feet		La	ne Equivale			feet)		
Roa	ad Grade:	0.0%					16.400			
L	_eft View:	-90.0 degree	es	1	Medium Tru		16.209			
Ri	ght View:	90.0 degree	es		Heavy Tru	cks: 4	16.228			
FHWA Noise Model C	Calculation			_'_						
	REMEL	Traffic Flow	Distan		Finite Road		esnel	Barrier At		rm Atter
Autos:	68.46	0.38		0.38	-1.2	-	-4.66		000	0.00
Medium Trucks:	79.45	-15.18		0.41	-1.2	-	-4.87		000	0.00
Heavy Trucks:	84.25	-10.35		0.41	-1.2	0	-5.41	0.	000	0.00
Unmitigated Noise Le	•									
	q Peak Hou			eq Ever		eq Night		Ldn		NEL
Autos:	68 63		65.9 61.8		62.3 54.6	-	1.2 5.4	68.	-	68. 63.
Medium Trucks:	63 73		61.8 71.2		64.3	-	5.4 6.5	63. 73.		73.
Heavy Trucks: Vehicle Noise:	73		71.2		66.7		6.5 7.9	73. 75.		75.
Centerline Distance t							-			. 0
Contonino Distance t	0 110/36 00	mioui (iii ieei	,	70 dB	Λ 6	55 dBA	т.	60 dBA	55	dBA
				70 UD	٦   ١					
			Ldn:	114	, ,	247		531		,145

Wednesday, October 17, 2018

	FH\	WA-RD-77-108	HIGH	WAY	NOISE PI	REDICT	ION M	ODEL			
Road Nan	rio: Year 2035 ne: Agua Mans nt: e/o Riversi	a Rd.	t			Project Job N		Agua 11215			
	SPECIFIC IN	IPUT DATA							L INPUT	S	
Highway Data					Site Con	ditions	(Hard	= 10, S	oft = 15)		
Average Daily	Traffic (Adt):	10,393 vehicle	es					Autos:	15		
Peak Hour	Percentage:	10%			Me	dium Tr	icks (2	Axles).	15		
Peak F	lour Volume:	1,039 vehicle	s		He	avy Truc	cks (3+	Axles).	15		
Ve	hicle Speed:	45 mph			Vehicle	Miss					
Near/Far La	ne Distance:	82 feet				icleType	. 1	Day	Evening	Night	Daily
Site Data					VCII		Autos:	73.2%		18.6%	,
					Medium Trucks: 82.2% 3.9% 14.0%						
	rrier Height:	0.0 feet 0.0				Heavy T		76.5%		19.5%	
Barrier Type (0-V	. ,					icavy ii	ucns.	10.07	U 4.070	13.570	7.0070
Centerline Di	ist. to Barrier:	60.0 feet 60.0 feet			Noise So	ource E	evatio	ns (in f	eet)		
Barrier Distance		0.0 feet				Auto.	s: (	0.000			
					Mediu	m Truck	s: 2	2.297			
Observer Height	(Above Pad): ad Flevation:	5.0 feet 0.0 feet			Heav	y Truck	s: 8	3.004	Grade Ad	justment	0.0
	ad Elevation: ad Flevation:	0.0 feet			Lane Eq	uivalon	Dieta	nce (in	foot)		
	aa Elevation: Road Grade:	0.0 reet 0.0%			Lane Lq	Auto		1.091	icci)		
	l eft View:	-90.0 degree			Modiu	m Truck		3.890			
						vy Truck		3.909			
	Right View:	90.0 degree	es		пеач	ry Truck	5. 4.	5.909			
HWA Noise Mod	lel Calculation	s									
VehicleType	REMEL	Traffic Flow	Dis	stance	Finite	Road	Fre	snel	Barrier Att	en Bei	m Atten
Autos:		-2.13		0.7	_	-1.20		-4.69		000	0.000
Medium Trucks:				0.7	-	-1.20		-4.88		000	0.000
Heavy Trucks:	84.25	-12.86		0.7	74	-1.20		-5.34	0.0	000	0.000
Unmitigated Nois	e Levels (with	out Topo and	barri	er atte	nuation)						
VehicleType	Leq Peak Hou	ır Leq Day	′	Leq E	vening	Leq	Night		Ldn	C	NEL
Autos:		.8	63.7		60.2		59	.0	66.3	3	66.6
Medium Trucks:	61	.3	59.7		52.4		53	.2	61.0	)	61.2
Heavy Trucks:	70	.9	69.0		62.2		64	.3	71.5	5	71.7
Vehicle Noise:	72	1.5	70.5		64.6		65	.7	73.0	)	73.1
Centerline Distan	ce to Noise C	ontour (in feet	)								
			L		dBA		dBA	-	60 dBA		dBA
			Ldn:		95 204				439		146
		CI	VEL:		97	209 451 97				71	

Wednesday, October 17, 2018 Wednesday, October 17, 2018

	FH\	WA-RD-77-108	HIGH	HWAY	NOISE P	REDICT	ION M	ODEL			
Road Nam	io: Year 2035 ne: 20th St. nt: e/o Rubido	Without Projec ux Bl.	t				t Name Number				
	SPECIFIC IN	IPUT DATA							L INPUT	S	
Highway Data					Site Cor	ditions	(Hard	= 10, S	oft = 15)		
Average Daily	Traffic (Adt):	28,156 vehicle	es					Autos	: 15		
Peak Hour	Percentage:	10%				dium Ti					
Peak H	lour Volume:	2,816 vehicle	S		He	avy Tru	icks (3+	- Axles)	: 15		
Ve	hicle Speed:	45 mph			Vehicle	Mix					
Near/Far La	ne Distance:	36 feet				icleTyp	е	Day	Evening	Night	Daily
Site Data							Autos:	73.29	Ü	18.6	
Ra	rrier Height:	0.0 feet			М	edium 7	rucks:	82.29	6 3.9%	14.0	% 2.50%
Barrier Type (0-W		0.0				Heavy 7	rucks:	76.59	4.0%	19.5	% 7.60%
Centerline Di		50.0 feet			Noise S			/!	F 4)		
Centerline Dist.	to Observer:	50.0 feet			Noise S				eet)		
Barrier Distance	to Observer:	0.0 feet				Auto		0.000			
Observer Height (	(Above Pad):	5.0 feet				m Truck		2.297	Grado Ad	liuotmo	nt: 00
Pa	ad Elevation:	0.0 feet			Heav	y Truck	(S: 8	3.004	Grade Ad	jusune	nt. 0.0
Ros	ad Elevation:	0.0 feet			Lane Eq	uivalen	t Dista	nce (in	feet)		
	Road Grade:	0.0%				Auto	s: 4	6.915			
	Left View:	-90.0 degree	es		Mediu	m Truck	(S: 4)	6.726			
	Right View:	90.0 degree	es		Heav	y Truck	(S: 4)	6.744			
FHWA Noise Mod	el Calculation	ıs									
VehicleType	REMEL	Traffic Flow	Dis	stance	Finite	Road	Fre.	snel	Barrier Att	en B	erm Atten
Autos:	68.46	2.20		0.3	31	-1.20		-4.65	0.0	000	0.000
Medium Trucks:	79.45	-13.36		0.3	34	-1.20		-4.87	0.0	000	0.000
Heavy Trucks:	84.25	-8.53		0.3	34	-1.20		-5.43	0.0	000	0.000
Unmitigated Noise	e Levels (with	out Topo and	barri	er atte	nuation)						
VehicleType	Leq Peak Hou		′	Leq E	Evening	Leq	Night		Ldn		CNEL
Autos:	69	1.8	67.6		64.1		62	.9	70.:	2	70.5
Medium Trucks:			63.6		56.3		57		65.0	-	65.1
Heavy Trucks:	74	.9	72.9		66.1		68	.2	75.	5	75.6
Vehicle Noise:	76	5.4	74.4		68.5		69	.6	76.	9	77.1
Centerline Distant	ce to Noise Co	ontour (in feet	)								
			L		dBA		dBA		60 dBA		55 dBA
			Ldn:		44		310		668		1,439
		CI	VEL:	1	48	3	318		685		1,477

Wednesday, October 17, 2018

	FH\	WA-RD-77-108	HIGH	I YAWI	NOISE PE	REDICTIO	ом мо	ODEL				
Road Nam	io: Year 2035 ne: Market St. nt: e/o Hall Av	Without Project				Project N Job Nu						
	SPECIFIC IN	IPUT DATA							L INPUT	S		
Highway Data					Site Con	ditions (i	Hard	= 10, S	oft = 15)			
Average Daily	Traffic (Adt):	33,069 vehicle	es					Autos:	15			
Peak Hour	Percentage:	10%			Me	dium Truc	cks (2	Axles):	15			
Peak H	lour Volume:	3,307 vehicles	3		He	avy Truck	ıs (3+	Axles):	15			
Ve	hicle Speed:	45 mph		ŀ	Vehicle I	Miv						
Near/Far La	ne Distance:	36 feet				icleType		Day	Evening	Night	Daily	
Site Data						A	ıtos:	73.2%	8.1%	18.6%	89.90%	
Rai	rrier Height:	0.0 feet			Me	edium Tru	icks:	82.2%	3.9%	14.0%	2.50%	
Barrier Type (0-W		0.0			F	Heavy Tru	icks:	76.5%	4.0%	19.5%	7.60%	
Centerline Dis		50.0 feet		ŀ	Maina Ca	ource Ele	votio	no (in f	0.041			
Centerline Dist.	Centerline Dist. to Observer: 50.0 feet					Autos:			eet)			
Barrier Distance	Barrier Distance to Observer: 0.0 feet					Autos: 0.000 Medium Trucks: 2.297						
Observer Height (	Above Pad):	5.0 feet									. 0.0	
Pa	ad Elevation:	0.0 feet			Heavy Trucks: 8.004 Grade Adjustment: 0.0							
Ros	ad Elevation:	0.0 feet			Lane Equivalent Distance (in feet)							
1	Road Grade:	0.0%				Autos:	46	.915				
	Left View:	-90.0 degree	es		Mediur	m Trucks:	46	.726				
	Right View:	90.0 degree	es		Heav	y Trucks:	46	5.744				
FHWA Noise Mode	el Calculation	s		1								
VehicleType	REMEL	Traffic Flow	Dis	tance	Finite	Road	Fres	nel	Barrier Att	en Ber	m Atten	
Autos:	68.46	2.89		0.3	1	-1.20		-4.65	0.0	000	0.000	
Medium Trucks:	79.45	-12.66		0.3		-1.20		-4.87		000	0.000	
Heavy Trucks:	84.25	-7.84		0.3	4	-1.20		-5.43	0.0	000	0.000	
Unmitigated Noise												
VehicleType	Leq Peak Hou	., .,		Leq E	vening	Leq N	_		Ldn		NEL	
Autos:	70		68.3		64.8		63	-	70.9	-	71.2	
Medium Trucks:	65		64.3		57.0		57		65.7		65.8	
Heavy Trucks: Vehicle Noise:	75 77		73.6 75.1		66.8 69.2		68 70		76.2 77.6		76.3 77.8	
Centerline Distant					33.2		70		77.0		77.0	
centerinie Distant	re to Moise C	omour (iii reet)	<u> </u>	70	dBA	65 d	BA	1	60 dBA	55	dBA	
	Ldn:					34	5	_	744	1,	602	
	CNEL:					164 354 763				1,644		

	FH	WA-RD-77-108	HIGHW.	AY NO	ISE PF	REDICTIO	N MOE	EL			
Scenario Road Name Road Segmen	e: 20th St.	Without Project	t			Project Na Job Nun			Mansa		
SITE S	SPECIFIC IN	IPUT DATA							L INPUT	S	
Highway Data				Si	te Con	ditions (H	lard = '	10, So	ft = 15)		
Average Daily T Peak Hour I Peak Ho	. ,	24,282 vehicle 10% 2,428 vehicles				dium Truci avy Trucks	ks (2 A	,	15 15 15		
Vel	nicle Speed:	45 mph		1/4	ehicle l	Miv					
Near/Far Lar	e Distance:	36 feet				icleType	- 1	Dav	Evening	Night	Dailv
Site Data					* 0111			73.2%	8.1%	18.6%	. ,
Par	rier Heiaht:	0.0 feet			Me	edium Truc	cks: 8	32.2%	3.9%	14.0%	2.50%
Barrier Type (0-Wa	all, 1-Berm):	0.0			F	leavy Truc	cks: 7	76.5%	4.0%	19.5%	7.60%
Centerline Dis		50.0 feet		N	oise Sc	ource Elev	ations	(in fe	et)		
Centerline Dist. t		50.0 feet				Autos:	0.0	00			
Barrier Distance t		0.0 feet			Mediur	m Trucks:	2.2	97			
Observer Height (/	,	5.0 feet			Heav	y Trucks:	8.0	04	Grade Adj	iustment	: 0.0
	d Elevation:	0.0 feet						- /! 4	41		
	d Elevation:	0.0 feet		Li	ane Eq	uivalent D			eet)		
F	Road Grade:	0.0%			1 4 E	Autos:	46.9				
	Left View: Right View:	-90.0 degree				y Trucks:	46.7 46.7				
FHWA Noise Mode	l Calculation	ıs									
VehicleType	REMEL	Traffic Flow	Distar	псе	Finite	Road	Fresne	el l	Barrier Att	en Bei	m Atten
Autos:	68.46	1.55		0.31		-1.20	-	4.65	0.0	000	0.000
Medium Trucks:	79.45			0.34		-1.20		4.87		000	0.000
Heavy Trucks:	84.25	-9.18		0.34		-1.20	-	5.43	0.0	000	0.000
Unmitigated Noise											
	Leq Peak Ho			eq Eve		Leq Ni			Ldn		NEL
Autos:	69		67.0		63.5		62.3		69.6		69.9
Medium Trucks:	64		62.9		55.7		56.5		64.3		64.5
Heavy Trucks:	74		72.3		65.5		67.6		74.8		74.9
Vehicle Noise:	75		73.8		67.8		69.0		76.2	2	76.4
Centerline Distanc	e to Noise C	ontour (in feet,	)	70 /	o  1	65 dF	. I		0 484		dBA
				70 dE				-	0 dBA		
			Ldn: VFI :	130		281 288			605 621		304
		Ci	VEL.	134		288			021	1,	338

Wednesday, October 17, 2018

	FH\	WA-RD-77-108	HIGH	YAW	NOISE PE	REDICTION	ON M	ODEL			
Road Nar	rio: Year 2035 me: Market St. ent: e/o Rivera	,	t			Project I Job Nu		: Agua I : 11215	Mansa		
	SPECIFIC IN	IPUT DATA							L INPUT	S	
Highway Data					Site Con	ditions (	Hard	= 10, Sc	oft = 15)		
Average Daily	Traffic (Adt):	41,195 vehicle	es					Autos:	15		
Peak Hou	r Percentage:	10%			Me	dium Tru	cks (2	Axles):	15		
Peak I	Hour Volume:	4,119 vehicles	3		He	avy Truci	ks (3-	- Axles):	15		
Ve	ehicle Speed:	45 mph		ŀ	Vehicle I	Mix					
Near/Far La	ane Distance:	48 feet		ŀ		icleType		Day	Evening	Night	Daily
Site Data						A	utos:	73.2%	8.1%	18.6%	89.90%
Rs	arrier Height:	0.0 feet			Me	edium Tru	icks:	82.2%	3.9%	14.0%	2.50%
Barrier Type (0-V		0.0			F	leavy Tru	icks:	76.5%	4.0%	19.5%	7.60%
	ist. to Barrier:	50.0 feet			Noise Sc	uraa Ela		no (in f	0.041		
Centerline Dist.	to Observer:	50.0 feet		ŀ	Noise Sc	Autos		0.000	eel)		
Barrier Distance	to Observer:	0.0 feet			Modium	n Trucks		2.297			
Observer Height	(Above Pad):	5.0 feet				y Trucks.		3.004	Grade Ad	liuetmant	
F	Pad Elevation:	0.0 feet		L						justinoni	0.0
Ro	ad Elevation:	0.0 feet		L	Lane Eq	uivalent			feet)		
	Road Grade:	0.0%				Autos.		4.147			
	Left View:	-90.0 degree	es			n Trucks.		3.947			
	Right View:	90.0 degree	es		Heav	y Trucks.	: 4	3.966			
FHWA Noise Mod	lel Calculation	s									
VehicleType	REMEL	Traffic Flow	Dis	tance	Finite		Fre	snel	Barrier At		m Atten
Autos.		3.85		0.7		-1.20		-4.65		000	0.000
Medium Trucks.		-11.71		0.7		-1.20		-4.87		000	0.000
Heavy Trucks.		-6.88		0.7		-1.20		-5.43	0.0	000	0.000
Unmitigated Nois											
VehicleType	Leq Peak Hou	, ,		Leq E	vening	Leq N	_		Ldn		VEL
Autos.			69.7		66.1			5.0	72.	-	72.6
Medium Trucks.	-		65.6		58.4			).2	67.	-	67.2
Heavy Trucks.			74.9		68.1			).3	77.		77.6
Vehicle Noise.			76.5		70.5		/1	.6	78.	9	79.1
Centerline Distan	ice to Noise C	ontour (in feet	)	70	10.4			1 .			
			,		dBA	65 d		(	60 dBA		dBA
			Ldn: VFI :		197 202		425 436		915		972
		2	JZ	43	b		939	2,	023		



	FH\	WA-RD-77-108	HIGH	IWAY	NOISE P	REDICT	ION MO	DEL			
Road Nam	io: Year 2035 ne: Cedar Av. nt: n/o I-10 Fw						Name: lumber:				
	SPECIFIC IN	IPUT DATA							L INPUT	s	
Highway Data					Site Cor	nditions	(Hard =	= 10, S	oft = 15)		
Average Daily	Traffic (Adt):	46,774 vehicle	es					Autos:	15		
Peak Hour	Percentage:	10%			Me	edium Tr	ucks (2	Axles):	15		
Peak H	lour Volume:	4,677 vehicle	s		He	avy Tru	cks (3+	Axles):	15		
Ve	hicle Speed:	40 mph			Vehicle	Mix					
Near/Far La	ne Distance:	48 feet				icleType		Dav	Evening	Nigh	t Daily
Site Data							Autos:	73.2%	Ü	18.6	
Rai	rrier Height:	0.0 feet			М	edium T	rucks:	82.2%	3.9%	14.0	0% 2.50%
Barrier Type (0-W	-	0.0				Heavy T	rucks:	76.5%	4.0%	19.5	7.65%
Centerline Dis	st. to Barrier:	52.0 feet			Noise S	ourco E	lovation	ne (in f	not)		
Centerline Dist.	to Observer:	52.0 feet			NOISE 3	Auto		.000	eet)		
Barrier Distance	to Observer:	0.0 feet			Modiu	m Truck		.000			
Observer Height (	Above Pad):	5.0 feet				vy Truck		.004	Grade Ad	liuetmi	ent: 0.0
Pa	ad Elevation:	0.0 feet			пеа	vy Truck	8. 0	.004	Orade Ad	jusun	m. 0.0
Roa	ad Elevation:	0.0 feet			Lane Eq	uivalen	t Distar	ice (in	feet)		
1	Road Grade:	0.0%				Auto	s: 46	.400			
	Left View:	-90.0 degre	es		Mediu	m Truck	s: 46	.209			
	Right View:	90.0 degre	es		Hear	vy Truck	s: 46	.228			
FHWA Noise Mode	el Calculation	s									
VehicleType	REMEL	Traffic Flow	Dis	tance	Finite	Road	Fres	nel	Barrier Att	en L	Berm Atten
Autos:	66.51	4.91		0.3	38	-1.20		-4.66	0.0	000	0.000
Medium Trucks:	77.72	-10.64		0.4	41	-1.20		-4.87	0.0	000	0.000
Heavy Trucks:	82.99	-5.79		0.4	41	-1.20		-5.41	0.0	000	0.000
Unmitigated Noise	e Levels (with	out Topo and	barrie	er atte	nuation)						
VehicleType	Leq Peak Hou	ır Leq Day	/	Leq E	Evening	Leq	Night		Ldn		CNEL
Autos:	70	.6	68.5		64.9		63.	8	71.	1	71.4
Medium Trucks:	66		64.6		57.4		58.	_	66.		66.2
Heavy Trucks:	76	.4	74.5		67.7		69.	8	77.	0	77.2
Vehicle Noise:	77	.7	75.8		69.8		71.	0	78.3	3	78.4
Centerline Distance	ce to Noise Co	ontour (in feet	<del>'</del> )								
		-		70	dBA	65	dBA	(	60 dBA		55 dBA
			Ldn:	1	85	3	99		859		1,851
		C	NEL:	1	90	4	09		881		1,898

Wednesday, October 17, 2018

	FHV	VA-RD-77-108 I	HIGHWAY	NOISE PI	REDICTIO	N MODEL						
	o: Year 2035 e: Cedar Av. at: s/o Slover					ame: Agua nber: 11215						
	SPECIFIC IN	IPUT DATA		0:: 0			L INPUT	s				
Highway Data				Site Con	iditions (H	ard = 10, S						
Average Daily	. ,	32,277 vehicle	S			Autos						
	Percentage:	10%				ks (2 Axles)						
	our Volume:	3,228 vehicles		He	avy Trucks	(3+ Axles)	: 15					
	hicle Speed:	40 mph		Vehicle	Mix							
Near/Far Lar	ne Distance:	48 feet		Veh	icleType	Day	Evening	Night	Daily			
Site Data					Aut	os: 73.29	6 8.1%	18.6%	89.16%			
Bar	rier Heiaht:	0.0 feet		Me	edium Truc	ks: 82.29	6 3.9%	14.0%	2.60%			
Barrier Type (0-Wa		0.0		F	Heavy Truc	ks: 76.5%	4.0%	19.5%	8.25%			
Centerline Dis	. ,	52.0 feet		Maina C	ourse Elev	otiono (in	foot)					
Centerline Dist. t	to Observer:	52.0 feet		Noise Source Elevations (in feet)  Autos: 0.000								
Barrier Distance t	Barrier Distance to Observer: 0.0 feet				Autos: 0.000 Medium Trucks: 2.297							
Observer Height (/	Observer Height (Above Pad): 5.0 feet				Heavy Trucks: 2.297 Heavy Trucks: 8.004 Grade Adjustment: 0.0							
Pa	d Elevation:	0.0 feet		,								
Roa	d Elevation:	0.0 feet		Lane Eq	uivalent D	istance (in	feet)					
F	Road Grade:	0.0%			Autos:	46.400						
	Left View:	-90.0 degree	s	Mediu	m Trucks:	46.209						
	Right View:	90.0 degree	s	Heav	y Trucks:	46.228						
FHWA Noise Mode	el Calculation	s										
VehicleType	REMEL	Traffic Flow	Distance			Fresnel	Barrier Att		m Atten			
Autos:	66.51	3.26	0.0		-1.20	-4.66		000	0.000			
Medium Trucks:	77.72	-12.09	0.4	41	-1.20	-4.87		000	0.000			
Heavy Trucks:	82.99	-7.07	0.4	41	-1.20	-5.41	0.0	000	0.000			
Unmitigated Noise												
	Leq Peak Hou			Evening	Leq Ni		Ldn		NEL			
Autos:	69		6.8	63.3		62.1	69.4		69.7			
Medium Trucks:	64		3.2	55.9		56.7	64.0	-	64.7			
Heavy Trucks: Vehicle Noise:	75 76		'3.2 '4.4	66.4 68.4		68.5 69.6	75. <sup>1</sup>		75.9 77.1			
Centerline Distanc	e to Noise Co	ontour (in feet)										
		1 1000	70	dBA	65 dB	A	60 dBA	55	dBA			
Ldn:				150 324 697 1			1,	502				
	CNEL:				154 332 714 1,			530				

	FHWA	-RD-77-108 H	IGHWAY	NOISE P	REDICTION	ON MODEL			
Road Nam	io: Year 2035 Wi ne: Cedar Av. nt: s/o I-10 Fwy.	th Alt 1				lame: Agua mber: 1121			
	SPECIFIC INP	UT DATA		0:- 0		DISE MODI		s	
Highway Data				Site Con	aitions (	Hard = 10, S			
Average Daily		9,173 vehicles				Autos			
	Percentage:	10%				cks (2 Axles)			
		917 vehicles		He	avy Truci	is (3+ Axles)	: 15		
	hicle Speed:	40 mph		Vehicle I	Mix				
Near/Far La	ne Distance:	48 feet		Veh	icleType	Day	Evening	Night	Daily
Site Data					A	itos: 73.29	6 8.1%	18.6%	89.28%
Bai	rrier Height:	0.0 feet		Me	edium Tru	icks: 82.29	6 3.9%	14.0%	2.58%
Barrier Type (0-W		0.0		F	leavy Tru	icks: 76.59	6 4.0%	19.5%	8.14%
Centerline Dis		52.0 feet		M-1 0-		vations (in	E4\		
Centerline Dist.	to Observer:	52.0 feet		Noise 30	Autos	-	eet)		
Barrier Distance	to Observer:	0.0 feet		14	Autos. n Trucks				
Observer Height (	Above Pad):	5.0 feet			т тискs. v Trucks.		Grade Ad	iuetmant	. 0.0
Pa	ad Elevation:	0.0 feet		Heav	y Trucks.	8.004	Grade Au	usunent	0.0
Roa	ad Elevation:	0.0 feet		Lane Eq	uivalent	Distance (in	feet)		
	Road Grade:	0.0%			Autos.	46.400			
	Left View:	-90.0 degrees		Mediui	m Trucks.	46.209			
	Right View:	90.0 degrees		Heav	y Trucks.	46.228			
FHWA Noise Mode				1					
VehicleType		raffic Flow	Distance		Road	Fresnel	Barrier Att		m Atten
Autos:	66.51	4.11 -11.27	0.3		-1.20 -1.20	-4.66 -4.87		000	0.000
Medium Trucks:	77.72		0.4			-4.87 -5.41		000	0.000
Heavy Trucks:	82.99	-6.29	0.4		-1.20	-5.41	0.0	000	0.000
VehicleType	Leg Peak Hour				Leg N	liodat	Ldn		VEL
Autos:	69.8	Leq Day 67		ening 64.1	Leyn	63.0	70.3		70.6
Medium Trucks:	65.7	64		56.7		57.6	65.4		65.5
Heavy Trucks:	75.9	74		67.2		69.3	76.5		76.6
Vehicle Noise:	77.2	75		69.2		70.4	77.		77.9
Centerline Distant	ce to Noise Con	tour (in feet)							

Ldn: CNEL:

Wednesday, October 17, 2018

	FH\	WA-RD-77-108	HIG	HWAY	NOISE PI	REDICTI	ON M	ODEL				
Road Nan	io: Year 2035 ne: Cedar Av. nt: s/o Santa A					Project Job N		: Agua : 11215				
SITE	SPECIFIC IN	IPUT DATA				N	OISE	MODE	L INPUT	S		
Highway Data					Site Con	ditions	(Hard	= 10, S	oft = 15)			
Average Daily	Traffic (Adt):	32,812 vehicl	es					Autos	15			
Peak Hour	Percentage:	10%			Me	dium Tru	icks (2	Axles).	15			
Peak F	lour Volume:	3,281 vehicle	s		He	avy Truc	ks (3+	- Axles).	15			
Ve	hicle Speed:	40 mph			Vehicle							
	ne Distance:	48 feet				<b>icle</b> Type	Т	Dav	Evening	Night	Doile	
Site Data					ven			73.2%	-	18.6%	Daily	
						ء edium Tı	utos:	82.2%		14.0%		
	rrier Height:	0.0 feet				eaium 11 Heavy Tr		76.5%		19.5%		
Barrier Type (0-VI		0.0			,	neavy II	ucks:	76.5%	6 4.0%	19.5%	8.40%	
Centerline Di		52.0 feet			Noise S	ource El	evatio	ns (in f	eet)			
	Centerline Dist. to Observer: 52.0 feet					Autos: 0.000						
Barrier Distance		0.0 feet			Mediu	m Trucks	: :	2.297				
Observer Height	. ,	5.0 feet			Heav	y Trucks	: 8	3.004	Grade Ad	justment	0.0	
-	ad Elevation:	0.0 feet										
	ad Elevation:	0.0 feet			Lane Eq			•	feet)			
	Road Grade:	0.0%				Autos		6.400				
	Left View:	-90.0 degre				m Trucks		6.209				
	Right View:	90.0 degre	es		Heav	y Trucks	: 4	6.228				
FHWA Noise Mod												
VehicleType	REMEL	Traffic Flow		stance		Road	Fre.	snel	Barrier Att		m Atten	
Autos:	66.51	3.33		0.3		-1.20		-4.66		000	0.000	
Medium Trucks:	77.72			0.4		-1.20		-4.87		000	0.000	
Heavy Trucks:	82.99			0.4		-1.20		-5.41	0.0	000	0.000	
Unmitigated Nois												
VehicleType	Leq Peak Hou			Leq E	vening	Leq	Vight		Ldn		NEL	
Autos:	69		66.9		63.3			2.2	69.	-	69.8	
Medium Trucks:	64	1.9	63.3		56.0		56	5.9	64.7	7	64.8	
Heavy Trucks:	75	i.3	73.3		66.5		68	3.6	75.9	9	76.0	
Vehicle Noise:	76	5.5	74.6		68.5		69	8.8	77.0	)	77.2	
Centerline Distan	ce to Noise C	ontour (in fee	t)									
			Į		dBA		dBA		60 dBA		dBA	
			Ldn:		153		30		712		533	
	Lan: CNEL:				57	338 729 1,571				571		

Wednesday, October 17, 2018

12203

	FH\	WA-RD-77-108	HIGH	HWAY	NOISE P	REDICT	ION M	ODEL			
Road Nan	rio: Year 2035 ne: Cedar Av. ent: s/o Jurupa							: Agua   : 11215	Mansa		
	SPECIFIC IN	IPUT DATA							L INPUT	S	
Highway Data					Site Cor	nditions	(Hard	= 10, S	oft = 15)		
Average Daily	Traffic (Adt):	30,172 vehicle	es					Autos:	15		
Peak Hour	Percentage:	10%				edium Tr					
Peak I	Hour Volume:	3,017 vehicle	S		He	eavy Tru	icks (3+	Axles):	15		
Ve	ehicle Speed:	50 mph			Vehicle	Mix					
Near/Far La	ne Distance:	48 feet				icleType	е	Dav	Evening	Night	Daily
Site Data							Autos:	73.2%	Ü	18.6%	_
Ra	rrier Height:	0.0 feet			M	edium T	rucks:	82.2%	3.9%	14.0%	2.61%
Barrier Type (0-V	-	0.0				Heavy T	rucks:	76.5%	4.0%	19.5%	8.43%
	ist. to Barrier:	52.0 feet									
Centerline Dist.		52.0 feet			Noise S				eet)		
Barrier Distance	to Observer:	0.0 feet				Auto		0.000			
Observer Height	(Above Pad):	5.0 feet				m Truck		2.297			
	ad Elevation:	0.0 feet			Hea	vy Truck	s: 8	3.004	Grade Ad	justment	0.0
	ad Flevation:	0.0 feet			Lane Ed	uivalen	t Dista	nce (in	feet)		
	Road Grade:	0.0%				Auto	os: 46	5.400			
	I eft View:	-90.0 degre	es		Mediu	m Truck	(S: 46	3.209			
	Right View:	90.0 degre			Hea	vy Truck	rs: 46	6.228			
FHWA Noise Mod	lel Calculation	ıs									
VehicleType	REMEL	Traffic Flow	Dis	stance	Finite	Road	Fres	snel	Barrier Att	en Ber	m Atten
Autos:	70.20	1.99		0.3	38	-1.20		-4.66	0.0	000	0.000
Medium Trucks:	81.00	-13.33		0.	41	-1.20		-4.87	0.0	000	0.000
Heavy Trucks:	85.38	-8.24		0.	41	-1.20		-5.41	0.0	000	0.000
Unmitigated Nois	e Levels (with	out Topo and	barri	er atte	nuation)						
VehicleType	Leq Peak Hou	ur Leq Day	/	Leq I	vening	Leq	Night		Ldn	C	NEL
Autos:	71	.4	69.2		65.7		64	.5	71.9	9	72.1
Medium Trucks:	66	i.9	65.2		58.0		58	.8	66.0	3	66.8
Heavy Trucks:	76	i.3	74.4		67.6		69	.7	76.	9	77.1
Vehicle Noise:	77	'.9	75.9		70.0		71	.1	78.	1	78.6
Centerline Distan	ce to Noise C	ontour (in feet	)								
				70	dBA	65	dBA	-	60 dBA	55	dBA
			Ldn:	1	89	4	804		878	1,	892
		C	NEL:	1	94	4	118		901	1,	942

	FH\	WA-RD-77-108	HIGHWAY	NOISE P	REDICTIO	ON MO	ODEL			
Road Nam	io: Year 2035 ne: Rubidoux E nt: s/o Produc	31.			Project I Job Nu					
	SPECIFIC IN	IPUT DATA						L INPUT	s	
Highway Data				Site Cor	ditions (	Hard				
Average Daily	. ,	32,838 vehicle	S				Autos:			
	Percentage:	10%		1	dium Tru					
	lour Volume:	3,284 vehicles		He	avy Truck	rs (3+	Axles):	15		
	hicle Speed:	50 mph		Vehicle	Mix					
Near/Far La	ne Distance:	48 feet		Veh	icleType		Day	Evening	Night	Daily
Site Data					A	utos:	73.2%	8.1%	18.6%	87.83%
Ra	rrier Height:	0.0 feet		М	edium Tru	icks:	82.2%	3.9%	14.0%	2.77%
Barrier Type (0-W		0.0		,	Heavy Tru	icks:	76.5%	4.0%	19.5%	9.40%
Centerline Di		59.0 feet		M-1 0	ource Ele		/! 4			
Centerline Dist.	Centerline Dist. to Observer: 59.0 feet						ns (in 1	eet)		
Barrier Distance		A desertion	Autos: m Trucks	-	2.297					
Observer Height	(Above Pad):	5.0 feet				_	3.004	Grade Ad	ii iotmon	4. 0.0
P	ad Elevation:	0.0 feet		Heat	y Trucks:	٥	3.004	Grade Ad	jusunen	<i>t.</i> 0.0
Ro	ad Elevation:	0.0 feet		Lane Eq	uivalent	Dista	nce (in	feet)		
	Road Grade:	0.0%			Autos:	54	1.129			
	Left View:	-90.0 degree	S	Mediu	m Trucks.	53	3.966			
	Right View:	90.0 degree	S	Heav	y Trucks:	53	3.982			
FHWA Noise Mod		-								
VehicleType	REMEL	Traffic Flow	Distance		Road	Fres		Barrier Att		rm Atten
Autos:	70.20	2.30	-0.		-1.20		-4.69		000	0.000
Medium Trucks:			-0.		-1.20		-4.88		000	0.000
Heavy Trucks:			-0.		-1.20		-5.35	0.0	000	0.000
Inmitigated Nois									1 -	
VehicleType Autos:	Leq Peak Hou		Leq 1	Evening 65.0	Leq N	lignt 63		Ldn 71.3	_	NEL 71.4
Medium Trucks:								66.2	_	66.4
	66		64.9 74.2	57.6 67.4		58 69		76.8		76.9
Heavy Trucks: Vehicle Noise:	77		75.6	69.7		70		78.		78.3
Centerline Distan	ce to Noise C	ontour (in feet)	1							
		,,		) dBA	65 d	BA	- (	60 dBA	55	5 dBA
		L	dn:	205	44:	2		953	2	,053
	CNEL:				211 454 977 2,			.106		

	FHW	/A-RD-77-108 HIG	1 YAWH	NOISE PR	REDICTI	ON MOI	DEL			
Road Name	o: Year 2035 V e: Rubidoux Bl ht: s/o El Rivino					Name: I umber:		Mansa		
SITE S	SPECIFIC IN	PUT DATA						L INPUT	S	
Highway Data				Site Con	ditions (	(Hard =	10, Sc	oft = 15)		
Average Daily	Traffic (Adt):	31,507 vehicles				,	Autos:	15		
Peak Hour I	Percentage:	10%		Med	dium Tru	icks (2 A	xles):	15		
Peak Ho	our Volume:	3,151 vehicles		Hea	avy Truc	ks (3+ A	xles):	15		
	nicle Speed:	50 mph	ŀ	Vehicle N	Nix					
Near/Far Lar	ne Distance:	48 feet	ı	Vehi	cleType		Day	Evening	Night	Daily
Site Data							73.2%	0	18.6%	,
Ban	rier Height:	0.0 feet		Me	edium Tr	ucks:	82.2%	3.9%	14.0%	2.91%
Barrier Type (0-Wa		0.0		H	leavy Tr	ucks:	76.5%	4.0%	19.5%	9.87%
Centerline Dis		59.0 feet	F	Noise So	urce Ele	evations	in fe	eet)		
Centerline Dist. t		59.0 feet	ı		Autos		•	,		
Barrier Distance t		0.0 feet		Mediun	n Trucks	: 2.2	97			
Observer Height (/		5.0 feet		Heav	y Trucks	: 8.0	004	Grade Ad	justmen	t: 0.0
-	d Elevation:	0.0 feet	-	Lane Equ	ii ralant	Dieten	o (in i	fo.o.4)		
	d Elevation: Road Grade:	0.0 feet		Lane Equ	Autos			eet)		
F	l eft View:	0.0%		Modium	muios n Trucks					
	Right View:	-90.0 degrees 90.0 degrees			y Trucks					
FHWA Noise Mode	- A Calculations									
VehicleType	REMEL		istance	Finite	Road	Fresn	el	Barrier Att	en Be	rm Atten
Autos:	70.20	2.10	-0.6	12	-1.20		4.69	0.0	000	0.000
Medium Trucks:	81.00	-12.67	-0.6	0	-1.20		4.88	0.0	000	0.000
Heavy Trucks:	85.38	-7.37	-0.6	0	-1.20		-5.35	0.0	000	0.000
Unmitigated Noise	Levels (witho	out Topo and barr	rier atter	nuation)						
	Leq Peak Hour			vening	Leq I			Ldn		NEL
Autos:	70.			64.8		63.6		71.0		71.2
Medium Trucks:	66.			57.6		58.4		66.3		66.4
Heavy Trucks:	76.2			67.4		69.6		76.8		76.9
Vehicle Noise:	77.0	6 75.6		69.6		70.8		78.1		78.3
Centerline Distance	e to Noise Co	ntour (in feet)		1						
			_	dBA	65 0		6	i0 dBA		i dBA
		Ldn:		05	44			951		,048
		CNEL:	2	10	45	02	975 2,100			,100

Wednesday, October 17, 2018

	FH	WA-RD-77-108	HIGH	HWAY	NOISE P	REDICT	ION MC	DEL			
Road Nan	rio: Year 2035 ne: Rubidoux E nt: s/o 20th St	31.					Name: lumber:		Mansa		
SITE	SPECIFIC IN	IPUT DATA							L INPUT	S	
Highway Data					Site Cor	ditions	(Hard =	: 10, Sc	oft = 15)		
Average Daily	Traffic (Adt):	26,165 vehicle	es					Autos:	15		
Peak Hour	Percentage:	10%			Me	dium Tr	ucks (2 .	Axles):	15		
Peak H	Hour Volume:	2,616 vehicle	S		He	avy Tru	cks (3+.	Axles):	15		
Ve	hicle Speed:	50 mph			Vehicle	Miss					
Near/Far La	ne Distance:	48 feet		ł		icleType		Day	Evening	Night	Daily
Site Data							Autos:	73.2%	-	18.6%	,
	rrier Heiaht:	0.0 feet			М	edium T		82.2%		14.0%	
Barrier Type (0-V		0.0 reet 0.0				Heavy T	rucks:	76.5%		19.5%	
	ist. to Barrier:	59.0 feet									
Centerline Dist.		59.0 feet			Noise S			_	eet)		
Barrier Distance		0.0 feet				Auto		000			
Observer Height		5.0 feet				m Truck		297			
	ad Flevation:	0.0 feet			Heav	ry Truck	s: 8.	004	Grade Adj	iustment	: 0.0
	ad Elevation: ad Flevation:	0.0 feet			Lane Eq	uivalen	t Distan	ce (in	feet)		
	Road Grade:	0.0%				Auto		129			
	Left View:	-90.0 degree	25		Mediu	m Truck	s: 53	.966			
	Right View:	90.0 degree				y Truck		.982			
FHWA Noise Mod	lel Calculation	ıs									
VehicleType	REMEL	Traffic Flow	Dis	stance	Finite	Road	Fresi	nel	Barrier Att	en Bei	m Atten
Autos:	70.20	1.36		-0.6	62	-1.20		-4.69	0.0	000	0.000
Medium Trucks:	81.00	-13.90		-0.6	60	-1.20		-4.88	0.0	000	0.000
Heavy Trucks:	85.38	-8.76		-0.6	0	-1.20		-5.35	0.0	000	0.000
Unmitigated Nois			barri	er atte	nuation)						
VehicleType	Leq Peak Ho			Leq E	vening	Leq	Night		Ldn		NEL
Autos:			67.6		64.1		62.	-	70.2	-	70.5
Medium Trucks:			63.7		56.4		57.	_	65.0		65.2
Heavy Trucks: Vehicle Noise:			72.9 74.4		66.1 68.5		68.		75.4 76.9		75.6 77.0
					00.0		00.		70.0		11.0
Centerline Distan	ce to Noise C	ontour (in feet	_	70	dBA	65	dBA		60 dBA	55	dBA
			I dn:		69		65		785		692
	Lan: CNEL:							736			
		Ci				3			550	١,	. 50

