

Oak Valley North Specific Plan

NOISE AND VIBRATION ANALYSIS
CITY OF CALIMESA

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TABLE OF CONTENTS

T/	ABLE O	OF CONTENTS	III
ΑI	PPEND	DICES	IV
		EXHIBITS	
LIS	ST OF	TABLES	V
LIS	ST OF	ABBREVIATED TERMS	VI
EX		IVE SUMMARY	
1	IN	TRODUCTION	3
	1.1	Site Location	3
	1.2	Project Description	3
2	FU	JNDAMENTALS	7
	2.1	Range of Noise	
	2.2	Noise Descriptors	
	2.3	Sound Propagation	
	2.4	Noise Control	
	2.5	Noise Barrier Attenuation	9
	2.6	Land Use Compatibility With Noise	10
	2.7	Community Response to Noise	10
	2.8	Vibration	11
3	RE	GULATORY SETTING	13
	3.1	State of California Noise Requirements	13
	3.2	City of Calimesa General Plan Noise Element	
	3.3	Operational Noise Standards	
	3.4	Construction Noise Standards	
	3.5	Construction Vibration Standards	17
4	SIC	GNIFICANCE CRITERIA	19
	4.1	Noise Level Increases (Threshold A)	19
	4.2	Vibration (Threshold B)	
	4.3	CEQA Guidelines Not Further Analyzed (Threshold C)	
	4.4	Significance Criteria Summary	21
5	EX	(ISTING NOISE LEVEL MEASUREMENTS	23
	5.1	Measurement Procedure and Criteria	23
	5.2	Noise Measurement Locations	_
	5.3	Noise Measurement Results	24
6	TR	RAFFIC NOISE METHODS AND PROCEDURES	27
	6.1	FHWA Traffic Noise Prediction Model	27
7	OF	FF-SITE TRAFFIC NOISE ANALYSIS	33
	7.1	Traffic Noise Contours	
	7.1	Existing with Project Traffic Noise Level Increases	
	7.3	Scenario 1 Project Traffic Noise Level Increases	
	7.4	Scenario 2 Project Traffic Noise Level Increases	
	7.5	Scenario 3 Project Traffic Noise Level Increases	
8	10	N-SITE TRAFFIC NOISE ANALYSIS	



9	RE	CEIVER LOCATIONS	43
10	OP	ERATIONAL NOISE IMPACTS	47
	10.1	Operational Noise Sources	47
	10.2	Reference Noise Levels	
	10.3	CadnaA Noise Prediction Model	51
	10.4	Project Operational Noise Levels	51
	10.5	Project Operational Noise Level Compliance	52
	10.6	Project Operational Noise Level Increases	54
11	со	NSTRUCTION IMPACTS	57
	11.1	Construction Noise Levels	57
	11.2	Construction Reference Noise Levels	57
	11.3	Construction Noise Analysis	59
	11.4	Construction Noise Level Compliance	60
	11.5	Nighttime Concrete Pour Noise Analysis	61
	11.6	Construction Vibration Analysis	63
12	RE	FERENCES	67
 13		RTIFICATION	

APPENDICES

APPENDIX 3.1: CITY OF CALIMESA MUNICIPAL CODE

APPENDIX 5.1: STUDY AREA PHOTOS

APPENDIX 5.2: NOISE LEVEL MEASUREMENT WORKSHEETS

APPENDIX 6.1: WITH PROJECT VEHICLE MIX

APPENDIX 7.1: OFF-SITE TRAFFIC NOISE LEVEL CALCULATIONS
APPENDIX 10.1: CADNAA OPERATIONAL NOISE MODEL INPUTS
APPENDIX 11.1: CADNAA CONSTRUCTION NOISE MODEL INPUTS
APPENDIX 11.2: NIGHTTIME CONCRETE POUR NOISE MODEL INPUTS



LIST OF EXHIBITS

EXHIBIT 1-A: LOCATION MAP	
EXHIBIT 1-B: CONCEPTUAL SITE PLAN	5
EXHIBIT 2-A: TYPICAL NOISE LEVELS	
EXHIBIT 2-B: NOISE LEVEL INCREASE PERCEPTION	
EXHIBIT 2-C: TYPICAL LEVELS OF GROUND-BORNE VIBRATION	
EXHIBIT 3-A: NOISE COMPATIBILITY BY LAND USE TYPE	
EXHIBIT 3-B: EXTERIOR NOISE LEVEL STANDARDS FOR NON-TRANSPORTATION NOISE (LEQ) \dots	
EXHIBIT 5-A: NOISE MEASUREMENT LOCATIONS	
EXHIBIT 6-A: OFF-SITE STUDY AREA ROADWAY SEGMENTS	
EXHIBIT 9-A: RECEIVER LOCATIONS	
EXHIBIT 10-A: OPERATIONAL NOISE SOURCE LOCATIONS	
EXHIBIT 11-A: CONSTRUCTION NOISE SOURCE LOCATIONS	
EXHIBIT 11-B: NIGHTTIME CONCRETE POUR NOISE SOURCE AND RECEIVER LOCATIONS	62
LIST OF TABLES	
TABLE ES-1: SUMMARY OF CEQA SIGNIFICANCE FINDINGS	1
TABLE 4-1: SIGNIFICANCE CRITERIA SUMMARY	
TABLE 5-1: AMBIENT NOISE LEVEL MEASUREMENTS	
TABLE 6-1: OFF-SITE ROADWAY PARAMETERS	
TABLE 6-2: AVERAGE DAILY TRAFFIC VOLUMES	
TABLE 6-3: TIME OF DAY VEHICLE SPLITS	
TABLE 6-4: TRAFFIC FLOW BY VEHICLE TYPE (VEHICLE MIX)	31
TABLE 7-1: EXISTING NOISE LEVELS	34
TABLE 7-2: OPENING YEAR CUMULATIVE (2025) NOISE LEVELS	34
TABLE 7-3: INTERIM YEAR CUMULATIVE (2028) NOISE LEVELS	
TABLE 7-4: HORIZON YEAR (2045) NOISE LEVELS	35
TABLE 7-5: EXISTING TRAFFIC NOISE LEVEL INCREASES	36
TABLE 7-6: SCENARIO 1 TRAFFIC NOISE LEVEL INCREASES	37
TABLE 7-7: SCENARIO 2 TRAFFIC NOISE LEVEL INCREASES	38
TABLE 7-8: SCENARIO 3 TRAFFIC NOISE LEVEL INCREASES	39
TABLE 10-1: REFERENCE NOISE LEVEL MEASUREMENTS	49
TABLE 10-2: DAYTIME PROJECT OPERATIONAL NOISE LEVELS	53
TABLE 10-3: NIGHTTIME PROJECT OPERATIONAL NOISE LEVELS	53
TABLE 10-4: OPERATIONAL NOISE LEVEL COMPLIANCE	_
TABLE 10-5: DAYTIME PROJECT OPERATIONAL NOISE LEVEL INCREASES	55
TABLE 10-6: NIGHTTIME PROJECT OPERATIONAL NOISE LEVEL INCREASES	55
TABLE 11-1: CONSTRUCTION REFERENCE NOISE LEVELS	
TABLE 11-2: CONSTRUCTION EQUIPMENT NOISE LEVEL SUMMARY	
TABLE 11-3: CONSTRUCTION NOISE LEVEL COMPLIANCE	
TABLE 11-4: NIGHTTIME CONCRETE POUR NOISE LEVEL COMPLIANCE	
TABLE 11-5: VIBRATION SOURCE LEVELS FOR CONSTRUCTION EQUIPMENT	
TABLE 11-6: PROJECT CONSTRUCTION VIBRATION LEVELS	64



LIST OF ABBREVIATED TERMS

(1) Reference

ANSI American National Standards Institute

Calveno California Vehicle Noise

CEQA California Environmental Quality Act
CNEL Community Noise Equivalent Level

dBA A-weighted decibels

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

INCE Institute of Noise Control Engineering

L_{eq} Equivalent continuous (average) sound level
L_{max} Maximum level measured over the time interval

mph Miles per hour

PPV Peak Particle Velocity

Project Oak Valley North Specific Plan

REMEL Reference Energy Mean Emission Level

RMS Root-mean-square VdB Vibration Decibels



EXECUTIVE SUMMARY

Urban Crossroads, Inc. has prepared this noise study to determine the noise exposure and the necessary noise mitigation measures for the proposed Oak Valley North Specific Plan ("Project"). The Project site is located south of Singleton Road at Calimesa Boulevard in the City of Calimesa. The proposed Project consists of four warehouse buildings, two truck trailer parking lots within Planning Area (PA) 1 and multi-family residential land use within PA 2. However, a church may be developed in PA 2 instead of the multi-family residential land use. Both the church and multi-family residential are considered as noise sensitive land uses.

This noise study has been prepared to satisfy applicable City of Calimesa noise standards and significance criteria based on Appendix G of the California Environmental Quality Act (CEQA) Guidelines. (1) The results of this Noise and Vibration Analysis are summarized below based on the significance criteria in Section 4 of this report consistent with Appendix G of the California Environmental Quality Act (CEQA) Guidelines. (1) Table ES-1 shows the findings of significance for each potential noise and/or vibration impact under CEQA before and after any required mitigation measures.

TABLE ES-1: SUMMARY OF CEQA SIGNIFICANCE FINDINGS

Analusia	Report	Significano	e Findings
Analysis	Section	Unmitigated	Mitigated
Off-Site Traffic Noise	7	Less Than Significant	-
On-Site Traffic Noise	8	_1	_1
Operational Noise	10	Less Than Significant	-
Construction Noise		Less Than Significant	-
Nighttime Concrete Pour	11	Less Than Significant	-
Construction Vibration		Potentially Significant	Less Than Significant

 $^{^{\}rm 1}\,\mbox{Impacts}$ of the environment on a project are excluded from CEQA.



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1 INTRODUCTION

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

1.1 SITE LOCATION

The proposed Project is located south of Singleton Road at Calimesa Boulevard north and east of Calimesa Boulevard and the I-10 Freeway in the City of Calimesa, as shown on Exhibit 1-A. The Project site is mostly vacant and undeveloped. The area surrounding the Project includes existing single-family residences represented by the Sharondale Senior Community to the north, the proposed Holly Hillis Specific Plan residential land use located to the northeast, and the Rancho Calimesa Mobile Home Park to the southeast. In addition, the noise sensitive Stavness Early Learning childhood education center is located north of the Project site at 35275 Singleton Road. The Project site is located.

1.2 PROJECT DESCRIPTION

The conceptual Project site plan shown on Exhibit 1-B is located south of Singleton Road at Calimesa Boulevard in the City of Calimesa. The proposed Project consists of four warehouse buildings, two truck trailer parking lots within Planning Area (PA) 1 and multi-family residential land use within PA 2. However, a church may be developed in PA 2 instead of the multi-family residential.

Within Planning Area 1 (PA 1), the four warehouse buildings are evaluated in terms of average weekday commute periods. These two scenarios are labeled the "PA 1 High-Cube Warehouse and Truck/Trailer Lot", the "Project Scenario 2" and the "PA1 Parcel Hub Warehouse and Truck/Trailer Lot" consistent with the Oak Valley North Specific Plan Traffic Analysis prepared by Urban Crossroads, Inc. (2). Within PA 2, 223 multi-family residential units are included. However, a church facility may be developed in PA 2 instead of the multi-family residential. A third scenario is therefore included to specifically address Sunday traffic conditions with the PA 2 church. For the off-site traffic noise analysis purposes, three scenarios are evaluated with the following land uses:

a. Scenario 1:

- 982,232 square feet of high-cube warehouse in four buildings (PA1).
- 25.62 acres of Truck/Trailer Parking Lot (PA 1).
- 223 multi-family residential units (PA 2).



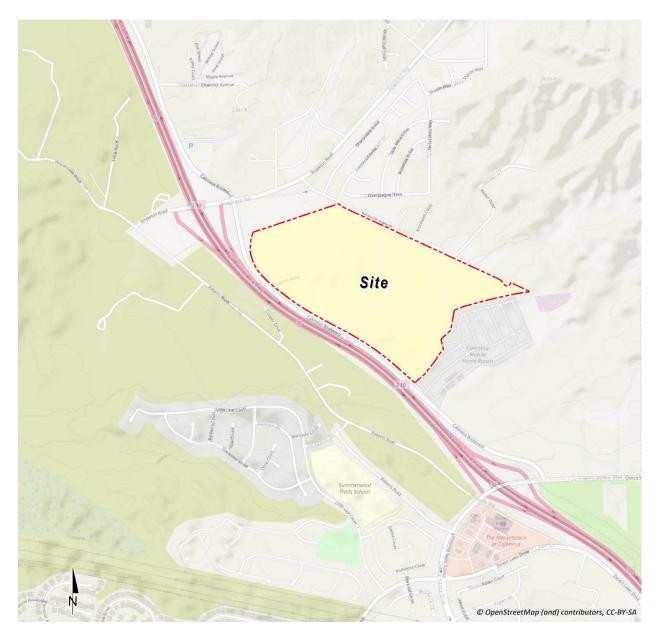


EXHIBIT 1-A: LOCATION MAP

b. Scenario 2:

- 982,232 square feet of parcel hub warehouse in four buildings (PA 1).
- 25.62 acres of Truck/Trailer Parking Lot (PA 1).
- 223 multi-family residential units (PA 2).

c. Scenario 3 (Sunday Morning Analysis with PA 2 Church):

- 982,232 square feet of high-cube warehouse (PA 1).
- 25.62 acres of Truck/Trailer Parking Lot (PA 1).
- Church with 1,200 seats (PA 2).



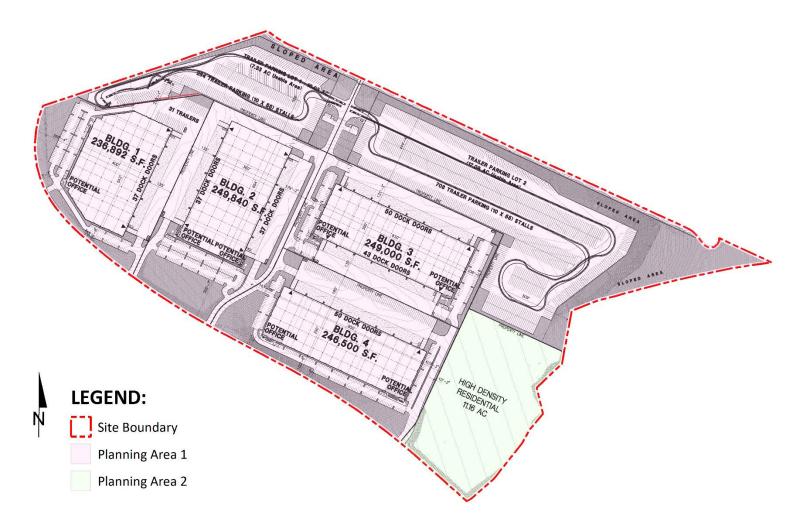


EXHIBIT 1-B: CONCEPTUAL SITE PLAN



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2 FUNDAMENTALS

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

EXHIBIT 2-A: TYPICAL NOISE LEVELS

COMMON OUTDOOR ACTIVITIES	COMMON INDOOR ACTIVITIES	A - WEIGHTED SOUND LEVEL dBA	SUBJECTIVE LOUDNESS	EFFECTS OF NOISE	
THRESHOLD OF PAIN		140			
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	IIII EIII EIIEIVEE	
QUIET URBAN DAYTIME	LARGE BUSINESS OFFICE	50	MODERATE	SLEEP	
QUIET URBAN NIGHTTIME	THEATER, LARGE CONFERENCE ROOM (BACKGROUND)	40		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. (3) 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 1,000 feet, which can cause serious discomfort. (4) Another important aspect of noise is the duration of the sound and the way it is described and distributed in time.

2.2 Noise Descriptors

Environmental noise descriptors are generally based on averages, rather than instantaneous, noise levels. The most used metric 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.

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 L_{eq} sound levels in the evening from 7:00 p.m. to 10:00 p.m., and the addition of 10 decibels to dBA L_{eq} sound levels at night between 10:00 p.m. and 7:00 a.m. These additions are made to account for the noise sensitive time periods during the evening and night hours when noise can become more intrusive. CNEL does not represent the actual sound level heard at any time, but rather represents the total sound exposure. The City of Calimesa 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. (3)

2.3.2 GROUND ABSORPTION

The propagation path of noise from a highway to a receiver is usually very close to the ground. Noise attenuation from ground absorption and reflective wave canceling adds to the attenuation associated with geometric spreading. Traditionally, the excess attenuation has also been expressed in terms of attenuation per doubling of distance. This approximation is usually



sufficiently accurate for distances of less than 200 ft. For acoustically hard sites (i.e., sites with a reflective surface between the source and the receiver, such as a parking lot or body of water), no excess ground attenuation is assumed. For acoustically absorptive or soft sites (i.e., those sites with an absorptive ground surface between the source and the receiver such as soft dirt, grass, or scattered bushes and trees), an excess ground attenuation value of 1.5 dB per doubling of distance is normally assumed. When added to the cylindrical spreading, the excess ground attenuation results in an overall drop-off rate of 4.5 dB per doubling of distance from a line source. (5)

2.3.3 ATMOSPHERIC EFFECTS

Receivers located downwind from a source can be exposed to increased noise levels relative to calm conditions, whereas locations upwind can have lowered noise levels. Sound levels can be increased at large distances (e.g., more than 500 feet) due to atmospheric temperature inversion (i.e., increasing temperature with elevation). Other factors such as air temperature, humidity, and turbulence can also have significant effects. (3)

2.3.4 SHIELDING

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

2.4 Noise Control

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

2.5 Noise Barrier Attenuation

Effective noise barriers can reduce noise levels by 10 to 15 dBA, cutting the loudness of traffic noise in half. A noise barrier is most effective when placed close to the noise source or receiver. Noise barriers, however, do have limitations. For a noise barrier to work, it must block the line-of-sight path of sound from the noise source.



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

Approximately sixteen 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 may occur. Twenty to thirty percent of the population will not complain even in very severe noise environments. (8 pp. 8-6) Thus, a variety of reactions can be expected from people exposed to any given noise environment.

Surveys have shown that community response to noise varies from no reaction to vigorous action for newly introduced noises averaging from 10 dB below existing to 25 dB above existing. (9) According to research originally published in the Noise Effects Handbook (8), the percentage of high annoyance ranges from approximately 0 percent at 45 dB or less, 10 percent are highly annoyed around 60 dB, and increases rapidly to approximately 70 percent being highly annoyed at approximately 85 dB or greater. Despite this variability in behavior on an individual level, the population can be expected to exhibit the following responses to changes in noise levels as shown on Exhibit 2-B. A change of 3 dBA is considered barely perceptible, and changes of 5 dBA are considered readily perceptible. (5)

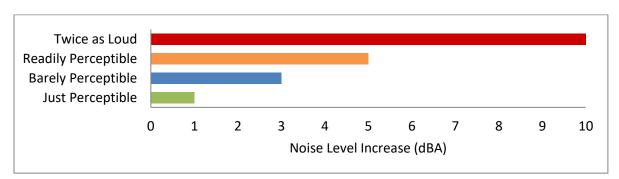


EXHIBIT 2-B: NOISE LEVEL INCREASE PERCEPTION

2.8 VIBRATION

Per the Federal Transit Administration (FTA) *Transit Noise Impact and Vibration Impact Assessment Manual* (9), vibration is the periodic oscillation of a medium or object. The rumbling sound caused by the vibration of room surfaces is called structure-borne noise. Sources of ground-borne vibrations include natural phenomena (e.g., earthquakes, volcanic eruptions, sea waves, landslides) or human-made causes (e.g., explosions, machinery, traffic, trains, construction equipment). Vibration sources may be continuous, such as factory machinery, or transient, such as explosions. As is the case with airborne sound, ground-borne vibrations may be described by amplitude and frequency.