Wednesday, October 17, 2018 Wednesday, October 17, 2018



	FH	WA-RD-77-108	HIGI	HWAY	NOISE P	REDICT	ION MO	DEL			
Road Nam	io: Year 2035 ne: Rubidoux I nt: s/o 24th St	BI.					Name: lumber:		Mansa		
	SPECIFIC II	NPUT DATA							L INPUT	s	
Highway Data					Site Cor	nditions	(Hard =				
Average Daily	Traffic (Adt):	26,673 vehicle	es					Autos:			
Peak Hour	Percentage:	10%				edium Tr					
Peak H	lour Volume:	2,667 vehicle	S		He	eavy Tru	cks (3+	Axles):	15		
Ve	hicle Speed:	50 mph			Vehicle	Mix					
Near/Far La	ne Distance:	48 feet				icleType	,	Day	Evening	Nigh	t Daily
Site Data							Autos:	73.2%	8.1%	18.6	% 88.65%
Rai	rrier Height:	0.0 feet			М	edium T	rucks:	82.2%	3.9%	14.0	% 2.66%
Barrier Type (0-W	-	0.0				Heavy T	rucks:	76.5%	4.0%	19.5	% 8.69%
Centerline Dis	st. to Barrier:	59.0 feet			Noise S	ource F	levation	ıs (in fı	oet)		
Centerline Dist.	to Observer:	59.0 feet				Auto		.000	301)		
Barrier Distance	to Observer:	0.0 feet			Mediu	m Truck		297			
Observer Height (	'Above Pad):	5.0 feet				vy Truck		.004	Grade Ad	liustme	ent: 0.0
Pa	ad Elevation:	0.0 feet								,	
Ros	ad Elevation:	0.0 feet			Lane Eq				feet)		
ı	Road Grade:	0.0%				Auto		.129			
	Left View:	-90.0 degre	es			m Truck	00	.966			
	Right View:	90.0 degre	es		Hear	vy Truck	s: 53	.982			
FHWA Noise Mode	el Calculation	ıs									
VehicleType	REMEL	Traffic Flow	Di	stance	Finite	Road	Fres	nel	Barrier Att	en E	Berm Atten
Autos:	70.20			-0.		-1.20		-4.69		000	0.00
Medium Trucks:	81.00			-0.		-1.20		-4.88		000	0.00
Heavy Trucks:	85.38			-0.		-1.20		-5.35	0.0	000	0.00
Unmitigated Noise	e Levels (with	out Topo and	barri	er atte	nuation)						
VehicleType	Leq Peak Ho			Leq I	Evening		Night		Ldn		CNEL
Autos:			67.7		64.2		63.		70.3		70.
Medium Trucks:			63.8		56.5		57.	-	65.		65.
Heavy Trucks:	74		73.0		66.2		68.	3	75.	5	75.
Vehicle Noise:			74.5		68.6		69.	7	77.0	0	77.
Centerline Distant	ce to Noise C	ontour (in feet	)								
			L		dBA		dBA	1 6	60 dBA		55 dBA
			Ldn:		172	-	70		798		1,719
		C	NEL:	1	176	3	80		819		1,764

Wednesday, October 17, 2018

	FHV	/A-RD-77-108 I	HIGHWAY	NOISE PI	REDICTIO	ON MO	DDEL					
Road Nam	io: Year 2035 \ le: Rubidoux B nt: s/o 28th St.			Project Name: Agua Mansa Job Number: 11215								
	SPECIFIC IN	PUT DATA			NC	DISE	MODE	L INPUT	s			
Highway Data				Site Con	nditions (l	Hard :	= 10, S	oft = 15)				
Average Daily	Traffic (Adt):	29,671 vehicle:	8				Autos:	15				
Peak Hour	Percentage:	10%		Me	dium Truc	cks (2	Axles):	15				
Peak H	lour Volume:	2,967 vehicles		He	avy Truck	ıs (3+	Axles):	15				
	hicle Speed:	50 mph		Vehicle	Mix							
Near/Far La	ne Distance:	48 feet			icleType		Day	Evening	Night	Daily		
Site Data					AL	ıtos:	73.2%	8.1%	18.6%	88.77%		
Rai	rrier Height:	0.0 feet		M	edium Tru	icks:	82.2%	3.9%	14.0%	2.65%		
Barrier Type (0-W		0.0		F	Heavy Tru	icks:	76.5%	4.0%	19.5%	8.58%		
Centerline Dis	st. to Barrier:	59.0 feet		Noise So	ource Ele	vatio	ns (in f	eet)				
Centerline Dist.		59.0 feet			Autos:		.000	,				
Barrier Distance		0.0 feet		Mediu	m Trucks:	2	.297					
Observer Height (	,	5.0 feet		Heav	y Trucks:	8	.004	Grade Ad	justment	: 0.0		
	ad Elevation:	0.0 feet		1		Di-1-	/!	f4\				
	ad Elevation:	0.0 feet		Lane Eq	uivalent l			reet)				
1	Road Grade:	0.0%			Autos:	-	.129					
	Left View:	-90.0 degrees			m Trucks:		.966					
	Right View:	90.0 degrees	5	Heav	y Trucks:	53	.982					
FHWA Noise Mode												
VehicleType	REMEL	Traffic Flow	Distance		Road	Fres		Barrier Att		m Atten		
Autos:	70.20	1.91	-0.		-1.20		-4.69		000	0.000		
Medium Trucks:	81.00	-13.34	-0.		-1.20		-4.88		000	0.000		
Heavy Trucks:	85.38	-8.24	-0.		-1.20		-5.35	0.0	000	0.000		
Unmitigated Noise VehicleType	e Levels (with Leg Peak Hou			enuation) Evening	Leg N	liaht	_	Ldn		NEL		
Autos:	Tey reak nou	, ,	8.2	64.6	Leq N	19111 63	E	70.8		71.0		
Medium Trucks:	65.		o.2 4.2	56.9		57	-	65.6	-	65.8		
Heavy Trucks:	75.		3.4	66.6		68		75.9		76.1		
Vehicle Noise:	76.		4.9	69.0		70		77.4		77.6		
Centerline Distanc	ce to Noise Co	ntour (in feet)										
			70	) dBA	65 di	BA	-	60 dBA	55	dBA		
		L	dn:	184	395	5		852	1,	835		
		CN	EL:	188	406	ŝ		874	1,	883		

FHWA-RD-	77-108 HIGHW	AY NOISE PRE	EDICTION MOI	DEL	
Scenario: Year 2035 With Alt Road Name: Rubidoux Bl. Road Segment: s/o 26th St.	1	F	Project Name: I Job Number:		
SITE SPECIFIC INPUT D	ATA			ODEL INPUTS	
Highway Data		Site Cond	itions (Hard =	10, Soft = 15)	
Average Daily Traffic (Adt): 27,524  Peak Hour Percentage: 10%  Peak Hour Volume: 2,752 \ Vehicle Speed: 50 r	rehicles		ium Trucks (2 A vy Trucks (3+ A		
Near/Far Lane Distance: 48 f		Vehicle M			
ivear/Far Larie Distance. 46 i	eet	Vehic	. ,, .	.,	Night Daily
Site Data					18.6% 88.69%
Barrier Height: 0.0	feet				14.0% 2.66%
Barrier Type (0-Wall, 1-Berm): 0.0		He	eavy Trucks:	76.5% 4.0%	19.5% 8.65%
Centerline Dist. to Barrier: 59.0	feet	Noise Sou	rce Elevations	(in feet)	
Centerline Dist. to Observer: 59.0	feet		Autos: 0.0	, ,	
Barrier Distance to Observer: 0.0	feet	Medium			
Observer Height (Above Pad): 5.0	feet		Trucks: 8.0		stment: 0.0
	feet				
	feet	Lane Equi	valent Distanc	, ,	
Road Grade: 0.09	-		Autos: 54.		
	degrees	Medium			
Right View: 90.0	degrees	Heavy	Trucks: 53.9	982	
FHWA Noise Model Calculations		1			
VehicleType REMEL Traffic	Flow Dista	nce Finite R	load Fresn	el Barrier Atter	Berm Atten
Autos: 70.20	1.58	-0.62	-1.20	<b>-4.69</b> 0.00	0.000
Medium Trucks: 81.00	13.65	-0.60	-1.20	<b>-4.88</b> 0.00	0.000
Heavy Trucks: 85.38	-8.53	-0.60	-1.20	-5.35 0.00	0.000
Unmitigated Noise Levels (without Top	o and barrier	attenuation)			
VehicleType Leq Peak Hour L	eq Day L	eq Evening	Leq Night	Ldn	CNEL
Autos: 70.0	67.8	64.3	63.1	70.4	70.7
Medium Trucks: 65.5	63.9	56.6	57.5	65.3	65.4
Heavy Trucks: 75.0	73.1	66.3	68.4	75.7	75.8
Vehicle Noise: 76.6	74.6	68.7	69.8	77.1	77.3
Centerline Distance to Noise Contour (	in feet)				
Centerline Distance to Noise Contour (					
Centerline Distance to Noise Contour (		70 dBA	65 dBA	60 dBA	55 dBA
Centerline Distance to Noise Contour (	Ldn:	70 dBA 175	65 dBA 378	60 dBA 813	55 dBA 1,752

Wednesday, October 17, 2018

FHWA-RD-77-108 HIGH	WAY NOISE PREDICTION MODEL									
Scenario: Year 2035 With Alt 1 Road Name: Rubidoux Bl. Road Segment: s/o SR-60 Fwy.	Project Name: Agua Mansa Job Number: 11215									
SITE SPECIFIC INPUT DATA	NOISE MODEL INPUTS									
Highway Data	Site Conditions (Hard = 10, Soft = 15)									
Average Daily Traffic (Adt): 28,308 vehicles	Autos: 15									
Peak Hour Percentage: 10%	Medium Trucks (2 Axles): 15									
Peak Hour Volume: 2,831 vehicles	Heavy Trucks (3+ Axles): 15									
Vehicle Speed: 50 mph	Vehicle Mix									
Near/Far Lane Distance: 48 feet	VehicleType Day Evening Night Dai									
Site Data	Autos: 73.2% 8.1% 18.6% 89.8									
Barrier Height: 0.0 feet	Medium Trucks: 82.2% 3.9% 14.0% 2.5									
Barrier Height: 0.0 feet  Barrier Type (0-Wall, 1-Berm): 0.0	Heavy Trucks: 76.5% 4.0% 19.5% 7.6									
Centerline Dist. to Barrier: 59.0 feet	, , , , , , , , , , , , , , , , , , , ,									
Centerline Dist. to Observer: 59.0 feet	Noise Source Elevations (in feet)									
Barrier Distance to Observer: 0.0 feet	Autos: 0.000									
Observer Height (Above Pad): 5.0 feet	Medium Trucks: 2.297									
Pad Elevation: 0.0 feet	Heavy Trucks: 8.004 Grade Adjustment: 0.0									
Road Elevation: 0.0 feet	Lane Equivalent Distance (in feet)									
Road Grade: 0.0%	Autos: 54.129									
Left View: -90.0 degrees	Medium Trucks: 53.966									
Right View: 90.0 degrees	Heavy Trucks: 53.982									
FHWA Noise Model Calculations										
	ance Finite Road Fresnel Barrier Atten Berm Atte									
Autos: 70.20 1.76	-0.62 -1.20 -4.69 0.000 0.0									
Medium Trucks: 81.00 -13.80	-0.60 -1.20 -4.88 0.000 0.0									
Heavy Trucks: 85.38 -8.93	-0.60 -1.20 -5.35 0.000 0.0									
Unmitigated Noise Levels (without Topo and barrie										
	Leq Evening         Leq Night         Ldn         CNEL           64.5         63.3         70.6         7									
	56.5 57.3 65.1 6 65.9 68.0 75.3 7									
Heavy Trucks:         74.6         72.7           Vehicle Noise:         76.3         74.4	68.5 69.5 76.8 7									
veriicie ivoise: 75.3 74.4	0.00 C.00									
Onesteeling Distance to Naise Onesteen (in fact)										
Centerline Distance to Noise Contour (in feet)	70 dRA 65 dRA 60 dRA 55 dDA									
·	70 dBA 65 dBA 60 dBA 55 dBA									
Centerline Distance to Noise Contour (in feet)  Ldn:  CNFI	70 dBA         65 dBA         60 dBA         55 dBA           169         363         783         1,686           173         373         803         1,731									

	FH	WA-RD-77-108	HIGH	WAY	NOISE P	REDICT	ION M	ODEL			
Road Nan	rio: Year 2035 ne: Rubidoux I ent: s/o 34th St	BI.					t Name: lumber:	Agua I 11215	Mansa		
	SPECIFIC IN	NPUT DATA							L INPUT	S	
Highway Data					Site Cor	nditions	(Hard	= 10, S	oft = 15)		
Average Daily	Traffic (Adt):	21,033 vehicle	es					Autos:	15		
Peak Hour	r Percentage:	10%				edium Tr					
Peak I	Hour Volume:	2,103 vehicle	S		He	avy Tru	cks (3+	Axles):	15		
Ve	ehicle Speed:	50 mph		ŀ	Vehicle	Mix					
Near/Far La	ane Distance:	48 feet				icleType	9	Dav	Evening	Night	Daily
Site Data							Autos:	73.2%	8.1%	18.6%	89.80%
Ra	rrier Height:	0.0 feet			М	edium T	rucks:	82.2%	3.9%	14.0%	2.50%
Barrier Type (0-V	-	0.0				Heavy T	rucks:	76.5%	4.0%	19.5%	7.70%
	ist. to Barrier:	59.0 feet		-							
Centerline Dist.	to Observer:	59.0 feet		-	Noise S				eet)		
Barrier Distance	to Observer:	0.0 feet				Auto		0.000			
Observer Height	(Above Pad):	5.0 feet				m Truck		2.297	0		
	ad Elevation:	0.0 feet			Hear	vy Truck	:s: 8	3.004	Grade Ad	justment	0.0
Ro	ad Elevation:	0.0 feet		İ	Lane Eq	uivalen	t Dista	nce (in	feet)		
	Road Grade:	0.0%		İ		Auto	s: 54	1.129			
	Left View:	-90.0 degre	es		Mediu	m Truck	s: 53	3.966			
	Right View:	90.0 degre			Hear	vy Truck	s: 53	3.982			
FHWA Noise Mod	lel Calculation	ıs									
VehicleType	REMEL	Traffic Flow	Dis	tance	Finite	Road	Fres	snel	Barrier Att	en Ber	m Atten
Autos:	70.20	0.47		-0.6	32	-1.20		-4.69	0.0	000	0.000
Medium Trucks:	81.00	-15.09		-0.6	60	-1.20		-4.88	0.0	000	0.000
Heavy Trucks:	85.38	-10.20		-0.6	30	-1.20		-5.35	0.0	000	0.000
Unmitigated Nois	e Levels (with	out Topo and	barrie	er atte	nuation)						
VehicleType	Leq Peak Ho			Leq E	vening		Night		Ldn		NEL
Autos:	68	3.9	66.7		63.2		62	.0	69.3	3	69.6
Medium Trucks:	-		62.5		55.2		56		63.	-	64.0
Heavy Trucks:	73	3.4	71.4		64.6		66	.7	74.0	)	74.1
Vehicle Noise:	75	5.1	73.1		67.2		68	.3	75.0	6	75.7
Centerline Distan	ce to Noise C	ontour (in feet	)								
			L		dBA		dBA	(	60 dBA		dBA
			Ldn:		39	_	98		643	,	385
		C	NEL:	1	42	3	06		660	1,	422

	FHV	VA-RD-77-108	HIGHWAY	NOISE P	REDICTIO	ON MC	DDEL					
Road Nam	io: Year 2035 \ e: Rivera St. nt: n/o Market			Project Name: Agua Mansa Job Number: 11215								
	SPECIFIC IN	PUT DATA						L INPUT	S			
Highway Data				Site Cor	ditions (i	Hard :	= 10, Sc	oft = 15)				
Average Daily	Traffic (Adt):	10,214 vehicle	s				Autos:	15				
Peak Hour	Percentage:	10%		Me	dium Truc	cks (2	Axles):	15				
Peak H	our Volume:	1,021 vehicles		He	avy Truck	ıs (3+	Axles):	15				
Ve	hicle Speed:	30 mph		Vehicle	Mix							
Near/Far Lai	ne Distance:	12 feet			icleType		Day	Evening	Night	Daily		
Site Data						ıtos:	73.2%		18.6%			
Par	rier Height:	0.0 feet		М	edium Tru	icks:	82.2%	3.9%	14.0%	2.47%		
Barrier Type (0-W	'all, 1-Berm):	0.0		,	Heavy Tru	icks:	76.5%	4.0%	19.5%	7.52%		
Centerline Dis		33.0 feet		Noise S	ource Ele	vatio	ns (in fe	eet)				
Centerline Dist.		33.0 feet			Autos:	0	.000					
Barrier Distance		0.0 feet		Mediu	m Trucks:	2	.297					
Observer Height (	,	5.0 feet		Heav	y Trucks:	8	.004	Grade Ad	justment	0.0		
	ad Elevation:	0.0 feet		Long Ea	uivalent i	Diotos	/in	foot)				
	ad Elevation:	0.0 feet 0.0%		Lane Eq	Autos:		.833	ieei)				
,	Road Grade: Left View:		_	Modiu	Autos: m Trucks:		.833					
		-90.0 degree			m Trucks: /y Trucks:		.589					
	Right View:	90.0 degree	S	пеан	ry Trucks.	32	569					
FHWA Noise Mode												
VehicleType	REMEL	Traffic Flow	Distance		Road	Fres		Barrier Att		m Atten		
Autos:	61.75	-0.44	_	64	-1.20		-4.52		000	0.000		
Medium Trucks:	73.48	-16.05	_	69	-1.20		-4.86		000	0.000		
Heavy Trucks:	79.92	-11.22		69	-1.20		-5.69	0.0	000	0.000		
Unmitigated Noise					1 1	U auda d	_	1 -1-				
VehicleType Autos:	Leq Peak Hou	., .,	10.6 10.6	Evening 57.1	Leq N	ignt 55.	0	Ldn 63.2		NEL 63.5		
Medium Trucks:	58.		7.3	50.0		50.	-	58.7	-	58.8		
Heavy Trucks:	70.		i7.3 i8.2	61.4		63.		70.8		70.9		
Vehicle Noise:	71.		9.2	63.0		64.		71.7		71.9		
Centerline Distanc	ce to Noise Co	ntour (in feet)										
				) dBA	65 d	BA	6	60 dBA	55	dBA		
		L	dn:	43	92			199	4	29		
		CN	IEL:	44	95			204	4	39		

	FHV	VA-RD-77-108	HIGI	HWAY I	NOISE P	REDICT	ION M	ODEL			
Road Nam	io: Year 2035 \ ne: Cactus Av. nt: n/o El Rivin							: Agua : 11215			
	SPECIFIC IN	PUT DATA							L INPUT	s	
Highway Data					Site Cor	nditions	(Hard	= 10, S	oft = 15)		
Average Daily		7,751 vehicle	es					Autos:			
Peak Hour	Percentage:	10%						2 Axles).			
	lour Volume:	775 vehicle:	3		He	avy Tru	cks (3+	Axles).	15		
Ve	hicle Speed:	40 mph		f	Vehicle	Mix					
Near/Far La	ne Distance:	11 feet			Veh	icleType	9	Day	Evening	Night	Daily
Site Data							Autos:	73.2%	8.1%	18.6%	90.27%
Ba	rrier Heiaht:	0.0 feet			М	edium 7	rucks:	82.2%	3.9%	14.0%	2.419
Barrier Type (0-W	/all, 1-Berm):	0.0			1	Heavy T	rucks:	76.5%	4.0%	19.5%	7.329
Centerline Di	st. to Barrier:	30.0 feet		ŀ	Noise S	ource F	lovatio	ne (in f	oot)		
Centerline Dist.	to Observer:	30.0 feet		-	110/36 0	Auto		0.000	<i>cci)</i>		
Barrier Distance	to Observer:	0.0 feet			Madiu	m Truck		2.297			
Observer Height (	(Above Pad):	5.0 feet				/y Truck		8.004	Grade Ad	iustmeni	. 00
Pa	ad Elevation:	0.0 feet		L		•				,	- 0.0
Ro	ad Elevation:	0.0 feet			Lane Eq				feet)		
	Road Grade:	0.0%				Auto		9.912			
	Left View:	-90.0 degree	es		Mediu	m Truck	(S: 2	9.615			
	Right View:	90.0 degree	es		Heav	y Truck	s: 2	9.644			
FHWA Noise Mod	el Calculation:	S									
VehicleType	REMEL	Traffic Flow	Di	stance	Finite	Road	Fre	snel	Barrier Att	en Be	m Atten
Autos:	66.51	-2.88		3.2	24	-1.20		-4.49	0.0	000	0.00
Medium Trucks:	77.72	-18.62		3.3	31	-1.20		-4.86	0.0	000	0.00
Heavy Trucks:	82.99	-13.79		3.3	30	-1.20		-5.77	0.0	000	0.00
Unmitigated Nois	e Levels (with	out Topo and	barri	ier attei	nuation)						
VehicleType	Leq Peak Hou	- 1 - 7		Leq E	vening		Night		Ldn		NEL
Autos:	65.		63.5		60.0			3.8	66.2		66.
Medium Trucks:	61.	-	59.6		52.3		53		60.9	-	61.
Heavy Trucks:	71.	.3	69.4		62.6		64	1.7	71.9	9	72.
Vehicle Noise:	72	.7	70.7		64.7		65	5.9	73.2	2	73.
Centerline Distant	ce to Noise Co	ontour (in feet	)								
				70	dRA	65	dRA	1 1	60 dBA	55	dRA

Wednesday, October 17, 2018

	FH\	WA-RD-77-108	HIGI	HWAY	NOISE PI	REDICTI	ON M	ODEL						
Road Nan	io: Year 2035 ne: Riverside A nt: n/o I-10 Fw	۸v.			Project Name: Agua Mansa Job Number: 11215									
	SPECIFIC IN	IPUT DATA							L INPUT	S				
Highway Data					Site Conditions (Hard = 10, Soft = 15)									
Average Daily	Traffic (Adt):	49,977 vehicl	es					Autos:	15					
Peak Hour	Percentage:	10%			Me	dium Tru	icks (2	Axles).	15					
Peak H	lour Volume:	4,998 vehicle	s		He	avy Truc	ks (3+	Axles).	15					
Ve	hicle Speed:	40 mph			Vehicle	Miss								
Near/Far La	ne Distance:	50 feet				icleType		Dav	Evening	Night	Daily			
Site Data					****		lutos:	73.2%	-	18.6%	,			
	rrier Heiaht:	0.0 feet			М	edium Tr		82.2%		14.0%				
Barrier Type (0-W		0.0 feet			1	leavy Tr	ucks:	76.5%	4.0%	19.5%	7.67%			
Centerline Di		60.0 feet												
Centerline Dist.		60.0 feet			Noise S				eet)					
Barrier Distance		0.0 feet				Autos		0.000						
Observer Height		5.0 feet				m Trucks		2.297						
	ad Flevation:	0.0 feet			Heav	y Trucks	s: 8	3.004	Grade Ad	ljustment	: 0.0			
	ad Elevation:	0.0 feet			Lane Eq	uivalent	Dista	nce (in	feet)					
	Road Grade:	0.0%				Autos	s: 5	1.772						
	Left View:	-90.0 degre	es		Mediu	m Trucks	s: 5	4.610						
	Right View:	90.0 degre			Heav	y Trucks	s: 5	4.626						
FHWA Noise Mod	el Calculation	ıs												
VehicleType	REMEL	Traffic Flow	Di	stance		Road	Fre.	snel	Barrier Att		m Atten			
Autos:	66.51	5.20		-0.7	-	-1.20		-4.69		000	0.000			
Medium Trucks:	77.72			-0.6		-1.20		-4.88		000	0.000			
Heavy Trucks:	82.99	-5.49		-0.6	58	-1.20		-5.34	0.0	000	0.000			
Unmitigated Nois	e Levels (with	out Topo and	barri	ier atte	nuation)									
VehicleType	Leq Peak Hou	ur Leq Daj	/	Leq E	vening	Leq	Night		Ldn		NEL			
Autos:	69	0.8	67.7		64.1		63	.0	70.3	3	70.6			
Medium Trucks:	65		63.8		56.6		57		65.2	_	65.4			
Heavy Trucks:	75	5.6	73.7		66.9		69		76.2	2	76.4			
Vehicle Noise:	77	7.0	75.0		69.0		70	.2	77.	5	77.6			
Centerline Distan	ce to Noise C	ontour (in fee	:)											
	-	-			dBA		dBA		60 dBA	55	dBA			
			Ldn:		89	40			878		891			
		С	NEL:	1	94	41	18		900	1,	939			

Wednesday, October 17, 2018 Wednesday, October 17, 2018



	FH\	WA-RD-77-108	HIGHW	1 YAV	NOISE PR	REDICT	ION MC	DEL				
	o: Year 2035 e: Riverside A nt: s/o I-10 Fw	۸v.					Name: lumber:					
	SPECIFIC IN	IPUT DATA							L INPU	TS		
Highway Data					Site Con	ditions	(Hard =	: 10, S	oft = 15)			
Average Daily	Traffic (Adt):	56,179 vehicle	es					Autos	15			
Peak Hour	Percentage:	10%			Med	dium Tr	ucks (2	Axles)	15			
Peak H	our Volume:	5,618 vehicles	S		Hea	avy Tru	cks (3+ .	Axles)	: 15			
Vei	hicle Speed:	50 mph		H	Vehicle I	/liv						
Near/Far Lai	ne Distance:	50 feet		ŀ		cleType	9	Day	Evening	g Nic	aht	Daily
Site Data							Autos:	73.29	,	,		89.46%
Rar	rier Heiaht:	0.0 feet			Me	dium T	rucks:	82.29	6 3.99	6 14	.0%	2.56%
Barrier Type (0-W		0.0			H	leavy T	rucks:	76.59	6 4.09	6 19	.5%	7.98%
Centerline Dis		60.0 feet		-	M-1 0-			- /	41			
Centerline Dist.	to Observer:	60.0 feet		-	Noise So				eet)			
Barrier Distance	to Observer:	0.0 feet				Auto n Truck		000				
Observer Height (	Above Pad):	5.0 feet						297	Crada	1 divote	nonti	0.0
Pa	ad Elevation:	0.0 feet			Heav	y Truck	s: 8.	004	Grade A	Aujusu	nent.	0.0
Roa	ad Elevation:	0.0 feet			Lane Equ	ıivalen	t Distan	ce (in	feet)			
1	Road Grade:	0.0%				Auto	s: 54.	772				
	Left View:	-90.0 degree	es		Mediun	n Truck	s: 54.	610				
	Right View:	90.0 degree	es		Heav	y Truck	s: 54.	626				
FHWA Noise Mode	el Calculation	ıs										
VehicleType	REMEL	Traffic Flow	Dista	nce	Finite	Road	Fresi	nel	Barrier A	Atten	Bern	n Atten
Autos:	70.20	4.72		-0.7	0	-1.20		-4.69	(	0.000		0.000
Medium Trucks:	81.00			-0.6	-	-1.20		-4.88		0.000		0.000
Heavy Trucks:	85.38	-5.78		-0.6	8	-1.20		-5.34	(	0.000		0.000
Unmitigated Noise	Levels (with	out Topo and	barrier	atter	nuation)							
	Leq Peak Hot			Leq E	vening	Leq	Night		Ldn		CN	
Autos:	73	3.0	70.9		67.4		66.2	2	73	3.5		73.8
Medium Trucks:	68		8.66		59.5		60.3			3.1		68.3
Heavy Trucks:	77	'.7	75.8		69.0		71.	1	78	3.3		78.5
Vehicle Noise:	79	).4	77.4		71.5		72.	6	79	9.9		80.0
Centerline Distance	e to Noise C	ontour (in feet	)									
					dBA		dBA		60 dBA		55 c	
			Ldn:	_	73	-	87		1,265		2,7	
		CI	VEL:	2	80	6	03		1,299		2,7	98

	FH\	WA-RD-77-108	HIGH	A YAW	IOISE P	REDICT	ION M	ODEL						
Road Nam	io: Year 2035 ne: Riverside A nt: s/o Santa A	۸v.			Project Name: Agua Mansa Job Number: 11215									
	SPECIFIC IN	IPUT DATA			a:- a				L INPUT	s				
	Traffic (Adt): Percentage: lour Volume:	44,906 vehicl 10% 4,491 vehicle		,	Ме	edium Tr	ucks (2	Autos: Axles):	15					
	hicle Speed:	55 mph			Vehicle	Mix								
Near/Far Lai	ne Distance:	52 feet			Veh	icleType	9	Day	Evening	Night	Daily			
Site Data							Autos:	73.2%	8.1%	18.6%	89.36%			
Bar	rrier Heiaht:	0.0 feet			М	edium T	rucks:	82.2%	3.9%	14.0%	2.58%			
Barrier Type (0-W	/all, 1-Berm):	0.0				Heavy T	rucks:	76.5%	4.0%	19.5%	8.06%			
Centerline Dis	st. to Barrier:	52.0 feet		- 1	Noise S	ource E	levatio	ns (in f	eet)					
Centerline Dist.		52.0 feet				Auto		0.000	,					
Barrier Distance		0.0 feet			Mediu	m Truck		2.297						
Observer Height (	,	5.0 feet			Heavy Trucks: 8.004 Grade Adjustment: 0.0									
	ad Elevation:	0.0 feet		L.		·								
	ad Elevation:	0.0 feet		L	Lane Eq	uivalen			teet)					
I	Road Grade:	0.0%			Autos: 45.310									
	Left View:	-90.0 degre				m Truck		5.114						
	Right View:	90.0 degre	es		Hear	vy Truck	s: 4	5.133						
FHWA Noise Mode	el Calculation	ıs												
VehicleType	REMEL	Traffic Flow	Dis	stance	Finite	Road	Fres	snel	Barrier Att	en Be	rm Atten			
Autos:	71.78	3.33		0.54		-1.20		-4.66		000	0.00			
Medium Trucks:	82.40	-12.07		0.5	7	-1.20		-4.87	0.0	000	0.000			
Heavy Trucks:	86.40	-7.12		0.56	ô	-1.20		-5.41	0.0	000	0.000			
Unmitigated Noise	e Levels (with	out Topo and	barri	er atten	uation)									
VehicleType	Leq Peak Hou			Leq E			Night		Ldn	_	NEL			
Autos:	74		72.3		68.8		67		74.9	-	75.2			
Medium Trucks:	69		68.1		60.8		61	.6	69.4	1	69.6			
Heavy Trucks:	78		76.7		69.9		72		79.2		79.4			
Vehicle Noise:	80		78.4		72.7		73	.6	80.9	ð	81.			
Centerline Distanc	ce to Noise Co	ontour (in fee	t)	70	JD A	65	dD A		20 dB4		: dDA			
			I dn:	70 c			dBA 00		60 dBA		dBA			
		_	Lan: NFI:	21	-	-			1,292		,783			
		C	IVEL:	28	O	6	16		1,326	2	,857			

	FH\	VA-RD-77-108	HIGHV	VAY NO	DISE PE	REDICT	ION MO	DDEL			
	o: Year 2035 e: Riverside A t: s/o Slover	iV.					t Name: Number:				
	SPECIFIC IN	IPUT DATA							L INPUT	s	
Average Daily Peak Hour	. ,	52,223 vehicle 10%		31	Me	dium Ti	rucks (2 icks (3+	Autos: Axles):	15		
	nicle Speed:	50 mph	3	.,		•	icks (O+	Axios).	10		
Near/Far Lar	e Distance:	52 feet		V	ehicle I Vehi	icleTyp	ρ	Dav	Evening	Night	Daily
Site Data					* 0111		Autos:	73.2%		18.6%	
Bar Barrier Type (0-W	rier Height: all, 1-Berm):	0.0 feet 0.0				edium 1 Heavy 1	rucks: rucks:	82.2% 76.5%	,.	14.0% 19.5%	
Centerline Dis		52.0 feet		N	oise Sc	ource E	levatio	ns (in f	eet)		
Centerline Dist. t Barrier Distance t Observer Height (	o Observer:	52.0 feet 0.0 feet 5.0 feet 0.0 feet			Mediur	Auto	s: 0	.000 .297 .004	Grade Ad	ljustmen	t: 0.0
Roa	d Elevation:	0.0 feet		La	ane Eq	uivaler	t Distar	nce (in	feet)		
F	Road Grade: Left View: Right View:	0.0% -90.0 degre 90.0 degre			Mediur Heav	Auto n Truck y Truck	ks: 45	.310 .114 .133			
FHWA Noise Mode	l Calculation	s									
VehicleType	REMEL	Traffic Flow	Dista	ance	Finite	Road	Fres	nel	Barrier Att	ten Be	rm Atten
Autos:	70.20	4.40		0.54		-1.20		-4.66		000	0.00
Medium Trucks: Heavy Trucks:	81.00 85.38	-11.02 -6.08		0.57		-1.20 -1.20		-4.87 -5.41		000	0.000
Unmitigated Noise					otion)	1.20		0.77	0.0		0.00
	Leg Peak Hou			Leg Eve		Lea	Night		Ldn		NEL
Autos:	73		71.8	204 270	68.3	209	67.	1	74.4		74.7
Medium Trucks:	69	.3	67.7		60.4		61.	3	69.	1	69.2
Heavy Trucks:	78	.7	76.7		69.9		72.	0	79.3	3	79.4
Vehicle Noise:	80	.3	78.3		72.5		73.	5	80.8	В	81.0
Centerline Distance	e to Noise Co	ontour (in feet	:)								
			L	70 dE			dBA		60 dBA		5 dBA
		_	Ldn: NFI:	273 280			588 503		1,266 1,299		1,727 1,799
		C	VEL.	280	'	ť	103		1,299		,1 33

Wednesday, October 17, 2018

	FH\	WA-RD-77-108	HIGH	łWAY	NOISE PI	REDICT	ION M	ODEL						
Road Nan	rio: Year 2035 ne: Riverside A ent: s/o Jurupa	۸v.			Project Name: Agua Mansa Job Number: 11215									
SITE	SPECIFIC IN	IPUT DATA				N	IOISE	MODE	L INPUT	S				
Highway Data					Site Conditions (Hard = 10, Soft = 15)									
Average Daily	Traffic (Adt):	44,906 vehicle	es		Autos: 15									
Peak Hour	Percentage:	10%			Me	dium Tr	ucks (2	Axles).	15					
Peak I	Hour Volume:	4,491 vehicle	s		He	avy Truc	cks (3+	Axles).	15					
Ve	ehicle Speed:	55 mph			Vehicle Mix									
Near/Far La	ne Distance:	52 feet				icleType		Day	Evening	Night	Daily			
Site Data					Veri		Autos:	73.2%		18.6%	,			
					14	edium T		82.2%		14.0%				
	rrier Height:	0.0 feet 0.0				Heavy T		76.5%		19.5%				
Barrier Type (0-V	. ,	0.0 52.0 feet				icavy ii	uons.	10.07	U 4.070	13.570	0.0070			
Centerline Dist.	ist. to Barrier:	52.0 feet			Noise So	ource E	levatio	ns (in f	eet)					
Barrier Distance		0.0 feet				Auto.	s: (	0.000						
					Mediu	m Truck	s: 2	2.297						
Observer Height	(Above Pad): Pad Flevation:	5.0 feet 0.0 feet			Heav	y Truck	s: 8	3.004	Grade Ad	justment	0.0			
	ad Elevation: ad Flevation:	0.0 feet			Lane Eq	uivalon	t Dieta	nce (in	foot)					
Ro	Road Grade:	0.0 reet 0.0%			Lane Lq	Auto		5.310	icci)					
	Left View:				Modiu	m Truck		5.114						
		-90.0 degree				vy Truck		5.133						
	Right View:	90.0 degree	es		пеач	ry Truck	5. 4	5.133						
HWA Noise Mod	lel Calculation	s												
VehicleType	REMEL	Traffic Flow	Dis	tance		Road	Fre	snel	Barrier Att		m Atten			
Autos:		3.33		0.5		-1.20		-4.66		000	0.000			
Medium Trucks:				0.5		-1.20		-4.87		000	0.000			
Heavy Trucks:	86.40	-7.12		0.5	56	-1.20		-5.41	0.0	000	0.000			
Unmitigated Nois	e Levels (with	out Topo and	barrie	er atte	nuation)									
VehicleType	Leq Peak Hou	, ,		Leq E	vening	Leq	Night		Ldn		NEL			
Autos:			72.3		68.8		67		74.9	-	75.2			
Medium Trucks:			68.1		60.8		61		69.4	•	69.6			
Heavy Trucks:			76.7		69.9		72		79.2		79.4			
Vehicle Noise:	80	1.4	78.4		72.7		73	.6	80.9	9	81.1			
Centerline Distan	ce to Noise C	ontour (in feet	)					,						
			L		dBA		dBA		60 dBA		dBA			
			Ldn:	_	78	-	00		1,292	,	783			
		CI	VEL:	2	286	6	16		1,326	2,	857			

Wednesday, October 17, 2018

2343

	FH	WA-RD-77-108	HIGHW	VAY N	IOISE PE	REDICT	ION MO	DEL			
	io: Year 2035 e: Rancho Av nt: n/o Agua N	ı.					Name: lumber:		Mansa		
	SPECIFIC IN	NPUT DATA							L INPUT	s	
Highway Data					Site Con	ditions	(Hard =	10, Sc	oft = 15)		
Average Daily	Traffic (Adt):	23,534 vehicle	es					Autos:	15		
Peak Hour	Percentage:	10%					ucks (2 )				
Peak H	lour Volume:	2,353 vehicle	S		He	avy Tru	cks (3+ )	Axles):	15		
Ve	hicle Speed:	40 mph		H	Vehicle I	Wix					
Near/Far La	ne Distance:	52 feet		F		icleType	9	Day	Evening	Night	Daily
Site Data							Autos:	73.2%	8.1%	18.6	% 89.64%
Rai	rier Heiaht:	0.0 feet			Me	edium T	rucks:	82.2%	3.9%	14.0	% 2.54%
Barrier Type (0-W		0.0			F	leavy T	rucks:	76.5%	4.0%	19.5	% 7.82%
Centerline Dis		52.0 feet		H	Noise So	voo E	lovotion	o (in f	204)		
Centerline Dist.	to Observer:	52.0 feet		- F	worse so	Auto		000	eel)		
Barrier Distance	to Observer:	0.0 feet			1.4 m of 5 m	Auto n Truck		000 297			
Observer Height (	Above Pad):	5.0 feet				n Truck v Truck		297 004	Grade Ad	liuetma	nt: 0.0
Pa	ad Elevation:	0.0 feet			пеач	у писк	S. O.	004	Orauc Ac	njustino	n. 0.0
Roa	ad Elevation:	0.0 feet		L	Lane Eq	uivalen	t Distan	ce (in	feet)		
1	Road Grade:	0.0%				Auto	s: 45.	310			
	Left View:	-90.0 degre	es		Mediur	n Truck	s: 45.	114			
	Right View:	90.0 degre	es		Heav	y Truck	s: 45.	133			
FHWA Noise Mode	el Calculation	ıs									
VehicleType	REMEL	Traffic Flow	Dista			Road	Fresi	_	Barrier At		erm Atten
Autos:	66.51			0.5		-1.20		-4.66		000	0.000
Medium Trucks:	77.72			0.5		-1.20		-4.87		000	0.000
Heavy Trucks:	82.99	-8.68		0.5	6	-1.20		-5.41	0.	000	0.000
Unmitigated Noise	e Levels (with	out Topo and	barrier	atten	uation)						
VehicleType	Leq Peak Ho	ur Leq Day	/ L	Leq E	vening	Leq	Night		Ldn		CNEL
Autos:	67	7.8	65.6		62.1		60.9	9	68.	2	68.5
Medium Trucks:	63	3.5	61.9		54.6		55.4	1	63.	2	63.4
Heavy Trucks:	73	3.7	71.7		64.9		67.0	)	74.	3	74.4
Vehicle Noise:	75	5.0	73.0		67.0		68.2	2	75.	5	75.7
Centerline Distant	ce to Noise C	ontour (in feet	)								
					dBA		dBA	6	60 dBA		i5 dBA
			Ldn:		21	_	61		563		1,212
		C	NEL:	12	24	2	68		577		1,243