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

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



Velocity Typical Sources Level* (50 ft from source) Human/Structural Response 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 and Vibration Impact Assessment Manual.



3 REGULATORY SETTING

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

3.1 STATE OF CALIFORNIA NOISE REQUIREMENTS

The State of California regulates freeway noise, sets standards for sound transmission, provides occupational noise control criteria, identifies noise standards, and provides guidance for local land use compatibility. State law requires that each county and city adopt a General Plan that includes a Noise Element which is to be prepared per guidelines adopted by the Governor's Office of Planning and Research (OPR). (10) The purpose of the Noise Element is to *limit the exposure of the community to excessive noise levels*. In addition, the California Environmental Quality Act (CEQA) requires that all known environmental effects of a project be analyzed, including environmental noise impacts.

3.2 CITY OF CALIMESA GENERAL PLAN NOISE ELEMENT

The City of Calimesa has adopted a Noise Element of the General Plan to control and abate environmental noise, and to protect the citizens of the City of Calimesa from excessive exposure to noise. (11) The Noise Element specifies the maximum allowable exterior noise levels for new developments impacted by transportation noise sources such as arterial roads, freeways, airports, and railroads. In addition, the Noise Element identifies several polices to minimize the impacts of excessive noise levels throughout the community and establishes noise level requirements for all land uses. To protect City of Calimesa residents from excessive noise, the Noise Element contains the following policies related to the Project:

- POLICY N-1: Future development that could increase ambient noise levels shall be required to mitigate the anticipated noise increase to the extent possible.
- POLICY N-2: Noise-sensitive uses (such as schools, libraries, homes, hospitals, and medical facilities) shall be discouraged in areas where noise levels exceed acceptable limits.
- POLICY N-3: Noise-tolerant land uses should be located in areas that are expected to be subject to noise for the foreseeable future, such as transportation corridors.
- POLICY N-4: Encourage noise-tolerant land uses such as commercial or industrial development to locate in areas already committed to land uses that are noise producing.
- POLICY N-7: Consider the following uses to be sensitive to noise and vibration and discourage these uses in areas where existing or projected future noise levels would be in excess of 65 dBA



CNEL and/or vibration would be more than 0.0787 peak particle velocity (inches per second): Schools, Hospitals, Rest homes, Long-term care facilities, Mental care facilities, Residential uses, Libraries and Passive recreation uses.

- POLICY N-9: The City will work to create and preserve a quiet living environment for all residential neighborhoods.
- POLICY N-10: When making decisions regarding changes to the General Plan or Zoning Maps, or regarding the suitability of a proposed use, the noise compatibility by land use standards (Exhibit 3-A) shall apply.
- POLICY N-11: Maintain City standards for maximum exterior non-transportation noise levels shown on Exhibit 3-B to which land designated for residential land uses may be exposed for any 30-minute period on any day. Where existing ambient noise levels exceed these standards, the ambient noise level shall be highest allowable noise level as measured in dBA L_{eq.}
- POLICY N-12: The noise levels specified in Policy N-11 shall be lowered by 5 dBA for simple tonal noises (such as humming sounds), noises consisting primarily of speech or music, or recurring impulsive noises (such as pile drivers, punch presses, and similar machinery).
- POLICY N-13: The City may impose exterior noise standards which are less restrictive than those specified on Exhibit 3-B.
- POLICY N-16: Developers of new residential or other noise-sensitive uses which are placed in environments subject to existing or projected noise exceeding the Completely Compatible guidelines on Exhibit 3-A shall be responsible for ensuring that acceptable exterior and interior noise levels will be achieved.
- POLICY N-18: The City encourages good acoustical design in new construction.
- POLICY N-21: An acoustical study shall be required for new residential development in areas within a designated CNEL contour of 60 dB or greater to determine what level of sound insulation, landscape buffer, or sound attenuation wall, if any, is required to meet the CNEL acceptable interior noise level of 45 dBA.
- POLICY N-23: Residential development in areas adjacent to the freeway, arterial streets, the railroad, and other noise sources shall be designed to reduce the potential for noise impacts.
- POLICY N-27: Ensure compatibility between industrial and commercial development and adjacent land uses. To achieve compatibility, industrial and commercial development projects may be required to include noise mitigation measures to avoid or minimize project impacts on adjacent uses.
- POLICY N-28: Require that loading docks/delivery areas of commercial or industrial land uses and similar noise sources be designed to minimize potential noise impacts on adjacent noise-sensitive land uses.
- POLICY N-31: Ensure that construction activities are regulated to establish hours of operation in order to prevent and/or mitigate the generation of excessive or adverse noise impacts on surrounding areas.
- POLICY N-32: Require that all construction equipment be kept properly tuned and use noise reduction features (e.g., mufflers and engine shrouds) that are no less effective than those originally installed by the manufacturer.



3.2.1 LAND USE COMPATIBILITY GUIDELINES

The noise criteria identified in the City of Calimesa General Plan Policies N-10 and N-16 are guidelines to evaluate the land use compatibility of transportation related noise. The compatibility criteria, shown on Exhibit 3-A, provides the city with a planning tool to gauge the compatibility of land uses relative to existing and future exterior noise levels.

EXHIBIT 3-A: NOISE COMPATIBILITY BY LAND USE TYPE

Land Use Designations	Completely Compatible	Tentatively Compatible	Normally Incompatible	Completely Incompatible	
All Residential (Single- and Multi-Family)	Less than 60 dBA	60-70 dBA	70-75 dBA	Greater than 75 dBA	
All Nonresidential (Commercial, Industrial & Institutional)	Less than 70 dBA	70-75 dBA	Greater than 75 dBA	(1)	
Public Parks (Lands on which public parks are located or planned)	Less than 65 dBA	65-70 dBA	70-75 dBA	Greater than 75 dBA	

All noise levels shown in this table are designated CNEL.

City of Calimesa General Plan Table N-C

According to compatibility criteria presented on Exhibit 3-A, the noise sensitive Project land uses within PA 2 (multi-family residential or church) are considered *completely compatible* with exterior noise levels below 60 dBA CNEL, *tentatively compatible* with unmitigated exterior noise levels ranging from 60-70 dBA CNEL, *normally incompatible* with unmitigated exterior noise levels ranging from 70-75 dBA CNEL and *completely incompatible* with unmitigated exterior noise levels of greater than 75 dBA CNEL.

The non-residential Project land uses are considered *completely compatible* with unmitigated exterior noise levels of less than 70 dBA CNEL and *tentatively compatible* with unmitigated exterior noise levels ranging from 70-75 dBA CNEL, and *normally incompatible* with unmitigated exterior noise levels greater than 75 dBA CNEL.

3.2.2 Non-Transportation Related (Operational) Noise Level Standards

The noise criteria identified in the City of Calimesa Noise Element Policies N-11, N-12 and N-13 are designed to control the off-site Project related non-transportation noise source activities. These standards presented on Exhibit 3-B are typically codified in the City's Municipal Code. As shown on Exhibit 3-B the General Plan identifies daytime exterior noise level standards of 60 dBA L_{eq} for the Project related off-site noise source activities to the nearest noise sensitive single family residential land uses. During the nighttime hours, the exterior noise level limit is reduced to 50 dBA L_{eq} .



^{1.} To be determined as part of the project review process.

EXHIBIT 3-B: EXTERIOR NOISE LEVEL STANDARDS FOR NON-TRANSPORTATION NOISE (LEQ)

Land Use Type	Time Period	Maximum Noise Level (dBA)
Single Femily Henry and Dunlayer	10 P.M. to 7 A.M.	50
Single-Family Homes and Duplexes	7 A.M. to 10 P.M.	60
Multi-Family Residential - 3 or More Units Per Building	10 P.M. to 7 A.M.	55
(Triplex +)	7 A.M. to 10 P.M.	60

City of Calimesa General Plan Table N-D

3.3 OPERATIONAL NOISE STANDARDS

To analyze noise impacts originating from a designated fixed location or private property such as the Oak Valley North Specific Plan Project, stationary-source (operational) noise such as the expected cold storage loading dock activity, tractor trailer storage activity, roof-top air conditioning units, trash enclosure activity, parking lot vehicle movements, truck movements and outdoor activity are typically evaluated against standards established under a jurisdiction's municipal code. The City of Calimesa Municipal Code, Chapter 8.15 Noise Abatement and Control, included in Appendix 3.1 outlines the performance standards to control the non-transportation noise impacts.

Section 8.15.040 presents the maximum one-hour average sound level (dBA L_{eq}) exterior noise limits by land use. For low density residential land use, Section 8.15.040[B] identifies a daytime exterior noise level limit of 50 dBA L_{eq} and nighttime exterior noise level limit of 40 dBA L_{eq} . This is much lower than the exterior noise standards presented in the General Plan Noise Element (Exhibit 3-B). However, consistent with General Plan Policy N-11, where the existing ambient noise levels exceed these standards, the ambient noise level shall be the highest allowable noise level as measured in dBA L_{eq} . This follows General Plan Policy N-13 suggesting that the City may impose exterior noise standards which are less restrictive than those specified on Exhibit 3-B.

3.4 Construction Noise Standards

To control noise impacts associated with the construction of the proposed Project, the City of Calimesa has established limits to the hours of construction activities. Calimesa Municipal Code 8.15.080[A] states that it is unlawful for any person, including the city, to operate any single or a combination of powered construction equipment at any construction site before 7:00 a.m. or after 7:00 p.m. These limits are extended to before 10:00 a.m. or after 5:00 p.m. on weekends and holidays. To evaluate the Project construction noise activities Section 8.15.080[B] requires that construction equipment shall not cause noise at a level in excess of 75 decibels for more than eight hours during any 24-hour period when measured at or within the property lines of any. While Section 8.15.080 permits higher noise level limits for shorter durations, all the Project related construction activities shall be required to satisfy the construction-related noise level threshold of 75 dBA L_{eq.} The FTA considers a nighttime exterior construction noise level of 70 dBA L_{eq.} as a reasonable threshold for noise sensitive residential land use. (9 p. 179) However,



consistent with the City of Calimesa Municipal Code, Section 8.15.040[B], a more conservative construction noise level threshold of 40 dBA L_{eq} is used in this analysis to assess the potential Project related nighttime construction impacts. In accordance with General Plan Policy N-11, where the existing ambient noise levels exceed these standards, the ambient noise level shall be the highest allowable noise level as measured in dBA L_{eq} .

3.5 CONSTRUCTION VIBRATION STANDARDS

Construction activity can result in varying degrees of ground-borne vibration, depending on the equipment and methods used, distance to the affected structures and soil type. (9) Construction vibration is generally associated with pile driving and rock blasting. Other construction equipment such as air compressors, light trucks, hydraulic loaders, etc., generates little or no ground vibration. Occasionally large bulldozers and loaded trucks can cause perceptible vibration levels at close proximity. The City of Calimesa General Plan Policy N-7 identifies a readily perceptible peak particle velocity (PPV) threshold of 0.0787 inches per second to assess the potential vibration impacts at sensitive receiver locations.



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4 SIGNIFICANCE CRITERIA

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

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

4.1 Noise Level Increases (Threshold A)

Noise level increases resulting from the Project are evaluated based on the Appendix G CEQA Guidelines described above at the closest sensitive receiver locations. Under CEQA, consideration must be given to the magnitude of the increase, the existing baseline 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 a noise impact significant. (12) This is primarily because of the wide variation in individual thresholds of annoyance and differing individual experiences with noise. Thus, an important way of determining a person's subjective reaction to a new noise is the comparison of it to the existing environment to which one has adapted—the so-called ambient environment. In general, the more a new noise level exceeds the previously existing ambient noise level, the less acceptable the new noise level will typically be judged.

Sensitive receivers are areas where humans are participating in activities that may be subject to the stress of significant interference from noise and often include residential dwellings, mobile homes, hotels, motels, hospitals, nursing homes, educational facilities, and libraries. Other receivers include office and industrial buildings, which are not considered as sensitive as single-family homes, but are still protected by the City of Calimesa land use compatibility standards, as discussed below.

4.1.1 Noise-Sensitive Receivers

The Federal Interagency Committee on Noise (FICON) (13) developed guidance to be used for the assessment of project-generated increases in noise levels that consider the ambient noise level. The FICON recommendations are based on studies that relate aircraft noise levels to the percentage of persons highly annoyed by aircraft noise. Although the FICON recommendations were specifically developed to assess aircraft noise impacts, these recommendations are often used in environmental noise impact assessments involving the use of cumulative noise exposure metrics, such as the average-daily noise level (CNEL) and equivalent continuous noise level (L_{eq}).



As previously stated, the approach used in this noise study recognizes that there is no single noise increase that renders a noise impact significant, based on a 2008 California Court of Appeal ruling on Gray v. County of Madera. (12) For example, if the ambient noise environment is quiet (<60 dBA) and the new noise source greatly increases the noise levels, an impact may occur if the noise criteria may be exceeded. Therefore, for this analysis, a readily perceptible 5 dBA or greater project-related noise level increase is considered a significant impact when the without project noise levels are below 60 dBA. Per the FICON, in areas where the without project noise levels range from 60 to 65 dBA, a 3 dBA barely perceptible noise level increase appears to be appropriate for most people. When the without project noise levels already exceed 65 dBA, any increase in community noise louder than 1.5 dBA or greater is considered a significant impact if the noise criteria for a given land use is exceeded, since it likely contributes to an existing noise exposure exceedance.

The FICON guidance provides an established source of criteria to assess the impacts of substantial temporary or permanent increase in baseline ambient noise levels. Based on the FICON criteria, the amount to which a given noise level increase is considered acceptable is reduced when the without Project (baseline) noise levels are already shown to exceed certain land-use specific exterior noise level criteria. The specific levels are based on typical responses to noise level increases of 5 dBA or *readily perceptible*, 3 dBA or *barely perceptible*, and 1.5 dBA depending on the underlying without Project noise levels for noise-sensitive uses. These levels of increases and their perceived acceptance at noise sensitive receiver locations are consistent with guidance provided by both the Federal Highway Administration (5 p. 9) and Caltrans (14 p. 2_48).

4.1.2 Non-Noise-Sensitive Receivers

The City of Calimesa General Plan Noise Element, *Noise Compatibility by Land Use Type* was used to establish the satisfactory noise levels of significance for non-noise-sensitive land uses in the Project study area. As previously shown on Exhibit 3-A, the *completely compatible* exterior noise level for non-noise-sensitive land uses is 70 dBA CNEL. To determine if Project-related traffic noise level increases are significant at off-site non-noise-sensitive land uses, a *barely perceptible* 3 dBA criteria is used. When the without Project noise levels are greater than the *completely compatible* 70 dBA CNEL land use compatibility criteria, a *barely perceptible* 3 dBA or greater noise level increase is considered a significant impact since the noise level criteria is already exceeded. The noise level increases used to determine significant impacts for non-noise-sensitive land uses is generally consistent with the FICON noise level increase thresholds for noise-sensitive land uses but instead rely on the City of Calimesa General Plan Noise Element, *Noise Compatibility by Land Use Type completely compatible* 70 dBA CNEL exterior noise level criteria.

4.2 VIBRATION (THRESHOLD B)

As described in Section 3.5, the vibration impacts originating from the construction of Oak Valley North Specific Plan, vibration-generating activities are appropriately evaluated using City of Calimesa General Plan Policy N-7 readily perceptible PPV threshold of 0.0787 inches per second.



4.3 CEQA Guidelines Not Further Analyzed (Threshold C)

CEQA Noise Threshold C applies when there are nearby public and private airports and/or air strips and focuses on land use compatibility of the Project to nearby airports and airstrips. The Project site is not located within two miles of an airport or airstrip. The closest airport is the San Bernardino International Airport (SBD) located roughly 13 miles northwest of the Project site. As such, the Project site would not be exposed to excessive noise levels from airport operations, and therefore, impacts are considered *less than significant*, and no further noise analysis is conducted in relation to Appendix G to the CEQA Guidelines, Noise Threshold C.

4.4 SIGNIFICANCE CRITERIA SUMMARY

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

TABLE 4-1: SIGNIFICANCE CRITERIA SUMMARY

A sa a la sa i a	Receiving	Candition(a)	Significan	ce Criteria			
Analysis	Land Use	Condition(s)	Daytime	Nighttime			
		If ambient is < 60 dBA CNEL	≥ 5 dBA CNEL P	roject increase			
	Noise- Sensitive ¹	If ambient is 60 - 65 dBA CNEL	≥ 3 dBA CNEL P	EL Project increase EL Project increase EL Project increase EL Project increase 40 dBA Leq a Project increase a Project increase eq Project increase and 7:00 p.m. ⁴ 40 dBA Leq ³			
Off-Site	Sensitive	If ambient is > 65 dBA CNEL	≥ 1.5 dBA CNEL				
Traffic	Non-Noise- Sensitive ²	If ambient is > 70 dBA CNEL	≥ 3 dBA CNEL P				
		Exterior Noise Level Standards ³	50 dBA L _{eq}	40 dBA L _{eq}			
Operational	Noise-	If ambient is < 60 dBA L _{eq} ¹	≥ 5 dBA L _{eq} Pr	Project increase Project increase Project increase Project increase 40 dBA Leq Project increase A 7:00 p.m. ⁴ 40 dBA Leq ³			
Operational	Sensitive	If ambient is 60 - 65 dBA L _{eq} ¹	≥ 3 dBA L _{eq} Project increase				
		If ambient is $> 65 \text{ dBA L}_{eq}^1$	≥ 1.5 dBA L _{eq} P	roject increase			
		Permitted between the week	day hours 7:00 a.m. and	7:00 p.m. ⁴			
Construction	Noise- Sensitive	Noise Level Threshold ⁵	75 dBA L _{eq}	40 dBA L _{eq} ³			
	Schlistive	Vibration Level Threshold ⁶	0.0787 PPV (in/sec)	n/a			

¹ FICON, 1992.



² City of Calimesa General Plan Noise Element, Table N-C (See Exhibit 3-A).

³ City of Calimesa Municipal Code Section 8.15.040. Exterior noise level standards may be adjusted to reflect the ambient conditions consistent with General Plan Policy N-11.

⁴ City of Calimesa Municipal Code Section 8.15.080[A].

⁵ City of Calimesa Municipal Code Section 8.15.080[B].

⁶ City of Calimesa General Plan Policy N-7.

[&]quot;Daytime" = 7:00 a.m. to 10:00 p.m.; "Nighttime" = 10:00 p.m. to 7:00 a.m.

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5 EXISTING NOISE LEVEL MEASUREMENTS

To assess the existing noise level environment, 24-hour noise level measurements were taken at eight 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 Tuesday, May 24, 2022 and Tuesday, July 11, 2023. Appendix 5.1 includes study area photos.

5.1 MEASUREMENT PROCEDURE AND CRITERIA

To describe the existing noise environment, the hourly noise levels were measured during typical weekday conditions over a 24-hour period. By collecting individual hourly noise level measurements, it is possible to describe the equivalent daytime and nighttime hourly noise levels 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. (15)

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. (3) 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. (9)

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. (9) In other words, the area represented by the receiver shares similar shielding, terrain, and geometric relationship to the reference noise source. Receivers represent a location of noise sensitive areas and are used to estimate the future noise level impacts. Collecting reference ambient noise level measurements at the nearby



sensitive receiver locations allows for a comparison of the before and after Project noise levels and is necessary to assess potential noise impacts due to the Project's contribution to the ambient noise levels.