Wednesday, October 17, 2018

	FH	WA-RD-77-108	HIGH	WAY N	IOISE P	REDICT	ION MODE	L					
	o: Year 2035 e: Slover Av. at: w/o Cedar						t Name: Agu lumber: 112						
SITE S	SPECIFIC IN	NPUT DATA				- 1	NOISE MO	DEL INP	UTS				
Highway Data					Site Cor	ditions	(Hard = 10	Soft = 15	5)				
Average Daily	Traffic (Adt):	17,039 vehicl	es				Aut	os: 15					
Peak Hour	Percentage:	10%			Me	dium Ti	ucks (2 Axle	s): 15					
Peak He	our Volume:	1,704 vehicle	s		He	avy Tru	cks (3+ Axle	es): 15					
Vel	hicle Speed:	50 mph		-	Vehicle	Miv							
Near/Far Lar	ne Distance:	48 feet		F		icleTyp	e Da	y Eveni	ina Ni	ght	Daily		
Site Data							Autos: 73		-	_	90.03%		
Par	rier Heiaht:	0.0 feet			М	edium 7	rucks: 82	2% 3.9	9% 14	4.0%	2.47%		
Barrier Type (0-Wa		0.0				Heavy 7	rucks: 76	5% 4.0	0% 1	9.5%	7.50%		
Centerline Dis		52.0 feet		H	C		levations (i	f1\					
Centerline Dist. t	to Observer:	52.0 feet		Ľ,	voise S								
Barrier Distance t	to Observer:	0.0 feet			A 4 15 - 1	Auto							
Observer Height ()	Observer Height (Above Pad): 5.0 feet						Medium Trucks: 2.297  Heavy Trucks: 8.004 Grade Adjustment: 0.0						
	d Elevation:	0.0 feet			Heav	y Iruci	s: 8.004	Grade	Aajust	ment:	0.0		
Roa	d Elevation:	0.0 feet		1	Lane Eq	uivalen	t Distance	in feet)					
F	Road Grade:	0.0%				Auto	s: 46.400	)					
	Left View:	-90.0 degre	es		Mediu	m Truck	s: 46.209						
	Right View:	90.0 degre	es		Heav	y Truck	s: 46.228						
FHWA Noise Mode	el Calculation	18											
VehicleType	REMEL	Traffic Flow	Dis	tance	Finite	Road	Fresnel	Barrie	r Atten	Bern	Atten		
Autos:	70.20	-0.44		0.38	3	-1.20	-4.	56	0.000		0.000		
Medium Trucks:	81.00			0.4		-1.20	-4.		0.000		0.000		
Heavy Trucks:	85.38	-11.23		0.4	1	-1.20	-5.	41	0.000		0.000		
Unmitigated Noise	Levels (with	out Topo and	barrie	er atten	uation)								
VehicleType	Leq Peak Ho	ur Leq Da	/	Leq E	vening .	Leq	Night	Ldn		CN	EL		
Autos:		9.0	66.8		63.3		62.1		69.4		69.7		
Medium Trucks:		1.2	62.5		55.2		56.1		63.9		64.0		
Heavy Trucks:		3.4	71.4		64.6		66.7		74.0		74.1		
Vehicle Noise:	75	5.1	73.1		67.3		68.3		75.6		75.7		
Centerline Distanc	e to Noise C	ontour (in fee	t)										
			L	70 0			dBA	60 dBA		55 0			
	Ldn:				122 264 568 1,23								
		C	NEL:	12	126 271 583 1,256				56				

				IODEL		
Scenario: Year 2035 With Alt 1 Road Name: Rancho Av. Road Segment: s/o Agua Mansa Rd.			Project Name Job Numbe		lansa	
SITE SPECIFIC INPUT DA	TA				INPUTS	
Highway Data		Site Cor	nditions (Hard	l = 10, So	ft = 15)	
Average Daily Traffic (Adt): 19,060 v	ehicles			Autos:	15	
Peak Hour Percentage: 10%			dium Trucks (	/	15	
Peak Hour Volume: 1,906 ve		He	eavy Trucks (3	+ Axles):	15	
Vehicle Speed: 40 m		Vehicle	Mix			
Near/Far Lane Distance: 52 fe	et	Veh	icleType	Day	Evening I	Night Daily
Site Data			Autos:	73.2%	8.1%	18.6% 89.78%
Barrier Height: 0.0 fo	eet	М	edium Trucks:	82.2%	3.9%	14.0% 2.51%
Barrier Type (0-Wall, 1-Berm): 0.0		1	Heavy Trucks:	76.5%	4.0%	19.5% 7.71%
Centerline Dist. to Barrier: 52.0 fe	eet	Noise S	ource Elevatio	one (in fo	ot)	
Centerline Dist. to Observer: 52.0 fe	eet	WOISE S		0.000	ei)	
Barrier Distance to Observer: 0.0 fe	eet	Modiu		2.297		
Observer Height (Above Pad): 5.0 fe	eet				Grade Adiu	stment: 0,0
Pad Elevation: 0.0 fe	eet					0.0
Road Elevation: 0.0 fe		Lane Eq	uivalent Dista		eet)	
Road Grade: 0.0%				5.310		
Left View: -90.0 d				5.114		
Right View: 90.0 d	legrees	Heav	y Trucks: 4	15.133		
FHWA Noise Model Calculations						
VehicleType REMEL Traffic F					Barrier Atter	
Autos: 66.51	1.01	0.54	-1.20	-4.66	0.00	
	4.52	0.57	-1.20	-4.87	0.00	
	9.66	0.56	-1.20	-5.41	0.00	0.000
Unmitigated Noise Levels (without Topo		,		_		
		eq Evening	Leq Night		Ldn	CNEL
Autos: 66.9 Medium Trucks: 62.6	64.7 60.9	61.2 53.6	-	0.0 4.5	67.3 62.3	67.6 62.5
Heavy Trucks: 62.6	70.7	63.9	-	4.5 6.1	73.3	73.4
Vehicle Noise: 74.0	70.7	66.0		7.3	74.6	74.7
Centerline Distance to Noise Contour (in	r feet)					
The second of th	,	70 dBA	65 dBA	6	0 dBA	55 dBA
	I dn:	105	225		485	1.046

Wednesday, October 17, 2018

	FH\	WA-RD-77-108	HIGI	HWAY	NOISE P	REDICTI	ON M	ODEL			
Road Nan	rio: Year 2035 ne: Slover Av. nt: w/o Riversi							: Agua l :: 11215			
	SPECIFIC IN	IPUT DATA							L INPUT	S	
Highway Data					Site Con	ditions	(Hard	= 10, S	oft = 15)		
Average Daily	Traffic (Adt):	11,674 vehicl	es					Autos:	15		
Peak Hour	Percentage:	10%			Me	dium Tru	icks (2	2 Axles):	15		
Peak H	Hour Volume:	1,167 vehicle	S		He	avy Truc	ks (3-	Axles):	15		
Ve	hicle Speed:	50 mph			Vehicle I	Miss					
Near/Far La	ne Distance:	48 feet		-		icleType		Dav	Evening	Night	Daily
Site Data					V C//		utos:	73.2%	-	18.6%	. ,
					M	edium Tr		82.2%		14.0%	
	rrier Height:	0.0 feet 0.0				leavy Tr		76.5%		19.5%	
Barrier Type (0-V	ist. to Barrier:	52.0 feet				1001) 11	dono.	70.07	1.070	10.070	1.0170
Centerline Di		52.0 feet			Noise So	ource El	evatio	ons (in f	eet)		
Barrier Distance		0.0 feet				Autos	E.	0.000			
		5.0 feet			Mediui	n Trucks	3.	2.297			
Observer Height	(ADOVE Pad): ad Flevation:	0.0 feet			Heav	y Trucks	E.	8.004	Grade Ad	ljustment	: 0.0
	ad Elevation: ad Flevation:	0.0 feet		-	Lane Eq	uivalent	Dista	nce (in	feet)		
	Road Grade:	0.0%		1	Larro Lq	Autos		6.400	,,,,,		
	Left View:	-90.0 degre	00		Mediu	n Trucks		6.209			
	Right View:	90.0 degre				v Trucks		6.228			
	ragin view.	Jo.o degre			77047	y maone		O.LLO			
FHWA Noise Mod	lel Calculation	ıs									
VehicleType	REMEL	Traffic Flow	Di	stance		Road	Fre	snel	Barrier At		m Atten
Autos:		-2.08		0.3		-1.20		-4.66		000	0.000
Medium Trucks:				0.4		-1.20		-4.87		000	0.000
Heavy Trucks:	85.38	-12.83		0.4	11	-1.20		-5.41	0.0	000	0.000
Unmitigated Nois	e Levels (with	out Topo and	barri	er atte	nuation)						-
VehicleType	Leq Peak Hou	ur Leq Day	/	Leq E	vening	Leq I	Night		Ldn	C	NEL
Autos:	67	7.3	65.2		61.6		60	).5	67.	В	68.1
Medium Trucks:	62	2.5	60.9		53.6		54	1.5	62.	3	62.4
Heavy Trucks:	71	.8	69.8		63.0		65	5.1	72.	4	72.5
Vehicle Noise:	73	3.5	71.5		65.7		66	6.7	74.	0	74.1
Centerline Distan	ce to Noise C	ontour (in feet	)								
				70	dBA	65 (	iΒA		60 dBA	55	dBA
			Ldn:		95	20	-		443	_	955
		C	VEL:	9	98	21	1		455	9	980

	FH\	WA-RD-77-108	HIGH	WAY I	NOISE PF	REDICT	ION M	ODEL			
Road Nam	io: Year 2035 ne: Santa Ana nt: w/o Cedar	Av.				Project Job N	Name lumber				
	SPECIFIC IN	IPUT DATA							EL INPUT	S	
Highway Data					Site Con	ditions	(Hard	= 10, S	oft = 15)		
Average Daily	Traffic (Adt):	9,120 vehicle	es					Autos	: 15		
Peak Hour	Percentage:	10%			Me	dium Tr	ucks (2	Axles)	: 15		
Peak H	lour Volume:	912 vehicle	S		He	avy Tru	cks (3+	Axles)	: 15		
Ve	hicle Speed:	40 mph		ŀ	Vehicle I	liv					
Near/Far La	ne Distance:	36 feet		ŀ		cleType	,	Day	Evening	Night	Daily
Site Data							Autos:	73.29	Ü		% 89.18%
Ra	rrier Height:	0.0 feet			Me	dium T	rucks:	82.29	6 3.9%	14.0	% 2.61%
Barrier Type (0-W		0.0			F	leavy T	rucks:	76.59	4.0%	19.5	% 8.21%
Centerline Di		44.0 feet		-							
Centerline Dist.	to Observer:	44.0 feet		-	Noise Sc				reet)		
Barrier Distance	to Observer:	0.0 feet				Auto		0.000			
Observer Height (	(Above Pad):	5.0 feet				n Truck		2.297	Grade Ad	inatena	nti o o
Pa	ad Elevation:	0.0 feet			Heav	y Truck	s: 8	3.004	Grade Ad	jusuriei	nt. 0.0
Ros	ad Elevation:	0.0 feet		ſ	Lane Equ	ıivalen	t Dista	nce (in	feet)		
	Road Grade:	0.0%		ſ		Auto	s: 40	0.460			
	Left View:	-90.0 degre	es		Mediur	n Truck	s: 40	).241			
	Right View:	90.0 degre	es		Heav	y Truck	s: 4(	).262			
FHWA Noise Mod	el Calculation	ıs									
VehicleType	REMEL	Traffic Flow	Dist	tance	Finite	Road	Fres	snel	Barrier Att	en B	erm Atten
Autos:	66.51	-2.22		1.2	18	-1.20		-4.61	0.0	000	0.000
Medium Trucks:	77.72	-17.57		1.3	1	-1.20		-4.87	0.0	000	0.000
Heavy Trucks:	82.99	-12.58		1.3	1	-1.20		-5.50	0.0	000	0.000
Unmitigated Noise	e Levels (with	out Topo and	barrie	r attei	nuation)						
VehicleType	Leq Peak Hou			Leq E	vening	Leq	Night		Ldn		CNEL
Autos:	64		62.2		58.7		57		64.	-	65.1
Medium Trucks:			58.6		51.3		52	-	60.0	-	60.2
Heavy Trucks:	70		68.6		61.8		63		71.		71.3
Vehicle Noise:			69.8		63.8		65	.0	72.	3	72.5
Centerline Distant	ce to Noise Co	ontour (in feet	)					,		,	
			L		dBA		dBA		60 dBA	5	5 dBA
			Ldn:		33		35		291		627
		C	VEL:	6	64	1	38		298		642

Wednesday, October 17, 2018

	FHV	VA-RD-77-108	HIGH	HWAY N	IOISE PI	REDICT	ION M	ODEL			
Road Nam	io: Year 2035 le: Jurupa Av. nt: w/o Cedar							Agua 1			
	SPECIFIC IN	IPUT DATA							L INPUT	s	
Highway Data					Site Cor	ditions	(Hard	= 10, S	oft = 15)		
Average Daily	Traffic (Adt):	7,552 vehic	les					Autos:	15		
Peak Hour	Percentage:	10%			Me	dium Tr	ucks (2	Axles):	15		
Peak H	lour Volume:	755 vehicle	es		He	avy Tru	cks (3+	Axles):	15		
Ve	hicle Speed:	40 mph		-	Vehicle	Miv					
Near/Far La	ne Distance:	48 feet		H		icleType	,	Day	Evening	Night	Daily
Site Data							Autos:	73.2%	8.1%	18.6%	90.14%
Rai	rrier Height:	0.0 feet			М	edium T	rucks:	82.2%	3.9%	14.0%	2.44%
Barrier Type (0-W		0.0			-	Heavy T	rucks:	76.5%	4.0%	19.5%	7.42%
Centerline Dis	st. to Barrier:	52.0 feet		h.	Noise S	ource F	lovatio	ne (in f	oot)		
Centerline Dist.	to Observer:	52.0 feet		F.	10/30 0	Auto		0.000	ccij		
Barrier Distance	to Observer:	0.0 feet			Modiu	m Truck		2.297			
Observer Height (	Above Pad):	5.0 feet				vy Truck		3.004	Grade Ad	liuetmani	- 00
Pa	ad Elevation:	0.0 feet		Lane Equivalent Distance (in feet)							. 0.0
Roa	ad Elevation:	0.0 feet			Lane Eq	uivalen	t Dista	nce (in	feet)		
	Road Grade:	0.0%				Auto	s: 46	6.400			
	Left View:	-90.0 degre	es		Mediu	m Truck	s: 46	6.209			
	Right View:	90.0 degre	es		Heav	y Truck	s: 46	5.228			
FHWA Noise Mode	el Calculation	s		1							
VehicleType	REMEL	Traffic Flow	Dis	stance	Finite	Road	Fres	snel	Barrier At	en Bei	rm Atten
Autos:	66.51	-3.00		0.38	3	-1.20		-4.66	0.	000	0.000
Medium Trucks:	77.72	-18.67		0.4	1	-1.20		-4.87	0.	000	0.000
Heavy Trucks:	82.99	-13.84		0.4	1	-1.20		-5.41	0.	000	0.000
Unmitigated Noise											
VehicleType	Leq Peak Hou		_	Leq E		Leq	Night		Ldn		NEL
Autos:	62		60.6		57.0		55		63.	_	63.4
Medium Trucks:	58		56.6		49.3		50		58.		58.1
Heavy Trucks: Vehicle Noise:	68		66.4 67.8		59.6 61.8		61 63		69. 70.		69.1 70.4
		••			01.0		00		70.	_	, 0.
Centerline Distant	ce to Noise Co	ontour (in fee	t)	70 0	iBA	65	dBA	Т (	60 dBA	55	dBA
			Ldn:	5			16		251		540
			NFI:		5				257		554

	FHV	VA-RD-77-108	HIGHWA	ΥN	OISE PR	EDICT	ION M	ODEL			
Road Nam	o: Year 2035 \ e: Santa Ana / nt: w/o Riversio	Av.						: Agua N : 11215	Mansa		
	SPECIFIC IN	PUT DATA		L					L INPUT	5	
Highway Data				S	ite Con	ditions	(Hard				
Average Daily	. ,	5,154 vehicle	es .					Autos:	15		
	Percentage:	10%						Axles):	15		
	our Volume:	515 vehicles	3		Hea	avy Tru	cks (3+	Axles):	15		
	hicle Speed:	40 mph		ν	ehicle N	/lix					
Near/Far Lai	ne Distance:	36 feet			Vehi	cleType	9	Day	Evening	Night	Daily
Site Data							Autos:	73.2%	8.1%	18.6%	90.00%
Rar	rier Heiaht:	0.0 feet			Me	dium T	rucks:	82.2%	3.9%	14.0%	2.47%
Barrier Type (0-W		0.0			H	leavy T	rucks:	76.5%	4.0%	19.5%	7.52%
Centerline Dis		44.0 feet		-	·- · 0-		· · · · · · · · · · · · · · · · · · ·	(! 6	4)		
Centerline Dist.	to Observer:	44.0 feet		N	loise So			_ •	eet)		
Barrier Distance	to Observer:	0.0 feet				Auto		0.000			
Observer Height (	Above Pad):	5.0 feet			Mediun			2.297 3.004	Grade Ad	uetmont	
Pa	ad Elevation:	0.0 feet			Heav	y Truck	S: 0	3.004	Grade Auj	usunent	0.0
Roa	ad Elevation:	0.0 feet		L	ane Equ	ıivalen	t Dista	nce (in	feet)		
F	Road Grade:	0.0%				Auto	s: 4	0.460			
	Left View:	-90.0 degree	es		Mediun	n Truck	s: 4	0.241			
	Right View:	90.0 degree	es		Heav	y Truck	s: 4	0.262			
FHWA Noise Mode											
VehicleType	REMEL	Traffic Flow	Distanc	_	Finite		Fre		Barrier Att		m Atten
Autos:	66.51	-4.66		1.28		-1.20		-4.61	0.0		0.000
Medium Trucks:	77.72	-20.27		1.31		-1.20		-4.87	0.0		0.000
Heavy Trucks:	82.99	-15.44		1.31		-1.20		-5.50	0.0	00	0.000
Unmitigated Noise											
	Leq Peak Hou	-, -,		<sub>I</sub> Ev	ening	Leq	Night		Ldn		VEL
Autos:	61.		59.8		56.3		55		62.4		62.7
Medium Trucks:	57.		55.9		48.6		49		57.3		57.4
Heavy Trucks:	67.		65.7		58.9		61		68.3		68.4
Vehicle Noise:	69.	-	67.0		61.0		62	2	69.5	,	69.7
Centerline Distance	e to Noise Co	ntour (in feet)	)								

Wednesday, October 17, 2018

	FH\	WA-RD-77-108	HIGH	HWAY	NOISE PE	REDICT	ION M	ODEL			
Road Nam	io: Year 2035 ne: El Rivino R nt: e/o Cedar i	d.						: Agua I : 11215			
SITE	SPECIFIC IN	IPUT DATA							L INPUT	S	
Highway Data					Site Con	ditions	(Hard	= 10, S	oft = 15)		
Average Daily	Traffic (Adt):	13,009 vehicl	es					Autos:	15		
Peak Hour	Percentage:	10%			Me	dium Tru	icks (2	Axles):	15		
Peak H	lour Volume:	1,301 vehicle	s		He	avy Truc	cks (3+	- Axles):	15		
Ve	hicle Speed:	45 mph			Vehicle I	Miv					
Near/Far La	ne Distance:	36 feet				icleType		Dav	Evening	Night	Daily
Site Data							Autos:	73.2%		18.6%	,
Po-	rrier Heiaht:	0.0 feet			Me	edium Ti	rucks:	82.2%	3.9%	14.0%	
Barrier Type (0-W		0.0 reet			F	leavy Ti	ucks:	76.5%	4.0%	19.5%	7.85%
Centerline Di		44.0 feet									
Centerline Dist.		44.0 feet			Noise So			_ •	eet)		
Barrier Distance		0.0 feet				Auto		0.000			
Observer Height		5.0 feet				m Truck		2.297			
	ad Flevation:	0.0 feet			Heav	y Truck	s: 8	3.004	Grade Ad	ljustment	: 0.0
	ad Elevation:	0.0 feet			Lane Eq	uivalent	Dista	nce (in	feet)		
	Road Grade:	0.0%				Auto	s: 4	0.460			
	Left View:	-90.0 degre	es		Mediui	m Truck	s: 4	0.241			
	Right View:	90.0 degre			Heav	y Truck:	s: 4	0.262			
FHWA Noise Mod	el Calculation	ıs									
VehicleType	REMEL	Traffic Flow	Dis	stance		Road	Fre.	snel	Barrier At		m Atten
Autos:	68.46	-1.16		1.2		-1.20		-4.61		000	0.000
Medium Trucks:				1.3		-1.20		-4.87		000	0.000
Heavy Trucks:	84.25	-11.75		1.3	31	-1.20		-5.50	0.0	000	0.000
Unmitigated Nois	e Levels (with	out Topo and	barri	er atte	nuation)						
VehicleType	Leq Peak Hou	ur Leq Day	/	Leq E	vening	Leq	Night		Ldn	C	NEL
Autos:	67		65.2		61.7		60		67.	-	68.1
Medium Trucks:	62		61.0		53.8		54		62.		62.6
Heavy Trucks:	72	2.6	70.7		63.9			5.0	73.:		73.3
Vehicle Noise:	74	l.1	72.1		66.2		67	.3	74.	6	74.8
Centerline Distan	ce to Noise C	ontour (in feet	)								
			L		dBA		dBA	(	60 dBA		dBA
			Ldn:		39		92		413		91
		C	NEL:	!	91	19	97		424	9	114

Wednesday, October 17, 2018

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	FH\	WA-RD-77-108	HIGH	HWAY	NOISE P	REDICT	ION M	DDEL			
Road Nam	io: Year 2035 ne: El Rivino R nt: e/o Cactus	d.					t Name: lumber:				
	SPECIFIC IN	IPUT DATA							L INPUT	S	
Highway Data					Site Cor	nditions	(Hard:	= 10, S	oft = 15)		
Average Daily	Traffic (Adt):	8,305 vehicle	es					Autos:			
Peak Hour	Percentage:	10%			Me	edium Tr	ucks (2	Axles):	15		
Peak H	lour Volume:	831 vehicle	S		He	eavy Tru	cks (3+	Axles):	15		
Ve	hicle Speed:	45 mph			Vehicle	Mix					
Near/Far La	ne Distance:	36 feet				icleType	9	Dav	Evening	Nigh	t Daily
Site Data							Autos:	73.2%	-		% 87.09
Ra	rrier Height:	0.0 feet			М	edium T	rucks:	82.2%	3.9%	14.0	% 2.83
Barrier Type (0-W		0.0				Heavy T	rucks:	76.5%	4.0%	19.5	% 10.08
Centerline Di		44.0 feet			M-1 0		·	/! 4	41		
Centerline Dist.	to Observer:	44.0 feet			Noise S	Auto		.000	eet)		
Barrier Distance	to Observer:	0.0 feet			A 4 45 -	Auto m Truck		.000			
Observer Height (	Above Pad):	5.0 feet							Grade Ad	livotmo	nt 00
Pa	ad Elevation:	0.0 feet			Hea	vy Truck	is: 8	.004	Grade Ad	jusurie	in. 0.0
Ros	ad Elevation:	0.0 feet			Lane Eq	uivalen	t Distai	nce (in	feet)		
	Road Grade:	0.0%				Auto	s: 40	.460			
	Left View:	-90.0 degre	es		Mediu	m Truck	s: 40	.241			
	Right View:	90.0 degre	es		Hear	vy Truck	s: 40	.262			
FHWA Noise Mod	el Calculation	ıs									
VehicleType	REMEL	Traffic Flow	Dis	stance	Finite	Road	Fres	nel	Barrier At	en E	Berm Atter
Autos:	68.46	-3.24		1.:		-1.20		-4.61		000	0.00
Medium Trucks:	79.45	-18.13		1.3		-1.20		-4.87		000	0.00
Heavy Trucks:	84.25	-12.61		1.3	31	-1.20		-5.50	0.	000	0.00
Unmitigated Noise	e Levels (with	out Topo and	barri	er atte	nuation)						
VehicleType	Leq Peak Hou			Leq I	Evening		Night		Ldn		CNEL
Autos:	65		63.1		59.6		58		65.		66
Medium Trucks:	61		59.8		52.5		53	-	61.		61
Heavy Trucks:	71		69.8		63.0		65.		72.	_	72
Vehicle Noise:	73	3.0	71.0		64.9		66	2	73.	5	73
Centerline Distant	ce to Noise C	ontour (in feet	)								
			L		dBA		dBA	1	60 dBA		55 dBA
			Ldn:		75		62		348		750
		C	NEL:		77	1	66		357		769

	FHV	VA-RD-77-108	HIGH	WAY N	IOISE PE	REDICTIO	ON M	DDEL			
Road Nam	io: Year 2035 ie: Agua Mans nt: e/o 20th St	a Rd.				Project N Job Nu					
	SPECIFIC IN	IPUT DATA			0:- 0				L INPUT	s	
Highway Data  Average Daily	Traffic (Adt):	19,634 vehicle	es	- 1	Site Con	ditions (I	Hard	= <b>10, S</b> Autos:			
Peak Hour	Percentage:	10%			Me	dium Truc	cks (2	Axles):	15		
Peak H	our Volume:	1,963 vehicles	S		He	avy Truck	ıs (3+	Axles):	15		
Ve	hicle Speed:	45 mph		-	Vehicle I	Mix					
Near/Far Lai	ne Distance:	36 feet		H		icleType		Day	Evening	Night	Daily
Site Data						AL	ıtos:	73.2%	8.1%	18.6%	89.08%
Rai	rier Heiaht:	0.0 feet			Me	edium Tru	icks:	82.2%	3.9%	14.0%	2.62%
Barrier Type (0-W		0.0			F	Heavy Tru	icks:	76.5%	4.0%	19.5%	8.319
Centerline Dis	st. to Barrier:	50.0 feet		-	Maisa Sa	ourco Elo	vatio	ne (in f	innt)		
Centerline Dist.	to Observer:	50.0 feet		· F	Noise Source Elevations (in feet)  Autos: 0.000						
Barrier Distance	to Observer:	0.0 feet			Medium Trucks: 2.297						
Observer Height (	Above Pad):	5.0 feet				vy Trucks:		.004	Grade Ad	liustment	0.0
Pa	ad Elevation:	0.0 feet		L						juouriorie	. 0.0
Roa	ad Elevation:	0.0 feet			Lane Eq	uivalent l			feet)		
I	Road Grade:	0.0%				Autos:		3.915			
	Left View:	-90.0 degree				m Trucks:		.726			
	Right View:	90.0 degree	es		Heav	y Trucks:	46	5.744			
FHWA Noise Mode	el Calculation	-		-							
VehicleType	REMEL	Traffic Flow	Dist	ance		Road	Fres		Barrier Att		m Atten
Autos:	68.46	0.59		0.3		-1.20		-4.65		000	0.00
Medium Trucks:	79.45	-14.73		0.3	•	-1.20		-4.87		000	0.00
Heavy Trucks:	84.25	-9.71		0.3		-1.20		-5.43	0.0	000	0.00
Unmitigated Noise											NFI
VehicleType Autos:	Leq Peak Hou		66.0	Leq E	ening 62.5	Leq N	ignt 61	^	Ldn 68.6	-	NEL 68.9
Medium Trucks:	63		62.2		54.9		55		63.6		63.8
Heavy Trucks:	73		02.2 71.7		64.9		67		74.3	-	74.4
Vehicle Noise:	75	-	73.1		67.2		68		74.5	-	75.
Centerline Distanc	e to Noise Co	ontour (in feet	)								
		(		70 c	IBA	65 di	ВА	-	60 dBA	55	dBA
			Ldn:	11	8	255	5		549	1,	183
	CNEL:					121 261 563 1,2				213	

	FHV	/A-RD-77-108 H	lIGH	WAY N	IOISE P	REDICT	ION MO	DEL			
Road Nan	rio: Year 2035 \ ne: El Rivino Ro nt: e/o Hall Av.						Name: lumber:				
	SPECIFIC IN	PUT DATA			04- 0				L INPUT	S	
Highway Data					Site Cor	aitions	•		oft = 15)		
Average Daily	Traffic (Adt):	5,202 vehicles	5					Autos:			
	Percentage:	10%				dium Tru		,			
Peak H	Hour Volume:	520 vehicles			He	avy Truc	cks (3+ i	Axles):	15		
Ve	ehicle Speed:	45 mph		-	Vehicle	Mix					
Near/Far La	ne Distance:	36 feet				icleType	,	Day	Evening	Night	Daily
Site Data						-	Autos:	73.2%	8.1%	18.6%	92.48%
Ba	rrier Heiaht:	0.0 feet			М	edium Ti	rucks:	82.2%	3.9%	14.0%	1.86%
Barrier Type (0-V		0.0				Heavy Ti	rucks:	76.5%	4.0%	19.5%	5.66%
	ist. to Barrier:	44.0 feet		-							
Centerline Dist.	to Observer:	44.0 feet		-	Noise S	ource El			eet)		
Barrier Distance	to Observer:	0.0 feet				Auto		000			
Observer Height	(Above Pad):	5.0 feet				m Truck		297	0		
P	ad Elevation:	0.0 feet			Heal	y Truck	s: 8.	004	Grade Ad	usunem	. 0.0
Ro	ad Elevation:	0.0 feet			Lane Eq	uivalent	t Distan	ce (in	feet)		
	Road Grade:	0.0%				Auto	s: 40.	460			
	Left View:	-90.0 degrees	,		Mediu	m Truck	s: 40.	241			
	Right View:	90.0 degrees			Heav	y Truck	s: 40.	262			
FHWA Noise Mod	lel Calculations	5									
VehicleType	REMEL	Traffic Flow	Dis	tance	Finite	Road	Fresi	nel	Barrier Att	en Ber	m Atten
Autos:	68.46	-5.02		1.2	3	-1.20		-4.61	0.0	000	0.000
Medium Trucks:	79.45	-21.98		1.3	1	-1.20		-4.87	0.0	000	0.000
Heavy Trucks:	84.25	-17.15		1.3	1	-1.20		-5.50	0.0	000	0.000
Unmitigated Nois	e Levels (with	out Topo and b	arrie	er atten	uation)						
VehicleType	Leq Peak Hou	r Leq Day		Leg E	vening	Leq	Night		Ldn	C	NEL
Autos:	63.	5 6	1.4		57.8		56.7	7	64.0	)	64.3
Medium Trucks:			5.9		48.7		49.	5	57.3		57.5
Heavy Trucks:			5.3		58.5		60.6	-	67.8		68.0
Vehicle Noise:			7.1		61.4		62.3	3	69.6	3	69.8
Centerline Distan	ce to Noise Co	ntour (in feet)	_	70	-ID4	0=	-10.4		00 -ID4		-/D.4
			L	700	dBA	65	dBA	_ (	60 dBA	55	dBA

Wednesday, October 17, 2018

	FH	WA-RD-77-108	HIGH	HWAY	NOISE PI	REDICTION	ON M	ODEL			
Road Nan	rio: Year 2035 ne: Agua Mans nt: w/o Brown	sa Rd.				Project I Job Nu		: Agua I : 11215			
	SPECIFIC IN	IPUT DATA							L INPUT	S	
Highway Data					Site Con	ditions (	Hard	= 10, S	oft = 15)		
Average Daily	Traffic (Adt):	19,504 vehicl	es					Autos:	15		
Peak Hour	Percentage:	10%			Me	dium Tru	cks (2	2 Axles):	15		
Peak F	lour Volume:	1,950 vehicle	S		He	avy Truc	ks (3+	+ Axles):	15		
Ve	ehicle Speed:	45 mph			Vehicle	Miv					
Near/Far La	ne Distance:	36 feet				icleType	П	Dav	Evening	Night	Daily
Site Data							utos:	73.2%	-	18.6%	
Pa	rrier Height:	0.0 feet			М	edium Tri	ucks:	82.2%	3.9%	14.0%	2.64%
Barrier Type (0-V		0.0			- 1	leavy Tri	ucks:	76.5%	4.0%	19.5%	8.36%
	ist. to Barrier:	50.0 feet									
Centerline Dist.	to Observer:	50.0 feet			Noise S				eet)		
Barrier Distance	to Observer:	0.0 feet				Autos		0.000			
Observer Height	(Above Pad):	5.0 feet				m Trucks		2.297			
	ad Flevation:	0.0 feet			Heav	y Trucks	: 1	8.004	Grade Ad	ijustment	0.0
Ro	ad Elevation:	0.0 feet			Lane Eq	uivalent	Dista	nce (in	feet)		
	Road Grade:	0.0%				Autos	: 4	6.915			
	Left View:	-90.0 degre	es		Mediu	m Trucks	: 4	6.726			
	Right View:	90.0 degre	es		Heav	y Trucks	: 4	6.744			
FHWA Noise Mod	lel Calculation	ıs									
VehicleType	REMEL	Traffic Flow	Dis	stance	Finite	Road	Fre	snel	Barrier At	ten Ber	m Atten
Autos:		0.56		0.3	31	-1.20		-4.65	0.0	000	0.000
Medium Trucks:	79.45	-14.73		0.3	34	-1.20		-4.87	0.0	000	0.000
Heavy Trucks:	84.25	-9.71		0.3	34	-1.20		-5.43	0.0	000	0.000
Unmitigated Nois	e Levels (with	out Topo and	barri	er atte	nuation)						
VehicleType	Leq Peak Ho	ur Leq Day	′	Leq E	vening	Leq N	Vight		Ldn	C	VEL
Autos:	68	3.1	66.0		62.5		61	1.3	68.	6	68.9
Medium Trucks:	63	3.9	62.2		54.9		55	5.8	63.	6	63.8
Heavy Trucks:	73	3.7	71.7		64.9		67	7.0	74.:	3	74.4
Vehicle Noise:	75	5.1	73.1		67.1		68	3.3	75.	6	75.8
Centerline Distan	ce to Noise C	ontour (in feet	)								
				70	dBA	65 c	IBA		60 dBA	55	dBA
			Ldn:	1	18	25	-		548	1,	181
		C	NEL:	1	21	26	1		562	1,	212

Wednesday, October 17, 2018 Wednesday, October 17, 2018



	FH\	WA-RD-77-108	HIGH	WAY	NOISE P	REDICT	ION MC	DEL			
Road Nan	rio: Year 2035 ne: Agua Mans ent: w/o Holly S	a Rd.					t Name: lumber:				
	SPECIFIC IN	IPUT DATA							L INPUT	s	
Highway Data					Site Cor	nditions	(Hard =	= 10, S	oft = 15)		
Average Daily	Traffic (Adt):	19,155 vehicle	es					Autos:	15		
Peak Hour	Percentage:	10%			Me	edium Tr	ucks (2	Axles):	15		
Peak F	Hour Volume:	1,916 vehicle	S		He	eavy Tru	cks (3+	Axles):	15		
Ve	ehicle Speed:	45 mph		1	Vehicle	Mix					
Near/Far La	ane Distance:	48 feet		ł		icleType	9	Dav	Evening	Night	Daily
Site Data							Autos:	73.2%		18.69	-
D-	rrier Height:	0.0 feet			М	edium T	rucks:	82.2%	3.9%	14.09	6 2.65%
Barrier Type (0-V	-	0.0				Heavy T	rucks:	76.5%	4.0%	19.59	6 8.40%
	ist. to Barrier:	52.0 feet		-							
Centerline Dist.	to Observer:	52.0 feet		-	Noise S				eet)		
Barrier Distance	to Observer:	0.0 feet				Auto		.000			
Observer Height	(Above Pad):	5.0 feet				m Truck		.297	Crada Ad	i interna	4 0 0
	ad Elevation:	0.0 feet			Hear	vy Truck	s: 8	.004	Grade Ad	ustmer	nt: 0.0
Ro	ad Elevation:	0.0 feet		Ī	Lane Eq	uivalen	t Distar	ce (in	feet)		
	Road Grade:	0.0%		ĺ		Auto	s: 46	.400			
	Left View:	-90.0 degre	es		Mediu	m Truck	s: 46	.209			
	Right View:	90.0 degre	es		Hear	vy Truck	s: 46	.228			
FHWA Noise Mod	lel Calculation	s									
VehicleType	REMEL	Traffic Flow	Dis	tance		Road	Fres		Barrier Att		erm Atten
Autos:		0.48		0.3		-1.20		-4.66		000	0.000
Medium Trucks:		-14.79		0.4		-1.20		-4.87		000	0.000
Heavy Trucks:	84.25	-9.77		0.4	11	-1.20		-5.41	0.0	000	0.000
Unmitigated Nois	e Levels (with	out Topo and	barrie	er atte	nuation)						
VehicleType	Leq Peak Hou			Leq E	vening		Night		Ldn		CNEL
Autos:			66.0		62.4		61.		68.6		68.9
Medium Trucks:			62.2		55.0		55.	-	63.6		63.8
Heavy Trucks:			71.7		64.9		67.		74.3		74.4
Vehicle Noise:		• •	73.1		67.1		68.	3	75.6	3	75.8
Centerline Distan	ce to Noise Co	ontour (in feet	)								
			L		dBA		dBA		60 dBA	_	5 dBA
			Ldn:		23	_	65		571		1,231
		C	NEL:	1	26	2	72		586		1,262

	FH\	VA-RD-77-108	HIGHWA	Y NOISE	PREDICTION	ON MO	DDEL							
Road Nam	io: Year 2035 e: Agua Mans nt: e/o El Rivin	a Rd.			Project I Job Nu		Agua 11215							
	SPECIFIC IN	IPUT DATA						L INPUT	S					
Highway Data				Site C	onditions (	Hard	= 10, S	oft = 15)						
Average Daily	Traffic (Adt):	24,491 vehicle	:S				Autos:							
Peak Hour	Percentage:	10%		1	∕ledium Tru									
Peak H	our Volume:	2,449 vehicles	3	F	leavy Truck	ks (3+	Axles):	15						
Ve	hicle Speed:	45 mph		Vehicl	e Mix									
Near/Far Lai	ne Distance:	82 feet		Ve	ehicleType		Day	Evening	Night	Daily				
Site Data					A	utos:	73.2%	8.1%	18.6%	88.58%				
Bar	rier Height:	0.0 feet			Medium Tru	icks:	82.2%	3.9%	14.0%	2.68%				
Barrier Type (0-W		0.0			Heavy Tru	icks:	76.5%	4.0%	19.5%	8.74%				
Centerline Dis	st. to Barrier:	60.0 feet		Noise Source Elevations (in feet)										
Centerline Dist.	Centerline Dist. to Observer: 60.0 feet Barrier Distance to Observer: 0.0 feet					Autos: 0.000								
Barrier Distance		Mod	Autos: 0.000 Medium Trucks: 2.297											
Observer Height (.	Above Pad):	5.0 feet				_	.004	Grade An	liuetmant	. 0.0				
Pa	ad Elevation:	0.0 feet		,										
Roa	ad Elevation:	0.0 feet		Lane Equivalent Distance (in feet)										
I	Road Grade:	0.0%			Autos:	44	.091							
	Left View:	-90.0 degree	es.		ium Trucks.		3.890							
	Right View:	90.0 degree	:S	He	avy Trucks:	43	3.909							
FHWA Noise Mode	el Calculation	s		-1										
VehicleType	REMEL	Traffic Flow	Distanc		te Road	Fres		Barrier Att		m Atten				
Autos:	68.46	1.53		0.72	-1.20		-4.69		000	0.00				
Medium Trucks:	79.45	-13.66		0.75	-1.20		-4.88		000	0.000				
Heavy Trucks:	84.25	-8.53		0.74	-1.20		-5.34	0.0	000	0.000				
Unmitigated Noise									1					
,,	Leq Peak Hou			q Evening	Leq N	_		Ldn		NEL				
Autos:	69		67.4	63		62		70.0	-	70.3				
Medium Trucks:	65		33.7	56		57		65.		65.2				
Heavy Trucks: Vehicle Noise:	75 76		73.3 74.7	66 68		68 69		75.9 77.1		76.0 77.3				
Centerline Distanc							-							
como mie bistane	,	mou. (m reet)		70 dBA	65 d	BA	-	60 dBA	55	dBA				
Ldn:				180	38	7		833	1,	795				
	CNEL:					397 854 1,841								

	FH\	WA-RD-77-108	HIGHWA	Y NOI	SE PREDICT	TION MO	DEL			
Road Nam	o: Year 2035 e: Agua Mans nt: e/o Holly Si	sa Rd.				t Name: I Number:		ansa		
SITE	SPECIFIC IN	IPUT DATA				NOISE N	ODEL	INPUTS		
Highway Data				Sit	e Conditions	(Hard =	10, Sof	t = 15)		
Peak H	Traffic (Adt): Percentage: our Volume: hicle Speed:	18,707 vehicle 10% 1,871 vehicle 45 mph		Vo	Medium Ti Heavy Tru hicle Mix	rucks (2 A		15 15 15		
Near/Far Lar	ne Distance:	48 feet		Ve	VehicleTyp	۵	Dav I	Evening 1	Vight Daily	
Site Data  Barrier Type (0-W)	rier Height:	0.0 feet				Autos: rucks:	73.2% 82.2% 76.5%	8.1% 3.9%	18.6% 89.34% 14.0% 2.59% 19.5% 8.06%	
Centerline Dis		52.0 feet			ise Source E					
Roa	to Observer:	es es	Lai	Auto Medium Truci Heavy Truci ne Equivaler Auto Medium Truci Heavy Truci	os: 0.0 ks: 2.2 ks: 8.0 <b>nt Distanc</b> os: 46.4 ks: 46.4	000 297 004 C ce (in fe 400 209	Grade Adjus	stment: 0.0		
FHWA Noise Mode	el Calculation	s								
VehicleType	REMEL	Traffic Flow	Distan	се	Finite Road	Fresn	el B	arrier Atten	Berm Atten	
Autos: Medium Trucks: Heavy Trucks:	68.46 79.45 84.25	0.39 -14.98 -10.05		0.38 0.41 0.41	-1.20 -1.20 -1.20		-4.66 -4.87 -5.41	0.00 0.00 0.00	0.000	
Unmitigated Noise	Levels (with	out Topo and	barrier a	ttenua	tion)					
VehicleType	Leq Peak Hou	ır Leq Day	' Le	q Ever	ning Lea	Night	L	Ldn	CNEL	
Autos:	68	.0	65.9		62.4	61.2		68.5	68.8	
Medium Trucks:	63		62.0		54.8	55.6		63.4	63.6	
Heavy Trucks:	73		71.5		64.7	66.8		74.0	74.1	
Vehicle Noise:	74	.9	72.9		66.9	68.1		75.4	75.5	
Centerline Distance	e to Noise Co	ontour (in feet	)							
				70 dB/		dBA		dBA	55 dBA	
	Ldn:					,			1,187	
		Ci	VEL:	122	2	262	5	565	1,217	

Wednesday, October 17, 2018

	FHV	VA-RD-77-108	HIGHWA'	Y NOISE P	REDICTI	ON MO	DEL			
	: Year 2035 : Agua Mans : e/o Riversio	a Rd.			Project of Job No	Name: ımber:		Mansa		
	PECIFIC IN	IPUT DATA						L INPUT	S	
Highway Data				Site Cor	nditions (	Hard =	10, S	oft = 15)		
Average Daily T	raffic (Adt):	11,035 vehicle	es				Autos:	15		
Peak Hour F	ercentage:	10%		Me	dium Tru	cks (2 /	Axles):	15		
Peak Ho	ur Volume:	1,103 vehicles	3	He	avy Truc	ks (3+ /	Axles):	15		
Veh	icle Speed:	45 mph		Vehicle	Mile					
Near/Far Land	e Distance:	82 feet			icleType		Dav	Evening	Night	Dailv
Site Data				1011		utos:	73.2%	-	18.6%	. ,
Pare	ier Heiaht:	0.0 feet		М	edium Tr	ucks:	82.2%	3.9%	14.0%	2.59%
Barrier Type (0-Wa		0.0 reet			Heavy Tr	ucks:	76.5%	4.0%	19.5%	8.25%
Centerline Dist	. ,	60.0 feet								
Centerline Dist. to	Observer:	60.0 feet		Noise S	ource Ele			eet)		
Barrier Distance to	Observer:	0.0 feet			Autos		000			
Observer Height (A	bove Pad):	5.0 feet			m Trucks		297			
	Elevation:	0.0 feet		Heav	y Trucks	: 8.	004	Grade Ad	justmeni	: 0.0
Road	Elevation:	0.0 feet		Lane Eq	uivalent	Distan	ce (in	feet)		
R	oad Grade:	0.0%			Autos	: 44.	091			
	Left View:	-90.0 degree	s	Mediu	m Trucks	: 43.	890			
	Right View:	90.0 degree		Heav	y Trucks	: 43.	909			
FHWA Noise Model	Calculation									
VehicleType	REMEL	Traffic Flow	Distanc		Road	Fresr		Barrier Att		m Atten
Autos:	68.46	-1.91	(	).72	-1.20		-4.69	0.0	000	0.000
Medium Trucks:	79.45	-17.28	(	).75	-1.20		-4.88	0.0	000	0.000
Heavy Trucks:	84.25	-12.24	(	).74	-1.20		-5.34	0.0	000	0.000
Inmitigated Noise	Levels (with	out Topo and	barrier at	tenuation)						
VehicleType L	.eq Peak Hou	ır Leq Day	Leq	Evening	Leq I	Vight		Ldn	С	NEL
Autos:	66	.1 (	63.9	60.4		59.2	2	66.5	5	66.8
Medium Trucks:	61	.7	30.1	52.8		53.6	3	61.5	5	61.6
Heavy Trucks:	71	.6 6	69.6	62.8		64.9	9	72.2	2	72.3
Vehicle Noise:	73	.0	71.0	65.0		66.2	2	73.5	5	73.7
Centerline Distance	to Noise Co	ontour (in feet)	)							
		· · · · · ·	7	70 dBA	65 d	IBA .	-	60 dBA	55	dBA
Ldn:				103 221 105 227				476	- 4	005
			Lan:	103	22	1		476	1,	025

Wednesday, October 17, 2018 Wednesday, October 17, 2018



	FH	WA-RD-77-108	HIGHW	/AY N	IOISE PE	REDICT	ION MO	DEL			
	io: Year 2035 e: 20th St. nt: e/o Rubido						Name: lumber:		Mansa		
	SPECIFIC IN	NPUT DATA							L INPUT	S	
Highway Data					Site Con	ditions	(Hard =	10, Sc	oft = 15)		
Average Daily	Traffic (Adt):	30,877 vehicle	es					Autos:	15		
Peak Hour	Percentage:	10%			Me	dium Tr	ucks (2 i	Axles):	15		
Peak H	lour Volume:	3,088 vehicle	s		He	avy Tru	cks (3+ )	Axles):	15		
Ve	hicle Speed:	45 mph		-	Vehicle I	Mix					
Near/Far La	ne Distance:	36 feet				cleType		Day	Evening	Night	Daily
Site Data							Autos:	73.2%	-	18.69	-
Rai	rier Heiaht:	0.0 feet			Me	edium T	rucks:	82.2%	3.9%	14.09	6 2.67%
Barrier Type (0-W		0.0			F	leavy T	rucks:	76.5%	4.0%	19.59	8.70%
Centerline Dis		50.0 feet		- 1	M-! 0-			- /! #	41		
Centerline Dist.	to Observer:	50.0 feet		- 1	Noise So				eet)		
Barrier Distance	to Observer:	0.0 feet				Auto		000			
Observer Height (	Above Pad):	5.0 feet				n Truck		297	Crada An	livotmov	4 00
Pa	ad Elevation:	0.0 feet			Heav	y Truck	s: 8.	004	Grade Ad	jusuner	ii. 0.0
Roa	ad Elevation:	0.0 feet		1	Lane Eq	uivalen	t Distan	ce (in i	feet)		
	Road Grade:	0.0%				Auto	s: 46.	915			
	Left View:	-90.0 degre	es		Mediui	n Truck	s: 46.	726			
	Right View:	90.0 degre	es		Heav	y Truck	s: 46.	744			
FHWA Noise Mode	el Calculation	IS									
VehicleType	REMEL	Traffic Flow	Dista		Finite		Fresi		Barrier Att	_	erm Atten
Autos:	68.46			0.3		-1.20		-4.65		000	0.000
Medium Trucks:	79.45			0.3		-1.20		-4.87		000	0.000
Heavy Trucks:	84.25	-7.55		0.34	4	-1.20		-5.43	0.0	000	0.000
Unmitigated Noise	e Levels (with	out Topo and	barrier	atten	uation)						
VehicleType	Leq Peak Ho	ur Leq Day	/ L	.eq E	vening	Leq	Night		Ldn	(	CNEL
Autos:	70	).1	68.0		64.4		63.3	3	70.0	6	70.9
Medium Trucks:	65	5.9	64.3		57.0		57.8	3	65.0	6	65.8
Heavy Trucks:	75	5.8	73.9		67.1		69.2	2	76.	4	76.6
Vehicle Noise:	77	7.2	75.2		69.2		70.4	1	77.	7	77.9
Centerline Distance	ce to Noise C	ontour (in feet	)								
		-		70 c	dBA	65	dBA	6	60 dBA	5	5 dBA
			Ldn:	16	64	-	52		759	1	,636
		C	VEL:	16	88	3	61		779	1	,677

	FH	WA-RD-77-108	HIGH	WAY N	OISE P	REDICT	TION MODEL							
	o: Year 2035 e: Market St. at: e/o Hall Av						t Name: Agu Number: 112							
SITE S	SPECIFIC IN	NPUT DATA				- 1	NOISE MOD	EL INPUT	S					
Highway Data					Site Cor	nditions	(Hard = 10,	Soft = 15)						
	Traffic (Adt): Percentage: our Volume:	36,336 vehicl 10% 3,634 vehicle					Auto rucks (2 Axles icks (3+ Axles	s): 15						
Vel	hicle Speed:	45 mph		-			-	-						
Near/Far Lar	ne Distance:	36 feet		P	Vehicle Vot	<b>IVIIX</b> nicleTyp	e Day	Evening	Nigh	nt Daily				
Site Data				$\rightarrow$	ver		Autos: 73.2		18.6					
					Μ	edium 7								
Barrier Type (0-Wa	rier Height:	0.0 feet 0.0				Heavy 7								
Centerline Dis		50.0 feet												
Centerline Dist. t		50.0 feet		1	Voise S		levations (in	feet)						
	Barrier Distance to Observer: 0.0 feet						Autos: 0.000							
	Distance to Observer: 0.0 feet Distance to Observer: 5.0 feet						Medium Trucks: 2.297							
	d Elevation:	0.0 feet			Heavy Trucks: 8.004 Grade Adjustment: 0.0									
	d Elevation:	0.0 feet		1	Lane Eq	uivalen	t Distance (i	n feet)						
	Road Grade:	0.0%				Auto								
	Left View:	-90.0 degre	es		Mediu	m Truck								
	Right View:	90.0 degre			Hear	vy Truck	s: 46.744							
FHWA Noise Mode	el Calculation	18												
VehicleType	REMEL	Traffic Flow	Dis	stance	Finite	Road	Fresnel	Barrier At	ten L	Berm Atten				
Autos:	68.46	3.23		0.31	ľ	-1.20	-4.6	5 0.	000	0.000				
Medium Trucks:	79.45	-11.90		0.34	1	-1.20	-4.8	7 0.	000	0.000				
Heavy Trucks:	84.25	-6.73		0.34	1	-1.20	-5.4	3 0.	000	0.000				
Unmitigated Noise	Levels (with	out Topo and	barrie	er atten	uation)									
VehicleType	Leq Peak Ho	ur Leq Daj	/	Leq E	ening/	Leq	Night	Ldn		CNEL				
Autos:			68.7		65.1		64.0	71.		71.6				
Medium Trucks:			65.0		57.8		58.6	66.		66.6				
Heavy Trucks:			74.7		67.9		70.0	77.		77.4				
Vehicle Noise:	78	3.0	76.0		70.0		71.2	78.	5	78.7				
Centerline Distanc	e to Noise C	ontour (in fee	)	70	/D.4	-	-ID 4	CO -/D4		EE -IDA				
			L	70 c			dBA	60 dBA		55 dBA				
		Ldn: CNEL:			-			1,847						
		C	vEL:	18	19	4	MA	879	9 1,894					

	FH\	WA-RD-77-108	HIGHW	VAY NO	ISE PF	REDICT	TION MO	DDEL			
Scenari Road Name Road Segmen							t Name: Number:				
	SPECIFIC IN	IPUT DATA							L INPUT	s	
Average Daily Peak Hour Peak He	. ,	27,549 vehicl 10% 2,755 vehicle		3	Me	dium Ti	rucks (2 icks (3+	Autos: Axles).	15		
	nicle Speed:	45 mph		V	ehicle l	Wix					
Near/Far Lar	e Distance:	36 feet			Vehi	icleTyp	е	Day	Evening	Night	Daily
Site Data							Autos:	73.2%	8.1%	18.6%	6 87.89%
Barrier Type (0-W	rier Height:	0.0 feet				edium 1 Heavy 1	rucks: rucks:	82.2% 76.5%	,.	14.0% 19.5%	
Centerline Dis		50.0 feet		A/	oioo Ce	E	levatio	no (in f	0.041		
Centerline Dist. t	o Observer:	50.0 feet		/4	DISE SC	Auto		.000	eet)		
Barrier Distance t	o Observer:	0.0 feet			Modium	m Truck		.000			
Observer Height (	Above Pad):	5.0 feet				v Truck		.004	Grade Ad	liustmen	t: 0.0
Pa	d Elevation:	0.0 feet				,				,	0.0
Roa	d Elevation:	0.0 feet		Li	ne Eq		t Dista		feet)		
F	Road Grade:	0.0%				Auto		.915			
	Left View: Right View:	-90.0 degre 90.0 degre				n Truck v Truck		i.726 i.744			
FHWA Noise Mode						-					
VehicleType	RFMFI	Traffic Flow	Dista	nnce	Finito	Road	Fres	nol	Barrier Att	ton Ro	rm Atten
Autos:	68.46	2.00	Dioto	0.31	7 111110	-1.20	7.700	-4.65		000	0.00
Medium Trucks:	79.45	-13.00		0.34		-1.20		-4.87	0.0	000	0.00
Heavy Trucks:	84.25	-7.74		0.34		-1.20		-5.43	0.0	000	0.00
Unmitigated Noise	Levels (with	out Topo and	barrier	attenu	ation)						
VehicleType	Leq Peak Hou	ır Leq Day	/ L	Leq Eve	ening	Leq	Night		Ldn	C	CNEL
Autos:	69		67.4		63.9		62		70.0	-	70.
Medium Trucks:	65		63.9		56.7		57		65.3		65.
Heavy Trucks:	75		73.7		66.9		69		76.3		76.
Vehicle Noise:	76		75.0		68.9		70	.2	77.	5	77.6
Centerline Distanc	e to Noise C	ontour (in feet	)	70 dE	o	65	dBA		60 dBA		5 dBA
			Ldn:	70 at			339		730		.572
		0	Lan: NFI:	161			339 347		730		,572
		C	v.L.	101			,1		140	'	,011

	FH	WA-RD-77-108	HIGH	HWAY	NOISE PI	REDICTI	ON M	ODEL						
Road Nar	rio: Year 2035 ne: Market St. ent: e/o Rivera					Project I Job No		: Agua l : 11215	Mansa					
	SPECIFIC IN	NPUT DATA							L INPUT	S				
Highway Data					Site Con	ditions (	Hard	= 10, S	oft = 15)					
Average Daily	Traffic (Adt):	44,357 vehicle	es					Autos:	15					
Peak Hour	r Percentage:	10%			Me	dium Tru	icks (2	Axles):	15					
Peak I	Hour Volume:	4,436 vehicle	S		He	avy Truc	ks (3+	- Axles):	15					
Ve	ehicle Speed:	45 mph			Vehicle	Miv								
Near/Far La	ane Distance:	48 feet				icleType	П	Dav	Evening	Night	Daily			
Site Data					****		utos:	73.2%	-	18.6%	,			
	arrier Height:	0.0 feet			М	edium Tr	ucks:	82.2%	3.9%	14.0%				
Barrier Type (0-V		0.0 reet			- 1	leavy Tr	ucks:	76.5%	4.0%	19.5%	8.69%			
	ist to Barrier:	50.0 feet												
	Centerline Dist. to Observer: 50.0 feet					Noise Source Elevations (in feet)								
	Barrier Distance to Observer: 0.0 feet						Autos: 0.000							
Observer Height		5.0 feet				m Trucks		2.297						
	Pad Flevation:	0.0 feet			Heav	y Trucks		3.004	Grade Ad	ljustment	: 0.0			
Ro	ad Flevation:	0.0 feet			Lane Equivalent Distance (in feet)									
	Road Grade:	0.0%				Autos	: 4	4.147						
	Left View:	-90.0 degree	es		Mediu	m Trucks	: 4	3.947						
	Right View:	90.0 degree	es		Heav	y Trucks	: 4	3.966						
FHWA Noise Mod	del Calculation	ıs												
VehicleType	REMEL	Traffic Flow	Dis	stance	Finite	Road	Fre	snel	Barrier Att	ten Ber	m Atten			
Autos:				0.7	71	-1.20		-4.65	0.0	000	0.000			
Medium Trucks:	79.45	-11.09		0.7	74	-1.20		-4.87	0.0	000	0.000			
Heavy Trucks:	84.25	-5.98		0.7	73	-1.20		-5.43	0.0	000	0.000			
Unmitigated Nois	e Levels (with	out Topo and	barri	er atte	nuation)									
VehicleType	Leq Peak Ho	ur Leq Day	′	Leq E	vening	Leq I	Vight		Ldn	C	NEL			
Autos:	72	2.1	69.9		66.4		65	5.2	72.	5	72.8			
Medium Trucks:	67	7.9	66.3		59.0		59	8.0	67.	6	67.8			
Heavy Trucks:	77	7.8	75.9		69.1		71	.2	78.	4	78.5			
Vehicle Noise:	79	9.2	77.2		71.2		72	2.4	79.	7	79.9			
Centerline Distan	ice to Noise C	ontour (in feet	)											
				70	dBA	65 c	IBA	(	60 dBA	55	dBA			
	Ldn:					477			1,028	,	215			
	Ldn: CNEL:					48	19		1,054	2,	271			

Wednesday, October 17, 2018

2318

	FHW	A-RD-77-108	HIGH	WAY I	NOISE P	REDICT	ION MO	DEL			
Road Nam	io: Year 2035 W ne: Cedar Av. nt: n/o I-10 Fwy.						Name: . lumber:				
	SPECIFIC INF	UT DATA							L INPUT	s	
Highway Data					Site Cor	ditions	(Hard =	10, S	oft = 15)		
Average Daily	Traffic (Adt): 4	6,774 vehicle	es					Autos.	15		
Peak Hour	Percentage:	10%			Me	dium Tr	ucks (2 A	Axles).	: 15		
Peak H	lour Volume: 4	1,677 vehicles	s		He	avy Tru	cks (3+ A	Axles).	15		
Ve	hicle Speed:	40 mph		-	Vehicle	Mix					
Near/Far La	ne Distance:	48 feet		f		icleType	9	Dav	Evening	Night	Daily
Site Data								73.29	-	18.69	
Ra	rrier Height:	0.0 feet			М	edium T	rucks:	82.29	6 3.9%	14.09	% 2.50%
Barrier Type (0-W	-	0.0			1	Heavy T	rucks:	76.5%	4.0%	19.59	% 7.65%
Centerline Di		52.0 feet		-							
Centerline Dist.	to Observer:	52.0 feet		ŀ	Noise S				eet)		
Barrier Distance	to Observer:	0.0 feet				Auto		000			
Observer Height (	(Above Pad):	5.0 feet				m Truck		297	Crada Ad	iuotmo	o4: 0.0
	ad Elevation:	0.0 feet			Heav	y Truck	s: 8.0	004	Grade Ad	ustmei	nt: 0.0
Roa	ad Elevation:	0.0 feet			Lane Eq	uivalen	t Distan	ce (in	feet)		
	Road Grade:	0.0%				Auto	s: 46.	400			
	Left View:	-90.0 degree	es		Mediu	m Truck	s: 46.	209			
	Right View:	90.0 degree	es		Heav	y Truck	s: 46.	228			
FHWA Noise Mod	el Calculations										
VehicleType	REMEL	Traffic Flow	Dis	stance	Finite	Road	Fresn	iel	Barrier Att	en B	erm Atten
Autos:	66.51	4.91		0.3	88	-1.20		-4.66	0.0	000	0.000
Medium Trucks:	77.72	-10.64		0.4	11	-1.20		-4.87	0.0	000	0.000
Heavy Trucks:	82.99	-5.79		0.4	11	-1.20		-5.41	0.0	000	0.000
Unmitigated Noise	e Levels (witho	ut Topo and	barrie	er atte	nuation)						
VehicleType	Leq Peak Hour	Leq Day	′	Leq E	vening	Leq	Night		Ldn	(	CNEL
Autos:	70.6	6	68.5		64.9		63.8	3	71.1		71.4
Medium Trucks:	66.3		64.6		57.4		58.2		66.0		66.2
Heavy Trucks:	76.4		74.5		67.7		69.8		77.0		77.2
Vehicle Noise:	77.7		75.8		69.8		71.0	)	78.3	3	78.4
Centerline Distant	ce to Noise Cor	ntour (in feet	)								
			L		dBA		dBA		60 dBA		5 dBA
			Ldn:		85	-	99		859		1,851
		CI	VEL:	1	90	4	09		881		1,898

Thursday, October 18, 2018

	FHV	VA-RD-77-108	HIG	HWAY	NOISE P	REDICT	ION M	ODEL						
Road Nam	io: Year 2035 ve: Cedar Av. nt: s/o Slover A							Agua 1						
	SPECIFIC IN	IPUT DATA							L INPUT	s				
Highway Data					Site Cor	ditions	(Hard	= 10, S	oft = 15)					
Average Daily	Traffic (Adt):	32,277 vehicl	es					Autos:	15					
Peak Hour	Percentage:	10%			Me	dium Tr	ucks (2	Axles):	15					
Peak H	our Volume:	3,228 vehicle	s		He	avy Tru	cks (3+	Axles):	15					
Ve	hicle Speed:	40 mph		ŀ	Vehicle	Miv								
Near/Far Lai	ne Distance:	48 feet				icleType	)	Day	Evening	Night	Daily			
Site Data							Autos:	73.2%	8.1%	18.6%	89.16%			
Rat	rier Height:	0.0 feet			М	edium T	rucks:	82.2%	3.9%	14.0%	2.60%			
Barrier Type (0-W		0.0			1	Heavy T	rucks:	76.5%	4.0%	19.5%	8.25%			
Centerline Dis	st. to Barrier:	52.0 feet		ŀ	Noisa S	ource F	lovatio	ne (in f	oot)					
Centerline Dist.	Centerline Dist. to Observer: 52.0 feet Barrier Distance to Observer: 0.0 feet						Noise Source Elevations (in feet)  Autos: 0.000							
Barrier Distance	to Observer:			Medium Trucks: 2.297										
Observer Height (.	Observer Height (Above Pad): 5.0 feet					Heavy Trucks: 2.297  Heavy Trucks: 8.004 Grade Adjustment: 0.								
Pa	ad Elevation:	0.0 feet			,									
Roa	ad Elevation:	0.0 feet			Lane Eq	uivalen	t Dista	nce (in	feet)					
I	Road Grade:	0.0%				Auto	s: 46	6.400						
	Left View:	-90.0 degre	es			m Truck		3.209						
	Right View:	90.0 degre	es		Heav	y Truck	s: 46	5.228						
FHWA Noise Mode	el Calculation	s		1										
VehicleType	REMEL	Traffic Flow	Di	stance	Finite	Road	Fres	snel	Barrier Att	en Ber	m Atten			
Autos:	66.51	3.26		0.3		-1.20		-4.66		000	0.000			
Medium Trucks:	77.72	-12.09		0.4		-1.20		-4.87		000	0.000			
Heavy Trucks:	82.99	-7.07		0.4	11	-1.20		-5.41	0.0	000	0.000			
Unmitigated Noise														
VehicleType	Leq Peak Hou			Leq E	vening		Night		Ldn		NEL			
Autos:	69		66.8		63.3		62		69.4		69.7			
Medium Trucks:		63.2		55.9		56		64.0		64.7				
Heavy Trucks: Vehicle Noise:	75 76		73.2 74.4		66.4 68.4		68 69		75. <sup>1</sup>		75.9 77.1			
Centerline Distance		• •			00.1					-				
Contenine Distant	e to Moise CC	moui (iii leei	,	70	dBA	65	dBA		60 dBA	55	dBA			
Ldn:				1	150 324 6		697	1,	502					
	CNEL:					154 332 714 1,53			F00					

F	HWA-RD-77-10	8 HIGH	MAY N	IOISE PF	REDICTIO	N MC	DEL			
Scenario: Year 203 Road Name: Cedar A Road Segment: s/o I-10	/.				Project N Job Nui			lansa		
SITE SPECIFIC	INPUT DATA							INPUT	S	
Highway Data				Site Con	ditions (F	lard =	= 10, So	ft = 15)		
Average Daily Traffic (Adt) Peak Hour Percentage Peak Hour Volume	10%				dium Truc avy Truck		,	15 15 15		
Vehicle Speed	40 mph			Vehicle I	et					
Near/Far Lane Distance	48 feet		-		cleType		Dav	Evening	Night	Daily
Site Data				Verii		itos:	73.2%	8.1%	18.6%	
Barrier Height	0.0 feet			Me	edium Tru		82.2%	3.9%	14.0%	
Barrier Type (0-Wall, 1-Berm)	0.0			F	łeavy Tru	cks:	76.5%	4.0%	19.5%	8.149
Centerline Dist. to Barrier				Noise So	urce Ele	vatior	ıs (in fe	et)		
Centerline Dist. to Observer	02.0 1001				Autos:	0.	.000			
Barrier Distance to Observer	0.0 1001			Mediur	n Trucks:	2	.297			
Observer Height (Above Pad) Pad Flevation				Heav	y Trucks:	8	.004	Grade Ad	justment	0.0
Pad Elevation Road Flevation	0.0 1001			l ane Fai	uivalent L	Nietar	ce (in f	oot)		
Road Grade	0.0 1001		H.	Lane Lye	Autos:		.400	ccij		
I eft View		200		Mediur	n Trucks:		.209			
Right View	oo.o aog.				y Trucks:		.228			
FHWA Noise Model Calculati	ons									
VehicleType REMEL	Traffic Flow	Dis	tance	Finite	Road	Fres	nel	Barrier Att	en Bei	m Atten
Autos: 66.	51 4.11	l	0.3	8	-1.20		-4.66	0.0	000	0.00
Medium Trucks: 77.			0.4	1	-1.20		-4.87		000	0.00
Heavy Trucks: 82.		-	0.4		-1.20		-5.41	0.0	000	0.00
Unmitigated Noise Levels (w							1			
VehicleType Leq Peak F	lour Leq Da 69.8	67.7	Leq E	vening 64.1	Leq N	ight 63.		Ldn 70.3		NEL 70.
	65.7	64.0		56.7		57.	-	65.4	-	70. 65.
Heavy Trucks:	75.9	74.0		67.2		69.	-	76.5		76.
	77.2	75.2		69.2		70.	_	77.7		77.
Centerline Distance to Noise	Contour (in fee	et)								
			70 0	dBA	65 dl	BA	6	0 dBA	55	dBA
		Ldn:	17	70	366	3	1	788	1,	697
	CNEL:				174 375 807 1,739				739	

Thursday, October 18, 2018

	FH\	WA-RD-77-10	B HIGI	HWAY	NOISE PI	REDICTI	ION M	ODEL						
Road Nam	io: Year 2035 ne: Cedar Av. nt: s/o Santa A							: Agua l : 11215						
SITE	SPECIFIC IN	IPUT DATA				N	IOISE	MODE	L INPUT	S				
Highway Data					Site Con	ditions	(Hard	= 10, S	oft = 15)					
Average Daily	Traffic (Adt):	32,812 vehic	les					Autos:	15					
Peak Hour	Percentage:	10%			Me	dium Tru	icks (2	Axles):	15					
Peak H	lour Volume:	3,281 vehicle	es		He	avy Truc	cks (3+	- Axles):	15					
Ve	hicle Speed:	40 mph			Vehicle									
Near/Far La	ne Distance:	48 feet				icleType	. 1	Dav	Evening	Night	Daily			
Site Data					Veri		Autos:	73.2%		18.6%				
						ر edium Tı		82.2%		14.0%				
	rrier Height:	0.0 feet				Heavy Ti		76.5%		19.5%				
Barrier Type (0-W		0.0			,	icavy II	ucns.	10.57	0 4.070	13.370	0.40 /			
	Centerline Dist. to Barrier: 52.0 feet Centerline Dist. to Observer: 52.0 feet						evatio	ns (in f	eet)					
		Autos: 0.000												
	Barrier Distance to Observer: 0.0 feet						Medium Trucks: 2.297							
Observer Height	. ,	5.0 feet			Heav	y Trucks	s: 8	3.004	Grade Ad	ljustmeni	0.0			
	ad Elevation:	0.0 feet			Lane Eq	uivalon	Dieta	nco (in	foot)					
	ad Elevation:	0.0 feet			Lane Ly	Auto		6.400	ieei)					
	Road Grade:	0.0%			14	Auto: m Truck:		6.209						
	Left View:	-90.0 degre						6.228						
	Right View:	90.0 degre	es		Heal	y Truck:	5: 4	0.228						
FHWA Noise Mod														
VehicleType	REMEL	Traffic Flow		stance		Road	Fre.	snel	Barrier At		rm Atten			
Autos:	66.51	3.33		0.3		-1.20		-4.66		000	0.000			
Medium Trucks:				0.4		-1.20		-4.87		000	0.000			
Heavy Trucks:				0.4		-1.20		-5.41	0.0	000	0.000			
Unmitigated Nois			barri	ier atte	nuation)									
VehicleType	Leq Peak Hou		_	Leq E	vening	Leq	Night		Ldn		NEL			
Autos:	69		66.9		63.3		62		69.	-	69.8			
Medium Trucks: 64.9 63.3					56.0			6.9	64.		64.8			
Heavy Trucks:			73.3		66.5			3.6	75.		76.0			
Vehicle Noise:	76	6.5	74.6		68.5		69	0.8	77.	0	77.2			
Centerline Distan	ce to Noise C	ontour (in fee	t)								-			
			Ĺ		dBA		dBA	(	60 dBA		dBA			
	Ldn:				153 157		30		712		,533			
	CNEL:					338			729 1,5					

	FH\	WA-RD-77-108	HIGH	HWAY	NOISE PE	REDICT	ION M	ODEL			
Road Nam	io: Year 2035 ne: Cedar Av. nt: s/o Jurupa						t Name: lumber:				
	SPECIFIC IN	IPUT DATA							L INPUT	s	
Highway Data					Site Con	ditions	(Hard	= 10, S	oft = 15)		
Average Daily	Traffic (Adt):	30,172 vehicle	es					Autos	: 15		
Peak Hour	Percentage:	10%				dium Tr					
Peak H	lour Volume:	3,017 vehicle	S		He	avy Tru	cks (3+	Axles)	: 15		
Ve	hicle Speed:	50 mph		1	Vehicle I	Mix					
Near/Far La	ne Distance:	48 feet				cleType	9	Day	Evening	Night	Daily
Site Data							Autos:	73.29	-	18.6	_
Rai	rrier Height:	0.0 feet			Me	edium T	rucks:	82.29	6 3.9%	14.0	% 2.61%
Barrier Type (0-W	-	0.0			F	leavy T	rucks:	76.59	4.0%	19.5	% 8.43%
Centerline Dis		52.0 feet			M-1 0-			/!	f4\		
Centerline Dist.	to Observer:	52.0 feet		-	Noise So				eet)		
Barrier Distance	to Observer:	0.0 feet				Auto		0.000			
Observer Height (	Above Pad):	5.0 feet				n Truck		2.297	Grade Ad	iuotmo	nt: 0.0
Pa	ad Elevation:	0.0 feet			Heav	y Truck	is: E	3.004	Grade Ad	justine	nt. 0.0
Roa	ad Elevation:	0.0 feet		ĺ	Lane Eq	uivalen	t Dista	nce (in	feet)		
ı	Road Grade:	0.0%				Auto	s: 46	6.400			
	Left View:	-90.0 degree	es		Mediur	n Truck	s: 46	6.209			
	Right View:	90.0 degree	es		Heav	y Truck	s: 46	3.228			
FHWA Noise Mode	el Calculation	s									
VehicleType	REMEL	Traffic Flow	Dis	stance	Finite	Road	Fres	snel	Barrier Att	en B	erm Atten
Autos:	70.20	1.99		0.3	38	-1.20		-4.66	0.0	000	0.000
Medium Trucks:	81.00	-13.33		0.4	11	-1.20		-4.87	0.0	000	0.000
Heavy Trucks:	85.38	-8.24		0.4	11	-1.20		-5.41	0.0	000	0.000
Unmitigated Noise	e Levels (with	out Topo and	barri	er atte	nuation)						
VehicleType	Leq Peak Hou			Leq E	vening	Leq	Night		Ldn		CNEL
Autos:	71	.4	69.2		65.7		64	.5	71.9	9	72.1
Medium Trucks:	66		65.2		58.0		58		66.6	3	66.8
Heavy Trucks:	76		74.4		67.6		69	.7	76.9	9	77.1
Vehicle Noise:	77	.9	75.9		70.0		71	.1	78.4	1	78.6
Centerline Distant	ce to Noise C	ontour (in feet	)					_			
			L		dBA		dBA		60 dBA		55 dBA
			Ldn:		89		-08		878		1,892
		CI	VEL:	1	94	4	18		901		1,942

	FHI	WA-RD-77-108	HIGHWA	Y NOISE	PREDICTI	ON M	DDEL			
Road Nam	io: Year 2035 ne: Rubidoux E nt: s/o Produc	31.			Project Job Ni		Agua 11215			
	SPECIFIC IN	IPUT DATA						L INPUT	S	
Highway Data				Site C	onditions	Hard	= 10, S	oft = 15)		
Average Daily	Traffic (Adt):	32,615 vehicle	es				Autos.	15		
Peak Hour	Percentage:	10%		/	1edium Tru	cks (2	Axles).	: 15		
Peak H	lour Volume:	3,262 vehicles	3	l I	leavy Truc	ks (3+	Axles).	: 15		
Ve	hicle Speed:	50 mph		Vehicl	o Misc					
Near/Far La	ne Distance:	48 feet			ehicleType		Dav	Evening	Night	Daily
Site Data				- "		utos:	73.29		18.6%	
				-	Medium Tr		82.29		14.0%	
	rrier Height:	0.0 feet			Heavy Tr		76.59		19.5%	
Barrier Type (0-W		0.0			ricavy ii	ucns.	10.07	0 4.070	15.57	3.0470
Centerline Di		59.0 feet		Noise	Source Ele	evatio	ns (in f	eet)		
Centerline Dist.		59.0 feet			Autos	: C	.000			
Barrier Distance		0.0 feet		Med	ium Trucks	: 2	.297			
Observer Height (		5.0 feet		He	avy Trucks	: 8	.004	Grade Ad	iustmen	t: 0.0
	ad Elevation: ad Elevation:	0.0 feet 0.0 feet		I ano F	guivalent	Dieta	nce (in	foot)		
	Road Grade:	0.0%			Autos		.129	1001)		
,	Left View:	-90.0 degree		Mod	ium Trucks		1.966			
	Right View:	90.0 degree			avy Trucks		3.982			
	ragnit view.	90.0 degree	:5	116	avy IIucka	. 50	0.302			
HWA Noise Mod										
VehicleType	REMEL	Traffic Flow	Distan		te Road	Fres		Barrier Att		rm Atten
Autos:	70.20	2.30		0.62	-1.20		-4.69	0.0		0.000
Medium Trucks:	81.00			0.60	-1.20		-4.88		00	0.000
Heavy Trucks:	85.38			0.60	-1.20		-5.35	0.0	100	0.000
Inmitigated Noise					·	E-de t	1	I dn		NFI
VehicleType Autos:	Leq Peak Hou		68.5	q Evening 65	Leq I	vignt 63	0	Lan 71.2	_	71.4
Medium Trucks:	66		38.5 34.7	57	-	58	-	66.1		66.2
Heavy Trucks:	76		74.0	67		69	-	76.6		76.7
Vehicle Noise:			75.5	69	_	70		78.0		78.1
Centerline Distan	ce to Noise C	ontour (in feet	)							
		, ,		70 dBA	65 (			60 dBA		5 dBA
			Ldn:	200	43	_		930		,004
			IFI:	206	44			954		.055

	FH	WA-RD-77-108	HIGHW	AY NOISE F	REDICT	TION MO	DDEL			
	e: Year 2035 e: Rubidoux E t: s/o El Rivir	BI.				t Name: Number:		Mansa		
	PECIFIC IN	NPUT DATA						L INPUT	S	
Highway Data				Site Co	nditions	(Hard:	= 10, Sc			
Average Daily T	raffic (Adt):	32,547 vehicl	es				Autos:	15		
Peak Hour F	Percentage:	10%			edium Ti		,			
Peak Ho	our Volume:	3,255 vehicle	S	Н	eavy Tru	icks (3+	Axles):	15		
Veh	icle Speed:	50 mph		Vehicle	Mix					
Near/Far Lan	e Distance:	48 feet			hicleTyp	е	Day	Evening	Night	Daily
Site Data						Autos:	73.2%	8.1%	18.6%	88.159
Barı	ier Height:	0.0 feet		٨	1edium 7	rucks:	82.2%	3.9%	14.0%	2.73%
Barrier Type (0-Wa	-	0.0			Heavy 7	rucks:	76.5%	4.0%	19.5%	9.129
Centerline Dis	t. to Barrier:	59.0 feet		Noise S	ource E	levatio	ns (in fe	eet)		
Centerline Dist. to	Observer:	59.0 feet		110,000	Auto		.000	,,,,		
Barrier Distance to	Observer:	0.0 feet		Madii	ım Truck		.297			
Observer Height (A	lbove Pad):	5.0 feet			vy Truck		.004	Grade Ad	iustment	: 0.0
Pa	d Elevation:	0.0 feet								- 0.0
Road	d Elevation:	0.0 feet		Lane E	quivaler			feet)		
R	oad Grade:	0.0%			Auto		1.129			
	Left View:	-90.0 degre	es		ım Truck		3.966			
	Right View:	90.0 degre	es	Hea	vy Truck	rs: 53	3.982			
FHWA Noise Mode	l Calculation	ıs								
VehicleType	REMEL	Traffic Flow	Dista		e Road	Fres		Barrier Att		m Atten
Autos:	70.20			-0.62	-1.20		-4.69		000	0.00
Medium Trucks:	81.00	-12.82		-0.60	-1.20		-4.88	0.0	000	0.00
Heavy Trucks:	85.38	-7.57		-0.60	-1.20		-5.35	0.0	000	0.00
Unmitigated Noise	•			,			_			
	Leq Peak Ho		_	.eq Evening		Night		Ldn		NEL
Autos:		).7	68.5	65.0		63.		71.1		71.
Medium Trucks:		3.4	64.7	57.5		58.		66.1		66.
Heavy Trucks: Vehicle Noise:		7.5	74.0 75.5	67.2		69. 70.		76.6 78.0		76. 78.
Centerline Distance				05.1		, 0.		, 0.0		, 0.
	E IO NOISE C	ontour (III lee	,	70 /04		-10.4		60 dBA		dBA
Contonino Diotano				70 dBA	65	dBA	6	ou aba	22	aBA
Contornio Dictano			Ldn:	201		133	1 6	933		011

Thursday, October 18, 2018

	FH\	WA-RD-77-108	HIGH	WAY I	NOISE PI	REDICTI	ON M	ODEL			
Road Nar	rio: Year 2035 ne: Rubidoux E ent: s/o 20th St	31.						: Agua l : 11215			
	SPECIFIC IN	IPUT DATA							L INPUT	S	
Highway Data					Site Con	ditions	(Hard	= 10, S	oft = 15)		
Average Daily	Traffic (Adt):	25,917 vehicle	es					Autos:	15		
Peak Hour	Percentage:	10%			Me	dium Tru	icks (2	Axles):	15		
Peak I	lour Volume:	2,592 vehicles	3		He	avy Truc	ks (3+	Axles):	15		
Ve	ehicle Speed:	50 mph		ł	Vehicle	Miv					
Near/Far La	ane Distance:	48 feet		1		icleType		Dav	Evening	Night	Daily
Site Data							Autos:	73.2%	-	18.6%	
D-	rrier Heiaht:	0.0 feet			M	edium Tr	ucks:	82.2%	3.9%	14.0%	2.67%
Barrier Type (0-V		0.0 1661			1	leavy Tr	ucks:	76.5%	4.0%	19.5%	8.72%
	ist. to Barrier:	59.0 feet		-							
Centerline Dist.	to Observer:	59.0 feet			Noise S				eet)		
Barrier Distance		0.0 feet				Autos		0.000			
Observer Height	(Above Pad):	5.0 feet				n Trucks		2.297	0		
	ad Elevation:	0.0 feet			Heav	y Trucks	S: 8	3.004	Grade Ad	justment	. 0.0
Ro	ad Elevation:	0.0 feet		l	Lane Eq	uivalent	Dista	nce (in	feet)		
	Road Grade:	0.0%		ĺ		Autos	s: 5	4.129			
	Left View:	-90.0 degree	es		Mediu	m Trucks	s: 5	3.966			
	Right View:	90.0 degree	es		Heav	y Trucks	s: 5	3.982			
FHWA Noise Mod				•							
VehicleType	REMEL	Traffic Flow	Dis	stance		Road	Fre.	snel	Barrier Att		rm Atten
Autos:		1.32		-0.6	-	-1.20		-4.69		000	0.000
Medium Trucks:				-0.6		-1.20		-4.88		000	0.000
Heavy Trucks:	85.38	-8.76		-0.6	60	-1.20		-5.35	0.0	000	0.000
Unmitigated Nois	e Levels (with	out Topo and	barri	er atte	nuation)						
VehicleType	Leq Peak Hou			Leq E	vening	Leq	Night		Ldn		NEL
Autos:			67.6		64.0		62		70.2	_	70.4
Medium Trucks:			63.7		56.4		57		65.0	-	65.2
Heavy Trucks:			72.9		66.1		68		75.4		75.6
Vehicle Noise:	76	5.3	74.4		68.5		69	.6	76.9	9	77.0
Centerline Distan	ce to Noise C	ontour (in feet	)								
					dBA		dBA	(	60 dBA		i dBA
			Ldn:		69		64		784		,690
		CI	VEL:	1	73	37	73		805	1,	,733