5.3 Noise Measurement Results

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

TABLE 5-1: AMBIENT NOISE LEVEL MEASUREMENTS

Location ¹	Description	Noise	Average Level L _{eq}) ²	CNEL
		Daytime	Nighttime	
L1	Located Northwest of the site near the residence at 35275 Singleton Road	64.5	62.9	69.9
L2	Located north of the site near the residence at 9690 Sharondale Road	63.4	60.7	68.0
L3	Located north of the site near the residence at 35345 Beckwith Ave.	55.7	58.1	64.4
L4	Located north of the site near the residence at 35704 Beckwith Ave.	48.9	47.1	54.1
L5	Located east of the site near the residence at 10320 Calimesa Blvd #229	54.1	50.9	58.2
L6	Located east of the site near the residence at 10320 Calimesa Blvd #218	47.3	44.5	51.8
L7	Located east of the site near the residence at 10320 Calimesa Blvd #52	50.4	47.6	54.9
L8	Located south of the Project site near single-family residence at 1035 Marigold Court	60.5	60.5	67.2

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

Table 5-1 provides the equivalent noise levels used to describe the daytime and nighttime ambient conditions. These daytime and nighttime energy average noise levels represent the average of all hourly noise levels observed during these time periods expressed as a single number. Appendix 5.2 provides summary worksheets of the noise levels for each hour as well as the minimum, maximum, L₁, L₂, L₅, L₈, L₂₅, L₅₀, L₉₀, L₉₅, and L₉₉ percentile noise levels observed during the daytime and nighttime periods.



² Energy (logarithmic) average levels. The long-term 24-hour measurement worksheets are included in Appendix 5.2.

[&]quot;Daytime" = 7:00 a.m. to 10:00 p.m.; "Nighttime" = 10:00 p.m. to 7:00 a.m.

Sharondale Senior Community Site Rancho Calimesa Mobile Home Park 10 **LEGEND:** Site Boundary 🛕 Measurement Locations

EXHIBIT 5-A: NOISE MEASUREMENT LOCATIONS



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6 TRAFFIC NOISE METHODS AND PROCEDURES

The following section outlines the methods and procedures used to estimate and analyze the future traffic noise environment. Consistent with City of Calimesa noise compatibility by land use type (see Exhibit 3-A), all transportation related noise levels are presented in terms of the 24-hour CNEL's.

6.1 FHWA TRAFFIC NOISE PREDICTION MODEL

The 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. (16) 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. (17) 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. (18)

6.1.1 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 14 off-site study area roadway segments shown on Exhibit 6-A, the distance from the centerline to adjacent land use based on the functional roadway classifications per the City of Calimesa General Plan Circulation Element, and the vehicle speeds. The ADT volumes used in this study are based on the *Oak Valley North Specific Plan Traffic Analysis*, prepared by Urban Crossroads, Inc. for the following traffic scenarios (2).

To describe the Project off-site traffic impacts, the receiving land use adjacent to each roadway segment is identified as a sensitive or non-sensitive land use. Sensitive land uses are limited to the existing noise sensitive residential uses based on a review of aerial imagery. It is expected that only existing receivers will experience a change in the ambient noise levels over time, since there are no existing or planned noise sensitive receivers that will perceive a substantial temporary or permanent increase in ambient noise levels.

- Existing (2022) Conditions
- Opening Year Cumulative (2025) Without Project
- Opening Year Cumulative (2025) With PA1, High-Cube Warehouse & Truck/Trailer Lot
- Opening Year Cumulative (2025) With PA1, Parcel Hub Warehouse & Truck/Trailer Lot
- Interim Year Cumulative (2028) Without Project



- Interim Year Cumulative (2028) With Project Scenario 1
- Interim Year Cumulative (2028) With Project Scenario 2
- Horizon Year (2045) Without Project
- Horizon Year (2045) With Project Scenario 1
- Horizon Year (2045) With Project Scenario 2
- Sunday Morning Horizon Year (2045) With Project Scenario 3

TABLE 6-1: OFF-SITE ROADWAY PARAMETERS

ID	Roadway	Segment	Receiving Land Use ¹	Classification ²	Distance from Centerline to Receiving Land Use (Feet) ³	Vehicle Speed (mph)
1	Calimesa Bl.	n/o Sandalwood Dr.	Sensitive	Major	46'	40
2	Calimesa Bl.	s/o Sandalwood Dr.	Sensitive	Major	46'	40
3	Calimesa Bl.	n/o Singleton Rd.	Sensitive	Major	46'	40
4	Calimesa Bl.	s/o Singleton Rd.	Non-Sensitive	Major	46'	40
5	Calimesa Bl.	n/o Cherry Valley Bl.	Sensitive	Major	46'	35
6	5th St.	e/o Sandalwood Dr.	Sensitive	Secondary	44'	25
7	Beckwith Av.	s/o Singleton Rd.	Sensitive	Collector	26'	25
8	Singleton Rd.	w/o I-10 EB Ramps	Non-Sensitive	Secondary	44'	35
9	Singleton Rd.	e/o Calimesa Bl.	Sensitive	Secondary	44'	45
10	Singleton Rd.	w/o Singleton Cyn. Rd.	Sensitive	Secondary	44'	45
11	Singleton Rd.	e/o Singleton Cyn. Rd.	Sensitive	Secondary	44'	45
12	Cherry Valley Bl.	w/o Roberts Rd.	Sensitive	Minor	26'	35
13	Cherry Valley Bl.	e/o Roberts Rd.	Non-Sensitive	Minor	26'	35
14	Cherry Valley Bl.	e/o Calimesa Bl.	Non-Sensitive	Minor	26'	35

 $^{^{}m 1}$ Based on a review of existing aerial imagery. Noise sensitive uses limited to adjacent residential land uses.



 $^{^{\}rm 2}$ City of Calimesa General Plan Circulation Element functional roadway classification.

³ Distance to receiving land use is based upon the right-of-way distances.

6 WOODHOUSERD 8 Site (5) CHERRY VALLEY SIVO (14) **LEGEND:**

EXHIBIT 6-A: OFF-SITE STUDY AREA ROADWAY SEGMENTS



Site Boundary Off Site Roadway Segment ID

TABLE 6-2: AVERAGE DAILY TRAFFIC VOLUMES

			Average Daily Traffic Volumes ¹							mes ¹			9,261 9,343 9,134 10,301 12,021 8,020 13,397 14,134 12,513 12,371 12,371 12,350 12,212 12,212 12,244 38,172 38,237 38,084 33,137 33,219 33,085	
ID	Roadway	Cogmont	Exis	ting	Openir	ng Year Cumulat	ive (2025)	Interi	m Year Cumulati	ve (2028)		нү	(2045)	
ID	Noauway	Segment	No Project	With Project	No Project	High Cube (Scenario 1)	Parcel Hub (Scenario 2)	No Project	High Cube (Scenario 1)	Parcel Hub (Scenario 2)	No Project	_		
1	Calimesa Bl.	n/o Sandalwood Dr.	13,519	13,775	14,686	14,785	14,912	17,768	17,942	18,024	19,164	19,338	19,420	19,232
2	Calimesa Bl.	s/o Sandalwood Dr.	10,536	10,867	11,521	11,620	11,747	14,618	14,867	14,949	20,558	20,807	20,889	20,680
3	Calimesa Bl.	n/o Singleton Rd.	5,099	5,430	5,781	5,880	6,007	8,750	8,999	9,081	9,012	9,261	9,343	9,134
4	Calimesa Bl.	s/o Singleton Rd.	2,444	7,296	2,684	4,914	6,634	5,555	8,687	10,407	7,169	10,301	12,021	8,020
5	Calimesa Bl.	n/o Cherry Valley Bl.	2,470	4,764	3,021	3,977	4,714	8,144	9,701	10,438	11,840	13,397	14,134	12,513
6	5th St.	e/o Sandalwood Dr.	6,727	6,802	7,139	7,139	7,139	9,354	9,429	9,429	12,296	12,371	12,371	12,350
7	Beckwith Av.	s/o Singleton Rd.	957	957	1,016	1,016	1,016	5,946	5,946	5,946	12,212	12,212	12,212	12,244
8	Singleton Rd.	w/o I-10 EB Ramps	-	272	8,231	8,231	8,231	29,389	29,595	29,660	37,966	38,172	38,237	38,084
9	Singleton Rd.	e/o Calimesa Bl.	8,456	8,712	9,512	9,611	9,738	21,370	21,544	21,626	32,963	33,137	33,219	33,085
10	Singleton Rd.	w/o Singleton Cyn. Rd.	7,811	8,067	8,827	8,926	9,053	15,693	15,867	15,949	24,477	24,651	24,733	24,566
11	Singleton Rd.	e/o Singleton Cyn. Rd.	8,779	9,035	9,854	9,953	10,080	16,638	16,812	16,894	22,731	22,905	22,987	22,799
12	Cherry Valley Bl.	w/o Roberts Rd.	13,701	13,927	18,738	18,837	18,964	23,725	23,869	23,951	26,605	26,749	26,831	26,781
13	Cherry Valley Bl.	e/o Roberts Rd.	19,854	20,110	26,739	26,838	26,965	32,162	32,336	32,418	34,566	34,740	34,822	34,796
14	Cherry Valley Bl.	e/o Calimesa Bl.	9,863	10,119	20,797	20,896	21,023	26,252	26,426	26,508	30,742	30,916	30,998	30,864

 $^{^{\}rm 1}$ Oak Valley North Specific Plan Traffic Analysis, Urban Crossroads, Inc.



The ADT volumes vary for each roadway segment based on the existing traffic volumes and the combination of project traffic distributions. In addition, the off-site traffic noise analysis is based on a PM peak hour to average daily traffic (peak-to-daily) relationship of 7.70%.

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 *Oak Valley North Specific Plan Traffic 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 6-4 shows the traffic flow by vehicle type (vehicle mix) used for all without Project traffic scenarios, and Appendix 6.1 presents the vehicle mixes used for the with Project traffic scenarios.

TABLE 6-3: TIME OF DAY VEHICLE SPLITS

Vahiala Tuna		Total of Time of		
Vehicle Type	Daytime	Evening	Nighttime	Day Splits
Autos	70.60%	70.60% 13.61%		100.00%
Medium Trucks	80.34%	4.75%	14.92%	100.00%
Heavy Trucks	75.90%	8.21%	15.90%	100.00%

¹ Based on the 24-hour directional vehicle classification count collected on Cherry Valley Boulevard north of Roberts Road (Oak Valley North Specific Plan, Urban Crossroads, Inc.)

TABLE 6-4: TRAFFIC FLOW BY VEHICLE TYPE (VEHICLE MIX)

Classification		Total % Traffic Flow ¹		Total
Classification Autos Mediu	Medium Trucks	Heavy Trucks	Total	
All Segments	97.53%	1.49%	0.98%	100.00%

¹ Based on the 24-hour directional vehicle classification count collected on Cherry Valley Boulevard north of Roberts Road (Oak Valley North Specific Plan, Urban Crossroads, Inc.)



[&]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.



7 OFF-SITE TRAFFIC NOISE ANALYSIS

As described in Section 4.1, the off-site traffic noise impacts are evaluated based on noise level increases resulting from the Project. 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. To assess the off-site transportation CNEL noise level impacts associated with development of the proposed Project, noise contours were developed for each of the project scenarios outlined in the Oak Valley North Specific Plan Traffic Analysis prepared by Urban Crossroads, Inc. (2) Noise contour boundaries represent the equal levels of noise exposure and are measured in CNEL from the center of the roadway.

7.1 TRAFFIC NOISE CONTOURS

Noise contours were used to assess the Project's incremental 24-hour dBA CNEL traffic-related noise levels at land uses adjacent to roadways conveying Project traffic. Tables 7-1 to 7-4 present a summary of the exterior traffic noise levels for each traffic condition. The noise contours included in Appendix 7.1 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 CNEL 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.

7.2 Existing with Project Traffic Noise Level Increases

While not included in the *Oak Valley North Specific Plan Traffic Analysis*, this off-site traffic noise analysis evaluates the Existing (2022) with Project conditions associated with the highest trip generation (Project Scenario 2 - Parcel Hub Warehouse & Truck/Trailer Lot). In addition, the existing off-site traffic noise levels plus traffic noise generated by the proposed Project scenario will not actually occur since the Project would not be fully constructed and operational until Year 2028 conditions.

Table 7-5 presents a summary of the Project off-site traffic CNEL noise level increases associated with Existing (2022) conditions. For Existing (2022) conditions, Table 7-5 shows that the Existing with Project off-site traffic noise level increases will range from 0.0 to 1.9 dBA CNEL. Based on the significance criteria for off-site traffic noise presented in Table 4-1, land uses adjacent to all the study area roadway segments would experience *less than significant* noise level increases on receiving land uses due to the Existing (2022) with Project conditions.



TABLE 7-1: EXISTING NOISE LEVELS

				CNEL at Receiving	g Land Use (dBA) ²
ID	Road	Segment	Receiving Land Use ¹	Existing No Project	Existing With Project
1	Calimesa Bl.	n/o Sandalwood Dr.	Sensitive	69.8	70.1
2	Calimesa Bl.	s/o Sandalwood Dr.	Sensitive	68.7	69.2
3	Calimesa Bl.	n/o Singleton Rd.	Sensitive	77.4	77.5
4	Calimesa Bl.	s/o Singleton Rd.	Non-Sensitive	77.2	79.1
5	Calimesa Bl.	n/o Cherry Valley Bl.	Sensitive	77.2	78.0
6	5th St.	e/o Sandalwood Dr.	Sensitive	61.3	61.4
7	Beckwith Av.	s/o Singleton Rd.	Sensitive	56.2	56.2
8	Singleton Rd.	w/o I-10 EB Ramps	Non-Sensitive	-	48.5
9	Singleton Rd.	e/o Calimesa Bl.	Sensitive	68.3	68.8
10	Singleton Rd.	w/o Singleton Cyn. Rd.	Sensitive	67.9	68.5
11	Singleton Rd.	e/o Singleton Cyn. Rd.	Sensitive	68.4	69.0
12	Cherry Valley Bl.	w/o Roberts Rd.	Sensitive	71.1	71.5
13	Cherry Valley Bl.	e/o Roberts Rd.	Non-Sensitive	72.7	72.9
14	Cherry Valley Bl.	e/o Calimesa Bl.	Non-Sensitive	69.6	70.2

 $^{^{1}}$ Based on a review of existing aerial imagery. Noise sensitive uses limited to existing residential land uses.

TABLE 7-2: OPENING YEAR CUMULATIVE (2025) NOISE LEVELS

					CNEL at Rece	eiving Land Use (d	BA)²
ID	Road	Segment	Receiving Land Use ¹	Existing	No Project	High Cube (Scenario 1)	Parcel Hub (Scenario 2)
1	Calimesa Bl.	n/o Sandalwood Dr.	Sensitive	69.8	70.1	70.3	70.7
2	Calimesa Bl.	s/o Sandalwood Dr.	Sensitive	68.7	69.1	69.4	69.8
3	Calimesa Bl.	n/o Singleton Rd.	Sensitive	77.4	77.4	77.5	77.6
4	Calimesa Bl.	s/o Singleton Rd.	Non-Sensitive	77.2	77.3	78.6	79.1
5	Calimesa Bl.	n/o Cherry Valley Bl.	Sensitive	77.2	77.2	77.7	78.0
6	5th St.	e/o Sandalwood Dr.	Sensitive	61.3	61.6	61.6	61.6
7	Beckwith Av.	s/o Singleton Rd.	Sensitive	56.2	56.4	56.4	56.4
8	Singleton Rd.	w/o I-10 EB Ramps	Non-Sensitive	-	65.5	65.5	65.5
9	Singleton Rd.	e/o Calimesa Bl.	Sensitive	68.3	68.8	69.1	69.6
10	Singleton Rd.	w/o Singleton Cyn. Rd.	Sensitive	67.9	68.5	68.8	69.4
11	Singleton Rd.	e/o Singleton Cyn. Rd.	Sensitive	68.4	68.9	69.2	69.8
12	Cherry Valley Bl.	w/o Roberts Rd.	Sensitive	71.1	72.4	72.6	73.0
13	Cherry Valley Bl.	e/o Roberts Rd.	Non-Sensitive	72.7	74.0	74.1	74.3
14	Cherry Valley Bl.	e/o Calimesa Bl.	Non-Sensitive	69.6	72.9	73.0	73.4

 $^{^{\}mathrm{1}}$ Based on a review of existing aerial imagery. Noise sensitive uses limited to existing residential land uses.



² The CNEL is calculated at the boundary of the right-of-way of each roadway and the property line of the receiving land use. Roadway segments 3-5 include the estimated I-10 Freeway off-site traffic noise levels.

² The CNEL is calculated at the boundary of the right-of-way of each roadway and the property line of the receiving land use. Roadway segments 3-5 include the estimated I-10 Freeway off-site traffic noise levels.

TABLE 7-3: INTERIM YEAR CUMULATIVE (2028) NOISE LEVELS

					CNEL at Rec	eiving Land Use (d	BA)²
ID	Road	Segment	Receiving Land Use ¹	Existing	No Project	High Cube (Scenario 1)	Parcel Hub (Scenario 2)
1	Calimesa Bl.	n/o Sandalwood Dr.	Sensitive	69.8	71.0	71.1	71.2
2	Calimesa Bl.	s/o Sandalwood Dr.	Sensitive	68.7	70.1	70.4	70.5
3	Calimesa Bl.	n/o Singleton Rd.	Sensitive	77.4	77.6	77.6	77.7
4	Calimesa Bl.	s/o Singleton Rd.	Non-Sensitive	77.2	77.4	78.7	79.2
5	Calimesa Bl.	n/o Cherry Valley Bl.	Sensitive	77.2	77.4	77.9	78.2
6	5th St.	e/o Sandalwood Dr.	Sensitive	61.3	62.8	62.8	62.8
7	Beckwith Av.	s/o Singleton Rd.	Sensitive	56.2	64.1	64.1	64.1
8	Singleton Rd.	w/o I-10 EB Ramps	Non-Sensitive	-	71.1	71.1	71.1
9	Singleton Rd.	e/o Calimesa Bl.	Sensitive	68.3	72.3	72.5	72.5
10	Singleton Rd.	w/o Singleton Cyn. Rd.	Sensitive	67.9	71.0	71.2	71.3
11	Singleton Rd.	e/o Singleton Cyn. Rd.	Sensitive	68.4	71.2	71.4	71.5
12	Cherry Valley Bl.	w/o Roberts Rd.	Sensitive	71.1	73.4	73.6	73.7
13	Cherry Valley Bl.	e/o Roberts Rd.	Non-Sensitive	72.7	74.8	74.9	74.9
14	Cherry Valley Bl.	e/o Calimesa Bl.	Non-Sensitive	69.6	73.9	74.0	74.1

¹ Based on a review of existing aerial imagery. Noise sensitive uses limited to existing residential land uses.

TABLE 7-4: HORIZON YEAR (2045) NOISE LEVELS

					CNI	L at Receiving La	nd Use (dBA)²	
ID	Road	Segment	Receiving Land Use ¹	Existing	No Project	High Cube (Scenario 1)	Parcel Hub (Scenario 2)	Church (Scenario 3)
1	Calimesa Bl.	n/o Sandalwood Dr.	Sensitive	69.8	71.3	71.5	71.5	71.3
2	Calimesa Bl.	s/o Sandalwood Dr.	Sensitive	68.7	71.6	71.8	71.8	71.6
3	Calimesa Bl.	n/o Singleton Rd.	Sensitive	77.4	77.6	77.6	77.7	77.6
4	Calimesa Bl.	s/o Singleton Rd.	Non-Sensitive	e 77.2 77.5 78.8		78.8	79.3	77.7
5	Calimesa Bl.	n/o Cherry Valley Bl.	Sensitive	77.2	77.6	78.1	78.3	77.7
6	5th St.	e/o Sandalwood Dr.	Sensitive	61.3	63.9	64.0	64.0	64.0
7	Beckwith Av.	s/o Singleton Rd.	Sensitive	56.2	67.2	67.2	67.2	67.2
8	Singleton Rd.	w/o I-10 EB Ramps	Non-Sensitive	-	72.2	72.2	72.2	72.2
9	Singleton Rd.	e/o Calimesa Bl.	Sensitive	68.3	74.2	74.3	74.3	74.2
10	Singleton Rd.	w/o Singleton Cyn. Rd.	Sensitive	67.9	72.9	73.0	73.1	72.9
11	Singleton Rd.	e/o Singleton Cyn. Rd.	Sensitive	68.4	72.6	72.7	72.8	72.6
12	Cherry Valley Bl.	w/o Roberts Rd.	Sensitive	71.1	73.9	74.1	74.1	74.0
13	Cherry Valley Bl.	e/o Roberts Rd.	Non-Sensitive	72.7	75.1	75.2	75.2	75.1
14	Cherry Valley Bl.	e/o Calimesa Bl.	Non-Sensitive	69.6	74.6	74.7	74.7	74.6

¹ Based on a review of existing aerial imagery. Noise sensitive uses limited to existing residential land uses.



² The CNEL is calculated at the boundary of the right-of-way of each roadway and the property line of the receiving land use. Roadway segments 3-5 include the estimated I-10 Freeway off-site traffic noise levels.

² The CNEL is calculated at the boundary of the right-of-way of each roadway and the property line of the receiving land use. Roadway segments 3-5 include the estimated I-10 Freeway off-site traffic noise levels.

TABLE 7-5: EXISTING TRAFFIC NOISE LEVEL INCREASES

ID	Road	Segment	Receiving		Receiving e (dBA)²	Project Related	Leve	ental Noise I Increase eshold ²
			Land Use ¹	Existing No Project	Existing with Project	Noise Increase	Limit	Exceeded?
1	Calimesa Bl.	n/o Sandalwood Dr.	Sensitive	69.8	70.1	0.4	1.5	No
2	Calimesa Bl.	s/o Sandalwood Dr.	Sensitive	68.7	69.2	0.5	1.5	No
3	Calimesa Bl.	n/o Singleton Rd.	Sensitive	77.4	7.4 77.5 0.1		1.5	No
4	Calimesa Bl.	s/o Singleton Rd.	Non-Sensitive	77.2	79.1	1.9	n/a	No
5	Calimesa Bl.	n/o Cherry Valley Bl.	Sensitive	77.2	78.0	0.7	3.0	No
6	5th St.	e/o Sandalwood Dr.	Sensitive	61.3	61.4	0.0	3.0	No
7	Beckwith Av.	s/o Singleton Rd.	Sensitive	56.2	56.2	0.0	5.0	No
8	Singleton Rd.	w/o I-10 EB Ramps	Non-Sensitive	-	48.5	61.4 0.0 3 56.2 0.0 5		n/a
9	Singleton Rd.	e/o Calimesa Bl.	Sensitive	68.3	68.8	0.5	1.5	No
10	Singleton Rd.	w/o Singleton Cyn. Rd.	Sensitive	67.9	68.5	0.6	1.5	No
11	Singleton Rd.	e/o Singleton Cyn. Rd.	Sensitive	68.4	69.0	0.5	1.5	No
12	Cherry Valley Bl.	w/o Roberts Rd.	Sensitive	71.1	71.5	0.4	1.5	No
13	Cherry Valley Bl.	e/o Roberts Rd.	Non-Sensitive	72.7	72.9	0.3	3.0	No
14	Cherry Valley Bl.	e/o Calimesa Bl.	Non-Sensitive	69.6	70.2	0.6	n/a	No

¹ Based on a review of existing aerial imagery. Noise sensitive uses limited to existing residential land uses.



² Does the Project create an incremental noise level increase exceeding the significance criteria (Table 4-1)?

[&]quot;n/a" Per the City of Calimesa General Plan Noise Element Table N-C (Exhibit 3-A), a barely perceptible 3 dBA or greater noise level increase is considered a significant impact when the ambient non-noise sensitive noise level is greater than the completely compatible 70 dBA CNEL land use compatibility criteria.

7.3 Scenario 1 Project Traffic Noise Level Increases

Table 7-6 presents a summary of the Project off-site traffic CNEL noise level increases associated with Scenario 1. Table 7-6 shows that the Scenario 1 off-site traffic noise level increases will range from 0.0 to 1.3 dBA CNEL, for Opening Year Cumulative (OYC) (2025) conditions, Interim Year Cumulative (IYC) (2028) and Horizon Year (HY) (2045) conditions. Based on the significance criteria for off-site traffic noise presented in Table 4-1, land uses adjacent to all the study area roadway segments would experience *less than significant* noise level increases on receiving land uses due to Scenario 1.

TABLE 7-6: SCENARIO 1 TRAFFIC NOISE LEVEL INCREASES

ID	Road	Segment	Receiving		oject Relato e Level Incr		Highest Project	Incremental Noise Level Increase Threshold ²	
			Land Use ¹	OYC (2025)	IYC (2028)	HY (2045)	Increment	Limit	Exceeded?
1	Calimesa Bl.	n/o Sandalwood Dr.	Sensitive	0.2	0.1	0.2	0.2	1.5	No
2	Calimesa Bl.	s/o Sandalwood Dr.	Sensitive	0.3	0.3	0.2	0.3	1.5	No
3	Calimesa Bl.	n/o Singleton Rd.	Sensitive	0.0	0.0	0.0	0.0	1.5	No
4	Calimesa Bl.	s/o Singleton Rd.	Non-Sensitive	1.3	1.3	1.3	1.3	n/a	No
5	Calimesa Bl.	n/o Cherry Valley Bl.	Sensitive	0.5	0.5	0.5	0.5	3.0	No
6	5th St.	e/o Sandalwood Dr.	Sensitive	0.0	0.0	0.1	0.1	3.0	No
7	Beckwith Av.	s/o Singleton Rd.	Sensitive	0.0	0.0	0.0	0.0	5.0	No
8	Singleton Rd.	w/o I-10 EB Ramps	Non-Sensitive	0.0	0.0	0.0	0.0	n/a	No
9	Singleton Rd.	e/o Calimesa Bl.	Sensitive	0.3	0.2	0.1	0.3	1.5	No
10	Singleton Rd.	w/o Singleton Cyn. Rd.	Sensitive	0.3	0.2	0.1	0.3	1.5	No
11	Singleton Rd.	e/o Singleton Cyn. Rd.	Sensitive	0.3	0.2	0.1	0.3	1.5	No
12	Cherry Valley Bl.	w/o Roberts Rd.	Sensitive	0.2	0.2	0.2	0.2	1.5	No
13	Cherry Valley Bl.	e/o Roberts Rd.	Non-Sensitive	0.1	0.1	0.1	0.1	3.0	No
14	Cherry Valley Bl.	e/o Calimesa Bl.	Non-Sensitive	0.1	0.1	0.1	0.1	n/a	No

 $^{^{\}mathrm{1}}$ Based on a review of existing aerial imagery. Noise sensitive uses limited to existing residential land uses.



² Does the Project create an incremental noise level increase exceeding the significance criteria (Table 4-1)?

[&]quot;n/a" Per the City of Calimesa General Plan Noise Element Table N-C (Exhibit 3-A), a barely perceptible 3 dBA or greater noise level increase is considered a significant impact when the ambient non-noise sensitive noise level is greater than the completely compatible 70 dBA CNEL land use compatibility criteria.

7.4 SCENARIO 2 PROJECT TRAFFIC NOISE LEVEL INCREASES

Table 7-7 presents a summary of the Project off-site traffic CNEL noise level increases associated with Scenario 2. Table 7-7 shows that the Scenario 1 off-site traffic noise level increases will range from 0.0 to 1.8 dBA CNEL, for Opening Year Cumulative (OYC) (2025) conditions, Interim Year Cumulative (IYC) (2028) and Horizon Year (HY) (2045) conditions. Based on the significance criteria for off-site traffic noise presented in Table 4-1, land uses adjacent to all the study area roadway segments would experience *less than significant* noise level increases on receiving land uses due to Scenario 2.

TABLE 7-7: SCENARIO 2 TRAFFIC NOISE LEVEL INCREASES

ID	ID Road	Segment	Receiving		oject Relat		Highest Project	Incremental Noise Level Increase Threshold ²		
			Land Use ¹	OYC (2025)	IYC (2028)	HY (2045)	Increment	Limit	Exceeded?	
1	Calimesa Bl.	n/o Sandalwood Dr.	Sensitive	0.6	0.2	0.2	0.6	1.5	No	
2	Calimesa Bl.	s/o Sandalwood Dr.	Sensitive	0.7	0.4	0.2	0.7	1.5	No	
3	Calimesa Bl.	n/o Singleton Rd.	Sensitive	0.1	0.1	0.1	0.1	1.5	No	
4	Calimesa Bl.	s/o Singleton Rd.	Non-Sensitive	1.8	1.8	1.8	1.8	n/a	No	
5	Calimesa Bl.	n/o Cherry Valley Bl.	Sensitive	0.7	0.7	0.7	0.7	3.0	No	
6	5th St.	e/o Sandalwood Dr.	Sensitive	0.0	0.0	0.1	0.1	3.0	No	
7	Beckwith Av.	s/o Singleton Rd.	Sensitive	0.0	0.0	0.0	0.0	5.0	No	
8	Singleton Rd.	w/o I-10 EB Ramps	Non-Sensitive	0.0	0.0	0.0	0.0	n/a	No	
9	Singleton Rd.	e/o Calimesa Bl.	Sensitive	0.8	0.2	0.1	0.8	1.5	No	
10	Singleton Rd.	w/o Singleton Cyn. Rd.	Sensitive	0.9	0.3	0.2	0.9	1.5	No	
11	Singleton Rd.	e/o Singleton Cyn. Rd.	Sensitive	0.9	0.3	0.2	0.9	1.5	No	
12	Cherry Valley Bl.	w/o Roberts Rd.	Sensitive	0.6	0.3	0.2	0.6	1.5	No	
13	Cherry Valley Bl.	e/o Roberts Rd.	Non-Sensitive	0.3	0.1	0.1	0.3	3.0	No	
14	Cherry Valley Bl.	e/o Calimesa Bl.	Non-Sensitive	0.5	0.2	0.1	0.5	n/a	No	

 $^{^{}m 1}$ Based on a review of existing aerial imagery. Noise sensitive uses limited to existing residential land uses.



² Does the Project create an incremental noise level increase exceeding the significance criteria (Table 4-1)?

[&]quot;n/a" Per the City of Calimesa General Plan Noise Element Table N-C (Exhibit 3-A), a barely perceptible 3 dBA or greater noise level increase is considered a significant impact when the ambient non-noise sensitive noise level is greater than the completely compatible 70 dBA CNEL land use compatibility criteria.

7.5 SCENARIO 3 PROJECT TRAFFIC NOISE LEVEL INCREASES

Table 7-8 presents a summary of the Project off-site traffic CNEL noise level increases associated with Scenario 3. For HY (2045) conditions, Table 7-8 shows that the Scenario 3 off-site traffic noise level increases will range from 0.0 to 0.4 dBA CNEL. Based on the significance criteria for off-site traffic noise presented in Table 4-1, land uses adjacent to all the study area roadway segments would experience *less than significant* noise level increases on receiving land uses due to Scenario 3.

TABLE 7-8: SCENARIO 3 TRAFFIC NOISE LEVEL INCREASES

ID	Road	Segment	Receiving	HY (2045) Project Related	Incremental Noise Level Increase Threshold ²		
			Land Use ¹	Noise Level Increase	Limit	Exceeded?	
1	Calimesa Bl.	n/o Sandalwood Dr.	Sensitive	0.0	1.5	No	
2	Calimesa Bl.	s/o Sandalwood Dr.	Sensitive	0.0	1.5	No	
3	Calimesa Bl.	n/o Singleton Rd.	Sensitive	0.0	1.5	No	
4	Calimesa Bl.	s/o Singleton Rd.	Non-Sensitive	0.2	n/a	No	
5	Calimesa Bl.	n/o Cherry Valley Bl.	Sensitive	0.1	3.0	No	
6	5th St.	e/o Sandalwood Dr.	Sensitive	0.1	3.0	No	
7	Beckwith Av.	s/o Singleton Rd.	Sensitive	0.0	5.0	No	
8	Singleton Rd.	w/o I-10 EB Ramps	Non-Sensitive	0.0	n/a	No	
9	Singleton Rd.	e/o Calimesa Bl.	Sensitive	0.0	1.5	No	
10	Singleton Rd.	w/o Singleton Cyn. Rd.	Sensitive	0.0	1.5	No	
11	Singleton Rd.	e/o Singleton Cyn. Rd.	Sensitive	0.0	1.5	No	
12	Cherry Valley Bl.	w/o Roberts Rd.	Sensitive	0.1	1.5	No	
13	Cherry Valley Bl.	e/o Roberts Rd.	Non-Sensitive	0.0	3.0	No	
14	Cherry Valley Bl.	e/o Calimesa Bl.	Non-Sensitive	0.0	n/a	No	

¹ Based on a review of existing aerial imagery. Noise sensitive uses limited to existing residential land uses.



² Does the Project create an incremental noise level increase exceeding the significance criteria (Table 4-1)?

[&]quot;n/a" Per the City of Calimesa General Plan Noise Element Table N-C (Exhibit 3-A), a barely perceptible 3 dBA or greater noise level increase is considered a significant impact when the ambient non-noise sensitive noise level is greater than the completely compatible 70 dBA CNEL land use compatibility criteria.



8 ON-SITE TRAFFIC NOISE ANALYSIS

An on-site exterior noise analysis has been completed to determine the noise exposure levels that would result from adjacent transportation noise sources to the noise sensitive high-density residential land use in Planning Area 2, and to identify potential noise abatement measures that would achieve acceptable Project exterior and interior noise levels. The primary source of transportation noise affecting the Project site is anticipated to be from the I-10 Freeway, and Calimesa Boulevard. The Project would also be exposed to nominal traffic noise from the Project's other internal roads. However, due to the distance, and low traffic volume/speed, traffic noise from these roads will not make a substantive contribution to ambient noise conditions.

A review of the existing noise level measurements presented on Table 5-1 suggests that the existing background ambient noise level near the Project site (measurement locations L1 to L7) ranges from 51.8 to 69.9 dBA CNEL. According to the City of Calimesa noise compatibility by land use type as shown on Exhibit 3-A, the Project residential land uses are considered *completely compatible* with exterior noise levels below 60 dBA CNEL, *tentatively compatible* with unmitigated exterior noise levels ranging from 60-70 dBA CNEL, *normally incompatible* with unmitigated exterior noise levels ranging from 70-75 dBA CNEL and *completely incompatible* with unmitigated exterior noise levels of greater than 75 dBA CNEL.

It is expected that the noise sensitive high density residential land uses within PA 2 will experience unmitigated exterior noise levels ranging from 51.8 to 69.9 dBA CNEL. According to compatibility criteria presented on Exhibit 3-A, the noise sensitive high density residential land uses within PA 2 will likely experience exterior noise levels that are considered *tentatively compatible*. Therefore, any new residential construction or development within the Project should be undertaken only after a detailed analysis of the noise reduction requirements is made and noise insulation features included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning will normally suffice.

Consistent with General Plan Policy N-16, developers of new residential or other noise-sensitive uses which are placed in environments subject to existing or projected noise exceeding the Completely Compatible guidelines on Exhibit 3-A shall be responsible for ensuring that acceptable exterior and interior noise levels will be achieved.





9 RECEIVER LOCATIONS

To assess the potential for long-term operational and short-term construction noise impacts, the following receiver locations, as shown on Exhibit 9-A, were identified as representative locations for analysis. The selection of receiver locations is based on FHWA guidelines and is consistent with additional guidance provided by Caltrans and the FTA, as previously described in Section 5.2. Sensitive receivers are generally defined as locations where people reside or where the presence of unwanted sound could otherwise adversely affect the use of the land. Noise-sensitive land uses are generally considered to include schools, hospitals, single-family dwellings, mobile home parks, churches, libraries, and recreation areas. Moderately noise-sensitive land uses typically include multi-family dwellings, hotels, motels, dormitories, out-patient clinics, cemeteries, golf courses, country clubs, athletic/tennis clubs, and equestrian clubs. Land uses that are considered relatively insensitive to noise include business, commercial, and professional developments. Land uses that are typically not affected by noise include: industrial, manufacturing, utilities, agriculture, undeveloped land, parking lots, warehousing, liquid and solid waste facilities, salvage yards, and transit terminals.

To describe the potential off-site Project noise levels, 13 receiver locations were identified. This includes FUT1 to FUT3 representing potential future noise sensitive residential land uses within the Holly Hills Specific Plan and ON1 to ON3 describing the multi-family residential units within Planning Area 2. The nearest existing noise sensitive residential receivers are located southeast of the Project site within the Rancho Calimesa Mobile Home Park at distances ranging from 32 to 37 feet. Other sensitive land uses in the Project study area that are located at greater distances than those identified in this noise study will experience lower noise levels than those presented in this report due to the additional attenuation from distance and the shielding of intervening structures. Distance is measured in a straight line from the project boundary to each receiver location.