Thursday, October 18, 2018

	FH\	WA-RD-77-108	HIGH	WAY I	NOISE P	REDICT	ION M	ODEL			
Road Nan	io: Year 2035 ne: Rubidoux E nt: s/o 24th St	3I.					t Name: lumber:		Mansa		
SITE	SPECIFIC IN	IPUT DATA							L INPUT	S	
Highway Data					Site Cor	nditions	(Hard:	= 10, S	oft = 15)		
Average Daily	Traffic (Adt):	26,673 vehicle	es					Autos:	15		
Peak Hour	Percentage:	10%			Me	edium Tr	ucks (2	Axles):	15		
Peak F	lour Volume:	2,667 vehicle	S		He	eavy Tru	cks (3+	Axles):	15		
Ve	hicle Speed:	50 mph		ŀ	Vehicle	Miv					
Near/Far La	ne Distance:	48 feet		-		icleType	9	Dav	Evening	Night	Daily
Site Data							Autos:	73.2%	Ü	18.6%	
Pa	rrier Height:	0.0 feet			М	edium T	rucks:	82.2%	3.9%	14.0%	2.66%
Barrier Type (0-W		0.0				Heavy T	rucks:	76.5%	4.0%	19.5%	8.69%
Centerline Di		59.0 feet		-							
Centerline Dist.	to Observer:	59.0 feet		-	Noise S				eet)		
Barrier Distance	to Observer:	0.0 feet				Auto		0.000			
Observer Height	(Above Pad):	5.0 feet				m Truck		2.297	0	·	4. 0.0
	ad Elevation:	0.0 feet			Hear	vy Truck	s: 8	3.004	Grade Ad	justmen	t: 0.0
Ro	ad Elevation:	0.0 feet			Lane Eq	uivalen	t Distai	nce (in	feet)		
	Road Grade:	0.0%				Auto	s: 54	1.129			
	Left View:	-90.0 degree	es		Mediu	m Truck	s: 53	3.966			
	Right View:	90.0 degree			Hear	vy Truck	s: 53	3.982			
FHWA Noise Mod	el Calculation	ıs									
VehicleType	REMEL	Traffic Flow	Dist	tance	Finite	Road	Fres	snel	Barrier Att	en Be	rm Atten
Autos:	70.20	1.44		-0.6	32	-1.20		-4.69	0.0	000	0.000
Medium Trucks:	81.00	-13.78		-0.6	60	-1.20		-4.88	0.0	000	0.000
Heavy Trucks:	85.38	-8.65		-0.6	60	-1.20		-5.35	0.0	000	0.000
Unmitigated Nois	e Levels (with	out Topo and	barrie	r atte	nuation)						
VehicleType	Leq Peak Hou			Leq E	vening		Night		Ldn		NEL
Autos:	69	1.8	67.7		64.2		63	.0	70.:	3	70.6
Medium Trucks:	65	i.4	63.8		56.5		57	.3	65.2	2	65.3
Heavy Trucks:	74	.9	73.0		66.2		68	.3	75.	5	75.7
Vehicle Noise:	76	6.5	74.5		68.6		69	.7	77.	)	77.1
Centerline Distan	ce to Noise C	ontour (in feet	)								
		-		70	dBA	65	dBA	(	60 dBA	55	5 dBA
			Ldn:	1	72	3	70		798	1	,719
		CI	VEL:	1	76	3	80		819	1	,764

	FH\	WA-RD-77-108	HIGHWAY	NOISE P	REDICTION	ON MO	ODEL			
Road Nam	io: Year 2035 ne: Rubidoux E nt: s/o 28th St	BI.			Project I Job Nu					
	SPECIFIC IN	IPUT DATA						L INPUT	s	
Highway Data				Site Cor	ditions (	Hard				
Average Daily	Traffic (Adt):	29,671 vehicle	S				Autos.			
Peak Hour	Percentage:	10%			dium Tru					
Peak F	lour Volume:	2,967 vehicles		He	avy Truci	ks (3+	Axles).	15		
Ve	hicle Speed:	50 mph		Vehicle	Mix					
Near/Far La	ne Distance:	48 feet		Veh	icleType		Day	Evening	Night	Daily
Site Data					A	utos:	73.29	8.1%	18.6%	88.77%
Ra	rrier Height:	0.0 feet		М	edium Tru	ıcks:	82.29	3.9%	14.0%	2.65%
Barrier Type (0-W		0.0		,	Heavy Tru	ıcks:	76.5%	4.0%	19.5%	8.58%
Centerline Di		59.0 feet		Maina C	ource Ele	urotio	no (in t	0.041		
Centerline Dist.	to Observer:	59.0 feet		Noise 3	Autos		0.000	eet)		
Barrier Distance	to Observer:	0.0 feet		Modiu	m Trucks		.297			
Observer Height	(Above Pad):	5.0 feet			vy Trucks.	_	3.004	Grade Ad	liuetmon	t 0.0
P	ad Elevation:	0.0 feet		пеан	ry Trucks.		.004	Grade Au	jusunen	2. 0.0
Ro	ad Elevation:	0.0 feet		Lane Eq	uivalent	Dista	nce (in	feet)		
	Road Grade:	0.0%			Autos.	54	1.129			
	Left View:	-90.0 degree	s		m Trucks		3.966			
	Right View:	90.0 degree	S	Heav	y Trucks	53	3.982			
FHWA Noise Mod		-								
VehicleType	REMEL	Traffic Flow	Distance		Road	Fres		Barrier Att		rm Atten
Autos:	70.20	1.91	-0.0		-1.20		-4.69		000	0.000
Medium Trucks:		-13.34	-0.0		-1.20		-4.88		000	0.000
Heavy Trucks:		-8.24	-0.		-1.20		-5.35	0.0	000	0.000
Inmitigated Nois	e Levels (with Leg Peak Hou				1 1	E-de t		I dn		NFI
VehicleType Autos:	Tey reak not	, ,	i8.2	Evening 64.6	Leq N	11911t 63	E	70.8	_	71.0
Medium Trucks:	65		i4.2	56.9		57		65.6	-	65.8
Heavy Trucks:			3.4	66.6		68		75.9		76.1
Vehicle Noise:	76		4.9	69.0		70		77.4		77.6
Centerline Distan	ce to Noise Co	ontour (in feet)								
			70	dBA	65 d	BA		60 dBA	55	5 dBA
		L	dn: 1	184	39	5		852		,835
		CN	IFI: 1	188	40	6		874	1	,883

FH	WA-RD-77-108 HIG	HWAY N	OISE PREDICT	ION MODEL		
Scenario: Year 2035 Road Name: Rubidoux E Road Segment: s/o 26th St	3I.			t Name: Agua Number: 1121		
SITE SPECIFIC IN	IPUT DATA			NOISE MODI		
Highway Data		S	Site Conditions	: (Hard = 10, S	oft = 15)	
Average Daily Traffic (Adt):	27,524 vehicles			Autos	: 15	
Peak Hour Percentage:	10%			rucks (2 Axles)		
Peak Hour Volume:	2,752 vehicles		Heavy Tru	icks (3+ Axles)	): 15	
Vehicle Speed:	50 mph	ı	/ehicle Mix			
Near/Far Lane Distance:	48 feet		VehicleTyp	e Day	Evening N	light Daily
Site Data				Autos: 73.29	% 8.1% 1	18.6% 88.69%
Barrier Height:	0.0 feet		Medium 7	rucks: 82.29	% 3.9% 1	14.0% 2.66%
Barrier Type (0-Wall, 1-Berm):	0.0		Heavy 7	Frucks: 76.59	% 4.0% 1	19.5% 8.65%
Centerline Dist. to Barrier:	59.0 feet		loise Source E	lovations (in	foot)	
Centerline Dist. to Observer:	59.0 feet	,	Auto		eet)	
Barrier Distance to Observer:	0.0 feet		Medium Truck			
Observer Height (Above Pad):	5.0 feet		Heavy Truck		Grade Adjus	tment: 0.0
Pad Elevation:	0.0 feet					0.0
Road Elevation:	0.0 feet	L	.ane Equivaler		feet)	
Road Grade:	0.0%		Auto			
Left View:	-90.0 degrees		Medium Truck			
Right View:	90.0 degrees		Heavy Truck	ks: 53.982		
FHWA Noise Model Calculation	ıs					
VehicleType REMEL	Traffic Flow D	istance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos: 70.20	1.58	-0.62		-4.69		
Medium Trucks: 81.00		-0.60				
Heavy Trucks: 85.38	-8.53	-0.60	-1.20	-5.35	0.000	0.000
Unmitigated Noise Levels (with	out Topo and barr	ier atteni				
VehicleType Leq Peak Hot		Leq Ev		Night	Ldn	CNEL
Autos: 70			64.3	63.1	70.4	70.7
Medium Trucks: 65			56.6	57.5	65.3	65.4
· · · · · · · · · · · · · · · · · · ·	5.0 73.1		66.3	68.4	75.7	75.8
Vehicle Noise: 76	5.6 74.6		68.7	69.8	77.1	77.3
Centerline Distance to Noise C	ontour (in feet)					
		70 d			60 dBA	55 dBA
	Ldn:	17	5 3	378	813	1,752
	CNEL:	18		387	834	1.798

Thursday, October 18, 2018

	FH\	WA-RD-77-108	HIGI	HWAY	NOISE PI	REDICT	ON M	ODEL			
Road Nan	io: Year 2035 ne: Rubidoux E nt: s/o SR-60	31.				Project Job N		: Agua : 11215			
	SPECIFIC IN	IPUT DATA							L INPUT	S	
Highway Data					Site Con	ditions	(Hard	= 10, S	oft = 15)		
Average Daily	Traffic (Adt):	28,308 vehicl	es					Autos:	15		
Peak Hour	Percentage:	10%			Me	dium Tru	icks (2	Axles).	15		
Peak F	lour Volume:	2,831 vehicle	s		He	avy Truc	ks (3+	Axles).	15		
Ve	hicle Speed:	50 mph			Vehicle	Miv					
Near/Far La	ne Distance:	48 feet				icleType	П	Dav	Evening	Night	Daily
Site Data							lutos:	73.2%	-	18.6%	,
P.o.	rrier Heiaht:	0.0 feet			M	edium Ti	ucks:	82.2%	3.9%	14.0%	2.50%
Barrier Type (0-W		0.0			1	Heavy Ti	ucks:	76.5%	4.0%	19.5%	7.67%
Centerline Di		59.0 feet									
Centerline Dist.	to Observer:	59.0 feet			Noise S				eet)		
Barrier Distance		0.0 feet				Auto		0.000			
Observer Height	(Above Pad):	5.0 feet				m Truck		2.297			
	ad Elevation:	0.0 feet			Heav	y Truck	S: 8	3.004	Grade Ad	justment	0.0
Ro	ad Elevation:	0.0 feet			Lane Eq	uivalent	Dista	nce (in	feet)		
	Road Grade:	0.0%				Auto	s: 5	4.129			
	Left View:	-90.0 degre	es		Mediu	m Truck	s: 5	3.966			
	Right View:	90.0 degre	es		Heav	y Truck:	s: 5	3.982			
FHWA Noise Mod	el Calculation	ıs									
VehicleType	REMEL	Traffic Flow	Di	stance		Road	Fre.	snel	Barrier Att		m Atten
Autos:	70.20	1.76		-0.0		-1.20		-4.69		000	0.000
Medium Trucks:	81.00			-0.0		-1.20		-4.88		000	0.000
Heavy Trucks:	85.38	-8.93		-0.0	60	-1.20		-5.35	0.0	000	0.000
Inmitigated Nois	e Levels (with	out Topo and	barri	ier atte	nuation)						
VehicleType	Leq Peak Hou	ur Leq Day	/	Leq I	Evening	Leq	Night		Ldn		NEL
Autos:	70		68.0		64.5		63		70.6		70.9
Medium Trucks:	65		63.8		56.5		57		65.		65.3
Heavy Trucks:	74	1.6	72.7		65.9		68	.0	75.3		75.4
Vehicle Noise:	76	5.3	74.4		68.5		69	.5	76.8	3	77.0
Centerline Distan	ce to Noise C	ontour (in feet	:)								
			I		dBA		dBA		60 dBA	55	dBA
			Ldn:		169		63		783		686
		C	NEL:	1	73	3	73		803	1,	731

Thursday, October 18, 2018

	FH\	WA-RD-77-108	HIGH	WAY	NOISE P	REDICT	ION M	DDEL			
Road Nan	rio: Year 2035 ne: Rubidoux E nt: s/o 34th St	3I.					t Name: lumber:		Mansa		
	SPECIFIC IN	IPUT DATA							L INPUT	S	
Highway Data					Site Cor	nditions	(Hard:	= 10, S	oft = 15)		
Average Daily	Traffic (Adt):	21,033 vehicle	es					Autos:	15		
Peak Hour	Percentage:	10%				edium Tr					
Peak F	lour Volume:	2,103 vehicle	S		He	eavy Tru	cks (3+	Axles):	15		
Ve	hicle Speed:	50 mph			Vehicle	Mix					
Near/Far La	ne Distance:	48 feet				icleType	9	Dav	Evening	Night	Daily
Site Data							Autos:	73.2%	-	18.6%	
Ra	rrier Height:	0.0 feet			М	edium T	rucks:	82.2%	3.9%	14.0%	2.50%
Barrier Type (0-W	-	0.0				Heavy T	rucks:	76.5%	4.0%	19.5%	7.70%
	st. to Barrier:	59.0 feet			Noise S		·	/! #	41		
Centerline Dist.	to Observer:	59.0 feet			Noise S				eet)		
Barrier Distance	to Observer:	0.0 feet				Auto		.000			
Observer Height	(Above Pad):	5.0 feet				m Truck		.297	Grade Ad	ii rotmon	4. 0.0
P	ad Elevation:	0.0 feet			Hear	vy Truck	:s: 8	.004	Grade Ad	jusunen	ι. υ.υ
Ro	ad Elevation:	0.0 feet			Lane Eq	uivalen	t Distai	nce (in	feet)		
	Road Grade:	0.0%				Auto	s: 54	.129			
	Left View:	-90.0 degre	es		Mediu	m Truck	s: 53	3.966			
	Right View:	90.0 degre	es		Hear	vy Truck	s: 53	3.982			
FHWA Noise Mod	el Calculation	s									
VehicleType	REMEL	Traffic Flow	Dis	tance	Finite	Road	Fres	nel	Barrier Att	en Be	rm Atten
Autos:	70.20	0.47		-0.6	32	-1.20		-4.69	0.0	000	0.000
Medium Trucks:	81.00	-15.09		-0.6	60	-1.20		-4.88	0.0	000	0.000
Heavy Trucks:	85.38	-10.20		-0.6	30	-1.20		-5.35	0.0	000	0.000
Unmitigated Nois	e Levels (with	out Topo and	barrie	er atte	nuation)						
VehicleType	Leq Peak Hot			Leq E	vening		Night		Ldn		NEL
Autos:	68	1.9	66.7		63.2		62	.0	69.3	3	69.6
Medium Trucks:	-		62.5		55.2		56	-	63.8	-	64.0
Heavy Trucks:			71.4		64.6		66		74.0		74.1
Vehicle Noise:			73.1		67.2		68	.3	75.6	3	75.7
Centerline Distan	ce to Noise C	ontour (in feet	)								
			L		dBA		dBA	(	60 dBA		5 dBA
			Ldn:		39	_	98		643		,385
		C	VEL:	1	42	3	06		660	1	,422

	FH\	WA-RD-77-108	HIGH	WAY N	IOISE P	REDICT	ION M	ODEL			
	io: Year 2035 e: Rivera St. nt: n/o Market					Project Job N		Agua 11215			
SITE S	SPECIFIC IN	IPUT DATA				N	IOISE	MODE	L INPUT	s	
Highway Data					Site Cor	ditions	(Hard	= 10, S	oft = 15)		
Average Daily	Traffic (Adt):	10,214 vehicle	es					Autos.	15		
Peak Hour	Percentage:	10%			Me	dium Tr	ucks (2	Axles).	15		
Peak H	our Volume:	1,021 vehicle	s		He	avy Tru	cks (3+	Axles).	15		
Ve	hicle Speed:	30 mph			Vehicle	Miss					
Near/Far Lai	ne Distance:	12 feet		H		icleType	,	Day	Evening	Night	Daily
Site Data							Autos:	73.29	-		90.00%
Par	rier Height:	0.0 feet			М	edium T	rucks:	82.29	3.9%	14.0%	
Barrier Type (0-W		0.0				Heavy T	rucks:	76.5%	4.0%	19.5%	7.52%
Centerline Dis		33.0 feet									
Centerline Dist.	to Observer:	33.0 feet		- 1	Noise S				eet)		
Barrier Distance	to Observer:	0.0 feet				Auto		0.000			
Observer Height (	Above Pad):	5.0 feet				m Truck		2.297	Grade Ad	i interna	4 0 0
Pa	ad Elevation:	0.0 feet			Heat	y Truck	s: e	3.004	Grade Ad	usunem	. 0.0
Ros	ad Elevation:	0.0 feet			Lane Eq	uivalen	t Dista	nce (in	feet)		
I	Road Grade:	0.0%				Auto	s: 32	2.833			
	Left View:	-90.0 degre	es		Mediu	m Truck	s: 32	2.562			
	Right View:	90.0 degre	es		Heav	y Truck	s: 32	2.589			
FHWA Noise Mode	el Calculation	s									
VehicleType	REMEL	Traffic Flow	Dis	stance		Road	Fres	snel	Barrier Att	en Be	rm Atten
Autos:	61.75	-0.44		2.6	4	-1.20		-4.52	0.0	000	0.000
Medium Trucks:	73.48	-16.05		2.6	-	-1.20		-4.86		000	0.000
Heavy Trucks:	79.92	-11.22		2.6	9	-1.20		-5.69	0.0	000	0.000
Unmitigated Noise			_								
VehicleType	Leq Peak Hou		_	Leq E	vening	Leq	Night		Ldn	_	NEL
Autos:	62		60.6		57.1		55		63.2		63.5
Medium Trucks:	58		57.3		50.0		50		58.7		58.8
Heavy Trucks: Vehicle Noise:	70		68.2 69.2		61.4		63 64		70.8 71.7		70.9
		-			03.0		04		71		/ 1
Centerline Distanc	ce to Noise Co	ontour (in feet	)	70 (	dBA	65	dBA	1	60 dBA	55	i dBA
			Ldn:	4	3		12		199	-	129
		_	NFI:		4		15		204		139

	FHV	VA-RD-77-108	HIGI	HWAY I	NOISE P	REDICT	ION M	ODEL			
Road Nam	o: Year 2035 \ e: Cactus Av. nt: n/o El Rivin							: Agua l :: 11215			
	SPECIFIC IN	PUT DATA							L INPUT	s	
Highway Data					Site Cor	nditions	(Hard	= 10, S	oft = 15)		
Average Daily	Traffic (Adt):	7,751 vehicle	es					Autos:	15		
Peak Hour	Percentage:	10%			Me	edium Tr	ucks (2	2 Axles):	15		
Peak H	our Volume:	775 vehicles	3		He	avy Tru	cks (3+	+ Axles):	15		
Vei	hicle Speed:	40 mph		F	Vehicle	Miv					
Near/Far Lar	ne Distance:	11 feet				icleType	9	Day	Evening	Night	Daily
Site Data							Autos:	73.2%	8.1%	18.6%	90.279
Rar	rier Heiaht:	0.0 feet			М	edium T	rucks:	82.2%	3.9%	14.0%	2.419
Barrier Type (0-W		0.0				Heavy T	rucks:	76.5%	4.0%	19.5%	7.329
Centerline Dis		30.0 feet		ļ.							
Centerline Dist.		30.0 feet		ļ	Noise S				eet)		
Barrier Distance	to Observer:	0.0 feet				Auto		0.000			
Observer Height (	Above Pad):	5.0 feet				m Truck		2.297	0		
	d Elevation:	0.0 feet			Heav	/y Truck	s:	8.004	Grade Ad	justmeni	: 0.0
Roa	d Elevation:	0.0 feet			Lane Eq	uivalen	t Dista	nce (in	feet)		
F	Road Grade:	0.0%				Auto	s: 2	9.912			
	Left View:	-90.0 degree	es		Mediu	m Truck	s: 2	9.615			
	Right View:	90.0 degree	es		Heav	y Truck	s: 2	9.644			
FHWA Noise Mode	el Calculations	s									
VehicleType	REMEL	Traffic Flow	Di	stance	Finite	Road	Fre	snel	Barrier At	ten Be	m Atter
Autos:	66.51	-2.88		3.2	24	-1.20		-4.49	0.0	000	0.00
Medium Trucks:	77.72	-18.62		3.3	31	-1.20		-4.86	0.0	000	0.00
Heavy Trucks:	82.99	-13.79		3.3	30	-1.20		-5.77	0.0	000	0.00
Unmitigated Noise	Levels (with	out Topo and	barri	ier attei	nuation)						
	Leq Peak Hou			Leq E	vening		Night		Ldn		NEL
Autos:	65.		63.5		60.0			3.8	66.		66
Medium Trucks:	61.		59.6		52.3			3.1	60.	-	61
Heavy Trucks:	71.	.3	69.4		62.6		64	1.7	71.	9	72
Vehicle Noise:	72.	.7	70.7		64.7		65	5.9	73.:	2	73
Centerline Distand	e to Noise Co	ntour (in feet,	)								
			- 1	70	dRA	65	dRA	1 /	SO dRA	55	dBA

Thursday, October 18, 2018

FH	WA-RD-77-108	HIGHWA	Y NOISE P	REDICTION	ON MO	DEL			
Scenario: Year 2035 Road Name: Riverside I Road Segment: n/o I-10 Fv	Av.			Project I Job Nu					
SITE SPECIFIC IN	NPUT DATA						L INPUT	S	
Highway Data			Site Cor	ditions (	Hard =	10, S	oft = 15)		
Average Daily Traffic (Adt):	49,977 vehicle	es				Autos:	15		
Peak Hour Percentage:	10%		Me	dium Tru	cks (2 )	Axles):	15		
Peak Hour Volume:	4,998 vehicles	s	He	avy Truci	ks (3+ )	Axles):	15		
Vehicle Speed:	40 mph		Vehicle	Miss					
Near/Far Lane Distance:	50 feet			icleType		Day	Evening	Night	Daily
Site Data			Ven		utos:	73.2%		18.6%	,
				edium Tri		82.2%		14.0%	
Barrier Height:	0.0 feet			Heavy Tru		76.5%		19.5%	
Barrier Type (0-Wall, 1-Berm):	0.0			icavy in	ions.	70.570	4.070	13.570	7.07 /
Centerline Dist. to Barrier: Centerline Dist. to Observer:	60.0 feet 60.0 feet		Noise S	ource Ele	vation	s (in f	eet)		
Barrier Distance to Observer:	0.0 feet			Autos	0.	000			
	5.0 feet		Mediu	m Trucks	2.	297			
Observer Height (Above Pad):  Pad Flevation:	0.0 feet		Heav	y Trucks	8.	004	Grade Ad	justment	0.0
Road Flevation:	0.0 feet		Lane Eq	uivalent	Distan	ce (in	feet)		
Road Grade:	0.0%			Autos		772	,		
Left View:	-90.0 degree	00	Mediu	m Trucks		610			
Right View:	90.0 degree			y Trucks		626			
FHWA Noise Model Calculation	าร		1						
VehicleType REMEL	Traffic Flow	Distanc	e Finite	Road	Fresi	nel	Barrier Att	en Bei	m Atten
Autos: 66.51	5.20	-(	).70	-1.20		-4.69	0.0	000	0.000
Medium Trucks: 77.72	-10.35	-0	0.68	-1.20		-4.88	0.0	000	0.000
Heavy Trucks: 82.99	-5.49	-(	0.68	-1.20		-5.34	0.0	000	0.000
Unmitigated Noise Levels (with		barrier att	tenuation)						
VehicleType Leq Peak Ho	ur Leq Day	/ Leq	Evening	Leq N	_		Ldn		NEL
VehicleType Leq Peak Ho. Autos: 69	ur Leq Day 9.8	/ Leq	Evening 64.1	Leq N	63.0	-	70.3	3	70.6
VehicleType Leq Peak Ho. Autos: 69 Medium Trucks: 65	ur Leq Day 9.8 5.5	/ Leq 67.7 63.8	Evening 64.1 56.6	Leq N	63.0 57.4	1	70.3	3	70.6
VehicleType Leq Peak Ho Autos: 68 Medium Trucks: 68 Heavy Trucks: 78	Leq Day 9.8 5.5 5.6	/ Leq	Evening 64.1	Leq N	63.0	1	70.3	3 2 2	70.6 65.4 76.4
VehicleType Leq Peak Ho Autos: 68 Medium Trucks: 68 Heavy Trucks: 78 Vehicle Noise: 77	Leq Day 9.8 5.5 5.6 7.0	Leq 67.7 63.8 73.7 75.0	Evening 64.1 56.6 66.9	Leq N	63.0 57.4 69.0	1	70.3 65.2 76.2	3 2 2	70.6 65.4 76.4
VehicleType Leq Peak Ho Autos: 68 Medium Trucks: 68 Heavy Trucks: 78	Leq Day 9.8 5.5 5.6 7.0	Leq 67.7 63.8 73.7 75.0	Evening 64.1 56.6 66.9	Leq N	63.0 57.4 69.0 70.2	1 )	70.3 65.2 76.2	3 2 2 2 5	70.6 65.4 76.4
VehicleType Leq Peak Ho Autos: 68 Medium Trucks: 68 Heavy Trucks: 78 Vehicle Noise: 77	ur Leq Day 9.8 5.5 5.6 7.0 Contour (in feet	Leq 67.7 63.8 73.7 75.0	64.1 56.6 66.9 69.0		63.0 57.4 69.0 70.2	1 )	70.3 65.2 76.2 77.8	3 2 2 2 5	70.6 65.4 76.4 77.6

Thursday, October 18, 2018

	FH\	WA-RD-77-108	HIGH	HWAY	NOISE P	REDICT	ION MO	DEL			
Road Nam	io: Year 2035 ne: Riverside A nt: s/o I-10 Fw	Av.					t Name: lumber:		Mansa		
	SPECIFIC IN	NPUT DATA							L INPUT	s	
Highway Data					Site Cor	nditions	(Hard :	= 10, S	oft = 15)		
Average Daily	Traffic (Adt):	56,179 vehicle	es					Autos:			
Peak Hour	Percentage:	10%			Me	edium Tr	ucks (2	Axles):	15		
Peak H	lour Volume:	5,618 vehicle	S		He	eavy Tru	cks (3+	Axles):	15		
Ve	hicle Speed:	50 mph			Vehicle	Miv					
Near/Far La	ne Distance:	50 feet				icleType	9	Dav	Evening	Nigh	Daily
Site Data							Autos:	73.2%	8.1%	18.6	% 89.46%
Rai	rrier Height:	0.0 feet			М	edium T	rucks:	82.2%	3.9%	14.0	% 2.56%
Barrier Type (0-W		0.0				Heavy T	rucks:	76.5%	4.0%	19.5	% 7.98%
Centerline Dis	st. to Barrier:	60.0 feet			Noise S	ource F	levation	ns (in f	oet)		
Centerline Dist.	to Observer:	60.0 feet				Auto		.000	301)		
Barrier Distance	to Observer:	0.0 feet			Mediu	m Truck		.297			
Observer Height (	'Above Pad):	5.0 feet				vy Truck		.004	Grade Ad	liustme	nt: 0.0
Pa	ad Elevation:	0.0 feet								,	0.0
Ros	ad Elevation:	0.0 feet			Lane Eq				feet)		
ı	Road Grade:	0.0%				Auto	s: 54	.772			
	Left View:	-90.0 degre	es		Mediu	m Truck	s: 54	.610			
	Right View:	90.0 degre	es		Hear	vy Truck	s: 54	.626			
FHWA Noise Mode	el Calculation	ıs									
VehicleType	REMEL	Traffic Flow	Dis	stance	Finite	Road	Fres	nel	Barrier Att	en E	erm Atten
Autos:	70.20			-0.	70	-1.20		-4.69	0.0	000	0.000
Medium Trucks:	81.00	-10.71		-0.	68	-1.20		-4.88	0.0	000	0.000
Heavy Trucks:	85.38	-5.78		-0.0	68	-1.20		-5.34	0.0	000	0.000
Unmitigated Noise	e Levels (with	out Topo and	barri	er atte	nuation)						
VehicleType	Leq Peak Hou	ur Leq Day	/	Leq I	Evening	Leq	Night		Ldn		CNEL
Autos:	73	3.0	70.9		67.4		66.	2	73.	5	73.8
Medium Trucks:	68		66.8		59.5		60.	3	68.		68.3
Heavy Trucks:	77	7.7	75.8		69.0		71.	1	78.:	3	78.5
Vehicle Noise:	79	9.4	77.4		71.5		72.	6	79.	9	80.0
Centerline Distant	ce to Noise C	ontour (in feet	<del>'</del> )								
				70	dBA	65	dBA	(	60 dBA		55 dBA
			Ldn:	2	273	5	87		1,265		2,726
		C	NEL:	2	280	6	603		1,299		2,798

	FHI	WA-RD-77-10	HIGH	WAY N	IOISE P	REDICT	ION M	ODEL			
Road Nam	io: Year 2035 ne: Riverside A nt: s/o Santa A	۸v.						: Agua   : 11215	Vlansa		
	SPECIFIC IN	IPUT DATA							L INPUT	S	
Highway Data					Site Cor	nditions	(Hard	= 10, S	oft = 15)		
Average Daily	Traffic (Adt):	44,906 vehic	les					Autos:	15		
Peak Hour	Percentage:	10%			Me	edium Tr	ucks (2	Axles):	15		
Peak H	lour Volume:	4,491 vehicle	es		He	eavy Tru	cks (3+	Axles):	15		
Ve	hicle Speed:	55 mph		-	Vehicle	Mix					
Near/Far La	ne Distance:	52 feet		Ė		icleType		Day	Evening	Night	Daily
Site Data							Autos:	73.2%	8.1%	18.6%	89.36%
Rai	rrier Height:	0.0 feet			М	edium T	rucks:	82.2%	3.9%	14.0%	2.58%
Barrier Type (0-W		0.0			1	Heavy T	rucks:	76.5%	4.0%	19.5%	8.06%
Centerline Dis	st. to Barrier:	52.0 feet			Noise S	ourco E	lovatio	ne (in f	not)		
Centerline Dist.	to Observer:	52.0 feet		H'	WOISE SI	Auto		0.000	eei)		
Barrier Distance	Barrier Distance to Observer: 0.0 feet							2.297			
Observer Height (	(Above Pad):	5.0 feet				m Truck vy Truck		3.004	Grade Ad	iustmeni	- 00
Pa	ad Elevation:	0.0 feet		L						Juoumom	. 0.0
Roa	ad Elevation:	0.0 feet		1	Lane Eq	uivalen	t Dista	nce (in	feet)		
	Road Grade:	0.0%				Auto		5.310			
	Left View:	-90.0 degre	ees			m Truck		5.114			
	Right View:	90.0 degre	ees		Heav	vy Truck	s: 4	5.133			
FHWA Noise Mode	el Calculation	ıs									
VehicleType	REMEL	Traffic Flow		stance		Road	Fres		Barrier Att		rm Atten
Autos:	71.78	3.33		0.5		-1.20		-4.66		000	0.000
Medium Trucks:				0.5		-1.20		-4.87		000	0.000
Heavy Trucks:	86.40	-7.12		0.56	6	-1.20		-5.41	0.0	000	0.000
Unmitigated Noise			_							_	
VehicleType	Leq Peak Hot		,	Leg E			Night		Ldn		NEL
Autos:	74		72.3		68.8		67		74.9	-	75.2
Medium Trucks:	69		68.1		60.8		61		69.4		69.6
Heavy Trucks: Vehicle Noise:	78		76.7 78.4		69.9 72.7		72 73		79.2 80.9		79.4 81.1
Centerline Distant							- 70		30.	-	01.
Centernine Distant	re in Moise C	ontour (iii fee	.,	70 0	dBA	65	dBA		60 dBA	55	dBA
			Ldn:	27	78	6	00	-	1,292	2	783
	CNEL:					286 616 1,326 2,857					

	FH\	WA-RD-77-108	HIGH	WAY N	OISE P	REDICT	TION MO	DDEL			
Road Nam	io: Year 2035 ne: Riverside A nt: s/o Slover	۸v.					t Name: Number:				
SITE	SPECIFIC IN	IPUT DATA							L INPUT	S	
Highway Data				S	Site Cor	nditions	(Hard	= 10, S	oft = 15)		
Average Daily	Traffic (Adt):	52,223 vehicl	es					Autos:			
Peak Hour	Percentage:	10%					rucks (2	,			
	lour Volume:	5,222 vehicle	S		He	eavy Tru	ıcks (3+	Axles):	15		
	hicle Speed:	50 mph		١	/ehicle	Mix					
Near/Far La	ne Distance:	52 feet			Ver	icleTyp	е	Day	Evening	Night	Daily
Site Data							Autos:	73.2%	8.1%	18.6%	89.43%
Bai	rrier Heiaht:	0.0 feet			M	edium 1	rucks:	82.2%	3.9%	14.0%	2.57%
Barrier Type (0-W	/all, 1-Berm):	0.0				Heavy T	Frucks:	76.5%	4.0%	19.5%	8.019
Centerline Dis		52.0 feet		٨	loise S	ource E	levatio	ns (in f	eet)		
Centerline Dist.		52.0 feet				Auto	os: O	.000			
Barrier Distance		0.0 feet			Mediu	m Truci	ks: 2	.297			
Observer Height (	,	5.0 feet			Hea	vy Truci	ks: 8	.004	Grade Ad	ljustmen	t: 0.0
	ad Elevation: ad Elevation:	0.0 feet		,	ano Eo	uivalor	nt Distai	aco (in	foot)		
	aa Elevation: Road Grade:	0.0 feet		-	ane Ly	Auto		.310	ieei)		
4	Road Grade:	0.0%			Modiu	m Truci		.114			
	Right View:	-90.0 degre 90.0 degre				vy Truci		.114			
FHWA Noise Mode	el Calculation	ıs									
VehicleType	REMEL	Traffic Flow	Dist	tance	Finite	Road	Fres	nel	Barrier At	ten Be	rm Atten
Autos:	70.20	4.40		0.54		-1.20		-4.66	0.0	000	0.00
Medium Trucks:	81.00	-11.02		0.57		-1.20		-4.87	0.0	000	0.00
Heavy Trucks:	85.38	-6.08		0.56	;	-1.20		-5.41	0.0	000	0.00
Unmitigated Noise	e Levels (with	out Topo and	barrie	er atteni	uation)						
VehicleType	Leq Peak Ho			Leq Ev			Night		Ldn		NEL
Autos:	73		71.8		68.3		67		74.		74.
Medium Trucks:	69		67.7		60.4		61		69.		69.
Heavy Trucks:	78		76.7		69.9		72	-	79.:	_	79.
Vehicle Noise:	80		78.3		72.5		73	.5	80.	В	81.
Centerline Distant	ce to Noise C	ontour (in feet	:)	70 d	IDΛ	e	i dBA	Τ.	60 dBA	E1	5 dBA
			I dn:	27			588	Т,	1.266		.727
	Lan: CNFL:			28			303		1,299		,799
		C.	VLL.	20	0	,	,00		1,200		,,,,,,,

Thursday, October 18, 2018

	FH	WA-RD-77-108	HIGI	HWAY N	OISE P	REDICT	ION M	ODEL				
Road Nam	io: Year 2035 ne: Riverside i nt: s/o Jurupa	Av.						Agua I				
	SPECIFIC II	NPUT DATA							L INPUT	S		
Highway Data					Site Cor	nditions	(Hard	= 10, S	oft = 15)			
Average Daily	Traffic (Adt):	44,906 vehicl	es					Autos:	15			
Peak Hour	Percentage:	10%				dium Tr		,				
Peak H	lour Volume:	4,491 vehicle	S		He	avy Tru	cks (3+	Axles):	15			
Ve	hicle Speed:	55 mph		1	/ehicle	Mix						
Near/Far La	ne Distance:	52 feet		F		icleType	,	Day	Evening	Night	Daily	
Site Data							Autos:	73.2%	8.1%	18.6%	89.36%	
Ra	rrier Height:	0.0 feet			М	edium T	rucks:	82.2%	3.9%	14.0%	2.58%	
Barrier Type (0-W		0.0				Heavy T	rucks:	76.5%	4.0%	19.5%	8.06%	
Centerline Di	. ,	52.0 feet		١.								
Centerline Dist.		52.0 feet		- /	voise S	ource E			eet)			
Barrier Distance	to Observer:	0.0 feet				Auto		0.000				
Observer Height	(Above Pad):	5.0 feet			Medium Trucks: 2.297 Heavy Trucks: 8.004 Grade Adjustment: 0.0							
	ad Elevation:	0.0 feet			Heav	y Truck	s: 8	3.004	Grade Ad	justment	. 0.0	
Roi	ad Elevation:	0.0 feet		I	ane Eq	uivalen	t Dista	nce (in	feet)			
	Road Grade:	0.0%				Auto	s: 4	5.310				
	Left View:	-90.0 degre	es		Mediu	m Truck	s: 4	5.114				
	Right View:	90.0 degre	es		Heav	y Truck	s: 4	5.133				
FHWA Noise Mod	el Calculation	18										
VehicleType	REMEL	Traffic Flow	Dis	stance	Finite	Road	Fres	snel	Barrier Att	en Bei	m Atten	
Autos:	71.78	3.33		0.54	ļ	-1.20		-4.66	0.0	000	0.000	
Medium Trucks:	82.40	-12.07		0.57	,	-1.20		-4.87	0.0	000	0.000	
Heavy Trucks:	86.40	-7.12		0.56	6	-1.20		-5.41	0.0	000	0.000	
Unmitigated Nois	e Levels (with	out Topo and	barri	er atten	uation)							
VehicleType	Leq Peak Ho			Leq Ev		,	Night		Ldn		NEL	
Autos:	-		72.3		68.8		67		74.9	-	75.2	
Medium Trucks:	-		68.1		60.8		61		69.4		69.6	
Heavy Trucks:			76.7		69.9		72		79.2		79.4	
Vehicle Noise:	80	0.4	78.4		72.7		73	.6	80.9	9	81.	
Centerline Distan	ce to Noise C	ontour (in feet	t)						-			
			L	70 c			dBA	(	60 dBA		dBA	
	Ldn:							1,292 2,783				
	CNEL:					286 616 1,326 2,857					857	

Thursday, October 18, 2018

	FH\	WA-RD-77-108	HIGH	WAY N	OISE P	REDICT	ION MO	DEL			
Road Nan	nio: Year 2035 ne: Rancho Av nt: n/o Agua N						t Name: lumber:		Mansa		
SITE	SPECIFIC IN	IPUT DATA				r	NOISE	MODE	L INPUT	S	
Highway Data				5	Site Cor	nditions	(Hard =	= 10, Sc	oft = 15)		
Average Daily	Traffic (Adt):	23,534 vehicle	es					Autos:	15		
Peak Hour	Percentage:	10%			Me	edium Tr	ucks (2	Axles):	15		
Peak H	lour Volume:	2,353 vehicles	S		He	eavy Tru	cks (3+	Axles):	15		
Ve	hicle Speed:	40 mph		1	/ehicle	Mix					
Near/Far La	ne Distance:	52 feet		F		icleType	э	Day	Evening	Night	Daily
Site Data							Autos:	73.2%	8.1%	18.6%	89.64%
Ra	rrier Height:	0.0 feet			М	edium T	rucks:	82.2%	3.9%	14.0%	2.54%
Barrier Type (0-W	Vall, 1-Berm):	0.0				Heavy T	rucks:	76.5%	4.0%	19.5%	7.82%
Centerline Di		52.0 feet		1	Voise S	ource E	levation	ıs (in fe	eet)		
Centerline Dist.		52.0 feet				Auto	s: 0	.000			
Barrier Distance		0.0 feet			Mediu	m Truck	s: 2	.297			
Observer Height		5.0 feet			Hear	vy Truck	s: 8	.004	Grade Ad	justmen	t: 0.0
	ad Elevation:	0.0 feet		١,	ane Eq	ialan	4 Diotor	oo (in	foot)		
	ad Elevation:	0.0 feet			.ane Eq	uivaien Auto		.310	reet)		
	Road Grade:	0.0%			Modiu	Auto m Truck					
	Left View:	-90.0 degree				m Truck vy Truck		.114			
	Right View:	90.0 degree	es		пеа	vy Truck	.8. 45	.133			
FHWA Noise Mod											
VehicleType	REMEL	Traffic Flow	Dist	ance		Road	Fres		Barrier Att		rm Atten
Autos:		1.92		0.54		-1.20 -1.20		-4.66		000	0.000
Medium Trucks:		-13.57		0.57				-4.87		000	0.000
Heavy Trucks:		-8.68		0.56		-1.20		-5.41	0.0	000	0.000
Unmitigated Nois VehicleType	Leg Peak Hou					100	Nicelas	1	Ldn		:NEL
Autos:	Ley Peak Hot		65.6	Leq Ev	62.1		Night 60.	0	68.3		68.5
Medium Trucks:			61.9		54.6		55.	-	63.:	_	63.4
Heavy Trucks:			71.7		64.9		67.		74.:	_	74.4
Vehicle Noise:			73.0		67.0		68.	-	75.		75.7
Centerline Distan	ce to Noise Co	ontour (in feet	)								
•			L	70 a	IBA	65	dBA	6	60 dBA	55	dBA
			Ldn:	12	1	2	:61		563	1	,212
		CI	VEL:	12	4	2	:68		577	1	,243