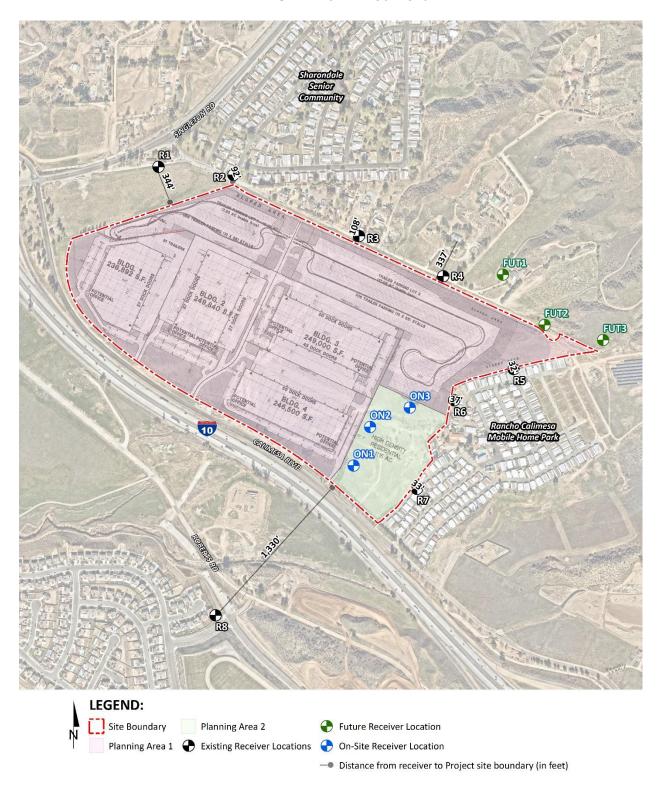
- R1: Location R1 represents the existing noise sensitive Stavness Early Learning childhood education center at 35275 Singleton Road, approximately 344 feet north of the Project site. Since there are no private outdoor living areas (backyards) facing the Project site, receiver R1 is placed at the building façade. A 24-hour noise measurement was taken near this location, L1, to describe the existing ambient noise environment.
- R2: Location R2 represents the existing noise sensitive residence within the Sharondale Senior Community at 9699 Crestknoll Drive, approximately 92 feet north of the Project site. Since there are no private outdoor living areas (backyards) facing the Project site, receiver R2 is placed at the building façade. A 24-hour noise measurement was taken near this location, L2, to describe the existing ambient noise environment.
- R3: Location R3 represents the existing noise sensitive residence at 35345 Beckwith Avenue., approximately 108 feet north of the Project site. Since there are no private outdoor living areas (backyards) facing the Project site, receiver R3 is placed at the building façade. A 24-hour noise measurement was taken near this location, L3, to describe the existing ambient noise environment.
- R4: Location R4 represents the existing noise sensitive residence at 35704 Beckwith Avenue, approximately 337 feet north of the Project site. Since there are no private outdoor living



- areas (backyards) facing the Project site, receiver R4 is placed at the building façade. A 24-hour noise measurement was taken near this location, L4, to describe the existing ambient noise environment.
- R5: Location R5 represents the Rancho Calimesa Mobile Home Park at 10320 Calimesa Boulevard, approximately 32 feet southeast of the Project site. R5 is placed in the private outdoor living areas (backyard) facing the Project site. A 24-hour noise measurement was taken near this location, L5, to describe the existing ambient noise environment.
- R6: Location R6 represents the Rancho Calimesa Mobile Home Park at 10320 Calimesa Boulevard, approximately 37 feet southeast of the Project site. R6 is placed in the private outdoor living areas (backyard) facing the Project site. A 24-hour noise measurement was taken near this location, L6, to describe the existing ambient noise environment.
- R7: Location R7 represents the Rancho Calimesa Mobile Home Park at 10320 Calimesa Boulevard, approximately 33 feet southeast of the Project site. Since there are no private outdoor living areas (backyards) facing the Project site, receiver R7 is placed at the building façade. A 24-hour noise measurement was taken near this location, L7, to describe the existing ambient noise environment.
- R8: Location R8 represents the existing noise sensitive residence at 1035 Marigold Court, approximately 1,330 feet west of the Project site. R8 is placed in the private outdoor living areas (backyard) facing the Project site. A 24-hour noise measurement was taken near this location, L8, to describe the existing ambient noise environment.
- FUT1: Location FUT1 represents the potential future noise sensitive residential land use located northeast of the Project site within the Holly Hills Specific Plan Planning Area 9.
- FUT2: Location FUT2 represents the potential future noise sensitive residential land use located northeast of the Project site within the Holly Hills Specific Plan Planning Area 8.
- FUT3: Location FUT3 represents the potential future noise sensitive residential land use located northeast of the Project site within the Holly Hills Specific Plan Planning Area 7.
- ON1: Location ON1 represents the multi-family residential units within Planning Area 2
- ON2: Location ON2 represents the multi-family residential units within Planning Area 2
- ON3: Location ON3 represents the multi-family residential units within Planning Area 2



EXHIBIT 9-A: RECEIVER LOCATIONS







10 OPERATIONAL NOISE IMPACTS

This section analyzes the potential stationary-source operational noise impacts at the nearest receiver locations, identified in Section 9, resulting from the operation of the proposed Oak Valley North Specific Plan Project. Exhibit 10-A includes over 65 individual noise sources used to assess the operational noise levels and to conservatively describe the potential worst-case noise environment the noise source locations. The operational noise analysis includes the planned 12-foot-high screen walls surrounding the cold storage loading dock areas and the 8-foot-high truck/trailer parking lot screen wall. The screen wall locations shown on Exhibit 10-A are designed for screening, privacy, noise control, and security.

10.1 OPERATIONAL NOISE SOURCES

This operational noise analysis is intended to describe noise level impacts associated with the expected typical of daytime and nighttime activities at the Project site. Consistent with similar warehouse uses, the Project business operations would primarily be conducted within the enclosed building, except for traffic movement, parking, as well as loading and unloading of trucks at designated loading bays. The on-site Project-related noise sources are expected to include: cold storage loading dock activity, tractor trailer storage activity, roof-top air conditioning units, trash enclosure activity, parking lot vehicle movements, truck movements and outdoor activity.

10.2 Reference Noise Levels

To estimate the Project operational noise impacts, reference noise level measurements were collected from similar types of activities to represent the noise levels expected with the development of the proposed Project. This section provides a detailed description of the reference noise level measurements shown on Table 10-1 used to estimate the Project operational noise impacts. It is important to note that the following projected noise levels assume the worst-case noise environment with the cold storage loading dock activity, tractor trailer storage activity, roof-top air conditioning units, trash enclosure activity, parking lot vehicle movements, truck movements and outdoor activity all operating at the same time. These sources of noise activity will likely vary throughout the day.

10.2.1 MEASUREMENT PROCEDURES

The reference noise level measurements presented in this section were collected using a Larson Davis LxT Type 1 precision sound level meter (serial number 01146). The LxT sound level meter was calibrated using a Larson-Davis calibrator, Model CAL 200, was programmed in "slow" mode to record noise levels in "A" weighted form and was located at approximately five feet above the ground elevation for each measurement. 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. (15)



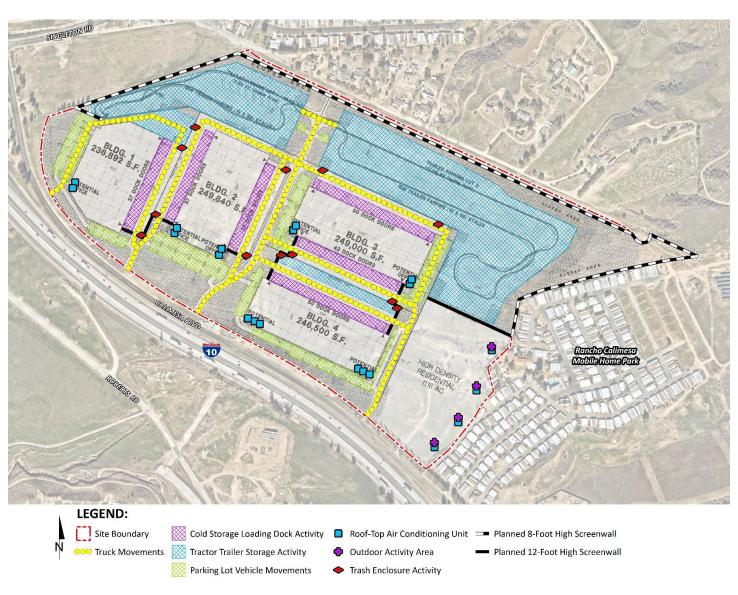


EXHIBIT 10-A: OPERATIONAL NOISE SOURCE LOCATIONS



TABLE 10-1: REFERENCE NOISE LEVEL MEASUREMENTS

Noise Source ¹	Noise Source	Mir Hot	•	Reference Noise Level	Sound Power
Noise Source	Height (Feet)	Day	Night	(dBA L _{eq}) @ 50 Feet	Level (dBA)³
Loading Dock Activity	8'	60	60	62.8	103.4
Tractor Trailer Storage Activity	8'	60	60	62.8	103.4
Roof-Top Air Conditioning Units	5'	39	28	57.2	88.9
Trash Enclosure Activity	5'	60	30	57.3	89.0
Parking Lot Vehicle Activity	5'	60	60	52.6	84.3
Truck Movements	8'	60	60	59.8	93.2
Outdoor Activities	5'	60	0	49.4	81.1

¹ As measured by Urban Crossroads, Inc.

10.2.2 LOADING DOCK ACTIVITY

The reference loading dock activities are intended to describe the typical operational noise source levels associated with the Project. This includes truck idling, deliveries, backup alarms, unloading/loading, docking including a combination of tractor trailer semi-trucks, two-axle delivery trucks, and background forklift operations. At a uniform reference distance of 50 feet, Urban Crossroads collected a reference noise level of 62.8 dBA Leq. The loading dock activity noise level measurement was taken over a fifteen-minute period and represents multiple noise sources taken from the center of activity. The reference noise level measurement includes 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, idling, air brakes noise, in addition to on-going idling of an already docked truck. Loading dock activity is estimated during all the daytime, evening, and nighttime hours.

10.2.3 TRACTOR TRAILER ACTIVITY

To evaluate the noise levels associated with truck idling, backup alarms, trailer movements and storage activities, Urban Crossroads collected a reference noise level measurement at an existing parcel hub facility to describe the potential operational noise levels associated with Project operational activities. The measured reference noise level at 50 feet from activity was measured at 62.8 dBA L_{eq}. The reference noise level measurement includes a semi-truck with trailer passby event, background switcher cab trailer towing, drop-off, idling, and backup alarm events. Tractor trailer activity is estimated during all the daytime, evening, and nighttime hours.



² Anticipated duration (minutes within the hour) of noise activity during typical hourly conditions expected at the Project site.

[&]quot;Daytime" = 7:00 a.m. - 10:00 p.m.; "Nighttime" = 10:00 p.m. - 7:00 a.m.

³ Sound power level represents the total amount of acoustical energy (noise level) produced by a sound source independent of distance or surroundings. Sound power levels calculated using the CadnaA noise model at the reference distance to the noise source. Numbers may vary due to size differences between point and area noise sources.

10.2.4 ROOF-TOP AIR CONDITIONING UNITS

The noise level measurements describe a single mechanical roof-top air conditioning unit. The reference noise level represents a Lennox SCA120 series 10-ton model packaged air conditioning unit. At the uniform reference distance of 50 feet, the reference noise level is 57.2 dBA L_{eq}. Based on the typical operating conditions observed over a four-day measurement period, the roof-top air conditioning units are estimated to operate for and average 39 minutes per hour during the daytime hours, and 28 minutes per hour during the nighttime hours. These operating conditions reflect peak summer cooling requirements with measured temperatures approaching 96 degrees Fahrenheit (°F) with average daytime temperatures of 82°F. For this noise analysis, the air conditioning units are expected to be located on the roof of the Project buildings.

10.2.5 TRASH ENCLOSURE ACTIVITY

To describe the noise levels associated with a trash enclosure activity, Urban Crossroads collected a reference noise level measurement at an existing trash enclosure containing two dumpster bins. The trash enclosure noise levels describe metal gates opening and closing, metal scraping against concrete floor sounds, dumpster movement on metal wheels, and trash dropping into the metal dumpster. The reference noise levels describe trash enclosure noise activities when trash is dropped into an empty metal dumpster, as would occur at the Project Site. The measured reference noise level at the uniform 50-foot reference distance is 57.3 dBA L_{eq} for the trash enclosure activity. The reference noise level describes the expected noise source activities associated with the trash enclosures for the Project's proposed building.

10.2.6 Parking Lot Vehicle Movements

To describe the on-site parking lot activity, a long-term reference noise level measurement was collected for twenty-nine hours in the center of activity within the staff parking lot of an Amazon warehouse distribution center. At 50 feet from the center of activity, the parking lot produced a reference noise level of 52.6 dBA L_{eq} . Parking activities are expected to take place during the full hour (60 minutes) throughout the daytime and evening hours. The parking lot noise levels are mainly due cars pulling in and out of parking spaces in combination with car doors opening and closing.

10.2.7 TRUCK MOVEMENTS

The truck movements reference noise level measurement was collected over a period of 1 hour and 28 minutes and represent multiple heavy trucks entering and exiting the outdoor loading dock area producing a reference noise level of 59.8 dBA L_{eq} at 50 feet. The noise sources included at this measurement location account for trucks entering and existing the Project driveways and maneuvering in and out of the outdoor loading dock activity area.

10.2.8 OUTDOOR ACTIVITY

To describe the outdoor common area activity, a reference noise level measurement was taken. At 50 feet, the reference outdoor activity noise level is 49.4 dBA L_{eq} . The reference noise level



measurement describes outdoor play activity, and people talking on mobile phones. Outdoor activities are limited to the daytime hours.

10.3 CADNAA NOISE PREDICTION MODEL

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

Using the ISO 9613-2 protocol, CadnaA will calculate the distance from each noise source to the noise receiver locations, using the ground absorption, distance, and barrier/building attenuation inputs to provide a summary of noise level at each receiver and the partial noise level contributions by noise source. Consistent with the ISO 9613-2 protocol, the CadnaA noise prediction model relies on the reference sound power level (L_w) to describe individual noise sources. While sound pressure levels (e.g., L_{eq}) quantify in decibels the intensity of given sound sources at a reference distance, sound power levels (L_w) are connected to the sound source and are independent of distance. Sound pressure levels vary substantially with distance from the source and diminish because of intervening obstacles and barriers, air absorption, wind, and other factors. Sound power is the acoustical energy emitted by the sound source and is an absolute value that is not affected by the environment.

The operational noise level calculations provided in this noise study account for the distance attenuation provided due to geometric spreading, when sound from a localized stationary source (i.e., a point source) propagates uniformly outward in a spherical pattern. A default ground attenuation factor of 0.5 was used in the CadnaA noise analysis to account for mixed ground representing a combination of hard and soft surfaces. Appendix 10.1 includes the detailed noise model inputs including the 12-foot-high screen walls surrounding the cold storage loading dock areas and the 8-foot-high truck/trailer parking lot screen wall used to estimate the Project operational noise levels presented in this section.

10.4 Project Operational Noise Levels

Using the reference noise levels to represent the proposed Project operations that include cold storage loading dock activity, tractor trailer storage activity, roof-top air conditioning units, trash enclosure activity, parking lot vehicle movements, truck movements and outdoor activity, 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.

Table 10-2 shows the Project operational noise levels during the daytime hours of 7:00 a.m. to 10:00 p.m. The daytime hourly noise levels at the existing off-site receiver locations (R1 to R8) are expected to range from 38.1 to 47.3 dBA L_{eq} . Potential operational noise levels at receiver locations FUT1 to FUT3 and ON1 to ON3 are provided for informational purposes. Receiver



locations FUT1 to FUT3 do not currently exist and receiver locations ON1 to ON3 describe Project multi-family residential land use impacts to the environment.

Table 10-3 shows the Project operational noise levels during the nighttime hours of 10:00 p.m. to 7:00 a.m. The nighttime hourly noise levels at the existing off-site receiver locations (R1 to R8) are expected to range from 37.5 to 47.0 dBA L_{eq} . The differences between the daytime and nighttime noise levels are largely related to the estimated duration of noise activity as outlined in Table 10-1 and Appendix 10.1.

10.5 Project Operational Noise Level Compliance

To demonstrate compliance with local noise regulations, the Project-only operational noise levels are evaluated against exterior noise level thresholds based on the City of Calimesa exterior noise level standards at the existing nearby noise-sensitive receiver locations. Table 10-4 shows the operational noise levels associated with Oak Valley North Specific Plan Project will not exceed the City of Calimesa daytime and nighttime exterior noise level standards adjusted to reflect the ambient conditions at all nearby receiver locations. Therefore, the operational noise impacts are considered *less than significant* at the nearby noise-sensitive receiver locations.



TABLE 10-2: DAYTIME PROJECT OPERATIONAL NOISE LEVELS

Noise Source ¹		Operational Noise Levels by Receiver Location (dBA Leq)												
Noise Source	R1	R2	R3	R4	R5	R6	R7	R8	FUT1	FUT2	FUT3	ON1	ON2	ON3
Cold Storage Loading Dock Activity	39.1	41.7	41.0	39.3	37.2	40.1	37.0	34.2	37.8	36.0	35.0	35.3	45.9	43.2
Tractor Trailer Storage Activity	42.4	44.4	42.3	40.0	38.9	45.4	37.7	31.0	39.0	37.9	36.1	37.4	45.0	43.3
Roof-Top Air Conditioning Units	29.7	30.0	30.6	30.5	31.7	37.1	43.9	32.1	28.8	27.5	28.2	41.2	40.6	41.1
Trash Enclosure Activity	27.2	28.7	24.9	23.9	24.3	28.7	25.5	19.9	22.5	23.4	23.1	29.7	33.5	29.6
Parking Lot Vehicle Activity	20.2	23.0	23.1	21.1	20.5	25.3	23.5	21.1	20.1	19.1	17.5	32.2	34.0	28.0
Truck Movements	30.1	33.5	33.5	30.2	28.5	33.3	29.7	28.3	28.8	27.3	26.6	36.6	42.6	35.8
Outdoor Activities	9.6	11.1	12.5	15.1	20.0	27.7	36.4	19.2	14.7	13.5	15.6	29.9	31.1	34.5
Total (All Noise Sources)	44.5	46.7	45.2	43.2	42.0	47.3	46.2	38.1	42.0	40.6	39.4	44.8	50.3	48.0

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

TABLE 10-3: NIGHTTIME PROJECT OPERATIONAL NOISE LEVELS

Noise Source ¹	Operational Noise Levels by Receiver Location (dBA Leq)													
Noise Source-	R1	R2	R3	R4	R5	R6	R7	R8	FUT1	FUT2	FUT3	ON1	ON2	ON3
Cold Storage Loading Dock Activity	39.1	41.7	41.0	39.3	37.2	40.1	37.0	34.2	37.8	36.0	35.0	35.3	45.9	43.2
Tractor Trailer Storage Activity	42.4	44.4	42.3	40.0	38.9	45.4	37.7	31.0	39.0	37.9	36.1	37.4	45.0	43.3
Roof-Top Air Conditioning Units	27.3	27.6	28.2	28.1	29.3	34.7	41.5	29.7	26.4	25.1	25.8	38.7	38.2	38.6
Trash Enclosure Activity	23.2	24.8	21.0	19.9	20.3	24.7	21.6	15.9	18.5	19.4	19.2	25.7	29.5	25.6
Parking Lot Vehicle Activity	20.2	23.0	23.1	21.1	20.5	25.3	23.5	21.1	20.1	19.1	17.5	32.2	34.0	28.0
Truck Movements	30.1	33.5	33.5	30.2	28.5	33.3	29.7	28.3	28.8	27.3	26.6	36.6	42.6	35.8
Outdoor Activities	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total (All Noise Sources)	44.4	46.6	45.2	43.1	41.7	47.0	44.2	37.5	41.9	40.5	39.1	43.6	49.9	47.3

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



TABLE 10-4: OPERATIONAL NOISE LEVEL COMPLIANCE

Receiver Location ¹	Measurement Location ³	-	perational s (dBA Leq)²	110.00 2010	l Standards Leq) ³	Noise Level Standards Exceeded? ⁴		
Location	Location	Daytime Nighttime		Daytime	Nighttime	Daytime	Nighttime	
R1	L1	44.5	44.4	64.5	62.9	No	No	
R2	L2	46.7	46.6	63.4	60.7	No	No	
R3	L3	45.2	45.2	60.0	58.1	No	No	
R4	L3	43.2	43.1	60.0	58.1	No	No	
R5	L3	42.0	41.7	60.0	58.1	No	No	
R6	L3	47.3	47.0	60.0	58.1	No	No	
R7	L3	46.2	44.2	60.0	58.1	No	No	
R8	L4	38.1	37.5	60.0	50.0	No	No	
FUT1	L3	42.0	41.9	60.0	58.1	No	No	
FUT2	L3	40.6	40.5	60.0	58.1	No	No	
FUT3	L3	39.4	39.1	60.0	58.1	No	No	
ON1	L3	44.8	43.6	60.0	58.1	No	No	
ON2	L3	50.3	49.9	60.0	58.1	No	No	
ON3	L3	48.0	47.3	60.0	58.1	No	No	

¹ See Exhibit 10-A for the receiver locations.

10.6 Project Operational Noise Level Increases

To describe the Project operational noise level increases, the Project operational noise levels are combined with the existing ambient noise levels measurements for the nearby off-site receiver locations potentially impacted by Project operational noise sources. Since the units used to measure noise, decibels (dB), are logarithmic units, the Project-operational and existing ambient noise levels cannot be combined using standard arithmetic equations. (3) 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 and existing ambient noise levels. The difference between the combined Project and ambient noise levels describes the Project noise level increases to the existing ambient noise environment. Noise levels that would be experienced at receiver locations when Project-source noise is added to the daytime and nighttime ambient conditions are presented on Tables 10-5 and 10-6, respectively. As indicated on Tables 10-5, the Project will generate a daytime operational noise level increases ranging from 0.0 to 3.0 dBA L_{eq} at the nearest receiver locations. Table 10-6 shows that the Project will generate a nighttime operational noise level increase ranging from 0.0 to 4.5 dBA L_{eq} at the nearest receiver locations.



² Proposed Project operational noise levels as shown on Tables 10-2 and 10-3.

³ Exterior noise level standards adjusted to reflect the ambient conditions consistent with General Plan Policy N-11.

⁴ Do the estimated Project operational noise source activities exceed the noise level standards?

[&]quot;Daytime" = 7:00 a.m. - 10:00 p.m.; "Nighttime" = 10:00 p.m. - 7:00 a.m.

The Project-related operational noise level increases will not exceed the operational noise level increase significance criteria presented in Table 4-1. Therefore, the incremental Project operational noise level increase is considered *less than significant* at all receiver locations.

TABLE 10-5: DAYTIME PROJECT OPERATIONAL NOISE LEVEL INCREASES

Receiver Location ¹	Total Project Operational Noise Level ²	Measurement Location ³	Reference Ambient Noise Levels ⁴	Combined Project and Ambient ⁵	Project Increase ⁶	Increase Criteria ⁷	Increase Criteria Exceeded?
R1	44.5	L1	64.5	64.5	0.0	3.0	No
R2	46.7	L2	63.4	63.5	0.1	3.0	No
R3	45.2	L3	55.7	56.1	0.4	5.0	No
R4	43.2	L4	48.9	49.9	1.0	5.0	No
R5	42.0	L5	54.1	54.4	0.3	5.0	No
R6	47.3	L6	47.3	50.3	3.0	5.0	No
R7	46.2	L7	50.4	51.8	1.4	5.0	No
R8	38.1	L8	60.5	60.5	0.0	3.0	No

¹ See Exhibit 10-A for the receiver locations.

TABLE 10-6: NIGHTTIME PROJECT OPERATIONAL NOISE LEVEL INCREASES

Receiver Location ¹	Total Project Operational Noise Level ²	Measurement Location ³	Reference Ambient Noise Levels ⁴	Combined Project and Ambient ⁵	Project Increase ⁶	Increase Criteria ⁷	Increase Criteria Exceeded?
R1	44.4	L1	62.9	63.0	0.1	3.0	No
R2	46.6	L2	60.7	60.9	0.2	3.0	No
R3	45.2	L3	58.1	58.3	0.2	5.0	No
R4	43.1	L4	47.1	48.6	1.5	5.0	No
R5	41.7	L5	50.9	51.4	0.5	5.0	No
R6	47.0	L6	44.5	49.0	4.5	5.0	No
R7	44.2	L7	47.6	49.2	1.6	5.0	No
R8	37.5	L8	60.5	60.5	0.0	3.0	No

¹ See Exhibit 10-A for the receiver locations.



² Total Project daytime operational noise levels as shown on Table 10-2.

³ Reference noise level measurement locations as shown on Exhibit 5-A.

⁴ Observed daytime ambient noise levels as shown on Table 5-1.

⁵ Represents the combined ambient conditions plus the Project activities.

⁶ The noise level increase expected with the addition of the proposed Project activities.

⁷ Significance increase criteria as shown on Table 4-1.

² Total Project nighttime operational noise levels as shown on Table 10-3.

 $^{^{\}rm 3}$ Reference noise level measurement locations as shown on Exhibit 5-A.

 $^{^{\}rm 4}$ Observed nighttime ambient noise levels as shown on Table 5-1.

⁵ Represents the combined ambient conditions plus the Project activities.

⁶ The noise level increase expected with the addition of the proposed Project activities.

⁷ Significance increase criteria as shown on Table 4-1.



11 CONSTRUCTION IMPACTS

This section analyzes potential impacts resulting from the short-term construction activities associated with the development of the Project. Exhibit 11-A shows the construction noise source activity in relation to the nearest sensitive receiver locations previously described in Section 9. To support the Project, off-site improvements will be developed on Singleton Road, Beckwith Avenue and Calimesa Boulevard. To prevent high levels of construction noise from impacting noise-sensitive land uses, City of Calimesa Municipal Code Section 8.15.080[A] restricts construction activities before 7:00 a.m. or after 7:00 p.m. These limits are extended to before 10:00 a.m. or after 5:00 p.m. on weekends and holidays.

11.1 CONSTRUCTION NOISE LEVELS

The FTA *Transit Noise and Vibration Impact Assessment Manual* recognizes that construction projects are accomplished in several different stages and outlines the procedures for assessing noise impacts during construction. Each stage has a specific equipment mix, depending on the work to be completed during that stage. As a result of the equipment mix, each stage has its own noise characteristics; some stages have higher continuous noise levels than others, and some have higher impact noise levels than others. The Project construction activities are expected to occur in the following stages:

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

11.2 CONSTRUCTION REFERENCE NOISE LEVELS

To describe construction noise activities, this construction noise analysis was prepared using reference construction equipment noise levels from the Federal Highway Administration (FHWA) published the Roadway Construction Noise Model (RCNM), which includes a national database of construction equipment reference noise emission levels. (22) The RCNM equipment database, provides a comprehensive list of the noise generating characteristics for specific types of construction equipment. In addition, the database provides an acoustical usage factor to estimate the fraction of time each piece of construction equipment is operating at full power (i.e., its loudest condition) during a construction operation.



Sharondale Senior Community A RE SP RB DR4 Site Rancho Galimesa Mobile Home Park _ RØ RB LEGEND: Site Boundary Existing Receiver Locations Limits of Off-Site Construction — Distance from receiver to construction activity (in feet)

EXHIBIT 11-A: CONSTRUCTION NOISE SOURCE LOCATIONS



11.3 CONSTRUCTION NOISE ANALYSIS

Using the reference construction equipment noise levels and the CadnaA noise prediction model, calculations of the Project construction noise level impacts at the nearby sensitive receiver locations were completed. Consistent with FTA guidance for detailed construction noise assessment, Table 11-1 presents the combined noise levels for the loudest construction equipment, assuming all equipment operates at the same time. To account for the dynamic nature of construction activities, the CadnaA construction noise analysis evaluates the equipment as multiple moving point sources within the construction area (Project site boundary). Construction impacts are based on the highest noise level calculated at each receiver location. As shown on Table 11-2, the construction noise levels are expected to range from 48.9 to 68.0 dBA Leq at the nearby receiver locations. Appendix 11.1 includes the detailed CadnaA construction noise model inputs.

TABLE 11-1: CONSTRUCTION REFERENCE NOISE LEVELS

Construction Stage	Reference Construction Activity	Reference Noise Level @ 50 Feet (dBA L _{eq}) ¹	Combined Noise Level (dBA L _{eq}) ²	Combined Sound Power Level (PWL) ³	
<u> </u>	Crawler Tractors	78			
Site Preparation	Hauling Trucks	72	80	112	
rreparation	Rubber Tired Dozers	75			
	Graders	81			
Grading	Excavators	77	83	115	
	Compactors	76			
	Cranes	73			
Building Construction	Tractors	80	81	113	
Construction	Welders	70			
	Pavers	74			
Paving	Paving Equipment	82	83	115	
	Rollers	73			
	Cranes	73			
Architectural Coating	Air Compressors	74	77	109	
_	Generator Sets	70			

¹ FHWA Roadway Construction Noise Model (RCNM).



² Represents the combined noise level for all equipment assuming they operate at the same time consistent with FTA Transit Noise and Vibration Impact Assessment guidance.

³ Sound power level represents the total amount of acoustical energy (noise level) produced by a sound source independent of distance or surroundings. Sound power levels calibrated using the CadnaA noise model at the reference distance to the noise source.

TABLE 11-2: CONSTRUCTION EQUIPMENT NOISE LEVEL SUMMARY

	Construction Noise Levels (dBA L _{eq})									
Receiver Location ¹	Site Preparation	Grading	Building Construction	Paving	Architectural Coating	Highest Levels ²				
R1	64.8	67.8	65.8	67.8	61.8	67.8				
R2	65.0	68.0	66.0	68.0	62.0	68.0				
R3	62.6	65.6	63.6	65.6	59.6	65.6				
R4	57.4	60.4	58.4	60.4	54.4	60.4				
R5	59.6	62.6	60.6	62.6	56.6	62.6				
R6	60.7	63.7	61.7	63.7	57.7	63.7				
R7	58.5	61.5	59.5	61.5	55.5	61.5				
R8	51.9	54.9	52.9	54.9	48.9	54.9				

¹ Construction noise source and receiver locations are shown on Exhibit 11-A.

11.4 CONSTRUCTION NOISE LEVEL COMPLIANCE

The construction noise analysis shows that the nearest receiver locations will not exceed the City of Calimesa Municipal Code Section 8.15.080[B] 75 dBA L_{eq} significance threshold during Project construction activities as shown on Table 11-3, provided these activities are limited to the weekday hours before 7:00 a.m. or on weekends and holidays after 7:00 p.m. and 10:00 a.m. or after 5:00 p.m. Any construction outside the hours permitted Municipal Code Section 8.15.080[A]), the Project Applicant will be required to obtain authorization for nighttime work from the City of Calimesa and satisfy the 40 dBA Leq exterior noise standards outlined in Municipal Code Section 8.15.040[B]. Therefore, the noise impacts due to Project construction noise are considered *less than significant* at all receiver locations.

TABLE 11-3: CONSTRUCTION NOISE LEVEL COMPLIANCE

	Construction Noise Levels (dBA L _{eq})								
Receiver Location ¹	Highest Construction Noise Levels ²	Threshold ³	Threshold Exceeded? ⁴						
R1	67.8	75	No						
R2	68.0	75	No						
R3	65.6	75	No						
R4	60.4	75	No						
R5	62.6	75	No						
R6	63.7	75	No						
R7	61.5	75	No						
R8	54.9	75	No						

¹Construction noise source and receiver locations are shown on Exhibit 11-A.

⁴ Do the estimated Project construction noise levels exceed the construction noise level threshold?



² CadnaA construction noise model inputs and calculations are included in Appendix 11.1.

 $^{^2}$ Highest construction noise level calculations based on distance from the construction noise source activity to the nearest receiver locations as shown on Table 11-2.

³ City of Calimesa Municipal Code Section 8.15.080[B].

11.5 NIGHTTIME CONCRETE POUR NOISE ANALYSIS

It is our understanding that nighttime concrete pouring activities may occur as a part of Project building construction activities. Nighttime concrete pouring activities are often used to support reduced concrete mixer truck transit times and lower air temperatures than during the daytime hours and are generally limited to the actual building pad and loading dock areas as shown on Exhibit 11-B. Since the nighttime concrete pours will take place outside the permitted City of Calimesa Municipal Code, Section 8.15.080[A] hours of 7:00 a.m. and 7:00 p.m., the Project Applicant will be required to obtain authorization for nighttime work from the City of Calimesa. Any nighttime construction noise activity shall satisfy the residential noise level standards adjusted to reflect the ambient conditions.

11.5.1 NIGHTTIME CONCRETE POUR REFERENCE NOISE LEVEL MEASUREMENTS

To estimate the noise levels due to nighttime concrete pouring activities, sample reference noise level measurements were taken during a nighttime concrete pour at a construction site. Urban Crossroads, Inc. collected short-term nighttime concrete pour reference noise level measurements during the noise-sensitive nighttime hours between 1:00 a.m. to 2:00 a.m. at 27334 San Bernardino Avenue in the City of Redlands. The reference noise levels describe the expected concrete pour noise sources that may include concrete mixer truck movements and pouring activities, concrete paving equipment, rear mounted concrete mixer truck backup alarms, engine idling, air brakes, generators, and workers communicating/whistling.

To describe the nighttime concrete pour noise levels associated with the construction of the Oak Valley North Specific Plan, this analysis relies on reference sound pressure level of 67.7 dBA L_{eq} at 50 feet representing a sound power level of 100.3 dBA L_{w} . While the Project noise levels will depend on the actual duration of activities and specific equipment fleet in use at the time of construction, the reference sound power level of 100.3 dBA L_{w} is used to describe the expected Project nighttime concrete pour noise activities.

11.5.2 NIGHTTIME CONCRETE POUR NOISE LEVEL COMPLIANCE

As shown on Table 11-4, the noise levels associated with the nighttime concrete pour activities are estimated to range from 36.4 to 41.6 dBA L_{eq} and will not exceed the City of Calimesa nighttime exterior noise level standards adjusted to reflect the ambient conditions. Based on the results of this analysis, the nearest existing noise receiver locations will experience *less than significant* impacts due to the Project related nighttime concrete pour activities. Appendix 11.2 includes the CadnaA nighttime concrete pour noise model inputs.



Sharondale Senior Community ⊕R2 ⊕ R3 Rancho Galimesa Mobile Home Park ₽ R3 **LEGEND:**

EXHIBIT 11-B: NIGHTTIME CONCRETE POUR NOISE SOURCE AND RECEIVER LOCATIONS



TABLE 11-4: NIGHTTIME CONCRETE POUR NOISE LEVEL COMPLIANCE

	Concrete Pour Construction Noise Levels (dBA L _{eq})							
Receiver Location ¹	Exterior Noise Levels ²	Threshold ³	Threshold Exceeded? ⁴					
R1	37.9	62.9	No					
R2	39.8	60.7	No					
R3	38.6	58.1	No					
R4	39.6	58.1	No					
R5	37.4	58.1	No					
R6	41.6	58.1	No					
R7	36.4	58.1	No					
R8	37.3	50.0	No					

¹ Nighttime Concrete Pour noise source and receiver locations are shown on Exhibit 11-B.

11.6 CONSTRUCTION VIBRATION ANALYSIS

Construction activity can result in varying degrees of ground vibration, depending on the equipment and methods employed. The operation of construction equipment causes ground vibrations that spread through the ground and diminish in strength with distance. Construction vibration is generally associated with pile driving and rock blasting. However, no pile driving, or rock blasting activities are planned for the Project. Ground vibration levels associated with various types of construction equipment are summarized on Table 11-5. Based on the representative vibration levels presented for various construction equipment types, it is possible to estimate the potential for building damage using the following vibration assessment methods defined by the FTA. To describe the vibration impacts the FTA provides the following equation: $PPV_{equip} = PPV_{ref} \times (25/D)^{1.5}$

TABLE 11-5: 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	0.210			

Federal Transit Administration, Transit Noise and Vibration Impact Assessment Manual



² Nighttime Concrete Pour noise model inputs are included in Appendix 11.2.

³ Exterior noise level standards adjusted to reflect the ambient conditions consistent with General Plan Policy N-11.

⁴ Do the estimated Project construction noise levels exceed the construction noise level threshold?

Table 11-6 presents the expected Project related vibration levels at the nearby receiver locations. At distances ranging from 32 to 1,257 feet from Project construction activities, construction vibration velocity levels are estimated to range from 0.001 to 0.145 PPV (in/sec). Based on the City of Calimesa General Plan Policy N-7 readily perceptible PPV threshold of 0.0787 (in/sec), the Project construction noise levels will exceed the vibration thresholds at receiver locations R2, R5, R6, and R7. The Project-related construction vibration impacts will be *potentially significant* during the construction activities at the Project site and mitigation is required.

TABLE 11-6: PROJECT CONSTRUCTION VIBRATION LEVELS

	Distance to Const.		Typical		Thresholds	Thresholds			
Location ¹	Activity (Feet) ²	Small bulldozer	Jackhammer	Loaded Trucks	Large bulldozer	Vibratory Roller	Highest Vibration Level	PPV (in/sec) ⁴	Exceeded? ⁵
R1	57'	0.001	0.010	0.022	0.026	0.061	0.061	0.0787	No
R2	35'	0.002	0.021	0.046	0.054	0.127	0.127	0.0787	Yes
R3	61'	0.001	0.009	0.020	0.023	0.055	0.055	0.0787	No
R4	281'	0.000	0.001	0.002	0.002	0.006	0.006	0.0787	No
R5	32'	0.002	0.024	0.052	0.061	0.145	0.145	0.0787	Yes
R6	37'	0.002	0.019	0.042	0.049	0.117	0.117	0.0787	Yes
R7	33'	0.002	0.023	0.050	0.059	0.138	0.138	0.0787	Yes
R8	1,257'	0.000	0.000	0.000	0.000	0.001	0.001	0.0787	No

¹ Construction noise source and receiver locations are shown on Exhibit 11-A.

Therefore, a 50-foot buffer setback mitigation measure is required which would restrict the use of large, loaded trucks, heavy mobile equipment greater than 80,000 pounds, jack hammers and vibratory rollers within 50-feet of occupied sensitive receiver locations represented by receiver locations R2, R5, R6, and R7. Instead, small rubber-tired or alternative equipment, as well as soil compaction equipment shall be used during Project construction to reduce vibration effects on nearby structures and their occupants. Table 11-7 shows that with the 50-foot setback buffer, Project construction vibration levels will not exceed the City of Calimesa General Plan Policy N-7 readily perceptible PPV threshold of 0.0787 (in/sec).

Therefore, the Project-related vibration impacts are considered *less than significant* during typical construction activities with mitigation at the Project site. Moreover, the vibration levels reported at the sensitive receiver locations are unlikely to be sustained during the entire construction period but will occur rather only during the times that heavy construction equipment is operating adjacent to the Project site perimeter.



² Distance from receiver building facade to Project construction boundary (Project site boundary).

 $^{^{\}rm 3}$ Based on the Vibration Source Levels of Construction Equipment (Table 11-5).

⁴ City of Calimesa General Plan Policy N-7.

⁵ Does the peak vibration exceed the acceptable vibration thresholds?

[&]quot;PPV" = Peak Particle Velocity

TABLE 11-7: MITIGATED PROJECT CONSTRUCTION VIBRATION LEVELS

	Distance to Const.		Typical Construction Vibration Levels PPV (in/sec) ³					Thresholds	Thresholds	
Location ¹	Activity (Feet) ²	Small bulldozer	Jackhammer	Loaded Trucks	Large bulldozer	Vibratory Roller	Highest Vibration Level	PPV (in/sec) ⁴	Exceeded? ⁵	
R2	50'	0.001	0.012	0.027	0.031	0.074	0.074	0.0787	No	
R5	50'	0.001	0.012	0.027	0.031	0.074	0.074	0.0787	No	
R6	50'	0.001	0.012	0.027	0.031	0.074	0.074	0.0787	No	
R7	50'	0.001	0.012	0.027	0.031	0.074	0.074	0.0787	No	

¹Construction noise source and receiver locations are shown on Exhibit 11-A.



² Distance from receiver building facade to Project construction boundary (Project site boundary).

 $^{^{\}rm 3}$ Based on the Vibration Source Levels of Construction Equipment (Table 11-5).

⁴ City of Calimesa General Plan Policy N-7.

⁵ Does the peak vibration exceed the acceptable vibration thresholds?