	FHV	/A-RD-77-108 I	HIGHWAY	NOISE P	REDICTIO	ON MO	DDEL				
Road Nan	io: Year 2035 \ ne: Slover Av. nt: w/o Cedar A				Project I Job Nu						
	SPECIFIC IN	PUT DATA		04-0	No nditions (			L INPUT	S		
Highway Data				Site Con	iaitions (	Hara	_				
Average Daily	. ,	17,039 vehicle	S				Autos:				
	Percentage:	10%			edium True						
	lour Volume:	1,704 vehicles		HE	eavy Truck	(8 (3+	Axies).	15			
	hicle Speed:	50 mph		Vehicle	Mix						
Near/Far La	ne Distance:	48 feet		Veh	icleType		Day	Evening	Night	Daily	
Site Data					A	utos:	73.2%	8.1%	18.6%	90.03%	
Ra	rrier Height:	0.0 feet		М	edium Tru	icks:	82.2%	3.9%	14.0%	2.479	
Barrier Type (0-W		0.0		1	Heavy Tru	icks:	76.5%	4.0%	19.5%	7.50%	
Centerline Di		52.0 feet		Maina C	ource Ele	vetio	no (in f	0.041			
Centerline Dist.	to Observer:	52.0 feet		Noise 3				eet)			
Barrier Distance	to Observer:		Autos: 0.000 Medium Trucks: 2.297								
Observer Height	Above Pad):	5.0 feet		Heavy Trucks: 8.004 Grade Adjustment: 0.0							
P	ad Elevation:	0.0 feet		пеан	vy Trucks.		.004	Grade Ad	jusuneni	0.0	
Ro	ad Elevation:	0.0 feet		Lane Eq	uivalent	Dista	nce (in	feet)			
	Road Grade:	0.0%			Autos:	46	.400				
	Left View:	-90.0 degrees	s	Mediu	m Trucks.	46	.209				
	Right View:	90.0 degree	S	Heav	vy Trucks:	46	5.228				
FHWA Noise Mod		s		1							
VehicleType	REMEL	Traffic Flow	Distance		Road	Fres		Barrier Att		m Atten	
Autos:	70.20	-0.44		.38	-1.20		-4.66		000	0.00	
Medium Trucks:	81.00	-16.06		.41	-1.20		-4.87		000	0.00	
Heavy Trucks:	85.38	-11.23		.41	-1.20		-5.41	0.0	000	0.00	
Unmitigated Nois VehicleType	Leg Peak Hou			enuation) Evening	Leg N	liabt		I dn		NFI	
Autos:	Ley reak nou		6.8	63.3		119111 62	1	69.4		VEL 69.	
Medium Trucks:	64		2.5	55.2		56		63.5		64.0	
Heavy Trucks:	73.		1.4	64.6		66		74.0	-	74.	
Vehicle Noise:	75.		3.1	67.3		68		75.0	_	75.	
Centerline Distan	ce to Noise Co	ntour (in feet)									
		-	7	0 dBA	65 d	BA	-	60 dBA	55	dBA	
		_	.dn:	122	26	4		568	1,	224	
		CN		126	27			583		256	

	FHV	VA-RD-77-108	HIGHW	AY NO	DISE PI	REDICT	ION M	ODEL			
	: Year 2035							Agua			
	: Rancho Av.					Job ∧	umber	11215			
Road Segmen	t: s/o Agua M	ansa Rd.									
	PECIFIC IN	PUT DATA		-	O				L INPUT	S	
Highway Data				3	ite Con	iaitions	(Hara		oft = 15)		
Average Daily 1	. ,	19,060 vehicl	es					Autos:			
Peak Hour F		10%				dium Tr		,			
	our Volume:	1,906 vehicle	S		He	avy Tru	cks (3+	Axles).	15		
	icle Speed:	40 mph		V	ehicle	Mix					
Near/Far Lan	e Distance:	52 feet			Veh	icleType	,	Day	Evening	Night	Daily
Site Data							Autos:	73.2%	8.1%	18.6%	89.78
Barı	rier Heiaht:	0.0 feet			M	edium T	rucks:	82.2%	3.9%	14.0%	2.51
Barrier Type (0-Wa	all, 1-Berm):	0.0			1	Heavy T	rucks:	76.5%	4.0%	19.5%	7.71
Centerline Dis		52.0 feet		Ν	oise S	ource E	levatio	ns (in f	eet)		
Centerline Dist. t		52.0 feet				Auto	s: (	0.000			
Barrier Distance to		0.0 feet			Mediu	m Truck	s: 2	2.297			
Observer Height (A	,	5.0 feet			Heav	v Truck	s: 8	3.004	Grade Ac	ljustmeni	: 0.0
	d Elevation:	0.0 feet					. Di	//	f4\		
	d Elevation:	0.0 feet		L	ane Eq	uivalen			reet)		
H	Road Grade:	0.0%			14	Auto		5.310			
	Left View:	-90.0 degre				m Truck		5.114			
	Right View:	90.0 degre	es		Heav	/y Truck	S: 4	5.133			
FHWA Noise Mode											
VehicleType	REMEL	Traffic Flow	Dista		Finite	Road	Fre		Barrier At		rm Atte
Autos:	66.51 77.72	1.01		0.54		-1.20 -1.20		-4.66		000	0.0
Medium Trucks:		-14.52		0.57				-4.87		000	0.0
Heavy Trucks:	82.99	-9.66		0.56		-1.20		-5.41	0.	000	0.0
Unmitigated Noise VehicleType	Levels (with Leg Peak Hou			eq Eve		Lea	Night		Ldn		NEL
Autos:	66		64.7	4 10	61.2		60	.0	67.		67
Medium Trucks:	62	.6	60.9		53.6		54	.5	62.	3	62
Heavy Trucks:	72	.7	70.7		63.9		66	.1	73.	3	73
Vehicle Noise:	74	.0	72.1		66.0		67	.3	74.	6	74
Centerline Distanc	e to Noise Co	ontour (in fee	)								
				70 dl	BA	65	dBA		60 dBA	55	dBA
			Ldn:	105	5	2	25		485	1.	.046

Thursday, October 18, 2018

	FH	WA-RD-77-108	HIGH	WAY I	NOISE PI	REDICTION	ON M	ODEL			
Road Nar	rio: Year 2035 ne: Slover Av. ent: w/o Riversi					Project i Job Nu		: Agua I	Mansa		
	SPECIFIC IN	NPUT DATA							L INPUT	S	
Highway Data					Site Con	ditions (	Hard	= 10, Sc	oft = 15)		
Average Daily	Traffic (Adt):	11,674 vehicle	es					Autos:	15		
Peak Hour	r Percentage:	10%			Me	dium Tru	cks (2	2 Axles):	15		
Peak I	Hour Volume:	1,167 vehicles	S		He	avy Truc	ks (3-	+ Axles):	15		
Ve	ehicle Speed:	50 mph		ŀ	Vehicle	Miv					
Near/Far La	ane Distance:	48 feet		F		icleType		Dav	Evening	Night	Daily
Site Data							utos:	73.2%	-	18.6%	
D.	arrier Height:	0.0 feet			М	edium Tri	ucks:	82.2%	3.9%	14.0%	2.49%
Barrier Type (0-V		0.0 feet			- 1	Heavy Tri	ucks:	76.5%	4.0%	19.5%	7.57%
	ist. to Barrier:	52.0 feet		-							
Centerline Dist.		52.0 feet		-	Noise S				eet)		
Barrier Distance		0.0 feet				Autos		0.000			
Observer Height		5.0 feet				m Trucks		2.297			
	Pad Flevation:	0.0 feet			Heav	ry Trucks	-	8.004	Grade Ad	justment	0.0
-	ad Elevation:	0.0 feet		l	Lane Eq	uivalent	Dista	nce (in	feet)		
710	Road Grade:	0.0%		Ī		Autos	: 4	6.400			
	I eft View:	-90.0 degree	es		Mediu	m Trucks	: 4	6.209			
	Right View:	90.0 degree			Heav	y Trucks	: 4	6.228			
FHWA Noise Mod	lel Calculation	ıs									
VehicleType	REMEL	Traffic Flow	Dis	tance	Finite	Road	Fre	snel	Barrier At	en Ber	m Atten
Autos:	70.20	-2.08		0.3	18	-1.20		-4.66	0.0	000	0.000
Medium Trucks:	81.00	-17.66		0.4	1	-1.20		-4.87	0.0	000	0.000
Heavy Trucks:	85.38	-12.83		0.4	1	-1.20		-5.41	0.0	000	0.000
Unmitigated Nois	e Levels (with	out Topo and	barrie	er attei	nuation)						
VehicleType	Leq Peak Hot	ur Leq Day	'	Leq E	vening	Leq N	Vight		Ldn	C	VEL
Autos:		7.3	65.2		61.6		60	).5	67.	-	68.1
Medium Trucks:	62	2.5	60.9		53.6		54	1.5	62.	3	62.4
Heavy Trucks:			69.8		63.0		65	5.1	72.		72.5
Vehicle Noise:	73	3.5	71.5		65.7		66	5.7	74.	)	74.1
Centerline Distan	ce to Noise C	ontour (in feet	)								-
					dBA	65 c		(	60 dBA		dBA
			Ldn:		95	20	-		443	-	55
		CI	VEL:	9	98	211 455 9				80	

Thursday, October 18, 2018

Thursday, October 18, 2018

	FH\	WA-RD-77-108	HIGH	WAY I	NOISE P	REDICT	ION M	ODEL			
Road Nan	rio: Year 2035 ne: Santa Ana ent: w/o Cedar	Av.						Agua I 11215	Mansa		
	SPECIFIC IN	IPUT DATA							L INPUT	S	
Highway Data					Site Cor	ditions	(Hard	= 10, S	oft = 15)		
Average Daily	Traffic (Adt):	9,120 vehicl	es					Autos:	15		
Peak Hour	Percentage:	10%				dium Tr					
Peak I	Hour Volume:	912 vehicle	S		He	avy Tru	cks (3+	Axles):	15		
Ve	ehicle Speed:	40 mph		ŀ	Vehicle	Mix					
Near/Far La	ane Distance:	36 feet		1		icleType	э	Day	Evening	Night	Daily
Site Data							Autos:	73.2%	8.1%	18.6%	89.18%
Ra	rrier Height:	0.0 feet			М	edium T	rucks:	82.2%	3.9%	14.0%	2.61%
Barrier Type (0-V	-	0.0				Heavy T	rucks:	76.5%	4.0%	19.5%	8.21%
	ist. to Barrier:	44.0 feet		-							
Centerline Dist.	to Observer:	44.0 feet		-	Noise S				eet)		
Barrier Distance	to Observer:	0.0 feet				Auto		0.000			
Observer Height	(Above Pad):	5.0 feet				m Truck		2.297	0		
	ad Elevation:	0.0 feet			Hear	y Truck	:s: 8	3.004	Grade Ad	justment	0.0
Ro	ad Elevation:	0.0 feet			Lane Eq	uivalen	t Dista	nce (in	feet)		
	Road Grade:	0.0%				Auto	s: 40	0.460			
	Left View:	-90.0 degre	es		Mediu	m Truck	s: 40	0.241			
	Right View:	90.0 degre			Hear	y Truck	s: 40	0.262			
FHWA Noise Mod	lel Calculation	ıs									
VehicleType	REMEL	Traffic Flow	Dis	tance	Finite	Road	Fres	snel	Barrier Att	en Bei	m Atten
Autos:	66.51	-2.22		1.2	28	-1.20		-4.61	0.0	000	0.000
Medium Trucks:	77.72	-17.57		1.3	31	-1.20		-4.87	0.0	000	0.000
Heavy Trucks:	82.99	-12.58		1.3	31	-1.20		-5.50	0.0	000	0.000
Unmitigated Nois	e Levels (with	out Topo and	barrie	er atte	nuation)						
VehicleType	Leq Peak Hot			Leq E	vening	Leq	Night		Ldn		NEL
Autos:	64	.4	62.2		58.7		57	.5	64.8	В	65.1
Medium Trucks:			58.6		51.3		52	-	60.0	-	60.2
Heavy Trucks:	70	).5	68.6		61.8		63	.9	71.	1	71.3
Vehicle Noise:	71	.8	69.8		63.8		65	.0	72.	3	72.5
Centerline Distan	ce to Noise C	ontour (in fee	t)								
			L		dBA		dBA	(	60 dBA		dBA
			Ldn:		63		35		291		27
		С	NEL:	6	64	1	38		298	6	42

	FH	WA-RD-77-108	HIG	HWAY	NOISE P	KEDIC I	ION IM	JUEL			
Road Nam	io: Year 2035 e: Jurupa Av. nt: w/o Cedar							Agua 11215			
	SPECIFIC IN						IOICE	MODE	L INPUT		
Highway Data	SPECIFIC III	IPUT DATA			Site Cor					>	
Average Daily	Traffic (Adt):	7.552 vehicle	es				•	Autos			
,	Percentage:	10%			Ме	dium Tr	ucks (2	Axles).	: 15		
Peak H	our Volume:	755 vehicle	s		He	avy Tru	cks (3+	Axles).	: 15		
Ve	hicle Speed:	40 mph		-	Vehicle	Miss					
Near/Far Lai	ne Distance:	48 feet				icleType		Day	Evening	Night	Daily
Site Data							Autos:	73.29		18.6%	
Par	rier Height:	0.0 feet			М	edium T	rucks:	82.29	6 3.9%	14.0%	
Barrier Type (0-W		0.0				Heavy T	rucks:	76.5%	6 4.0%	19.5%	7.42%
Centerline Dis		52.0 feet		-	M-1 0			/! /	4)		
Centerline Dist.	to Observer:	-	Noise Source Elevations (in feet)  Autos: 0.000								
Barrier Distance	to Observer:		Modiu	Auto m Truck		2.297					
Observer Height (.	Above Pad):	5.0 feet				vy Truck		3.004	Grade Ad	iı ıetman	t: 0.0
Pa	ad Elevation:	0.0 feet			пеан	y ITUCK	S. C	.004	Grade Ad	usunem	ı. 0.0
Roa	ad Elevation:	0.0 feet			Lane Eq	uivalen	t Dista	nce (in	feet)		
I	Road Grade:	0.0%				Auto	s: 46	6.400			
	Left View:	-90.0 degre	es			m Truck		3.209			
	Right View:	90.0 degre	es		Heav	y Truck	s: 46	5.228			
FHWA Noise Mode	el Calculation	s		1							
VehicleType	REMEL	Traffic Flow	Di	stance	Finite	Road	Fres	snel	Barrier Att	en Be	rm Atten
Autos:	66.51	-3.00		0.3		-1.20		-4.66		000	0.00
Medium Trucks:	77.72	-18.67		0.4		-1.20		-4.87		000	0.000
Heavy Trucks:	82.99	-13.84		0.4	11	-1.20		-5.41	0.0	000	0.000
Unmitigated Noise											
VehicleType	Leq Peak Hou			Leq E	vening	Leq	Night		Ldn	_	NEL
Autos:	62		60.6		57.0		55		63.2		63.4
Medium Trucks:	58		56.6		49.3		50		58.0		58.1
Heavy Trucks: Vehicle Noise:	68		66.4 67.8		59.6 61.8		61 63		69.0 70.2		69.1 70.4
Centerline Distance		••			01.0					-	
Contenine Distant	e to Noise Ci	omour (m leet	,	70	dBA	65	dBA		60 dBA	55	5 dBA
Ldn:					54 116 251				540		
	CNEL:						55 119 257 554				

	FHV	/A-RD-77-108	HIGI	HWAY	NOISE P	REDICT	ION M	ODEL			
Road Nam	io: Year 2035 \ ne: Santa Ana / nt: w/o Riversio	Av.						: Agua l : 11215	Mansa		
SITE Highway Data	SPECIFIC IN	PUT DATA			Site Cor				L INPUT	S	
	T				Site Coi	iaiuons	паги	Autos:	15		
Average Daily		5,154 vehicle 10%	S		14	odium T	euoleo (*	Autos: (Axles			
	Percentage:	515 vehicles						- Axles):			
	lour Volume:				п	avy III	icks (34	- Axies).	15		
	hicle Speed: ne Distance:	40 mph			Vehicle	Mix					
Near/Far La	ne Distance:	36 feet			Veh	icleTyp	е	Day	Evening	Night	Daily
Site Data							Autos:	73.2%		18.6%	90.00%
Ba	rrier Height:	0.0 feet			M	ledium 7	rucks:	82.2%	3.9%	14.0%	2.47%
Barrier Type (0-W	/all, 1-Berm):	0.0				Heavy 7	rucks:	76.5%	4.0%	19.5%	7.52%
Centerline Di	st. to Barrier:	44.0 feet			Noise S	ourco E	lovatio	ne (in f	not)		
Centerline Dist.	to Observer:	44.0 feet			NOISE 3	Auto		0.000	eei)		
Barrier Distance	to Observer:	0.0 feet			Modiu	m Truck		2.297			
Observer Height (	Above Pad):	5.0 feet				vy Truck		3.004	Grade Ad	iustmeni	. 00
Pi	ad Elevation:	0.0 feet								juoumom	. 0.0
Ro	ad Elevation:	0.0 feet			Lane Eq	uivaler	t Dista	nce (in	feet)		
	Road Grade:	0.0%				Auto		0.460			
	Left View:	-90.0 degree	s		Mediu	m Truck	ks: 4	0.241			
	Right View:	90.0 degree	S		Hea	vy Truck	(S: 4)	0.262			
FHWA Noise Mod	el Calculations	5									
VehicleType	REMEL	Traffic Flow	Dis	stance		Road	Fre	snel	Barrier Att		m Atten
Autos:	66.51	-4.66		1.2		-1.20		-4.61		000	0.00
Medium Trucks:	77.72	-20.27		1.3		-1.20		-4.87		000	0.00
Heavy Trucks:	82.99	-15.44		1.3		-1.20		-5.50	0.0	000	0.00
Unmitigated Nois	e Levels (with	out Topo and I	oarri	er atte	nuation)						
VehicleType	Leq Peak Hou			Leq E	vening		Night		Ldn		NEL
Autos:	61.		9.8		56.3		55		62.4		62.
Medium Trucks:	57.		5.9		48.6		49		57.3	-	57.
Heavy Trucks:	67.		5.7		58.9		61		68.3		68.
Vehicle Noise:	69.		37.0		61.0	1	62	2.2	69.	5	69.
Centerline Distant	ce to Noise Co	ntour (in feet)		70	dBA	05	-/D4		20 -104		-ID 4
							dBA		60 dBA		dBA

Thursday, October 18, 2018

	FH	WA-RD-77-10	B HIG	HWAY	NOISE PI	REDICTION	ON M	ODEL			
Road Nar	rio: Year 2035 ne: El Rivino R ent: e/o Cedar	Rd.				Project I Job Nu		: Agua l : 11215			
	SPECIFIC IN	NPUT DATA							L INPUT	S	
Highway Data					Site Con	ditions (	Hard	= 10, S	oft = 15)		
Average Daily	Traffic (Adt):	15,805 vehic	les					Autos:	15		
Peak Hour	Percentage:	10%			Me	dium Tru	cks (2	2 Axles):	15		
Peak I	Hour Volume:	1,581 vehicle	es		He	avy Truc	ks (3+	+ Axles):	15		
Ve	ehicle Speed:	45 mph			Vehicle	Miv					
Near/Far La	ane Distance:	36 feet				icleType	П	Dav	Evening	Night	Daily
Site Data					*011		utos:	73.2%	-	18.6%	,
	rrier Height:	0.0 feet			М	edium Tn	ıcks:	82.2%	3.9%	14.0%	
Barrier Type (0-V		0.0 feet			- 1	leavy Tri	ucks:	76.5%	4.0%	19.5%	11.31%
	ist. to Barrier:	44.0 feet									
Centerline Dist.		44.0 feet			Noise S				eet)		
Barrier Distance		0.0 feet				Autos		0.000			
Observer Height		5.0 feet				m Trucks		2.297			
	ad Flevation:	0.0 feet			Heav	y Trucks	: 1	8.004	Grade Ad	ljustment	: 0.0
Ro	ad Flevation:	0.0 feet			Lane Eq	uivalent	Dista	nce (in	feet)		
	Road Grade:	0.0%				Autos	: 4	0.460			
	Left View:	-90.0 degre	ees		Mediu	m Trucks	: 4	0.241			
	Right View:	90.0 degre	ees		Heav	y Trucks	: 4	0.262			
FHWA Noise Mod	lel Calculation	ıs									
VehicleType	REMEL	Traffic Flow	Di	stance	Finite	Road	Fre	snel	Barrier At	ten Ber	m Atten
Autos:				1.2		-1.20		-4.61		000	0.000
Medium Trucks:				1.3		-1.20		-4.87		000	0.000
Heavy Trucks:	84.25	-9.31		1.3	31	-1.20		-5.50	0.0	000	0.000
Unmitigated Nois	e Levels (with	out Topo and	l barrı	ier atte	nuation)						
VehicleType	Leq Peak Ho	ur Leq Da	У	Leq E	vening	Leq N	Vight		Ldn	C	NEL
Autos:		3.0	65.9		62.3		-	1.2	68.	5	68.8
Medium Trucks:	64	1.5	62.9		55.6		56	6.4	64.	3	64.4
Heavy Trucks:		5.0	73.1		66.3		68	3.4	75.	6	75.8
Vehicle Noise:	76	5.1	74.2		68.0		69	9.4	76.	7	76.8
Centerline Distan	ce to Noise C	ontour (in fee	t)								
			1		dBA	65 c		- (	60 dBA		dBA
			Ldn:		23	26	-		569	,	225
		C	NEL:	1	26	270 583				1,	255

Thursday, October 18, 2018 Thursday, October 18, 2018

	FH\	WA-RD-77-108	HIGH	WAY	NOISE P	REDICT	ION M	DDEL			
Road Nan	rio: Year 2035 ne: El Rivino R nt: e/o Cactus	d.					t Name: Number:		Mansa		
SITE	SPECIFIC IN	IPUT DATA							L INPUT	S	
Highway Data					Site Cor	ditions	(Hard	= 10, Sc	oft = 15)		
Average Daily	Traffic (Adt):	8,305 vehicle	es					Autos:	15		
Peak Hour	Percentage:	10%			Me	dium Ti	rucks (2	Axles):	15		
Peak F	lour Volume:	831 vehicle	S		He	avy Tru	icks (3+	Axles):	15		
Ve	hicle Speed:	45 mph		ł	Vehicle	Miv					
Near/Far La	ne Distance:	36 feet		1		icleTyp	e	Dav	Evening	Night	Daily
Site Data							Autos:	73.2%	-		87.09%
Ra	rrier Height:	0.0 feet			М	edium 7	rucks:	82.2%	3.9%	14.0%	2.83%
Barrier Type (0-W	-	0.0				Heavy 7	rucks:	76.5%	4.0%	19.5%	10.08%
	ist. to Barrier:	44.0 feet									
Centerline Dist.		44.0 feet			Noise S				eet)		
Barrier Distance	to Observer:	0.0 feet				Auto		.000			
Observer Height	(Above Pad):	5.0 feet				m Truck		.297			
	ad Elevation:	0.0 feet			Heav	y Truck	s: 8	.004	Grade Ad	justmen	t: 0.0
	ad Flevation:	0.0 feet		İ	Lane Eq	uivalen	t Dista	nce (in	feet)		
	Road Grade:	0.0%		İ		Auto	s: 40	.460	-		
	Left View:	-90.0 degre	20		Mediu	m Truck	s: 40	.241			
	Right View:	90.0 degre			Heav	y Truck	(S: 4(	.262			
FHWA Noise Mod	el Calculation	s									
VehicleType	REMEL	Traffic Flow	Dis	tance	Finite	Road	Fres	nel	Barrier Att	en Be	rm Atten
Autos:	68.46	-3.24		1.2	28	-1.20		-4.61	0.0	000	0.000
Medium Trucks:	79.45	-18.13		1.3	31	-1.20		-4.87	0.0	000	0.000
Heavy Trucks:	84.25	-12.61		1.3	31	-1.20		-5.50	0.0	000	0.000
Unmitigated Nois	e Levels (with	out Topo and	barrie	er atte	nuation)						
VehicleType	Leq Peak Hou			Leq E	vening	Leq	Night		Ldn		NEL
Autos:	65	.3	63.1		59.6		58	.5	65.8	3	66.0
Medium Trucks:	61	.4	59.8		52.5		53	-	61.2	_	61.3
Heavy Trucks:	71	.7	69.8		63.0		65	.1	72.4	1	72.5
Vehicle Noise:	73	.0	71.0		64.9		66	.2	73.5	5	73.6
Centerline Distan	ce to Noise Co	ontour (in feet	)								
		-	T	70	dBA	65	dBA	(	60 dBA	55	5 dBA
			Ldn:		75	1	62		348		750
		C	VEL:		77	1	66		357		769

Thursday, October 18, 2018

	FH\	WA-RD-77-108	HIGH	WAY N	OISE PI	REDICTI	ON M	ODEL			
	o: Year 2035 e: Agua Mans nt: e/o 20th St	sa Rd.				Project Job No		Agua 11215			
	SPECIFIC IN	IPUT DATA							L INPUT	s	
Highway Data				٤	Site Con	ditions	Hard	= 10, S	oft = 15)		
Average Daily	Traffic (Adt):	19,981 vehicl	es					Autos.			
Peak Hour	Percentage:	10%				dium Tru					
Peak H	our Volume:	1,998 vehicle	s		He	avy Truc	ks (3+	Axles).	15		
Vel	hicle Speed:	45 mph		١	/ehicle	Mix					
Near/Far Lar	ne Distance:	36 feet		F.		icleType		Day	Evening	Night	Daily
Site Data						A	utos:	73.29	8.1%	18.6%	87.79%
Rar	rier Height:	0.0 feet			M	edium Tr	ucks:	82.29	3.9%	14.0%	2.84%
Barrier Type (0-W		0.0			F	Heavy Tr	ucks:	76.5%	4.0%	19.5%	9.37%
Centerline Dis	. ,	50.0 feet			/- / O			/! /	41		
Centerline Dist.	to Observer:	50.0 feet		,	voise S	ource El			eet)		
Barrier Distance	to Observer:	0.0 feet				Autos		0.000			
Observer Height (	Above Pad):	5.0 feet				m Trucks		2.297	0		
	ad Elevation:	0.0 feet			Heav	y Trucks	:: 8	3.004	Grade Ad	justmen	r: U.U
Roa	ad Elevation:	0.0 feet		L	ane Eq	uivalent	Dista	nce (in	feet)		
F	Road Grade:	0.0%				Autos	: 46	3.915			
	Left View:	-90.0 degre	es		Mediu	m Trucks	: 46	6.726			
	Right View:	90.0 degre	es		Heav	y Trucks	: 46	6.744			
FHWA Noise Mode	el Calculation										
VehicleType	REMEL	Traffic Flow	Dis	tance	Finite	Road	Fres		Barrier Att	en Be	rm Atten
Autos:	68.46	0.60		0.31		-1.20		-4.65	0.0	000	0.00
Medium Trucks:	79.45	-14.30		0.34	ŀ	-1.20		-4.87	0.0	000	0.000
Heavy Trucks:	84.25	-9.11		0.34	ļ	-1.20		-5.43	0.0	000	0.000
Unmitigated Noise	Levels (with	out Topo and	barrie	r atteni	uation)						
VehicleType	Leq Peak Hou	ur Leq Daj	У	Leq Ev	rening	Leq I	Vight		Ldn		NEL
Autos:		3.2	66.0		62.5		61		68.		68.9
Medium Trucks:			62.6		55.4		56		64.0		64.2
Heavy Trucks:	74 75	1.3	72.3 73.6		65.5 67.5		67		74.9 76.1	_	75.0 76.2
Vehicle Noise:					67.5		68	.δ	76.	1	76.2
Centerline Distanc	e to Noise C	ontour (in fee	t)	70 d	IRΔ	65.0	·RΔ	Т.	60 dBA	54	i dBA
			I dn:	12		27			591		.273

	FHV	VA-RD-77-108	HIG	HWAY	NOISE P	REDICT	ION M	ODEL			
Road Nan	rio: Year 2035 \ ne: El Rivino R nt: e/o Hall Av.	d.						Agua I 11215			
	SPECIFIC IN	PUT DATA							L INPUT	s	
Highway Data					Site Cor	nditions	(Hard	= 10, S	oft = 15)		
Average Daily	Traffic (Adt):	5,202 vehicle	es					Autos:	15		
Peak Hour	Percentage:	10%				edium Tr		,			
Peak H	lour Volume:	520 vehicles	S		He	eavy Tru	cks (3+	Axles):	15		
Ve	ehicle Speed:	45 mph			Vehicle	Mix					
Near/Far La	ne Distance:	36 feet				iicleType	9	Day	Evening	Night	Daily
Site Data							Autos:	73.2%	8.1%	18.6%	92.48%
Ba	rrier Heiaht:	0.0 feet			M	ledium T	rucks:	82.2%	3.9%	14.0%	1.86%
Barrier Type (0-V		0.0				Heavy T	rucks:	76.5%	4.0%	19.5%	5.66%
	ist. to Barrier:	44.0 feet		-	Noise S		lovestic	no (in f	0.041		
Centerline Dist.	to Observer:	44.0 feet		-	Noise 3	Auto		0.000	eet)		
Barrier Distance	to Observer:	0.0 feet			Modiu	m Truck		2.297			
Observer Height	(Above Pad):	5.0 feet				vy Truck		3.004	Grade Ad	iuetman	. 0.0
P	ad Elevation:	0.0 feet			пеа	vy Truck	s. c	5.004	Orade Au	justinom	. 0.0
Ro	ad Elevation:	0.0 feet			Lane Eq	uivalen	t Dista	nce (in	feet)		
	Road Grade:	0.0%				Auto	s: 40	0.460			
	Left View:	-90.0 degree	es		Mediu	m Truck	s: 40	).241			
	Right View:	90.0 degree	es		Hea	vy Truck	s: 40	).262			
FHWA Noise Mod	lel Calculation	s									
VehicleType	REMEL	Traffic Flow	Di	istance	Finite	Road	Fres	snel	Barrier Att	en Be	m Atten
Autos:	68.46	-5.02		1.2	28	-1.20		-4.61	0.0	000	0.000
Medium Trucks:	79.45	-21.98		1.3	31	-1.20		-4.87	0.0	000	0.000
Heavy Trucks:	84.25	-17.15		1.3	31	-1.20		-5.50	0.0	000	0.000
Unmitigated Nois	e Levels (with	out Topo and	barr	ier atte	nuation)						
VehicleType	Leq Peak Hou	- 1 - 7		Leq E	vening		Night		Ldn		NEL
Autos:			61.4		57.8		56		64.0		64.3
Medium Trucks:			55.9		48.7		49		57.3	-	57.5
Heavy Trucks:	67	.2	65.3		58.5		60	.6	67.8	3	68.0
Vehicle Noise:	69	.1	67.1		61.4		62	.3	69.6	6	69.8
Centerline Distan	ce to Noise Co	ontour (in feet	)			1				1	
				70	dRA	65	dRA	1 /	SO dRA	55	dRA

Thursday, October 18, 2018

	FH'	WA-RD-77-108	HIGH	WAY I	NOISE PI	REDICTION	ON M	ODEL			
Road Nan	rio: Year 2035 ne: Agua Man ent: w/o Brown	sa Rd.				Project I Job Nu		: Agua I : 11215	Mansa		
	SPECIFIC II	NPUT DATA							L INPUT	S	
Highway Data					Site Con	ditions (	Hard	= 10, Sc	oft = 15)		
Average Daily	Traffic (Adt):	19,981 vehicle	es					Autos:	15		
Peak Hour	Percentage:	10%			Me	dium Tru	cks (2	Axles):	15		
Peak I	Hour Volume:	1,998 vehicle	S		He	avy Truci	ks (3+	- Axles):	15		
Ve	ehicle Speed:	45 mph		ł	Vehicle	Miv					
Near/Far La	ane Distance:	36 feet				icleType	П	Dav	Evening	Night	Daily
Site Data							utos:	73.2%	-	18.6%	
D-	rrier Height:	0.0 feet			M	edium Tru	ucks:	82.2%	3.9%	14.0%	2.84%
Barrier Type (0-V		0.0			- 1	Heavy Tru	ucks:	76.5%	4.0%	19.5%	9.37%
	ist. to Barrier:	50.0 feet			M-1 0	· <b>-</b>		(:- 6	41		
Centerline Dist.	to Observer:	50.0 feet		-	Noise S	ource Ele			eet)		
Barrier Distance	to Observer:	0.0 feet				Autos		0.000			
Observer Height	(Above Pad):	5.0 feet				m Trucks		2.297	0		
	ad Elevation:	0.0 feet			Heav	y Trucks	: 1	3.004	Grade Ad	justment	0.0
Ro	ad Elevation:	0.0 feet		ĺ	Lane Eq	uivalent	Dista	nce (in	feet)		
	Road Grade:	0.0%				Autos	: 4	6.915			
	Left View:	-90.0 degree	es		Mediu	m Trucks	: 4	6.726			
	Right View:	90.0 degree	es		Heav	y Trucks	: 4	6.744			
FHWA Noise Mod	lel Calculation	ıs									
VehicleType	REMEL	Traffic Flow	Dis	stance	Finite	Road	Fre	snel	Barrier At	ten Ber	m Atten
Autos:				0.3		-1.20		-4.65		000	0.000
Medium Trucks:				0.3		-1.20		-4.87		000	0.000
Heavy Trucks:	84.25	-9.11		0.3	34	-1.20		-5.43	0.0	000	0.000
Unmitigated Nois			barri	er atte	nuation)						
VehicleType	Leq Peak Ho	, ,	_	Leg E	vening	Leq N			Ldn		VEL
Autos:			66.0		62.5		-	.3	68.	-	68.9
Medium Trucks:	-		62.6		55.4			5.2	64.	-	64.2
Heavy Trucks:			72.3		65.5		67	'.6	74.	9	75.0
Vehicle Noise:	75	5.6	73.6		67.5		68	3.8	76.	1	76.2
Centerline Distan	ce to Noise C	ontour (in feet	)								
			L		dBA	65 a		(	60 dBA		dBA
			Ldn:		27	27			591	,	273
	CNEL:		1	30	28	1		606	1,	305	

Thursday, October 18, 2018

	FHV	WA-RD-77-108	HIGH	WAY	NOISE P	REDICT	TION MC	DEL			
Road Nan	nio: Year 2035 ne: Agua Mans nt: w/o Holly S	a Rd.					t Name: Number:		Mansa		
	SPECIFIC IN	IPUT DATA							L INPUT	s	
Highway Data					Site Cor	ditions	(Hard =	= 10, S	oft = 15)		
Average Daily	Traffic (Adt):	19,081 vehicle	es					Autos:	15		
Peak Hour	Percentage:	10%			Me	dium Tr	rucks (2	Axles):	15		
Peak F	lour Volume:	1,908 vehicle	S		He	avy Tru	icks (3+	Axles):	15		
Ve	hicle Speed:	45 mph		ŀ	Vehicle	Mix					
Near/Far La	ne Distance:	48 feet		ŀ		icleType	e	Dav	Evening	Night	Daily
Site Data							Autos:	73.2%		18.69	-
Pa	rrier Height:	0.0 feet			М	edium T	rucks:	82.2%	3.9%	14.09	6 2.59%
Barrier Type (0-W		0.0			1	Heavy T	rucks:	76.5%	4.0%	19.5%	8.11%
	st. to Barrier:	52.0 feet		-	M-1 0			- /! #	41		
Centerline Dist.	to Observer:	52.0 feet		-	Noise S				eet)		
Barrier Distance	to Observer:	0.0 feet				Auto		.000			
Observer Height	(Above Pad):	5.0 feet				m Truck		.297	Grade Ad	i atma	4 00
P	ad Elevation:	0.0 feet			Heav	y Truck	s: 8	.004	Grade Adj	usunen	ii. 0.0
Ro	ad Elevation:	0.0 feet			Lane Eq	uivalen	t Distar	ce (in	feet)		
	Road Grade:	0.0%				Auto	s: 46	.400			
	Left View:	-90.0 degre	es		Mediu	m Truck	s: 46	.209			
	Right View:	90.0 degre	es		Heav	y Truck	rs: 46	.228			
FHWA Noise Mod	el Calculation	s									
VehicleType	REMEL	Traffic Flow	Dist	ance		Road	Fres		Barrier Att	_	erm Atten
Autos:		0.48		0.3		-1.20		-4.66		000	0.000
Medium Trucks:		-14.90		0.4		-1.20		-4.87		000	0.000
Heavy Trucks:	84.25	-9.94		0.4	<b>1</b> 1	-1.20		-5.41	0.0	000	0.000
Unmitigated Nois	e Levels (with	out Topo and	barrie	r atte	nuation)						
VehicleType	Leq Peak Hou			Leq E	vening		Night		Ldn		CNEL
Autos:	68		66.0		62.4		61.		68.6		68.9
Medium Trucks:			62.1		54.8		55.	-	63.5		63.7
Heavy Trucks: Vehicle Noise:			71.6 73.0		64.8		66. 68.		74.1 75.5		74.3 75.6
					67.0		68.		/5.0	)	75.0
Centerline Distan	ce to Noise Co	ontour (in feet	)	70	dBA	6E	dBA		50 dBA	5	5 dBA
			I dn:		21		260	,	560	-	.206
			NEL:		24	_	267		574		.237
		O.				-			· ·		,20.

	FHV	VA-RD-77-108	HIG	HWAYN	IOISE P	KEDICI	ION M	ODEL			
	io: Year 2035 \							Agua			
	e: Agua Mans					JOD I	iumber.	11215			
Road Segmen	nt: e/o El Rivin	0 Ka.									
	SPECIFIC IN	PUT DATA							L INPUT	S	
Highway Data					Site Cor	nditions	(Hard	= 10, S	oft = 15)		
Average Daily	Traffic (Adt):	24,491 vehicl	es					Autos:	15		
Peak Hour	Percentage:	10%			Me	edium Tr	ucks (2	Axles):	15		
Peak H	lour Volume:	2,449 vehicle	s		He	eavy Tru	cks (3+	Axles):	15		
Vel	hicle Speed:	45 mph			Vehicle	Mix					
Near/Far Lar	ne Distance:	82 feet		F	Veh	icleType	9	Day	Evening	Night	Daily
Site Data							Autos:	73.2%	8.1%	18.6%	88.58%
Bar	rier Heiaht:	0.0 feet			М	edium T	rucks:	82.2%	3.9%	14.0%	2.68%
Barrier Type (0-W		0.0				Heavy T	rucks:	76.5%	4.0%	19.5%	8.74%
Centerline Dis	st. to Barrier:	60.0 feet		-	Noise S	ource F	levatio	ns (in f	eet)		
Centerline Dist.	to Observer:	60.0 feet		T.		Auto		0.000	001)		
Barrier Distance	to Observer:	0.0 feet			Mediu	m Truck		2.297			
Observer Height (	Above Pad):	5.0 feet				vv Truck	-	3.004	Grade Ad	iustmen	t: 0.0
Pa	ad Elevation:	0.0 feet				,					
Roa	ad Elevation:	0.0 feet			Lane Eq				feet)		
F	Road Grade:	0.0%				Auto		1.091			
	Left View:	-90.0 degre	es			m Truck		3.890			
	Right View:	90.0 degre	es		Hear	vy Truck	s: 43	3.909			
FHWA Noise Mode	el Calculation:	s									
VehicleType	REMEL	Traffic Flow	Di	stance	Finite	Road	Fres	snel	Barrier Att	en Be	rm Atten
Autos:	68.46	1.53		0.7	2	-1.20		-4.69	0.0	000	0.000
Medium Trucks:	79.45	-13.66		0.7	5	-1.20		-4.88	0.0	000	0.000
Heavy Trucks:	84.25	-8.53		0.7	4	-1.20		-5.34	0.0	000	0.000
Unmitigated Noise	e Levels (with	out Topo and	barri	er atten	uation)						
VehicleType	Leq Peak Hou	r Leq Day	/	Leq E	vening	Leq	Night		Ldn		NEL
Autos:	69.		67.4		63.8		62		70.0		70.3
Medium Trucks:	65.		63.7		56.4		57		65.1		65.2
Heavy Trucks:	75.		73.3		66.5		68		75.9		76.0
Vehicle Noise:	76.	.6	74.7		68.6		69	.9	77.	1	77.
Centerline Distanc	ce to Noise Co	ontour (in fee	t)								
			L		dBA		dBA	-	60 dBA		dBA
		_	Ldn:		30	_	87		833		,795
		C	NEL:	18	34	3	97		854	1	,841

	FHV	VA-RD-77-108	HIGH	WAY N	IOISE P	REDIC	TION MO	DDEL			
	o: Year 2035 \ e: Agua Mans nt: e/o Holly St	a Rd.					t Name: Number:				
	SPECIFIC IN	PUT DATA							L INPUT	S	
Highway Data					Site Cor	nditions	(Hard		oft = 15)		
Average Daily	. ,	19,100 vehicle	es					Autos:			
	Percentage:	10%					rucks (2	,			
	our Volume:	1,910 vehicle	S		He	eavy Iru	ıcks (3+	Axles).	15		
	nicle Speed:	45 mph		1	Vehicle	Mix					
Near/Far Lar	ne Distance:	48 feet			Veh	icleTyp	е	Day	Evening	Night	Daily
Site Data							Autos:	73.2%	8.1%	18.6%	87.51
Rar	rier Height:	0.0 feet			М	edium 1	rucks:	82.2%	3.9%	14.0%	2.91
Barrier Type (0-W		0.0				Heavy T	rucks:	76.5%	4.0%	19.5%	9.59
Centerline Dis	t. to Barrier:	52.0 feet		1	Voise S	ource E	levatio	ns (in f	eet)		
Centerline Dist. t	o Observer:	52.0 feet		Ė		Auto		.000	,		
Barrier Distance t	o Observer:	0.0 feet			Mediu	m Truci		.297			
Observer Height (	Above Pad):	5.0 feet				vy Truci		.004	Grade Ad	iustmen	: 0.0
Pa	d Elevation:	0.0 feet			11001	vy maci	10. 0	.004		,	- 0.0
Roa	d Elevation:	0.0 feet		I	Lane Eq	uivaler	ıt Distaı	ıce (in	feet)		
F	Road Grade:	0.0%				Auto		.400			
	Left View:	-90.0 degree	es			m Truci		.209			
	Right View:	90.0 degree	es		Heav	vy Truci	ks: 46	.228			
FHWA Noise Mode	l Calculation	s									
VehicleType	REMEL	Traffic Flow	Dist	tance		Road	Fres		Barrier Att		m Atter
Autos:	68.46	0.39		0.38		-1.20		-4.66		000	0.00
Medium Trucks:	79.45	-14.39		0.41		-1.20		-4.87		000	0.00
Heavy Trucks:	84.25	-9.21		0.41	1	-1.20		-5.41	0.0	000	0.00
Unmitigated Noise	•										
VehicleType Autos:	Leq Peak Hou 68		65.9	Leq Ev	ening 62.4		Night 61	^	Ldn 68.5	_	NEL 68
Autos: Medium Trucks:	68		65.9 62.6		55.3		51. 56.	_	64.0	-	68
Heavy Trucks:	74		62.6 72.3		65.5		67	_	74.9	-	75
Vehicle Noise:	75		73.6		67.5		68.		74.3		76
Centerline Distanc	e to Noise Co	ontour (in feet	)								
		(	<u> </u>	70 c	IBA .	65	dBA		60 dBA	55	dBA
			Ldn:	13	1	- :	283		610	1.	314

Thursday, October 18, 2018

	FH	WA-RD-77-108	HIGHW	/AY N	OISE PI	REDICTI	ON M	ODEL			
Road Nar	rio: Year 2035 ne: Agua Mans ent: e/o Riversi	sa Rd.				Project Job No		: Agua : 11215			
	SPECIFIC IN	IPUT DATA							L INPUT	S	
Highway Data				:	Site Con	ditions (	Hard	= 10, S	oft = 15)		
Average Daily	Traffic (Adt):	11,035 vehicle	es					Autos:	15		
Peak Hour	Percentage:	10%			Me	dium Tru	icks (2	Axles).	15		
Peak I	Hour Volume:	1,103 vehicles	s		He	avy Truc	ks (3+	- Axles).	15		
Ve	ehicle Speed:	45 mph		١,	/ehicle	Miss					
Near/Far La	ane Distance:	82 feet		H		icleType		Dav	Evening	Night	Daily
Site Data					*011		utos:	73.2%	-	18.6%	,
	rrier Heiaht:	0.0 feet			М	edium Tr		82.2%		14.0%	
Barrier Type (0-V		0.0 reet 0.0				leavy Tr		76.5%		19.5%	
	ist. to Barrier:	60.0 feet		L							
Centerline Dist.		60.0 feet		1	Voise S	ource Ele			eet)		
Barrier Distance		0.0 feet				Autos		0.000			
Observer Height		5.0 feet				m Trucks		2.297			
	ad Flevation:	0.0 feet			Heav	y Trucks		3.004	Grade Ad	justment	: 0.0
-	ad Elevation:	0.0 feet		1	ane Eq	uivalent	Dista	nce (in	feet)		
710	Road Grade:	0.0%		ı		Autos	: 4	4.091			
	Left View:	-90.0 degree	29		Mediu	n Trucks		3.890			
	Right View:	90.0 degree			Heav	y Trucks	: 4	3.909			
FHWA Noise Mod	lal Calaulatian										
VehicleType	REMEL	Traffic Flow	Dista	nce	Finite	Road	Fre	snel	Barrier Att	en Rei	m Atten
Autos		-1.91		0.72		-1.20		-4.69		000	0.000
Medium Trucks:	79.45	-17.28		0.75	5	-1.20		-4.88	0.0	000	0.000
Heavy Trucks:	84.25	-12.24		0.74	ļ	-1.20		-5.34	0.0	000	0.000
Unmitigated Nois	e Levels (with	out Topo and	barrier	atten	uation)						
VehicleType	Leq Peak Ho	ur Leq Day	/ L	.eq E	ening	Leq I	Vight		Ldn	C	NEL
Autos:	66	5.1	63.9		60.4		59	).2	66.	5	66.8
Medium Trucks:	61	.7	60.1		52.8		53	3.6	61.5	5	61.6
Heavy Trucks:	71	.6	69.6		62.8		64	.9	72.2	2	72.3
Vehicle Noise:	73	3.0	71.0		65.0		66	6.2	73.	5	73.7
Centerline Distan	ce to Noise C	ontour (in feet	)								
				70 c		65 c			60 dBA		dBA
			Ldn:	10	-	22			476		025
		CI	VEL:	10	5	22	7		488	1,	052

Thursday, October 18, 2018

	FH\	WA-RD-77-108	HIGH	lWAY	NOISE P	REDICT	ION M	ODEL			
Road Nan	rio: Year 2035 ne: 20th St. nt: e/o Rubido						t Name: Number:		Mansa		
	SPECIFIC IN	NPUT DATA							L INPUT	S	
Highway Data					Site Cor	nditions	(Hard	= 10, S	oft = 15)		
Average Daily	Traffic (Adt):	30,620 vehicle	es					Autos:	15		
Peak Hour	Percentage:	10%				edium Ti					
Peak F	lour Volume:	3,062 vehicle	S		He	eavy Tru	icks (3+	Axles):	15		
Ve	hicle Speed:	45 mph			Vehicle	Mix					
Near/Far La	ne Distance:	36 feet				icleTyp	е	Dav	Evening	Night	Daily
Site Data							Autos:	73.2%	-	18.6%	
Ra	rrier Height:	0.0 feet			М	edium 7	rucks:	82.2%	3.9%	14.0%	2.64%
Barrier Type (0-W	-	0.0				Heavy 1	rucks:	76.5%	4.0%	19.5%	8.57%
Centerline Di		50.0 feet									
Centerline Dist.	to Observer:	50.0 feet			Noise S				eet)		
Barrier Distance	to Observer:	0.0 feet				Auto		0.000			
Observer Height	(Above Pad):	5.0 feet				m Truck		2.297	Crada Ad	livotmon	4.00
P	ad Elevation:	0.0 feet			Hear	vy Truck	rs: E	3.004	Grade Ad	jusunen	ι. υ.υ
Ro	ad Elevation:	0.0 feet			Lane Eq	uivalen	t Dista	nce (in	feet)		
	Road Grade:	0.0%				Auto	s: 46	3.915			
	Left View:	-90.0 degre	es		Mediu	m Truck	ks: 46	6.726			
	Right View:	90.0 degre	es		Hear	vy Truck	rs: 46	6.744			
FHWA Noise Mod	el Calculation	ıs									
VehicleType	REMEL	Traffic Flow	Dis	stance	Finite	Road	Fres	snel	Barrier Att	en Be	rm Atten
Autos:	68.46	2.51		0.3	31	-1.20		-4.65	0.0	000	0.000
Medium Trucks:	79.45	-12.76		0.3	34	-1.20		-4.87	0.0	000	0.000
Heavy Trucks:	84.25	-7.65		0.0	34	-1.20		-5.43	0.0	000	0.000
Unmitigated Nois	e Levels (with	out Topo and	barrie	er atte	nuation)						
VehicleType	Leq Peak Hot			Leq E	vening		Night		Ldn		NEL
Autos:	70	).1	67.9		64.4		63	.2	70.6	6	70.8
Medium Trucks:			64.2		56.9		57		65.6	-	65.7
Heavy Trucks:	75		73.8		67.0		69	.1	76.3	3	76.5
Vehicle Noise:	77	7.1	75.1		69.2		70	.4	77.6	6	77.8
Centerline Distan	ce to Noise C	ontour (in feet	)								
			L		dBA		dBA	(	60 dBA	_	5 dBA
			Ldn:		61		348		750		,615
		C	VEL:	1	66	3	357		769	1	,656

	FHV	VA-RD-77-108	HIGHWAY	NOISE PI	REDICTIO	N MODEL			
	o: Year 2035 e: Market St. at: e/o Hall Av.					ame: Agua nber: 1121:			
	SPECIFIC IN	IPUT DATA					EL INPUT	s	
Highway Data				Site Con	ditions (H	lard = 10, S			
Average Daily	. ,	36,336 vehicle	S			Autos			
	Percentage:	10%				ks (2 Axles,			
	our Volume:	3,634 vehicles		He	avy Trucks	s (3+ Axles,	): 15		
	hicle Speed:	45 mph		Vehicle	Mix				
Near/Far Lar	ne Distance:	36 feet		Veh	icleType	Day	Evening	Night	Daily
Site Data					Au	tos: 73.2°	% 8.1%	18.6%	88.38%
Rar	rier Heiaht:	0.0 feet		M	edium Truc	ks: 82.2°	% 3.9%	14.0%	2.71%
Barrier Type (0-Wa		0.0		F	Heavy Truc	ks: 76.5°	% 4.0%	19.5%	8.91%
Centerline Dis	. ,	50.0 feet		Maina C	nurse Elec	ations (in	foot)		
Centerline Dist. t	to Observer:	50.0 feet		Noise 30	Autos:	0.000	ieet)		
Barrier Distance t	to Observer:	0.0 feet		A deceller	m Trucks:	2.297			
Observer Height (/	Above Pad):	5.0 feet			v Trucks:	8.004	Grade Ad	liustmont	
Pa	d Elevation:	0.0 feet		пеач	y Trucks.	0.004	Grade Ad	jusuneni	0.0
Roa	d Elevation:	0.0 feet		Lane Eq	uivalent D	istance (in	feet)		
F	Road Grade:	0.0%			Autos:	46.915			
	Left View:	-90.0 degree	s	Mediu	m Trucks:	46.726			
	Right View:	90.0 degree	S	Heav	y Trucks:	46.744			
FHWA Noise Mode	el Calculation	s							
VehicleType	REMEL	Traffic Flow	Distance	Finite	Road	Fresnel	Barrier Att	en Ber	m Atten
Autos:	68.46	3.23	0.3		-1.20	-4.65		000	0.000
Medium Trucks:	79.45	-11.90		34	-1.20	-4.87		000	0.000
Heavy Trucks:	84.25	-6.73	0.3	34	-1.20	-5.43	0.0	000	0.000
Unmitigated Noise								1	
	Leq Peak Hou			Evening	Leq Ni		Ldn	-	NEL
Autos:	70		8.7	65.1		64.0	71.3		71.6
Medium Trucks:	66		5.0	57.8		58.6	66.4		66.6
Heavy Trucks: Vehicle Noise:	76 78		'4.7 '6.0	67.9 70.0		70.0 71.2	77.: 78.:		77.4
Centerline Distanc	e to Noise Co	ontour (in feet)							
		,,	70	dBA	65 dE	₿A	60 dBA	55	dBA
		L	dn: 1	185	398		857	1,	847
		CN	IFI: 1	189	408		879	- 1	894

	FH\	WA-RD-77-108	HIGH	WAY NO	DISE PE	REDICTIO	N MOI	DEL			
Scenario Road Name Road Segment						Project N Job Nur			Mansa		
SITE S	PECIFIC IN	IPUT DATA				NC	ISE N	IODE	L INPUT	s	
Highway Data				s	ite Con	ditions (F	lard =	10, So	oft = 15)		
Average Daily To Peak Hour P Peak Ho		27,549 vehicles 10% 2,755 vehicles				dium Truc avy Truck	ks (2 A		15 15 15		
Vehi	icle Speed:	45 mph		V	ehicle l	Miv					
Near/Far Lane	e Distance:	36 feet				icleType		Dav	Evening	Night	Daily
Site Data					VOIII			73.2%	-	18.6%	
	ier Heiaht:	0.0 feet			Me	edium Tru		82.2%		14.0%	
Barrier Type (0-Wa	II, 1-Berm):	0.0			F	leavy Tru	cks:	76.5%	4.0%	19.5%	9.33%
Centerline Dist		50.0 feet		N	oise Sc	urce Ele	vations	s (in fe	eet)		
Centerline Dist. to	Observer:	50.0 feet		-		Autos:		000			
Barrier Distance to	Observer:	0.0 feet			Mediur	n Trucks:		97			
Observer Height (A	,	5.0 feet				y Trucks:		004	Grade Adj	iustment	: 0.0
	d Elevation:	0.0 feet		-							
	d Elevation:	0.0 feet		L	ane Eq	uivalent L			reet)		
Re	oad Grade:	0.0%				Autos:					
,	Left View: Right View:	-90.0 degree				n Trucks: y Trucks:	46.7				
FHWA Noise Model		ŭ									
VehicleType	REMEL	Traffic Flow	Diet	ance	Finite	Dood	Fresn	ol.	Barrier Att	on Po	rm Atten
Autos:	68.46	2.00	Dist	0.31	1 IIIIIC	-1.20		-4.65	0.0		0.000
Medium Trucks:	79.45	-13.00		0.34		-1.20		-4.87		000	0.000
Heavy Trucks:	84.25	-7.74		0.34		-1.20		-5.43	0.0	000	0.000
Unmitigated Noise	Levels (with	out Topo and	barrie	r attenu	ation)						
VehicleType L	eq Peak Hou	ır Leq Day		Leq Eve	ening	Leq N	ight		Ldn	С	NEL
Autos:	69	.6	67.4		63.9		62.7		70.0	)	70.3
Medium Trucks:	65		63.9		56.7		57.5		65.3		65.5
Heavy Trucks:	75		73.7		66.9		69.0		76.3		76.4
Vehicle Noise:	76		75.0		68.9		70.2		77.5	5	77.6
Centerline Distance	to Noise Co	ontour (in feet)	)								
			L	70 dl		65 dE		6	i0 dBA		i dBA
			Ldn:	157		339			730		,572
		CN	IEL:	161		347			748	1,	,611

Thursday, October 18, 2018

FH	WA-RD-77-108 HIG	HWAY NOISE F	REDICTION	MODEL		
Scenario: Year 2035 Road Name: Market St. Road Segment: e/o Rivera			Project Nan Job Numb			
SITE SPECIFIC II	NPUT DATA		NOIS	E MODE	L INPUT	S
Highway Data		Site Co	nditions (Har	d = 10, S	oft = 15)	
Average Daily Traffic (Adt):	44,357 vehicles			Autos.	15	
Peak Hour Percentage:	10%	M	edium Trucks	(2 Axles)	: 15	
Peak Hour Volume:	4,436 vehicles	Н	eavy Trucks (	3+ Axles)	: 15	
Vehicle Speed:	45 mph	Vehicle	Miv			
Near/Far Lane Distance:	48 feet		hicleType	Dav	Evening	Night Daily
Site Data			Autos	s: 73.29	-	18.6% 88.63%
Barrier Height:	0.0 feet	٨	ledium Trucks	s: 82.29	6 3.9%	14.0% 2.68%
Barrier Type (0-Wall, 1-Berm):	0.0		Heavy Trucks	s: 76.5%	6 4.0%	19.5% 8.69%
Centerline Dist. to Barrier:	50.0 feet	Noise	ource Elevat	tions (in t	(oot)	
Centerline Dist. to Observer:	50.0 feet	710,000	Autos:	0.000	001)	
Barrier Distance to Observer:	0.0 feet	Madii	ım Trucks:	2.297		
Observer Height (Above Pad):	5.0 feet		vv Trucks:	8.004	Grade Ad	justment: 0.0
Pad Elevation:	0.0 feet		,			,
Road Elevation:	0.0 feet	Lane E	quivalent Dis		feet)	
Road Grade:	0.0%			44.147		
Left View:	-90.0 degrees			43.947		
Right View:	90.0 degrees	Hea	vy Trucks:	43.966		
FHWA Noise Model Calculation	ıs					
VehicleType REMEL	Traffic Flow Di	stance Finite		resnel	Barrier Att	en Berm Atten
Autos: 68.46		0.71	-1.20	-4.65		0.000
Medium Trucks: 79.45		0.74	-1.20	-4.87		0.000
Heavy Trucks: 84.25	-5.98	0.73	-1.20	-5.43	0.0	0.000
Unmitigated Noise Levels (with		,				
VehicleType Leq Peak Ho		Leq Evening	Leq Nigh		Ldn	CNEL
	2.1 69.9	66.4		65.2	72.	
	7.9 66.3	59.0		59.8	67.6	
,	7.8 75.9	69.		71.2	78.4	
	9.2 77.2	71.2	2	72.4	79.7	7 79.9
Centerline Distance to Noise C	ontour (in feet)					
	[	70 dBA	65 dBA		60 dBA	55 dBA
	Ldn:	221 227	477 489		1,028 1.054	2,215
	CNFI:					2.271

Thursday, October 18, 2018

Thursday, October 18, 2018

# **APPENDIX 9.1:**

**OPERATIONAL STATIONARY-SOURCE NOISE CALCULATIONS** 



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10/17/2018

Observer Location: R1 Project Name: Agua Mansa

Source: Air Conditioning Unit (Roof-Top)

Job Number: 11215

Condition: Operational

Analyst: A. Wolfe

#### **NOISE MODEL INPUTS**

Noise Distance to Observer 400.0 feet Barrier Height: 0.0 feet Noise Distance to Barrier: 400.0 feet Noise Source Height: 5.0 feet Barrier Distance to Observer: 0.0 feet Observer Height: 5.0 feet

Observer Elevation: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0

Noise Source Elevation: 20.0 feet Drop Off Coefficient: 20.0

Barrier Elevation: 0.0 feet 20 = 6 dBA per doubling of distance 15 = 4.5 dBA per doubling of distance

NOISE MODEL PROJECTIONS											
Noise Level	Distance (feet)	Leq	L50	L25	L8	L2	Lmax				
Reference (Sample)	5.0	77.2	74.4	76.1	77.4	77.7	78.2				
Distance Attenuation	400.0	-38.1	-38.1	-38.1	-38.1	-38.1	-38.1				
Shielding (Barrier Attenuation)	400.0	0.0	0.0	0.0	0.0	0.0	0.0				
Raw (Distance + Barrier)		39.1	36.3	38.0	39.3	39.6	40.1				
39 Minute Hourly Adjustmen	nt	37.2	34.4	36.1	37.4	37.7	38.2				

### STATIONARY SOURCE NOISE PREDICTION MODEL 10/17/2018

Observer Location: R1 Project Name: Agua Mansa

Source: Truck Unloading/Docking Activity

Condition: Operational

Job Number: 11215

Analyst: A. Wolfe

### **NOISE MODEL INPUTS**

Noise Distance to Observer 830.0 feet Barrier Height: 0.0 feet Noise Distance to Barrier: 830.0 feet Noise Source Height: 8.0 feet Barrier Distance to Observer: 0.0 feet Observer Height: 5.0 feet

Observer Elevation: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0

Noise Source Elevation: 0.0 feet Drop Off Coefficient: 20.0

NOISE MODEL PROJECTIONS											
Noise Level	Distance (feet)	Leq	L50	L25	L8	L2	Lmax				
Reference (Sample)	30.0	67.2	64.2	67.2	71.8	75.6	80.0				
Distance Attenuation	830.0	-28.8	-28.8	-28.8	-28.8	-28.8	-28.8				
Shielding (Barrier Attenuation)	830.0	0.0	0.0	0.0	0.0	0.0	0.0				
Raw (Distance + Barrier)		38.4	35.4	38.4	43.0	46.8	51.2				
60 Minute Hourly Adjustmen	nt	38.4	35.4	38.4	43.0	46.8	51.2				

Observer Location: R1 Project Name: Agua Mansa

Source: Parking Lot Vehicle Movements (Industria Job Number: 11215

Condition: Operational Analyst: A. Wolfe

#### **NOISE MODEL INPUTS**

Noise Distance to Observer 649.0 feet Barrier Height: 0.0 feet
Noise Distance to Barrier: 649.0 feet Noise Source Height: 5.0 feet
Barrier Distance to Observer: 0.0 feet Observer Height: 5.0 feet

Observer Elevation: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0

Noise Source Elevation: 0.0 feet Drop Off Coefficient:

Barrier Elevation: 0.0 feet 20 = 6 dBA per doubling of distance 15 = 4.5 dBA per doubling of distance

NOISE MODEL PROJECTIONS										
Noise Level	Distance (feet)	Leq	L50	L25	L8	L2	Lmax			
Reference (Sample)	10.0	52.2	49.0	50.0	55.0	61.0	71.9			
Distance Attenuation	649.0	-27.2	-27.2	-27.2	-27.2	-27.2	-27.2			
Shielding (Barrier Attenuation)	649.0	0.0	0.0	0.0	0.0	0.0	0.0			
Raw (Distance + Barrier)		25.0	21.8	22.8	27.8	33.8	44.7			
60 Minute Hourly Adjustmen	nt	25.0	21.8	22.8	27.8	33.8	44.7			

### STATIONARY SOURCE NOISE PREDICTION MODEL 10/17/2018

10/17/2018

15.0

Observer Location: R1 Project Name: Agua Mansa

Source: Parking Lot Vehicle Movements (Commer Job Number: 11215 Condition: Operational Analyst: A. Wolfe

### **NOISE MODEL INPUTS**

Noise Distance to Observer 360.0 feet Barrier Height: 0.0 feet Noise Distance to Barrier: 360.0 feet Noise Source Height: 5.0 feet Barrier Distance to Observer: 0.0 feet Observer Height: 5.0 feet

Observer Elevation: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0

Noise Source Elevation: 0.0 feet Drop Off Coefficient: 15.0

NOISE MODEL PROJECTIONS											
Noise Level	Distance (feet)	Leq	L50	L25	L8	L2	Lmax				
Reference (Sample)	5.0	60.1	56.7	60.7	63.7	67.1	79.5				
Distance Attenuation	360.0	-27.9	-27.9	-27.9	-27.9	-27.9	-27.9				
Shielding (Barrier Attenuation)	360.0	0.0	0.0	0.0	0.0	0.0	0.0				
Raw (Distance + Barrier)		32.2	28.8	32.8	35.8	39.2	51.6				
60 Minute Hourly Adjustmen	nt	32.2	28.8	32.8	35.8	39.2	51.6				

10/17/2018

Observer Location: R2 Project Name: Agua Mansa

Source: Air Conditioning Unit (Roof-Top)

Job Number: 11215

Condition: Operational

Analyst: A. Wolfe

#### **NOISE MODEL INPUTS**

Noise Distance to Observer 526.0 feet Barrier Height: 0.0 feet
Noise Distance to Barrier: 526.0 feet Noise Source Height: 5.0 feet
Barrier Distance to Observer: 0.0 feet Observer Height: 5.0 feet

Observer Elevation: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0

Noise Source Elevation: 30.0 feet Drop Off Coefficient: 20.0

Barrier Elevation: 0.0 feet 20 = 6 dBA per doubling of distance 15 = 4.5 dBA per doubling of distance

NOISE MODEL PROJECTIONS											
Noise Level	Distance (feet)	Leq	L50	L25	L8	L2	Lmax				
Reference (Sample)	5.0	77.2	74.4	76.1	77.4	77.7	78.2				
Distance Attenuation	526.0	-40.4	-40.4	-40.4	-40.4	-40.4	-40.4				
Shielding (Barrier Attenuation)	526.0	0.0	0.0	0.0	0.0	0.0	0.0				
Raw (Distance + Barrier)		36.8	34.0	35.7	37.0	37.3	37.8				
39 Minute Hourly Adjustmen	nt	34.9	32.1	33.8	35.1	35.4	35.9				

### STATIONARY SOURCE NOISE PREDICTION MODEL 10/17/2018

Observer Location: R2 Project Name: Agua Mansa

Source: Truck Unloading/Docking Activity

Condition: Operational

Job Number: 11215

Analyst: A. Wolfe

### **NOISE MODEL INPUTS**

Noise Distance to Observer 600.0 feet Barrier Height: 0.0 feet Noise Distance to Barrier: 600.0 feet Noise Source Height: 8.0 feet Barrier Distance to Observer: 0.0 feet Observer Height: 5.0 feet

Observer Elevation: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0

Noise Source Elevation: 0.0 feet Drop Off Coefficient: 20.0

NOISE MODEL PROJECTIONS											
Noise Level	Distance (feet)	Leq	L50	L25	L8	L2	Lmax				
Reference (Sample)	30.0	67.2	64.2	67.2	71.8	75.6	80.0				
Distance Attenuation	600.0	-26.0	-26.0	-26.0	-26.0	-26.0	-26.0				
Shielding (Barrier Attenuation)	600.0	0.0	0.0	0.0	0.0	0.0	0.0				
Raw (Distance + Barrier)		41.2	38.2	41.2	45.8	49.6	54.0				
60 Minute Hourly Adjustmen	nt	41.2	38.2	41.2	45.8	49.6	54.0				

10/17/2018

Observer Location: R2 Project Name: Agua Mansa

Source: Parking Lot Vehicle Movements (Industria Job Number: 11215

Condition: Operational Analyst: A. Wolfe

#### **NOISE MODEL INPUTS**

Noise Distance to Observer 167.0 feet Barrier Height: 0.0 feet
Noise Distance to Barrier: 167.0 feet Noise Source Height: 5.0 feet
Barrier Distance to Observer: 0.0 feet Observer Height: 5.0 feet

Observer Elevation: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0

Noise Source Elevation: 0.0 feet Drop Off Coefficient: 15.0

Barrier Elevation: 0.0 feet 20 = 6 dBA per doubling of distance 15 = 4.5 dBA per doubling of distance

NOISE MODEL PROJECTIONS											
Noise Level	Distance (feet)	Leq	L50	L25	L8	L2	Lmax				
Reference (Sample)	10.0	52.2	49.0	50.0	55.0	61.0	71.9				
Distance Attenuation	167.0	-18.3	-18.3	-18.3	-18.3	-18.3	-18.3				
Shielding (Barrier Attenuation)	167.0	0.0	0.0	0.0	0.0	0.0	0.0				
Raw (Distance + Barrier)		33.9	30.7	31.7	36.7	42.7	53.6				
60 Minute Hourly Adjustmen	nt	33.9	30.7	31.7	36.7	42.7	53.6				

### STATIONARY SOURCE NOISE PREDICTION MODEL 10/17/2018

Observer Location: R3 Project Name: Agua Mansa

Source: Air Conditioning Unit (Roof-Top)

Job Number: 11215

Condition: Operational

Analyst: A. Wolfe

# **NOISE MODEL INPUTS**

Noise Distance to Observer530.0 feetBarrier Height:0.0 feetNoise Distance to Barrier:530.0 feetNoise Source Height:5.0 feetBarrier Distance to Observer:0.0 feetObserver Height:5.0 feet

Observer Elevation: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0

Noise Source Elevation: 30.0 feet Drop Off Coefficient: 20.0

NOISE MODEL PROJECTIONS											
Noise Level	Distance (feet)	Leq	L50	L25	L8	L2	Lmax				
Reference (Sample)	5.0	77.2	74.4	76.1	77.4	77.7	78.2				
Distance Attenuation	530.0	-40.5	-40.5	-40.5	-40.5	-40.5	-40.5				
Shielding (Barrier Attenuation)	530.0	0.0	0.0	0.0	0.0	0.0	0.0				
Raw (Distance + Barrier)		36.7	33.9	35.6	36.9	37.2	37.7				
39 Minute Hourly Adjustmen	nt	34.8	32.0	33.7	35.0	35.3	35.8				

Observer Location: R3 Project Name: Agua Mansa

Source: Truck Unloading/Docking Activity

Job Number: 11215

Condition: Operational

Analyst: A. Wolfe

#### **NOISE MODEL INPUTS**

Noise Distance to Observer 436.0 feet Barrier Height: 436.0 feet Noise Source Height: Noise Source Height: 8.0 feet Barrier Distance to Observer: 0.0 feet Observer Height: 5.0 feet

Observer Elevation: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0

Noise Source Elevation: 0.0 feet Drop Off Coefficient: 20.0

Barrier Elevation: 0.0 feet 20 = 6 dBA per doubling of distance 15 = 4.5 dBA per doubling of distance

NOISE MODEL PROJECTIONS										
Noise Level	Distance (feet)	Leq	L50	L25	L8	L2	Lmax			
Reference (Sample)	30.0	67.2	64.2	67.2	71.8	75.6	80.0			
Distance Attenuation	436.0	-23.2	-23.2	-23.2	-23.2	-23.2	-23.2			
Shielding (Barrier Attenuation)	436.0	0.0	0.0	0.0	0.0	0.0	0.0			
Raw (Distance + Barrier)		44.0	41.0	44.0	48.6	52.4	56.8			
60 Minute Hourly Adjustmen	nt	44.0	41.0	44.0	48.6	52.4	56.8			

### STATIONARY SOURCE NOISE PREDICTION MODEL 10/17/2018

10/17/2018

Observer Location: R3 Project Name: Agua Mansa

Source: Parking Lot Vehicle Movements (Industria Job Number: 11215 Condition: Operational Analyst: A. Wolfe

# **NOISE MODEL INPUTS**

Noise Distance to Observer 475.0 feet Barrier Distance to Barrier: 475.0 feet Noise Source Height: 5.0 feet Barrier Distance to Observer: 0.0 feet Observer Height: 5.0 feet

Observer Elevation: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0

Noise Source Elevation: 0.0 feet Drop Off Coefficient: 15.0

NOISE MODEL PROJECTIONS											
Noise Level	Distance (feet)	Leq	L50	L25	L8	L2	Lmax				
Reference (Sample)	10.0	52.2	49.0	50.0	55.0	61.0	71.9				
Distance Attenuation	475.0	-25.2	-25.2	-25.2	-25.2	-25.2	-25.2				
Shielding (Barrier Attenuation)	475.0	0.0	0.0	0.0	0.0	0.0	0.0				
Raw (Distance + Barrier)		27.0	23.8	24.8	29.8	35.8	46.7				
60 Minute Hourly Adjustmen	nt	27.0	23.8	24.8	29.8	35.8	46.7				

10/17/2018

Observer Location: R4 Project Name: Agua Mansa

Source: Air Conditioning Unit (Roof-Top)

Job Number: 11215

Condition: Operational

Analyst: A. Wolfe

#### **NOISE MODEL INPUTS**

Noise Distance to Observer 774.0 feet Barrier Height: 0.0 feet
Noise Distance to Barrier: 774.0 feet Noise Source Height: 5.0 feet
Barrier Distance to Observer: 0.0 feet Observer Height: 5.0 feet

Observer Elevation: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0

Noise Source Elevation: 30.0 feet Drop Off Coefficient: 20.0

Barrier Elevation: 0.0 feet 20 = 6 dBA per doubling of distance 15 = 4.5 dBA per doubling of distance

NOISE MODEL PROJECTIONS											
Noise Level	Distance (feet)	Leq	L50	L25	L8	L2	Lmax				
Reference (Sample)	5.0	77.2	74.4	76.1	77.4	77.7	78.2				
Distance Attenuation	774.0	-43.8	-43.8	-43.8	-43.8	-43.8	-43.8				
Shielding (Barrier Attenuation)	774.0	0.0	0.0	0.0	0.0	0.0	0.0				
Raw (Distance + Barrier)		33.4	30.6	32.3	33.6	33.9	34.4				
39 Minute Hourly Adjustmen	nt	31.5	28.7	30.4	31.7	32.0	32.5				

### STATIONARY SOURCE NOISE PREDICTION MODEL 10/17/2018

Observer Location: R4 Project Name: Agua Mansa

Source: Truck Unloading/Docking Activity

Job Number: 11215

Condition: Operational

Analyst: A. Wolfe

### **NOISE MODEL INPUTS**

Noise Distance to Observer 584.0 feet Barrier Distance to Barrier: 584.0 feet Noise Source Height: 8.0 feet Barrier Distance to Observer: 0.0 feet Observer Height: 5.0 feet

Observer Elevation: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0

Noise Source Elevation: 0.0 feet Drop Off Coefficient: 20.0

NOISE MODEL PROJECTIONS											
Noise Level	Distance (feet)	Leq	L50	L25	L8	L2	Lmax				
Reference (Sample)	30.0	67.2	64.2	67.2	71.8	75.6	80.0				
Distance Attenuation	584.0	-25.8	-25.8	-25.8	-25.8	-25.8	-25.8				
Shielding (Barrier Attenuation)	584.0	0.0	0.0	0.0	0.0	0.0	0.0				
Raw (Distance + Barrier)		41.4	38.4	41.4	46.0	49.8	54.2				
60 Minute Hourly Adjustmen	nt	41.4	38.4	41.4	46.0	49.8	54.2				

10/17/2018

Observer Location: R4 Project Name: Agua Mansa

Source: Parking Lot Vehicle Movements (Industria Job Number: 11215

Condition: Operational Analyst: A. Wolfe

#### **NOISE MODEL INPUTS**

Noise Distance to Observer 788.0 feet Barrier Height: 788.0 feet Noise Source Height: 5.0 feet Barrier Distance to Observer: 0.0 feet Observer Height: 5.0 feet

Observer Elevation: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0

Noise Source Elevation: 0.0 feet Drop Off Coefficient: 15.0

Barrier Elevation: 0.0 feet 20 = 6 dBA per doubling of distance 15 = 4.5 dBA per doubling of distance

NOISE MODEL PROJECTIONS											
Noise Level	Distance (feet)	Leq	L50	L25	L8	L2	Lmax				
Reference (Sample)	10.0	52.2	49.0	50.0	55.0	61.0	71.9				
Distance Attenuation	788.0	-28.4	-28.4	-28.4	-28.4	-28.4	-28.4				
Shielding (Barrier Attenuation)	788.0	0.0	0.0	0.0	0.0	0.0	0.0				
Raw (Distance + Barrier)		23.8	20.6	21.6	26.6	32.6	43.5				
60 Minute Hourly Adjustmen	nt	23.8	20.6	21.6	26.6	32.6	43.5				

### STATIONARY SOURCE NOISE PREDICTION MODEL 10/17/2018

Observer Location: R5 Project Name: Agua Mansa

Source: Air Conditioning Unit (Roof-Top)

Job Number: 11215

Condition: Operational

Analyst: A. Wolfe

# **NOISE MODEL INPUTS**

Noise Distance to Observer 3,387.0 feet
Noise Distance to Barrier: 3,387.0 feet
Noise Distance to Barrier: 3,387.0 feet
Noise Source Height: 5.0 feet
Observer Height: 5.0 feet

Observer Elevation: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0

Noise Source Elevation: 30.0 feet Drop Off Coefficient: 20.0

NOISE MODEL PROJECTIONS											
Noise Level	Distance (feet)	Leq	L50	L25	L8	L2	Lmax				
Reference (Sample)	5.0	77.2	74.4	76.1	77.4	77.7	78.2				
Distance Attenuation	3,387.0	-56.6	-56.6	-56.6	-56.6	-56.6	-56.6				
Shielding (Barrier Attenuation)	3,387.0	0.0	0.0	0.0	0.0	0.0	0.0				
Raw (Distance + Barrier)		20.6	17.8	19.5	20.8	21.1	21.6				
39 Minute Hourly Adjustmen	nt	18.7	15.9	17.6	18.9	19.2	19.7				

Observer Location: R5 Project Name: Agua Mansa

Source: Truck Unloading/Docking Activity

Job Number: 11215

Condition: Operational

Analyst: A. Wolfe

#### **NOISE MODEL INPUTS**

Noise Distance to Observer 3,322.0 feet

Noise Distance to Barrier: 3,322.0 feet

Noise Distance to Barrier: 3,322.0 feet

Noise Source Height: 8.0 feet

Barrier Distance to Observer: 0.0 feet

Observer Height: 5.0 feet

Observer Elevation: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0

Noise Source Elevation: 0.0 feet Drop Off Coefficient: 20.0

Barrier Elevation: 0.0 feet 20 = 6 dBA per doubling of distance 15 = 4.5 dBA per doubling of distance

NOISE MODEL PROJECTIONS											
Noise Level	Distance (feet)	Leq	L50	L25	L8	L2	Lmax				
Reference (Sample)	30.0	67.2	64.2	67.2	71.8	75.6	80.0				
Distance Attenuation	3,322.0	-40.9	-40.9	-40.9	-40.9	-40.9	-40.9				
Shielding (Barrier Attenuation)	3,322.0	0.0	0.0	0.0	0.0	0.0	0.0				
Raw (Distance + Barrier)		26.3	23.3	26.3	30.9	34.7	39.1				
60 Minute Hourly Adjustmen	nt	26.3	23.3	26.3	30.9	34.7	39.1				

### STATIONARY SOURCE NOISE PREDICTION MODEL 10/17/2018

10/17/2018

Observer Location: R5 Project Name: Agua Mansa

Source: Parking Lot Vehicle Movements (Industria Job Number: 11215 Condition: Operational Analyst: A. Wolfe

# **NOISE MODEL INPUTS**

Noise Distance to Observer 2,822.0 feet

Noise Distance to Barrier: 2,822.0 feet

Barrier Distance to Observer: 0.0 feet

Noise Distance to Observer: 0.0 feet

Observer Height: 5.0 feet

Observer Height: 5.0 feet

Observer Elevation: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0

Noise Source Elevation: 0.0 feet Drop Off Coefficient: 15.0

NOISE MODEL PROJECTIONS											
Noise Level	Distance (feet)	Leq	L50	L25	L8	L2	Lmax				
Reference (Sample)	10.0	52.2	49.0	50.0	55.0	61.0	71.9				
Distance Attenuation	2,822.0	-36.8	-36.8	-36.8	-36.8	-36.8	-36.8				
Shielding (Barrier Attenuation)	2,822.0	0.0	0.0	0.0	0.0	0.0	0.0				
Raw (Distance + Barrier)		15.4	12.2	13.2	18.2	24.2	35.1				
60 Minute Hourly Adjustmen	nt	15.4	12.2	13.2	18.2	24.2	35.1				

Observer Location: R5 Project Name: Agua Mansa

Source: Parking Lot Vehicle Movements (Park)

Condition: Operational

Job Number: 11215

Analyst: A. Wolfe

#### **NOISE MODEL INPUTS**

Noise Distance to Observer 4,088.0 feet

Noise Distance to Barrier: 4,088.0 feet

Noise Distance to Barrier: 4,088.0 feet

Barrier Distance to Observer: 0.0 feet

Noise Source Height: 5.0 feet

Observer Height: 5.0 feet

Observer Elevation: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0

Noise Source Elevation: 0.0 feet Drop Off Coefficient: 15.0

Barrier Elevation: 0.0 feet 20 = 6 dBA per doubling of distance 15 = 4.5 dBA per doubling of distance

NOISE MODEL PROJECTIONS											
Noise Level	Distance (feet)	Leq	L50	L25	L8	L2	Lmax				
Reference (Sample)	5.0	55.4	53.2	56.2	59.4	62.2	66.1				
Distance Attenuation	4,088.0	-43.7	-43.7	-43.7	-43.7	-43.7	-43.7				
Shielding (Barrier Attenuation)	4,088.0	0.0	0.0	0.0	0.0	0.0	0.0				
Raw (Distance + Barrier)		11.7	9.5	12.5	15.7	18.5	22.4				
60 Minute Hourly Adjustmen	nt	11.7	9.5	12.5	15.7	18.5	22.4				

### STATIONARY SOURCE NOISE PREDICTION MODEL 10/17/2018

10/17/2018

Observer Location: R5 Project Name: Agua Mansa

Source: Dog Park Activities

Condition: Operational

Job Number: 11215

Analyst: A. Wolfe

### **NOISE MODEL INPUTS**

Noise Distance to Observer 3,954.0 feet
Noise Distance to Barrier: 3,954.0 feet
Noise Distance to Barrier: 3,954.0 feet
Noise Source Height: 4.0 feet
Barrier Distance to Observer: 0.0 feet
Observer Height: 5.0 feet

Observer Elevation: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0

Noise Source Elevation: 0.0 feet Drop Off Coefficient: 20.0

NOISE MODEL PROJECTIONS												
Noise Level	Distance (feet)	Leq	L50	L25	L8	L2	Lmax					
Reference (Sample)	5.0	62.8	58.5	61.0	65.2	72.6	78.6					
Distance Attenuation	3,954.0	-58.0	-58.0	-58.0	-58.0	-58.0	-58.0					
Shielding (Barrier Attenuation)	3,954.0	0.0	0.0	0.0	0.0	0.0	0.0					
Raw (Distance + Barrier)		4.8	0.5	3.0	7.2	14.6	20.6					
60 Minute Hourly Adjustmen	nt	4.8	0.5	3.0	7.2	14.6	20.6					

Observer Location: R5 Project Name: Agua Mansa

Source: Playground Activities Job Number: 11215
Condition: Operational Analyst: A. Wolfe

#### **NOISE MODEL INPUTS**

Noise Distance to Observer 3,891.0 feet

Noise Distance to Barrier: 3,891.0 feet

Noise Distance to Barrier: 3,891.0 feet

Noise Source Height: 4.0 feet

Barrier Distance to Observer: 0.0 feet

Observer Height: 5.0 feet

Observer Elevation: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0

Noise Source Elevation: 0.0 feet Drop Off Coefficient: 20.0

Barrier Elevation: 0.0 feet 20 = 6 dBA per doubling of distance 15 = 4.5 dBA per doubling of distance

NOISE MODEL PROJECTIONS											
Noise Level	Distance (feet)	Leq	L50	L25	L8	L2	Lmax				
Reference (Sample)	5.0	63.4	61.7	64.1	67.0	69.7	73.9				
Distance Attenuation	3,891.0	-57.8	-57.8	-57.8	-57.8	-57.8	-57.8				
Shielding (Barrier Attenuation)	3,891.0	0.0	0.0	0.0	0.0	0.0	0.0				
Raw (Distance + Barrier)		5.6	3.9	6.3	9.2	11.9	16.1				
60 Minute Hourly Adjustmen	nt	5.6	3.9	6.3	9.2	11.9	16.1				

### STATIONARY SOURCE NOISE PREDICTION MODEL 10/17/2018

10/17/2018

Observer Location: R5 Project Name: Agua Mansa

Source: Park Trail Activities Job Number: 11215
Condition: Operational Analyst: A. Wolfe

### **NOISE MODEL INPUTS**

Noise Distance to Observer 2,382.0 feet

Noise Distance to Barrier: 2,382.0 feet

Barrier Distance to Observer: 0.0 feet

Observer Height: 0.0 feet

Observer Height: 5.0 feet

Observer Height: 5.0 feet

Observer Elevation: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0

Noise Source Elevation: 0.0 feet Drop Off Coefficient: 15.0

NOISE MODEL PROJECTIONS											
Noise Level	Distance (feet)	Leq	L50	L25	L8	L2	Lmax				
Reference (Sample)	10.0	57.7	52.7	56.8	59.0	59.1	69.9				
Distance Attenuation	2,382.0	-35.7	-35.7	-35.7	-35.7	-35.7	-35.7				
Shielding (Barrier Attenuation)	2,382.0	0.0	0.0	0.0	0.0	0.0	0.0				
Raw (Distance + Barrier)		22.0	17.0	21.1	23.3	23.4	34.2				
60 Minute Hourly Adjustmen	nt	22.0	17.0	21.1	23.3	23.4	34.2				

Observer Location: R6 Project Name: Agua Mansa

Source: Air Conditioning Unit (Roof-Top)

Job Number: 11215

Condition: Operational

Analyst: A. Wolfe

#### **NOISE MODEL INPUTS**

Noise Distance to Observer 3,722.0 feet
Noise Distance to Barrier: 3,722.0 feet
Noise Distance to Barrier: 3,722.0 feet
Noise Source Height: 5.0 feet
Observer Height: 5.0 feet

Observer Elevation: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0

Noise Source Elevation: 30.0 feet Drop Off Coefficient: 20.0

Barrier Elevation: 0.0 feet 20 = 6 dBA per doubling of distance 15 = 4.5 dBA per doubling of distance

NOISE MODEL PROJECTIONS											
Noise Level	Distance (feet)	Leq	L50	L25	L8	L2	Lmax				
Reference (Sample)	5.0	77.2	74.4	76.1	77.4	77.7	78.2				
Distance Attenuation	3,722.0	-57.4	-57.4	-57.4	-57.4	-57.4	-57.4				
Shielding (Barrier Attenuation)	3,722.0	0.0	0.0	0.0	0.0	0.0	0.0				
Raw (Distance + Barrier)		19.8	17.0	18.7	20.0	20.3	20.8				
39 Minute Hourly Adjustmen	nt	17.9	15.1	16.8	18.1	18.4	18.9				

### STATIONARY SOURCE NOISE PREDICTION MODEL 10/17/2018

10/17/2018

Observer Location: R6 Project Name: Agua Mansa

Source: Truck Unloading/Docking Activity

Condition: Operational

Job Number: 11215

Analyst: A. Wolfe

### **NOISE MODEL INPUTS**

Noise Distance to Observer 3,608.0 feet
Noise Distance to Barrier: 3,608.0 feet
Noise Distance to Barrier: 3,608.0 feet
Noise Source Height: 8.0 feet
Barrier Distance to Observer: 0.0 feet
Observer Height: 5.0 feet

Observer Elevation: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0

Noise Source Elevation: 0.0 feet Drop Off Coefficient: 20.0

NOISE MODEL PROJECTIONS											
Noise Level	Distance (feet)	Leq	L50	L25	L8	L2	Lmax				
Reference (Sample)	30.0	67.2	64.2	67.2	71.8	75.6	80.0				
Distance Attenuation	3,608.0	-41.6	-41.6	-41.6	-41.6	-41.6	-41.6				
Shielding (Barrier Attenuation)	3,608.0	0.0	0.0	0.0	0.0	0.0	0.0				
Raw (Distance + Barrier)		25.6	22.6	25.6	30.2	34.0	38.4				
60 Minute Hourly Adjustmer	nt	25.6	22.6	25.6	30.2	34.0	38.4				

Observer Location: R6 Project Name: Agua Mansa

Source: Parking Lot Vehicle Movements (Industria Job Number: 11215

Condition: Operational Analyst: A. Wolfe

#### **NOISE MODEL INPUTS**

Noise Distance to Observer 3,608.0 feet

Noise Distance to Barrier: 3,608.0 feet

Barrier Distance to Observer: 0.0 feet

Noise Source Height: 5.0 feet

Observer Height: 5.0 feet

Observer Elevation: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0

Noise Source Elevation: 0.0 feet Drop Off Coefficient: 15.0

Barrier Elevation: 0.0 feet 20 = 6 dBA per doubling of distance 15 = 4.5 dBA per doubling of distance

NOISE MODEL PROJECTIONS											
Noise Level	Distance (feet)	Leq	L50	L25	L8	L2	Lmax				
Reference (Sample)	10.0	52.2	49.0	50.0	55.0	61.0	71.9				
Distance Attenuation	3,608.0	-38.4	-38.4	-38.4	-38.4	-38.4	-38.4				
Shielding (Barrier Attenuation)	3,608.0	0.0	0.0	0.0	0.0	0.0	0.0				
Raw (Distance + Barrier)		13.8	10.6	11.6	16.6	22.6	33.5				
60 Minute Hourly Adjustmen	nt	13.8	10.6	11.6	16.6	22.6	33.5				

### STATIONARY SOURCE NOISE PREDICTION MODEL 10/17/2018

10/17/2018

Observer Location: R6 Project Name: Agua Mansa

Source: Parking Lot Vehicle Movements (Park)

Condition: Operational

Job Number: 11215

Analyst: A. Wolfe

### **NOISE MODEL INPUTS**

Noise Distance to Observer 4,157.0 feet
Noise Distance to Barrier: 4,157.0 feet
Noise Distance to Barrier: 4,157.0 feet
Noise Source Height: 5.0 feet
Observer Height: 5.0 feet

Observer Elevation: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0

Noise Source Elevation: 0.0 feet Drop Off Coefficient: 15.0

NOISE MODEL PROJECTIONS											
Noise Level	Distance (feet)	Leq	L50	L25	L8	L2	Lmax				
Reference (Sample)	5.0	55.4	53.2	56.2	59.4	62.2	66.1				
Distance Attenuation	4,157.0	-43.8	-43.8	-43.8	-43.8	-43.8	-43.8				
Shielding (Barrier Attenuation)	4,157.0	0.0	0.0	0.0	0.0	0.0	0.0				
Raw (Distance + Barrier)		11.6	9.4	12.4	15.6	18.4	22.3				
60 Minute Hourly Adjustmen	nt	11.6	9.4	12.4	15.6	18.4	22.3				

Observer Location: R6 Project Name: Agua Mansa

Source: Dog Park Activities

Job Number: 11215

Condition: Operational

Analyst: A. Wolfe

#### **NOISE MODEL INPUTS**

Noise Distance to Observer 3,863.0 feet

Noise Distance to Barrier: 3,863.0 feet

Noise Distance to Barrier: 3,863.0 feet

Noise Source Height: 4.0 feet

Barrier Distance to Observer: 0.0 feet

Observer Height: 5.0 feet

Observer Elevation: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0

Noise Source Elevation: 0.0 feet Drop Off Coefficient: 20.0

Barrier Elevation: 0.0 feet 20 = 6 dBA per doubling of distance 15 = 4.5 dBA per doubling of distance

NOISE MODEL PROJECTIONS												
Noise Level	Distance (feet)	Leq	L50	L25	L8	L2	Lmax					
Reference (Sample)	5.0	62.8	58.5	61.0	65.2	72.6	78.6					
Distance Attenuation	3,863.0	-57.8	-57.8	-57.8	-57.8	-57.8	-57.8					
Shielding (Barrier Attenuation)	3,863.0	0.0	0.0	0.0	0.0	0.0	0.0					
Raw (Distance + Barrier)		5.0	0.7	3.2	7.4	14.8	20.8					
60 Minute Hourly Adjustmen	nt	5.0	0.7	3.2	7.4	14.8	20.8					

### STATIONARY SOURCE NOISE PREDICTION MODEL 10/17/2018

10/17/2018

Observer Location: R6 Project Name: Agua Mansa

Source: Playground Activities Job Number: 11215
Condition: Operational Analyst: A. Wolfe

### **NOISE MODEL INPUTS**

Noise Distance to Observer 4,192.0 feet
Noise Distance to Barrier: 4,192.0 feet
Noise Distance to Barrier: 4,192.0 feet
Noise Source Height: 4.0 feet
Barrier Distance to Observer: 0.0 feet
Observer Height: 5.0 feet

Observer Elevation: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0

Noise Source Elevation: 0.0 feet Drop Off Coefficient: 20.0

NOISE MODEL PROJECTIONS												
Noise Level	Distance (feet)	Leq	L50	L25	L8	L2	Lmax					
Reference (Sample)	5.0	63.4	61.7	64.1	67.0	69.7	73.9					
Distance Attenuation	4,192.0	-58.5	-58.5	-58.5	-58.5	-58.5	-58.5					
Shielding (Barrier Attenuation)	4,192.0	0.0	0.0	0.0	0.0	0.0	0.0					
Raw (Distance + Barrier)		4.9	3.2	5.6	8.5	11.2	15.4					
60 Minute Hourly Adjustmen	nt	4.9	3.2	5.6	8.5	11.2	15.4					

Observer Location: R6 Project Name: Agua Mansa

Source: Park Trail Activities Job Number: 11215
Condition: Operational Analyst: A. Wolfe

#### **NOISE MODEL INPUTS**

Noise Distance to Observer 3,188.0 feet

Noise Distance to Barrier: 3,188.0 feet

Noise Distance to Barrier: 3,188.0 feet

Noise Source Height: 5.0 feet

Observer Height: 5.0 feet

Observer Elevation: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0

Noise Source Elevation: 0.0 feet Drop Off Coefficient: 15.0

Barrier Elevation: 0.0 feet 20 = 6 dBA per doubling of distance 15 = 4.5 dBA per doubling of distance

NOISE MODEL PROJECTIONS											
Noise Level	Distance (feet)	Leq	L50	L25	L8	L2	Lmax				
Reference (Sample)	10.0	57.7	52.7	56.8	59.0	59.1	69.9				
Distance Attenuation	3,188.0	-37.6	-37.6	-37.6	-37.6	-37.6	-37.6				
Shielding (Barrier Attenuation)	3,188.0	0.0	0.0	0.0	0.0	0.0	0.0				
Raw (Distance + Barrier)		20.1	15.1	19.2	21.4	21.5	32.3				
60 Minute Hourly Adjustmen	nt	20.1	15.1	19.2	21.4	21.5	32.3				

### STATIONARY SOURCE NOISE PREDICTION MODEL 10/17/2018

10/17/2018

Observer Location: R7 Project Name: Agua Mansa

Source: Air Conditioning Unit (Roof-Top)

Job Number: 11215

Condition: Operational

Analyst: A. Wolfe

### **NOISE MODEL INPUTS**

Noise Distance to Observer 2,329.0 feet

Noise Distance to Barrier: 2,329.0 feet

Barrier Distance to Observer: 0.0 feet

Noise Distance to Observer: 0.0 feet

Observer Height: 0.0 feet

Observer Height: 5.0 feet

Observer Elevation: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0

Noise Source Elevation: 30.0 feet Drop Off Coefficient: 20.0

NOISE MODEL PROJECTIONS											
Noise Level	Distance (feet)	Leq	L50	L25	L8	L2	Lmax				
Reference (Sample)	5.0	77.2	74.4	76.1	77.4	77.7	78.2				
Distance Attenuation	2,329.0	-53.4	-53.4	-53.4	-53.4	-53.4	-53.4				
Shielding (Barrier Attenuation)	2,329.0	0.0	0.0	0.0	0.0	0.0	0.0				
Raw (Distance + Barrier)		23.8	21.0	22.7	24.0	24.3	24.8				
39 Minute Hourly Adjustmen	nt	21.9	19.1	20.8	22.1	22.4	22.9				

Observer Location: R7 Project Name: Agua Mansa

Source: Truck Unloading/Docking Activity

Job Number: 11215

Condition: Operational

Analyst: A. Wolfe

#### **NOISE MODEL INPUTS**

Noise Distance to Observer 2,255.0 feet

Noise Distance to Barrier: 2,255.0 feet

Noise Distance to Barrier: 2,255.0 feet

Noise Source Height: 8.0 feet

Barrier Distance to Observer: 0.0 feet

Observer Height: 5.0 feet

Observer Elevation: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0

Noise Source Elevation: 0.0 feet Drop Off Coefficient: 20.0

Barrier Elevation: 0.0 feet 20 = 6 dBA per doubling of distance 15 = 4.5 dBA per doubling of distance

NOISE MODEL PROJECTIONS										
Noise Level	Distance (feet)	Leq	L50	L25	L8	L2	Lmax			
Reference (Sample)	30.0	67.2	64.2	67.2	71.8	75.6	80.0			
Distance Attenuation	2,255.0	-37.5	-37.5	-37.5	-37.5	-37.5	-37.5			
Shielding (Barrier Attenuation)	2,255.0	0.0	0.0	0.0	0.0	0.0	0.0			
Raw (Distance + Barrier)		29.7	26.7	29.7	34.3	38.1	42.5			
60 Minute Hourly Adjustmen	nt	29.7	26.7	29.7	34.3	38.1	42.5			

### STATIONARY SOURCE NOISE PREDICTION MODEL 10/17/2018

10/17/2018

Observer Location: R7 Project Name: Aqua Mansa

Source: Parking Lot Vehicle Movements (Industria Job Number: 11215 Condition: Operational Analyst: A. Wolfe

### **NOISE MODEL INPUTS**

Noise Distance to Observer 2,255.0 feet

Noise Distance to Barrier: 2,255.0 feet

Barrier Distance to Observer: 0.0 feet

Observer Height: 0.0 feet

Observer Height: 5.0 feet

Observer Height: 5.0 feet

Observer Elevation: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0

Noise Source Elevation: 0.0 feet Drop Off Coefficient: 15.0

NOISE MODEL PROJECTIONS												
Noise Level	Distance (feet)	Leq	L50	L25	L8	L2	Lmax					
Reference (Sample)	10.0	52.2	49.0	50.0	55.0	61.0	71.9					
Distance Attenuation	2,255.0	-35.3	-35.3	-35.3	-35.3	-35.3	-35.3					
Shielding (Barrier Attenuation)	2,255.0	0.0	0.0	0.0	0.0	0.0	0.0					
Raw (Distance + Barrier)		16.9	13.7	14.7	19.7	25.7	36.6					
60 Minute Hourly Adjustmen	nt	16.9	13.7	14.7	19.7	25.7	36.6					

Observer Location: R7 Project Name: Agua Mansa

Source: Parking Lot Vehicle Movements (Park)

Job Number: 11215

Condition: Operational

Analyst: A. Wolfe

#### **NOISE MODEL INPUTS**

Noise Distance to Observer 3,039.0 feet

Noise Distance to Barrier: 3,039.0 feet

Noise Distance to Barrier: 3,039.0 feet

Noise Source Height: 5.0 feet

Observer Height: 5.0 feet

Observer Elevation: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0

Noise Source Elevation: 0.0 feet Drop Off Coefficient: 15.0

Barrier Elevation: 0.0 feet 20 = 6 dBA per doubling of distance 15 = 4.5 dBA per doubling of distance

NOISE MODEL PROJECTIONS												
Noise Level	Distance (feet)	Leq	L50	L25	L8	L2	Lmax					
Reference (Sample)	5.0	55.4	53.2	56.2	59.4	62.2	66.1					
Distance Attenuation	3,039.0	-41.8	-41.8	-41.8	-41.8	-41.8	-41.8					
Shielding (Barrier Attenuation)	3,039.0	0.0	0.0	0.0	0.0	0.0	0.0					
Raw (Distance + Barrier)		13.6	11.4	14.4	17.6	20.4	24.3					
60 Minute Hourly Adjustmen	nt	13.6	11.4	14.4	17.6	20.4	24.3					

### STATIONARY SOURCE NOISE PREDICTION MODEL 10/17/2018

10/17/2018

Observer Location: R7 Project Name: Agua Mansa

Source: Dog Park Activities

Condition: Operational

Job Number: 11215

Analyst: A. Wolfe

### **NOISE MODEL INPUTS**

Noise Distance to Observer 2,812.0 feet

Noise Distance to Barrier: 2,812.0 feet

Barrier Distance to Observer: 0.0 feet

Noise Distance to Observer: 0.0 feet

Observer Height: 0.0 feet

Observer Height: 5.0 feet

Observer Elevation: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0

Noise Source Elevation: 0.0 feet Drop Off Coefficient: 20.0

NOISE MODEL PROJECTIONS												
Noise Level	Distance (feet)	Leq	L50	L25	L8	L2	Lmax					
Reference (Sample)	5.0	62.8	58.5	61.0	65.2	72.6	78.6					
Distance Attenuation	2,812.0	-55.0	-55.0	-55.0	-55.0	-55.0	-55.0					
Shielding (Barrier Attenuation)	2,812.0	0.0	0.0	0.0	0.0	0.0	0.0					
Raw (Distance + Barrier)		7.8	3.5	6.0	10.2	17.6	23.6					
60 Minute Hourly Adjustmen	nt	7.8	3.5	6.0	10.2	17.6	23.6					

Observer Location: R7 Project Name: Agua Mansa

Source: Playground Activities Job Number: 11215
Condition: Operational Analyst: A. Wolfe

#### **NOISE MODEL INPUTS**

Noise Distance to Observer 3,215.0 feet

Noise Distance to Barrier: 3,215.0 feet

Noise Distance to Barrier: 3,215.0 feet

Noise Source Height: 4.0 feet

Barrier Distance to Observer: 0.0 feet

Observer Height: 5.0 feet

Observer Elevation: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0

Noise Source Elevation: 0.0 feet Drop Off Coefficient: 20.0

Barrier Elevation: 0.0 feet 20 = 6 dBA per doubling of distance 15 = 4.5 dBA per doubling of distance

NOISE MODEL PROJECTIONS											
Noise Level	Distance (feet)	Leq	L50	L25	L8	L2	Lmax				
Reference (Sample)	5.0	63.4	61.7	64.1	67.0	69.7	73.9				
Distance Attenuation	3,215.0	-56.2	-56.2	-56.2	-56.2	-56.2	-56.2				
Shielding (Barrier Attenuation)	3,215.0	0.0	0.0	0.0	0.0	0.0	0.0				
Raw (Distance + Barrier)		7.2	5.5	7.9	10.8	13.5	17.7				
60 Minute Hourly Adjustmen	nt	7.2	5.5	7.9	10.8	13.5	17.7				

### STATIONARY SOURCE NOISE PREDICTION MODEL 10/17/2018

10/17/2018

Observer Location: R7 Project Name: Agua Mansa

Source: Park Trail Activities Job Number: 11215
Condition: Operational Analyst: A. Wolfe

### **NOISE MODEL INPUTS**

Noise Distance to Observer 2,540.0 feet
Noise Distance to Barrier: 2,540.0 feet

Barrier Distance to Observer: 0.0 feet

Noise Distance to Observer: 0.0 feet

Observer Height: 0.0 feet

Observer Height: 5.0 feet

Observer Elevation: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0

Noise Source Elevation: 0.0 feet Drop Off Coefficient: 15.0

NOISE MODEL PROJECTIONS												
Noise Level	Distance (feet)	Leq	L50	L25	L8	L2	Lmax					
Reference (Sample)	10.0	57.7	52.7	56.8	59.0	59.1	69.9					
Distance Attenuation	2,540.0	-36.1	-36.1	-36.1	-36.1	-36.1	-36.1					
Shielding (Barrier Attenuation)	2,540.0	0.0	0.0	0.0	0.0	0.0	0.0					
Raw (Distance + Barrier)		21.6	16.6	20.7	22.9	23.0	33.8					
60 Minute Hourly Adjustmen	nt	21.6	16.6	20.7	22.9	23.0	33.8					

Observer Location: R8 Project Name: Agua Mansa

Source: Air Conditioning Unit (Roof-Top)

Job Number: 11215

Condition: Operational

Analyst: A. Wolfe

#### **NOISE MODEL INPUTS**

Noise Distance to Observer 932.0 feet Barrier Height: 932.0 feet Noise Source Height: 5.0 feet Barrier Distance to Observer: 0.0 feet Observer Height: 5.0 feet

Observer Elevation: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0

Noise Source Elevation: 30.0 feet Drop Off Coefficient: 20.0

Barrier Elevation: 0.0 feet 20 = 6 dBA per doubling of distance 15 = 4.5 dBA per doubling of distance

NOISE MODEL PROJECTIONS										
Noise Level	Distance (feet)	Leq	L50	L25	L8	L2	Lmax			
Reference (Sample)	5.0	77.2	74.4	76.1	77.4	77.7	78.2			
Distance Attenuation	932.0	-45.4	-45.4	-45.4	-45.4	-45.4	-45.4			
Shielding (Barrier Attenuation)	932.0	0.0	0.0	0.0	0.0	0.0	0.0			
Raw (Distance + Barrier)		31.8	29.0	30.7	32.0	32.3	32.8			
39 Minute Hourly Adjustmen	nt	29.9	27.1	28.8	30.1	30.4	30.9			

### STATIONARY SOURCE NOISE PREDICTION MODEL 10/17/2018

10/17/2018

Observer Location: R8 Project Name: Agua Mansa

Source: Truck Unloading/Docking Activity

Job Number: 11215

Condition: Operational

Analyst: A. Wolfe

### **NOISE MODEL INPUTS**

Noise Distance to Observer 932.0 feet Barrier Distance to Barrier: 932.0 feet Noise Source Height: 8.0 feet Barrier Distance to Observer: 0.0 feet Observer Height: 5.0 feet

Observer Elevation: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0

Noise Source Elevation: 0.0 feet Drop Off Coefficient: 20.0

NOISE MODEL PROJECTIONS											
Noise Level	Distance (feet)	Leq	L50	L25	L8	L2	Lmax				
Reference (Sample)	30.0	67.2	64.2	67.2	71.8	75.6	80.0				
Distance Attenuation	932.0	-29.8	-29.8	-29.8	-29.8	-29.8	-29.8				
Shielding (Barrier Attenuation)	932.0	0.0	0.0	0.0	0.0	0.0	0.0				
Raw (Distance + Barrier)		37.4	34.4	37.4	42.0	45.8	50.2				
60 Minute Hourly Adjustmen	nt	37.4	34.4	37.4	42.0	45.8	50.2				

10/17/2018

Observer Location: R8 Project Name: Agua Mansa

Source: Parking Lot Vehicle Movements (Industria Job Number: 11215

Condition: Operational Analyst: A. Wolfe

#### **NOISE MODEL INPUTS**

Noise Distance to Observer 932.0 feet Barrier Height: 932.0 feet Noise Source Height: 5.0 feet Barrier Distance to Observer: 0.0 feet Observer Height: 5.0 feet

Observer Elevation: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0

Noise Source Elevation: 0.0 feet Drop Off Coefficient: 15.0

Barrier Elevation: 0.0 feet 20 = 6 dBA per doubling of distance 15 = 4.5 dBA per doubling of distance

NOISE MODEL PROJECTIONS											
Noise Level	Distance (feet)	Leq	L50	L25	L8	L2	Lmax				
Reference (Sample)	10.0	52.2	49.0	50.0	55.0	61.0	71.9				
Distance Attenuation	932.0	-29.5	-29.5	-29.5	-29.5	-29.5	-29.5				
Shielding (Barrier Attenuation)	932.0	0.0	0.0	0.0	0.0	0.0	0.0				
Raw (Distance + Barrier)		22.7	19.5	20.5	25.5	31.5	42.4				
60 Minute Hourly Adjustmen	nt	22.7	19.5	20.5	25.5	31.5	42.4				

### STATIONARY SOURCE NOISE PREDICTION MODEL 10/17/2018

Observer Location: R8 Project Name: Agua Mansa

Source: Parking Lot Vehicle Movements (Park)

Job Number: 11215

Condition: Operational

Analyst: A. Wolfe

# **NOISE MODEL INPUTS**

Noise Distance to Observer 1,916.0 feet
Noise Distance to Barrier: 1,916.0 feet
Noise Distance to Barrier: 1,916.0 feet
Noise Source Height: 5.0 feet
Sarrier Distance to Observer: 0.0 feet
Noise Source Height: 5.0 feet

Observer Elevation: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0

Noise Source Elevation: 0.0 feet Drop Off Coefficient: 15.0

NOISE MODEL PROJECTIONS											
Noise Level	Distance (feet)	Leq	L50	L25	L8	L2	Lmax				
Reference (Sample)	5.0	55.4	53.2	56.2	59.4	62.2	66.1				
Distance Attenuation	1,916.0	-38.8	-38.8	-38.8	-38.8	-38.8	-38.8				
Shielding (Barrier Attenuation)	1,916.0	0.0	0.0	0.0	0.0	0.0	0.0				
Raw (Distance + Barrier)		16.6	14.4	17.4	20.6	23.4	27.3				
60 Minute Hourly Adjustmen	nt	16.6	14.4	17.4	20.6	23.4	27.3				

Observer Location: R8 Project Name: Agua Mansa

Source: Dog Park Activities

Job Number: 11215

Condition: Operational

Analyst: A. Wolfe

#### **NOISE MODEL INPUTS**

Noise Distance to Observer 2,229.0 feet

Noise Distance to Barrier: 2,229.0 feet

Barrier Distance to Observer: 0.0 feet

Noise Source Height: 4.0 feet

Observer Height: 5.0 feet

Observer Elevation: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0

Noise Source Elevation: 0.0 feet Drop Off Coefficient: 20.0

Barrier Elevation: 0.0 feet 20 = 6 dBA per doubling of distance 15 = 4.5 dBA per doubling of distance

NOISE MODEL PROJECTIONS											
Noise Level	Distance (feet)	Leq	L50	L25	L8	L2	Lmax				
Reference (Sample)	5.0	62.8	58.5	61.0	65.2	72.6	78.6				
Distance Attenuation	2,229.0	-53.0	-53.0	-53.0	-53.0	-53.0	-53.0				
Shielding (Barrier Attenuation)	2,229.0	0.0	0.0	0.0	0.0	0.0	0.0				
Raw (Distance + Barrier)		9.8	5.5	8.0	12.2	19.6	25.6				
60 Minute Hourly Adjustmen	nt	9.8	5.5	8.0	12.2	19.6	25.6				

### STATIONARY SOURCE NOISE PREDICTION MODEL 10/17/2018

10/17/2018

Observer Location: R8 Project Name: Agua Mansa

Source: Playground Activities Job Number: 11215
Condition: Operational Analyst: A. Wolfe

### **NOISE MODEL INPUTS**

Noise Distance to Observer 2,151.0 feet
Noise Distance to Barrier: 2,151.0 feet
Noise Distance to Barrier: 2,151.0 feet
Noise Source Height: 4.0 feet
Barrier Distance to Observer: 0.0 feet
Observer Height: 5.0 feet

Observer Elevation: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0

Noise Source Elevation: 0.0 feet Drop Off Coefficient: 20.0

NOISE MODEL PROJECTIONS											
Noise Level	Distance (feet)	Leq	L50	L25	L8	L2	Lmax				
Reference (Sample)	5.0	63.4	61.7	64.1	67.0	69.7	73.9				
Distance Attenuation	2,151.0	-52.7	-52.7	-52.7	-52.7	-52.7	-52.7				
Shielding (Barrier Attenuation)	2,151.0	0.0	0.0	0.0	0.0	0.0	0.0				
Raw (Distance + Barrier)		10.7	9.0	11.4	14.3	17.0	21.2				
60 Minute Hourly Adjustmen	nt	10.7	9.0	11.4	14.3	17.0	21.2				

Observer Location: R8 Project Name: Agua Mansa

Source: Park Trail Activities Job Number: 11215
Condition: Operational Analyst: A. Wolfe

#### **NOISE MODEL INPUTS**

Noise Distance to Observer 2,021.0 feet

Noise Distance to Barrier: 2,021.0 feet

Barrier Distance to Observer: 0.0 feet

Noise Source Height: 5.0 feet

Observer Height: 5.0 feet

Observer Elevation: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0

Noise Source Elevation: 0.0 feet Drop Off Coefficient: 15.0

Barrier Elevation: 0.0 feet 20 = 6 dBA per doubling of distance 15 = 4.5 dBA per doubling of distance

NOISE MODEL PROJECTIONS											
Noise Level	Distance (feet)	Leq	L50	L25	L8	L2	Lmax				
Reference (Sample)	10.0	57.7	52.7	56.8	59.0	59.1	69.9				
Distance Attenuation	2,021.0	-34.6	-34.6	-34.6	-34.6	-34.6	-34.6				
Shielding (Barrier Attenuation)	2,021.0	0.0	0.0	0.0	0.0	0.0	0.0				
Raw (Distance + Barrier)		23.1	18.1	22.2	24.4	24.5	35.3				
60 Minute Hourly Adjustmen	nt	23.1	18.1	22.2	24.4	24.5	35.3				

### STATIONARY SOURCE NOISE PREDICTION MODEL 10/17/2018

10/17/2018

Observer Location: R9 Project Name: Agua Mansa

Source: Air Conditioning Unit (Roof-Top)

Job Number: 11215

Condition: Operational

Analyst: A. Wolfe

### **NOISE MODEL INPUTS**

Noise Distance to Observer 759.0 feet Barrier Barrier Distance to Observer: 759.0 feet Noise Source Height: 5.0 feet Barrier Distance to Observer: 0.0 feet Observer Height: 5.0 feet

Observer Elevation: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0

Noise Source Elevation: 30.0 feet Drop Off Coefficient: 20.0

NOISE MODEL PROJECTIONS												
Noise Level	Distance (feet)	Leq	L50	L25	L8	L2	Lmax					
Reference (Sample)	5.0	77.2	74.4	76.1	77.4	77.7	78.2					
Distance Attenuation	759.0	-43.6	-43.6	-43.6	-43.6	-43.6	-43.6					
Shielding (Barrier Attenuation)	759.0	0.0	0.0	0.0	0.0	0.0	0.0					
Raw (Distance + Barrier)		33.6	30.8	32.5	33.8	34.1	34.6					
39 Minute Hourly Adjustmen	nt	31.7	28.9	30.6	31.9	32.2	32.7					

Observer Location: R9 Project Name: Agua Mansa

Source: Truck Unloading/Docking Activity

Job Number: 11215

Condition: Operational

Analyst: A. Wolfe

#### **NOISE MODEL INPUTS**

Noise Distance to Observer 759.0 feet Barrier Height: 759.0 feet Noise Source Height: 8.0 feet Barrier Distance to Observer: 0.0 feet Observer Height: 5.0 feet

Observer Elevation: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0

Noise Source Elevation: 0.0 feet Drop Off Coefficient: 20.0

Barrier Elevation: 0.0 feet 20 = 6 dBA per doubling of distance 15 = 4.5 dBA per doubling of distance

NOISE MODEL PROJECTIONS										
Noise Level	Distance (feet)	Leq	L50	L25	L8	L2	Lmax			
Reference (Sample)	30.0	67.2	64.2	67.2	71.8	75.6	80.0			
Distance Attenuation	759.0	-28.1	-28.1	-28.1	-28.1	-28.1	-28.1			
Shielding (Barrier Attenuation)	759.0	0.0	0.0	0.0	0.0	0.0	0.0			
Raw (Distance + Barrier)		39.1	36.1	39.1	43.7	47.5	51.9			
60 Minute Hourly Adjustmen	nt	39.1	36.1	39.1	43.7	47.5	51.9			

### STATIONARY SOURCE NOISE PREDICTION MODEL 10/17/2018

10/17/2018

Observer Location: R9 Project Name: Agua Mansa

Source: Parking Lot Vehicle Movements (Industria Job Number: 11215 Condition: Operational Analyst: A. Wolfe

# **NOISE MODEL INPUTS**

Noise Distance to Observer 639.0 feet Barrier Height: 0.0 feet
Noise Distance to Barrier: 639.0 feet Noise Source Height: 5.0 feet
Barrier Distance to Observer: 0.0 feet Observer Height: 5.0 feet

Observer Elevation: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0

Noise Source Elevation: 0.0 feet Drop Off Coefficient: 15.0

NOISE MODEL PROJECTIONS											
Noise Level	Distance (feet)	Leq	L50	L25	L8	L2	Lmax				
Reference (Sample)	10.0	52.2	49.0	50.0	55.0	61.0	71.9				
Distance Attenuation	639.0	-27.1	-27.1	-27.1	-27.1	-27.1	-27.1				
Shielding (Barrier Attenuation)	639.0	0.0	0.0	0.0	0.0	0.0	0.0				
Raw (Distance + Barrier)		25.1	21.9	22.9	27.9	33.9	44.8				
60 Minute Hourly Adjustmen	nt	25.1	21.9	22.9	27.9	33.9	44.8				

10/17/2018

Observer Location: R9 Project Name: Agua Mansa

Source: Parking Lot Vehicle Movements (Commer Job Number: 11215

Condition: Operational Analyst: A. Wolfe

#### **NOISE MODEL INPUTS**

Noise Distance to Observer 757.0 feet Barrier Height: 757.0 feet Noise Source Height: 5.0 feet Barrier Distance to Observer: 0.0 feet Observer Height: 5.0 feet

Observer Elevation: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0

Noise Source Elevation: 0.0 feet Drop Off Coefficient: 15.0

Barrier Elevation: 0.0 feet 20 = 6 dBA per doubling of distance 15 = 4.5 dBA per doubling of distance

NOISE MODEL PROJECTIONS										
Noise Level	Distance (feet)	Leq	L50	L25	L8	L2	Lmax			
Reference (Sample)	5.0	60.1	56.7	60.7	63.7	67.1	79.5			
Distance Attenuation	757.0	-32.7	-32.7	-32.7	-32.7	-32.7	-32.7			
Shielding (Barrier Attenuation)	757.0	0.0	0.0	0.0	0.0	0.0	0.0			
Raw (Distance + Barrier)		27.4	24.0	28.0	31.0	34.4	46.8			
60 Minute Hourly Adjustmen	nt	27.4	24.0	28.0	31.0	34.4	46.8			

### STATIONARY SOURCE NOISE PREDICTION MODEL 10/17/2018

Observer Location: R10 Project Name: Agua Mansa

Source: Air Conditioning Unit (Roof-Top)

Job Number: 11215

Condition: Operational

Analyst: A. Wolfe

### **NOISE MODEL INPUTS**

Noise Distance to Observer 145.0 feet Barrier Barrier Distance to Observer: 135.0 feet Noise Distance to Observer: 135.0 feet Observer Height: 20.0 feet Source Height: 5.0 feet Observer Height: 5.0 feet

Observer Elevation: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0

Noise Source Elevation: 20.0 feet Drop Off Coefficient: 20.0

NOISE MODEL PROJECTIONS											
Noise Level	Distance (feet)	Leq	L50	L25	L8	L2	Lmax				
Reference (Sample)	5.0	77.2	74.4	76.1	77.4	77.7	78.2				
Distance Attenuation	145.0	-29.2	-29.2	-29.2	-29.2	-29.2	-29.2				
Shielding (Barrier Attenuation)	10.0	-9.1	-9.1	-9.1	-9.1	-9.1	-9.1				
Raw (Distance + Barrier)		38.9	36.1	37.8	39.1	39.4	39.9				
39 Minute Hourly Adjustmen	nt	37.0	34.2	35.9	37.2	37.5	38.0				

Observer Location: R10 Project Name: Agua Mansa

Source: Truck Unloading/Docking Activity

Job Number: 11215

Condition: Operational

Analyst: A. Wolfe

#### **NOISE MODEL INPUTS**

Noise Distance to Observer 611.0 feet Barrier Height: 0.0 feet

Noise Distance to Barrier: 611.0 feet Noise Source Height: 8.0 feet

Barrier Distance to Observer: 0.0 feet Observer Height: 5.0 feet

Observer Elevation: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0

Noise Source Elevation: 0.0 feet Drop Off Coefficient: 20.0

Barrier Elevation: 0.0 feet 20 = 6 dBA per doubling of distance 15 = 4.5 dBA per doubling of distance

NOISE MODEL PROJECTIONS										
Noise Level	Distance (feet)	Leq	L50	L25	L8	L2	Lmax			
Reference (Sample)	30.0	67.2	64.2	67.2	71.8	75.6	80.0			
Distance Attenuation	611.0	-26.2	-26.2	-26.2	-26.2	-26.2	-26.2			
Shielding (Barrier Attenuation)	611.0	0.0	0.0	0.0	0.0	0.0	0.0			
Raw (Distance + Barrier)		41.0	38.0	41.0	45.6	49.4	53.8			
60 Minute Hourly Adjustmen	nt	41.0	38.0	41.0	45.6	49.4	53.8			

### STATIONARY SOURCE NOISE PREDICTION MODEL 10/17/2018

10/17/2018

Observer Location: R10 Project Name: Agua Mansa

Source: Parking Lot Vehicle Movements (Industria Job Number: 11215 Condition: Operational Analyst: A. Wolfe

### **NOISE MODEL INPUTS**

Noise Distance to Observer 339.0 feet Barrier Height: 0.0 feet
Noise Distance to Barrier: 339.0 feet Noise Source Height: 5.0 feet
Barrier Distance to Observer: 0.0 feet Observer Height: 5.0 feet

Observer Elevation: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0

Noise Source Elevation: 0.0 feet Drop Off Coefficient: 15.0

NOISE MODEL PROJECTIONS											
Noise Level	Distance (feet)	Leq	L50	L25	L8	L2	Lmax				
Reference (Sample)	10.0	52.2	49.0	50.0	55.0	61.0	71.9				
Distance Attenuation	339.0	-23.0	-23.0	-23.0	-23.0	-23.0	-23.0				
Shielding (Barrier Attenuation)	339.0	0.0	0.0	0.0	0.0	0.0	0.0				
Raw (Distance + Barrier)		29.2	26.0	27.0	32.0	38.0	48.9				
60 Minute Hourly Adjustmen	nt	29.2	26.0	27.0	32.0	38.0	48.9				

10/17/2018

Observer Location: R10 Project Name: Agua Mansa

Source: Parking Lot Vehicle Movements (Commer Job Number: 11215 Condition: Operational Analyst: A. Wolfe

# **NOISE MODEL INPUTS**

Noise Distance to Observer 123.0 feet Barrier Height: 123.0 feet Noise Distance to Barrier: 123.0 feet Noise Source Height: 5.0 feet Barrier Distance to Observer: 0.0 feet Observer Height: 5.0 feet

Observer Elevation: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0

Noise Source Elevation: 0.0 feet Drop Off Coefficient: 15.0

NOISE MODEL PROJECTIONS							
Noise Level	Distance (feet)	Leq	L50	L25	L8	L2	Lmax
Reference (Sample)	5.0	60.1	56.7	60.7	63.7	67.1	79.5
Distance Attenuation	123.0	-20.9	-20.9	-20.9	-20.9	-20.9	-20.9
Shielding (Barrier Attenuation)	123.0	0.0	0.0	0.0	0.0	0.0	0.0
Raw (Distance + Barrier)		39.2	35.8	39.8	42.8	46.2	58.6
60 Minute Hourly Adjustment		39.2	35.8	39.8	42.8	46.2	58.6

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