[&]quot;PPV" = Peak Particle Velocity



12 REFERENCES

- 1. **State of California.** *California Environmental Quality Act, Appendix G.* 2018.
- 2. **Urban Crossroads, Inc.** Oak Valley North Specific Plan Traffic Analysis. September 2023.
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- 9. **U.S. Department of Transportation, Federal Transit Administration.** *Transit Noise and Vibration Impact Assessment Manual.* September 2018.
- 10. Office of Planning and Research. State of California General Plan Guidelines. October 2017.
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- 16. American National Standards Institute (ANSI). Specification for Sound Level Meters ANSI S1.4-2014/IEC 61672-1:2013.
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- 19. **California Department of Transportation.** *Traffic Noise Attenuation as a Function of Ground and Vegetation Final Report.* June 1995. FHWA/CA/TL-95/23.
- 20. U.S. Department of Transportation, Federal Highway Administration, Office of Environment and Planning. FHWA Roadway Construction Noise Model. January, 2006.





13 CERTIFICATION

The contents of this noise study report represent an accurate depiction of the noise environment and impacts associated with the proposed Oak Valley North 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) 584-3148.

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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 San Diego • March, 2018
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 CALIMESA MUNICIPAL CODE



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Chapter 8.15

NOISE ABATEMENT AND CONTROL

Sections:	
8.15.010	Purpose and intent.
8.15.020	Definitions.
8.15.030	Sound level measurement.
8.15.040	Sound level limits.
8.15.050	Motor vehicles.
8.15.060	Powered model vehicles.
8.15.070	Refuse vehicles.
8.15.080	Construction equipment.
8.15.090	Containers and construction material.
8.15.100	Signal device for food trucks.
8.15.110	Multiple-family dwelling units.
8.15.120	General noise regulations.
8.15.130	Responding to disorderly gatherings.
8.15.140	Burglar alarms.
8.15.150	Exemptions.
8.15.160	Manner of enforcement.
8.15.170	False statement.
8.15.180	Reproductions of permits.
8.15.190	Display of permits.
8.15.200	Variances.
8.15.210	Applications for permits and variances.
8.15.220	Application fees.
8.15.230	Extension fees.
8.15.240	Actions on applications.
8.15.250	Applications deemed denied.
8.15.260	Filing fee.
8.15.270	Contents of petition.
8.15.280	Dismissal of petition.
8.15.290	Place of hearing.
8.15.300	Evidence.
8.15.310	Effective date.

8.15.010 Purpose and intent.

The city council finds and declares that:

A. Inadequately controlled noise presents a growing danger to the health and welfare of the residents of the city; and

- B. The making and creating of disturbing, excessive, offensive or unusually loud noises within the jurisdictional limits of the city is a condition which has persisted and the level and frequency of occurrence of such noises continue to increase; and
- C. The making, creation or continuance of such excessive noises which are prolonged or unusual in their time, place, and use effect and are a detriment to the public health, comfort, convenience, safety, welfare, and prosperity of the residents of the city; and
- D. Every person is entitled to an environment in which the noise is not detrimental to his or her life, health, and enjoyment of property; and
- E. The necessity in the public interest for the provisions and prohibitions contained in this chapter and enacted is declared to be a matter of legislative determination and public policy and it is further declared that the provisions

and prohibitions contained and enacted are in the pursuance of and for the purpose of securing and promotion of the public health, comfort, convenience, safety, welfare, prosperity, peace and quiet of the city and its inhabitants. [Ord. 91-21; Code 1990 § 4.2.01.]

8.15.020 Definitions.

Whenever the following words and phrases are used in this chapter, unless otherwise defined in this chapter, they shall have the meanings ascribed to them in this section:

"Average sound level" shall mean a sound level typical of the sound levels at a certain place during a one-hour period of time, averaged by the general rule of combination for sound levels, said general rule being set forth in American National Standard Specifications for Sound Level Meters S1.4-1971. Average sound level is also called equivalent continuous sound level.

"Commercial purpose" shall mean and include the use, operation or maintenance of any sound-amplifying equipment for the purpose of advertising any business, any goods, or any services, or for the purpose of attracting the attention of the public to, advertising for, or soliciting patronage or customers to or for any performance, show, entertainment, exhibition, or event, or for the purpose of demonstrating such sound equipment.

"Construction equipment" shall mean any tools, machinery or equipment used in connection with construction operations including all types of "special construction" equipment as defined in the pertinent sections of the California Vehicle Code when used in the construction process on any construction site, regardless of whether such construction site be located on-highway or off-highway.

"Container" shall mean any receptacle, regardless of contents, manufactured from wood, metal, plastic, paper, or any other material including but not limited to any barrel, basket, box, crate, tub, bottle, can or refuse container.

"Decibel" shall mean a unit of measure of sound (noise) level.

"Disturbing, excessive or offensive noise" shall mean:

A. Any sound or noise which constitutes a nuisance involving discomfort or annoyance to persons of normal sensitivity residing in the area;

B. Any sound or noise conflicting with criteria standards or levels as set forth in this chapter for permissible noises;

C. Any sound or noise conflicting with criteria standards or levels established by the federal or state government which are applicable in the city.

"Emergency work" shall mean work made necessary to restore property to a safe condition following a public calamity or work required to protect persons or property from imminent exposure to danger or damage or work by public or private utilities when restoring utility service.

"Fixed source" shall mean a machine or device capable of creating a noise level at the property upon which it is regularly located, including but not limited to industrial and commercial process machinery and equipment, pumps, fans, air-conditioning apparatus or refrigeration machines.

"Leq" shall mean equivalent continuous sound level.

"Motor vehicles" shall mean any and all self-propelled vehicles as defined in the California Vehicle Code and shall specifically include, but not be limited to, mini-bikes and go-carts.

"Noise control officer" shall mean the director of planning services or his duly authorized representatives.

"Noise level" shall mean "sound level" and the terms may be used interchangeably in this chapter.

"Noncommercial purpose" shall mean the use, operation, or maintenance of any sound equipment for other than a commercial purpose. "Noncommercial purpose" means and includes, but is not limited to, philanthropic, political, patriotic, and charitable purposes.

"Nonstationary source" shall mean a machine or device capable of being moved from place to place for occasional or temporary use at a given location, including, but not limited to, powered and manual construction equipment not used in connection with construction operation, powered lawnmowers, chainsaws and soil tillers, but excluding motor vehicles.

"Person" shall mean a person, firm, association, copartnership, joint venture, corporation, or any entity, public or private.

"Powered model vehicles" shall mean, but is not limited to, airborne, waterborne, or landborne vehicles such as model airplanes, model boats, and model vehicles of any type or size which are not designed for carrying persons or property and which can be propelled in any form other than manpower or windpower.

"Sound-amplifying equipment" shall mean any machine or device, mobile or stationary, used to amplify music, the human voice, or any sound.

"Sound level (noise level)" shall mean, in decibels, the quantity measured using the frequency weighting-A of a sound level meter as defined in this section.

"Sound level meter" shall mean an instrument for the measurement of sound, including a microphone, an amplifier, an attenuator, networks at least for the standardized frequency weighting-A, and an indicating instrument having at least the standardized dynamic characteristic "fast," as specified in American National Standards Specifications for Sound Level Meters \$1.4-1971 or the latest version thereof.

"Sound truck" shall mean any motor vehicle or other vehicle regardless of motive power, whether in motion or stationary, having mounted thereon, built in, or attached thereto any sound-amplifying equipment other than a car radio or television.

Supplemental Definitions of Technical Terms. Definitions of technical terms not defined in this section shall be obtained from the American National Standard, "Acoustical Terminology" S1.1-1961 (R-1971) or the latest revision thereof. [Ord. 91-21; Code 1990 § 4.2.02.]

8.15.030 Sound level measurement.

A. Any sound or noise level measurement made pursuant to the provisions of this chapter shall be measured with a sound level meter using the A-weighting and "slow" response pursuant to applicable manufacturer's instructions, except that for sounds of a duration of two seconds or less, the "fast" response shall be used and the average level during the occurrence of the sound reported. The L_{eq} one-hour measurement shall be used in calculating final noise level.

- B. The sound level meter shall be appropriately calibrated and adjusted as necessary by means of an acoustical calibrator of the coupler type to assure meter accuracy within the tolerances set forth in American National Standards ANSI-S1.4-1971.
- C. For outside measurements, the microphone shall be not less than four feet above the ground, at least four feet distance from walls or other large reflecting surfaces and shall be protected from the effects of wind noises by the use of appropriate wind screens and the location selected shall be at any point on the affected property. In cases when the microphone must be located within 10 feet of walls or similar large reflecting surfaces, the actual measured distances and orientation of sources, microphone and reflecting surfaces shall be noted and recorded. In no case shall a noise measurement be taken within five feet of the noise source.
- D. For inside measurements, the microphone shall be at least three feet distant from any wall, ceiling or partition, and the average measurement of at least three microphone positions throughout the room shall be determined. [Ord. 91-21; Code 1990 § 4.2.03.]

8.15.040 Sound level limits.

A. Unless a variance has been applied for and granted pursuant to this chapter, it is unlawful for any person to cause or allow the creation of any noise to the extent that the one-hour average sound level, at any point on or beyond the

boundaries of the property on which the sound is produced, exceeds the applicable limits set forth below, except that construction noise level limits shall be governed by CMC 8.15.080.

B. Public utility facilities shall be allowed to operate at 50 DBAs in any zone, continuous over 24 hours.

Zone	Applicable Limit One-Hour Average Sound Level (In Decibels)	
R-1, R-T, R-2, R-R and S-P regulations with a density of five dwelling units or less per acre	10:00 p.m. to 7:00 a.m.	40
	7:00 a.m. to 10:00 p.m.	50
R-3, S-P and PRD regulations with a	7:00 a.m. to 7:00 p.m.	55
density of six or more dwelling units per acre	7:00 p.m. to 10:00 p.m.	50
	10:00 p.m. to 7:00 a.m.	45
C-P-S, C-P, C-O	7:00 a.m. to 7:00 p.m.	60
	7:00 p.m. to 10:00 p.m.	55
	10:00 p.m. to 7:00 a.m.	55
М	7:00 a.m. to 10:00 p.m.	70
	10:00 p.m. to 7:00 a.m.	50

C. The sound level limit at a location on a boundary between two zoning districts is the arithmetic mean of the respective limits for the two districts; provided, however, that the noise level limit applicable to extractive industries, including but not limited to borrow pits and mines, shall be the noise level limit applicable to the M-3 zone regardless of where the extractive industry is actually located.

D. Fixed location public utility distribution or transmission facilities located on or adjacent to a property line shall be subject to the noise level limits of this section, measured at or beyond six feet from the boundary of the easement upon which the equipment is located. [Ord. 91-21; Code 1990 § 4.2.04.]

8.15.050 Motor vehicles.

Provisions for motor vehicles shall be as follows:

- A. Repairs of Motor Vehicles. It is unlawful for any person within the city to repair, rebuild, or test any motor vehicle in such a manner as to cause disturbing, excessive or offensive noises as defined in CMC 8.15.020.
- B. On Highway. Violations for exceeding applicable noise level limits as to persons operating motor vehicles or associated accessory equipment of any type on a public street or highway in the city shall be prosecuted under applicable California Vehicle Code provisions and under federal regulations adopted pursuant to 42 U.S.C. 4905(a)(1)(A), (B) and (C)(ii) and (iii) for which enforcement responsibility is delegated to local government agencies.
- C. Off Highway. Except as otherwise provided for in this chapter, it is unlawful to operate any motor vehicle or associated accessory equipment of any type on any site other than a public street or highway as defined in the California Vehicle Code in a manner so as to cause noise in excess of:

1. Those noise levels permitted for on-highway motor vehicles as specified in the table "35 miles per hour or less speed limits" contained in Section 23130 of the California Vehicle Code as corrected for distances set forth below:

Corrections				
Distance (In Feet)	Correction (Decibels)			
25	-6			
28	-5			
32	-4			
35	-3			
40	-2			
45	-1			
50 (preferred distance)	0			
56	+1			
63	+2			
70	+3			
80	+4			
90	+5			
100	+6			

- 2. A measured noise level thus calibrated to the lane-to-microphone distance of 50 feet shall be deemed in violation of this section if it exceeds the applicable noise level limit specified by this section;
- 3. Or in excess of those sound levels permitted in CMC 8.15.040.
- D. Emergency Vehicles. Nothing in this section shall apply to authorized emergency vehicles when being used in emergency situations.
- E. Urban Transit Buses. Buses as defined in the California Vehicle Code shall at all times comply with the requirements of this section. [Ord. 91-21; Code $1990 \S 4.2.05$.]

8.15.060 Powered model vehicles.

It is unlawful for any person to operate any powered model vehicle except between the hours of 7:00 a.m. and 9:00 p.m. and then only in such a manner so as not to emit noise in excess of those levels set forth in CMC 8.15.040; however, if powered model vehicles are operated in public parks at a point more than 100 feet from the property line, the noise level shall be determined at a distance of 100 feet from the noise source instead of at the property line, and noises from powered model vehicles measured at that distance in excess of the noise limits specified in CMC 8.15.040 are prohibited. [Ord. 91-21; Code 1990 § 4.2.06.]

8.15.070 Refuse vehicles.

No person shall operate, or permit to be operated, a refuse compacting, processing, or collection vehicle within the city which when compacting creates a sound level in excess of 80 decibels when measured at a distance of 50 feet from any point of the compacting vehicle unless a variance has been applied for and granted pursuant to this chapter. [Ord. 91-21; Code 1990 § 4.2.07.]

8.15.080 Construction equipment.

Except for emergency work, it is unlawful for any person, including the city, to operate any single or a combination of powered construction equipment at any construction site, except as outlined in subsections (A) and (B) of this section:

A. It is unlawful for any person, including the city, to operate any single or a combination of powered construction equipment at any construction site before 7:00 a.m. or after 7:00 p.m. In addition, it is unlawful for any person, including the city, to operate any single or a combination of powered construction equipment at any construction site before 10:00 a.m. or after 5:00 p.m. on Saturdays and Sundays, January 1st, the last Monday in May, known as "Memorial Day," July 4th, the first Monday in September, Thanksgiving Day and December 25th. When January 1st, July 4th, or December 25th fall on a Sunday, it is unlawful for any person to operate any single or a combination of powered construction equipment at any construction site before 10:00 a.m. or after 5:00 p.m. on the following Monday.

B. No such equipment, or a combination of equipment regardless of age or date of acquisition, shall be operated so as to cause noise at a level in excess of 75 decibels for more than eight hours during any 24-hour period when measured at or within the property lines of any property which is developed and used either in part or in whole for residential purposes. These sound levels shall be corrected for time duration in accordance with the following table:

Total Duration in 24 Hours	Decibel Level Allowance	Total Decibel Level
Up to 15 minutes	+15	90
Up to 30 minutes	+12	87
Up to 1 hour	+9	84
Up to 2 hours	+6	81
Up to 4 hours	+3	78
Up to 8 hours	0	75

C. In the event that lower noise limit standards are established for construction equipment pursuant to state or federal law, said lower limits shall be used as a basis for revising and amending the noise level limits specified in subsection (B) of this section. [Ord. 91-21; Code 1990 § 4.2.08.]

8.15.090 Containers and construction material.

It is unlawful for any person to handle or transport or cause to be handled or transported in any public place any container or any construction material in such a way as to create a disturbing, excessive, or offensive noise as defined in CMC 8.15.020. [Ord. 91-21; Code 1990 § 4.2.09.]

8.15.100 Signal device for food trucks.

No person shall operate or cause to have operated or used any sound signal device other than sound-amplification equipment attached to a motor vehicle wagon or manually propelled cart from which food or any other items are sold which emits a sound signal more frequently than once every 10 minutes in any one street block and with a duration of more than 10 seconds for any single emission. The sound level of this sound signal shall not exceed 90 decibels at 50 feet. [Ord. 91-21; Code 1990 § 4.2.10.]

8.15.110 Multiple-family dwelling units.

Notwithstanding any other provisions of this chapter, it is unlawful for any person to create, maintain or cause to be maintained any sound within the interior of any multiple-family dwelling unit which causes the average sound level of 45 decibels to be exceeded in any other dwelling unit for a cumulative period of five minutes in any one hour or 50 decibels for a cumulative period of one minute in any one hour or 55 decibels at any time between the hours of 10:00 p.m. of one day and 7:00 a.m. of the following day. The monitoring procedures outlined in CMC 8.15.030 shall be followed in enforcing this section. [Ord. 91-21; Code 1990 § 4.2.11.]

8.15.120 General noise regulations.

A. General Prohibitions. In the absence of objective measurement by use of a sound level meter, additionally it is unlawful for any person to make, continue, or cause to be made or continued, within the limits of the city, any disturbing, excessive or offensive noise which causes discomfort or annoyance to reasonable persons of normal sensitivity residing in the area.

- B. The characteristics and conditions which should be considered in determining whether a violation of the provisions of this section exists, include, but are not limited to, the following:
 - 1. The level of the noise;
 - 2. Whether the nature of the noise is usual or unusual:
 - 3. Whether the origin of the noise is natural or unnatural;
 - 4. The level of the background noise;
 - 5. The proximity of the noise to sleeping facilities;
 - 6. The nature and zoning of the area within which the noise emanates;
 - 7. The density of the inhabitation of the area within which the noise emanates;
 - 8. The time of day or night the noise occurs;
 - 9. The duration of the noise;
 - 10. Whether the noise is recurrent, intermittent, or constant; and
 - 11. Whether the noise is produced by a commercial or noncommercial activity.
- C. Disturbing, Excessive or Offensive Noises. The following acts, among others, are declared to be disturbing, excessive and offensive noises in violation of this section, but said enumeration shall not be deemed to be exclusive, namely:
 - 1. Horns, Signaling Devices, and Related Devices. Violations for disturbing, excessive or offensive noises associated with the use or operation of horns, signaling devices, and on automobiles, motorcycles, or any other vehicle, except as provided in CMC 8.15.110, shall be prosecuted under applicable provisions of the California Vehicle Code.
 - 2. Radios, Televisions, Phonographs, and Similar Devices.
 - a. Uses Restricted. The use, operation or permitting to be played, used or operated of any radio receiving set, musical instrument, phonograph, television set, or other machine or device for the producing or reproducing of sound in such manner as to disturb the peace, quiet and comfort of neighboring residents or persons of normal sensitivity residing in the area;
 - b. Prima Facie Violations. The operation of any such set, instrument, phonograph, television set, machine or similar device between the hours of 10:00 p.m. and 8:00 a.m. in such a manner as to be plainly audible at a distance of 50 feet from the building, structure or vehicle in which it is located, shall be prima facie evidence of a violation of this section.
 - 3. Loudspeaking Amplifiers for Advertising. The use, operation, or the permitting to be played, used or operated of any sound production or reproduction device or machine including but not limited to radio receiving sets, phonographs, musical instruments, loudspeakers, and sound amplifiers, for commercial or business advertising purposes in, upon, over, or across any street, alley, sidewalk, park, or public property in such a manner as to violate the provisions of this chapter is prohibited. This provision shall not be applicable to

sound-amplifying equipment mounted on any sound truck or vehicle for commercial or noncommercial purposes where the owner or operator complies with the following requirements:

- a. The only sound permitted is music or human speech;
- b. Operations are permitted between the hours of 8:00 a.m. and 9:00 p.m. or after 9:00 p.m. during public events and affairs of interest to the general public;
- c. Sound-amplifying equipment shall not be operated unless the sound truck upon which such equipment is mounted is operated at a speed of at least 10 miles per hour, except when said truck is stopped or impeded by traffic. Where stopped by traffic the said sound-amplifying equipment shall not be operated for longer than one minute at each stop;
- d. Sound shall not be issued within 100 yards of hospitals, schools, churches, or courthouses;
- e. The human speech and music amplified shall not be profane, lewd, indecent or slanderous;
- f. The volume of sound shall be controlled so that said volume is not raucous, jarring, disturbing, or a nuisance to persons within the area of audibility and so that the volume of sound shall not exceed a sound level of 65 decibels (on the "A" scale) at a distance of 50 feet from the sound-amplifying equipment as measured by a sound level meter which meets the American National Standard ANSI S1.4-1971 or the latest revision thereof;
- g. No sound-amplifying equipment shall be operated unless the axis of the center of any sound-reproducing equipment used shall be parallel to the direction of travel of the sound truck; provided, however, that any sound-reproducing equipment may be so placed upon said sound truck as to not vary more than 15 degrees either side of the axis of the center of the direction of travel;
- h. No sound truck with its amplifying device in operation shall be driven on the same street past the same point more than twice in a period of one hour.
- 4. Yelling, Shouting, and Other Such Loud Noises. Disturbing or raucous yelling, shouting, hooting, whistling or singing on the public streets, particularly between the hours of 10:00 p.m. and 8:00 a.m. or at any time or place so as to annoy or disturb the quiet, comfort, or repose of neighboring residents or persons of normal sensitivity within the area for whatever reason, is prohibited.
- 5. Hawkers and Peddlers. The shouting or crying out of any peddlers, hawkers, and vendors which disturbs the peace and quiet of a neighborhood or persons of normal sensitivity is prohibited. This provision shall not be construed to prohibit the selling by outcry of merchandise, food and beverages at sporting events, parades, fairs, celebrations, festivals, circuses, carnivals and other similar special events for public entertainment.
- 6. Drums and Other Instruments. The use of any drum or other instrument or device of any kind for the purpose of attracting attention by the creation of noise within the city is prohibited. This provision shall not apply to any person who is a participant in a school band or legally authorized parade or who has been otherwise duly authorized by the city to engage in such conduct.
- 7. Animals and Fowls. The keeping or maintenance, or the permitting to be kept or maintained upon any premises owned, occupied, or controlled by any person of any animal or fowl which by any frequent or long-continued noise shall cause annoyance or discomfort to persons of normal sensitivity in the vicinity is prohibited; provided, however, that nothing contained in this chapter shall be construed to apply to occasional noises emanating from legally operated dog and cat hospitals, humane societies, pounds, farm or agricultural facilities, or areas where the keeping of animals or fowls is permitted. The written affirmation by two persons having separate residences that violation of this section disturbs the peace and quiet of said persons shall be prima facie evidence of a violation of this section.
- 8. Schools, Courts, Churches and Hospitals. The creation of any noise on any street, sidewalk, or public place adjacent to any school, institution of learning (except recreational areas of schools), church, court or library, while the same are in use; or adjacent to a hospital, rest home, or long-term medical or mental care facility

which noise interferes with the workings of such institution or which disturbs or annoys patients in the hospital, rest home, or long-term medical or mental care facility, provided conspicuous signs are displayed in such streets, sidewalks, or public places indicating the presence of a school, institution of learning, church, court, library, rest home or long-term medical or metal care facility, is prohibited.

- 9. Steam Whistles. The operation, use or causing to be operated or used any steam whistle attached to any stationary boiler is prohibited except to give notice of the time to start or stop work or as a sound signal of imminent danger.
- 10. Engines and Motor Vehicles. Any disturbing or raucous noises caused off streets or highways by racing or accelerating the engine of any motor vehicle or accessory equipment while moving or not moving, by the willful backfiring of any engine and exhaust from the engine tailpipe or muffler, or from the screeching of tires, is prohibited.
- 11. Commercial and Recreational Motor Vehicles. The use, operation, or permitting the use or operation of any commercial or recreational motor vehicle or associated accessory equipment such as, but not limited to, refrigeration and air conditioning equipment between the hours of 10:00 p.m. and 7:00 a.m. the following day within hearing distance of any residence or temporary sleeping accommodations is prohibited.
- 12. No person shall operate or permit the operation of any sound amplification system from a motor vehicle not being operated upon a highway which can be heard from outside the vehicle from 150 or more feet, unless that system is being operated to request assistance or warn of a hazardous situation.
- 13. This section does not apply to authorized emergency vehicles or vehicles operated by gas, electric, communications or water utilities. This section does not apply to the sound systems of vehicles used for advertising, or in parades, political or other special events; provided, that such systems comply with all other requirements of local ordinance and state law. [Ord. 91-21; Code 1990 § 4.2.12.]

8.15.130 Responding to disorderly gatherings.

A. Definitions. For the purposes of this section, the following definitions shall apply:

- 1. "Loud and/or disorderly gathering or party" means a loud and/or disorderly activity attended by a group of persons on public or private property which disturbs the peace or quiet of any neighborhood or which causes discomfort or annoyance to any reasonable person of normal sensitivity residing in the area.
- 2. "Person responsible" means the person responsible for a loud and/or disorderly gathering or party and shall be deemed to be, in order of priority:
 - a. The owner(s) of the premises where the loud and/or disorderly gathering or party takes place, if the premises are owner-occupied property;
 - b. The tenant(s) of the premises where the loud and/or disorderly gathering or party takes place, if the premises are tenant-occupied property;
 - c. The person(s) responsible for organizing the loud and/or disorderly gathering or party. If the person is a minor, then the parents or guardians of that minor will be jointly or severally liable for reimbursement of the police expenses and any other public safety expenses incurred.
- 3. "Special security assignments" means the assignment of peace officers and other public safety service personnel during a second or subsequent call to a location after providing a warning that the loud and/or disorderly gathering or party violates the law.
- B. Duty to Maintain Public Peace. Each person who sponsors a gathering or party, or who allows his or her property to be utilized for a gathering or party, shall maintain such in a quiet or orderly fashion so as to protect the public peace. Violation of this duty constitutes a public nuisance.

- C. Cost of Police and Other Public Safety Service Personnel Response. When a loud and/or disorderly gathering or party occurs, the person or persons responsible will be held jointly and severally liable for payment of the public safety service expenses for special security assignments.
- D. Billing of Public Safety Expenses. For the purposes of this section, the city's finance department shall cause the person responsible for a loud and/or disorderly gathering or party to be billed the actual cost for the police services provided in responding to the disturbance and any other city and/or public safety expenses incurred. (These costs shall include, but shall not be limited to, damages to city property and/or injuries to city personnel, and city administrative costs. The police department shall accumulate the costs of all services provided in responding to the disturbance and forward the same to the finance department within 15 days of the disturbance for billing.) Such bills shall be due and payable within 30 days after the billing date.
- E. Appeal Process. Any person receiving a cost recovery fee bill for public safety services pursuant to this section may, within 15 days after the billing date, file with the city clerk a written request appealing the imposition of such charges. Any billing sent pursuant to this section shall inform the billed party of the right to appeal said billing. All appeals shall be made in writing, shall state the grounds for such appeal, shall specify the factual basis for the appeal and shall contain a signature verifying the truth of all matters asserted. Any appeal regarding such billing shall be heard by the city manager, or by his or her designee, as the hearing officer. Notice of the hearing shall be sent by certified or registered mail to the appellant (unless such mail is refused or unclaimed; then the city shall subsequently send the mail via first class postage prepaid mail and such mailing shall be deemed actual service). Within 10 days after the hearing, the hearing officer shall give written notice of the decision of the hearing officer. If the appeal is denied in part or in full, all amounts due to the city shall be paid within 30 days after the notice of the decision of the hearing officer is sent by certified mail or registered mail to the appellant (unless such mail is refused or unclaimed; then the city shall subsequently send the mail via first class postage prepaid mail and such mailing shall be deemed actual service). The decision of the hearing officer may be appealed pursuant to CMC 8.05.070(A). If such a decision is not appealed, then the decision is final upon expiration of the appeal period.
- F. Recovery of Public Safety Expenses. All amounts under this section shall be a debt to the city by the property owner and all persons responsible for the loud and/or disorderly gathering or party and may be collected as set forth in CMC 8.05.130. [Ord. 213 § 3, 2004; Code 1990 § 4.2.12A.]

8.15.140 Burglar alarms.

- A. Any building burglar alarm must have an automatic cutoff, capable of terminating its operation within 30 minutes of the time it is activated, unless such an alarm is located within an agricultural or estate zone. Notwithstanding the requirements of this provision, any member of the police department of the city shall have the right to take such steps as may be reasonable and necessary to disconnect any such alarm during the period of its activation.
- B. No owner of a motor vehicle shall have in operation an audible burglar alarm therein unless such burglar alarm shall be capable of terminating its operation within 15 minutes of the time it is activated. Notwithstanding the requirements of this provision, any member of the police department of the city shall have the right to take such steps as may be reasonable and necessary to disconnect any such alarm installed on a motor vehicle at any time during the period of its activation.
- C. Any motor vehicle upon which a burglar alarm has been installed shall, when parked on a public highway or parking lot open to the public, prominently display the telephone number at which communication may be made with the owner of such motor vehicle. [Ord. 91-21; Code 1990 § 4.2.13.]

8.15.150 Exemptions.

A. Emergency Work. The provisions of this chapter shall not apply to any emergency work as defined in this chapter; provided, that:

- 1. The noise control officer has been notified in advance, if possible, or as soon as practical after said emergency; and
- 2. Any vehicle, device, apparatus, or equipment used, related to or connected with emergency work is designed, modified, or equipped to reduce sounds produced to the lowest possible level consistent with effective operation of such vehicle, device, apparatus, or equipment.

- B. Sporting, Entertainment and Public Events. The provisions of this chapter shall not apply to:
 - 1. Those reasonable sounds emanating from authorized school bands, school athletic and school entertainment events;
 - 2. Sporting, entertainment and public events which are conducted pursuant to a license or permit issued by the city for which noise has been a consideration;
 - 3. Those reasonable sounds emanating from a sporting, entertainment, or public event; provided, however, it is unlawful to exceed those levels set forth in CMC 8.15.040 when measured at or within the property lines of any property which is developed and used either in part or in whole for residential purposes unless a variance has been granted allowing sounds in excess of said levels.
- C. Federal or State Preempted Activities. The provisions of this chapter shall not apply to any activity to the extent regulation thereof has been preempted by state or federal law.
- D. Minor Maintenance to Residential Property. The provisions of CMC 8.15.040 shall not apply to noise sources associated with minor maintenance to property used either in part or in whole for residential purposes provided said activities take place between the hours of 7:00 a.m. and 8:00 p.m. on any day except Sunday, or between the hours of 10:00 a.m. and 8:00 p.m. on Sunday.
- E. Agricultural Operations. The provisions of CMC 8.15.040 shall not apply to equipment associated with agricultural operations conducted on agriculturally zoned property; provided, that all equipment and machinery powered by internal-combustion engines is equipped with a proper muffler and air intake silencer in good working order; and provided further, that:
 - 1. Operations do not take place between 7:00 p.m and the following 7:00 a.m.; or
 - 2. Such operations and equipment are utilized for the protection or salvage of agricultural crops during periods of potential or actual frost damage or other adverse weather conditions; or
 - 3. Such operations and equipment are associated with agricultural pest control through pesticide application, provided the application is made in accordance with permits issued by, or regulations enforced by, the county department of agriculture. [Ord. 91-21; Code 1990 § 4.2.14.]

8.15.160 Manner of enforcement.

The city manager shall have primary responsibility for the enforcement of the provisions of this chapter. Pursuant to Penal Code Section 836.5, the city manager may arrest a person without a warrant when he has reasonable cause to believe that the person has committed an infraction in his presence which is a violation of this chapter. Violations of this chapter will be prosecuted in the same manner as other infraction violations of the municipal code; however, nothing in these regulations shall prevent the city manager or his duly authorized representatives from efforts to obtain voluntary compliance by way of warning, notice or educational means. [Ord. 91-21; Code 1990 § 4.2.15.]

8.15.170 False statement.

No person shall knowingly make a false statement or submit a false document to the city manager as to any matter within his jurisdiction. [Ord. 91-21; Code 1990 § 4.2.16.]

8.15.180 Reproductions of permits.

No person shall make, reproduce, alter, or cause to be made, reproduced, or altered a permit, certificate, or other document issued by the city manager or required by this chapter if the purpose of such reproduction or alteration is to evade or violate the provisions of this chapter. [Ord. 91-21; Code 1990 § 4.2.17.]

8.15.190 Display of permits.

Any permit, certificate, or other notice required in this chapter shall be displayed or maintained on the premises designated thereon. [Ord. 91-21; Code 1990 § 4.2.18.]

8.15.200 Variances.

A. The planning director shall evaluate all applications for variances from the requirements of this chapter and may grant said variances with respect to time for compliance, subject to such terms, conditions, and requirements as he may deem reasonable to achieving compliance with the provisions of this chapter. Each such variance shall set forth in detail the approved method of achieving compliance and a time schedule for its accomplishment.

B. If in the judgment of the planning director the time for compliance cannot be reasonably determined, a variance to cause the noise may be issued for a specified period of time, subject to revocation or modification after review by the planning director at interim times to be designated by the planning director in the variance.

C. In determining the reasonableness of the terms of any proposed variance, said planning director shall consider the magnitude of nuisance caused by the offensive noise, the uses of property within the area of impingement by the noise, operations carried on under existing nonconforming rights or conditional use permits or zone variances, the time factors related to study, design, financing and construction of remedial work, the economic factors related to age and useful life of the equipment and general public interest and welfare. [Ord. 91-21; Code 1990 § 4.2.19.]

8.15.210 Applications for permits and variances.

Every applicant for a permit or variance required by this chapter shall file with the planning director a written application on a form prescribed by the planning director. The applications shall state the name and address of the applicant, the nature of the noise source involved, and such other information as the planning director may require. [Ord. 91-21; Code 1990 § 4.2.20.]

8.15.220 Application fees.

A. Every applicant, except any state or local governmental agency or public district, shall pay a fee of \$25.00 for each application for variance.

B. A request for a duplicate permit or variance shall be made in writing to the planning director within 10 days after the destruction, loss, or defacement of a permit or variance. A fee of \$5.00 shall be charged, except to any state or local government agency or public district, for issuing a duplicate permit or variance. [Ord. 91-21; Code 1990 § 4.2.21.]

8.15.230 Extension fees.

If a permit or variance is to be extended beyond the original use termination on date of permit or variance, the extension fee shall be \$25.00. [Ord. 91-21; Code 1990 § 4.2.22.]

8.15.240 Actions on applications.

A. The planning director shall act, within 30 days, if possible, on an application for a permit or variance and shall notify the applicant in writing by mail or in person of the action taken, namely approval, conditional approval, or denial. Notice of the action taken shall be deemed to have been given when the written notification has been deposited in the mail, postage paid, addressed to the address shown on the application, or when personally delivered to the applicant or his representative. Before acting on an application for a variance or permit, the planning director may require the applicant to furnish further information or further plans or specifications. Failure of the applicant to provide such further information or further plans or specifications within 10 days shall be grounds for denial of the permit or variance.

B. In the event of denial of an application for a permit or variance, the planning director shall notify the applicant in writing of the reasons therefor. Service of this notification may be made by mail, and such service may be proved by the written acknowledgement of the persons served or affidavit of the person making the service. The planning director shall not accept a further application unless the applicant has complied with the objections specified by the planning director as his reasons for denial. [Ord. 91-21; Code 1990 § 4.2.23.]

8.15.250 Applications deemed denied.

The applicant may at his option deem the permit or variance denied if the planning director fails to act on the application within 30 days after filing, or within 10 days after the applicant furnishes the further information, plans and specifications requested by the planning director, whichever is later. [Ord. 91-21; Code 1990 § 4.2.24.]

8.15.260 Filing fee.

Request for hearing shall be initiated by the filing of a petition in triplicate with the city clerk and the payment of a fee of \$25.00. A copy of the petition shall also be made in person or by mail and service may be proved by written acknowledgment of the person served or by the affidavit of the person making the service. [Ord. 91-21; Code 1990 § 4.2.25.]

8.15.270 Contents of petition.

A petition to review a denial or conditional approval of a permit or variance shall include a copy of the permit or variance application, and a copy of the planning director's action setting forth the reasons for the denial or the conditions of the approval, and the reasons for appeal. A petition to review a permit or variance revocation shall include a copy of the permit or variance, the planning director's revocation notice, including his reasons for revocation, and the reasons for appeal. [Ord. 91-21; Code 1990 § 4.2.26.]

8.15.280 Dismissal of petition.

The petitioner may dismiss his petition at any time before submission of the case to the city council, without a hearing or meeting of the city council. The city clerk shall notify all interested persons of such dismissal. [Ord. 91-21; Code 1990 § 4.2.27.]

8.15.290 Place of hearing.

All hearings shall be held at the Norton Younglove Multipurpose Senior Center, 908 Park Avenue, Calimesa, California, unless some other place is designated by the city council. [Ord. 91-21; Code 1990 § 4.2.28.]

8.15.300 Evidence.

A. Oral evidence shall be taken only on oath or affirmation.

- B. Each party shall have these rights: to call and examine witnesses; to introduce exhibits; to cross-examine opposing witnesses on any matter relevant to the issues even though the matter was not covered in the direct examination; to impeach any witness regardless of which party first called him to testify; and to rebut the evidence against him. If petitioner does not testify in his own behalf, he may be called and examined as if under cross-examination.
- C. The hearing need not be conducted according to technical rules relating to evidence and witnesses. Any relevant evidence shall be admitted if it is the sort of evidence on which responsible persons are accustomed to rely in the conduct of serious affairs, regardless of the existence of any common law or statutory rule which might make improper the admission of such evidence, but shall not be sufficient in itself to support a finding unless it would be admissible over objection in civil actions. The rules of privilege shall be effective to the same extent that they are now or hereafter may be recognized in civil actions and irrelevant and unduly repetitious evidence shall be excluded. [Ord. 91-21; Code 1990 § 4.2.29.]

8.15.310 Effective date.

The decision shall become effective 15 days after delivering or mailing a copy of the decision, or the hearing board may order that the decision shall become effective sooner. [Ord. 91-21; Code 1990 § 4.2.30.]

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APPENDIX 5.1:

STUDY AREA PHOTOS



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13594_L1_B 1.North 33, 58' 44.780000"117, 2' 38.290000"



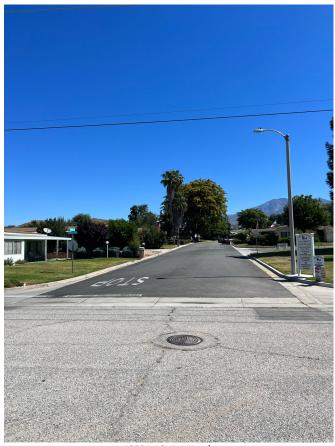
13594_L1_B 3.East 33, 58' 44.780000"117, 2' 38.260000"



13594_L1_B 2.South 33, 58' 44.770000"117, 2' 38.260000"



13594_L1_B 4.West 33, 58' 44.770000"117, 2' 38.310000"



13594_L2_A 1.North 33, 58' 45.400000"117, 2' 36.500000"



13594_L2_A 3.East 33, 58' 45.360000"117, 2' 36.500000"



13594_L2_A 2.South 33, 58' 45.380000"117, 2' 36.530000"



13594_L2_A 4.West 33, 58' 45.390000"117, 2' 36.530000"



13594_L3_C 1.North 33, 58' 41.820000"117, 2' 26.800000"



13594_L3_C 3.East 33, 58' 41.790000"117, 2' 26.800000"



13594_L3_C 2.South 33, 58' 41.790000"117, 2' 26.800000"



13594_L3_C 4.West 33, 58' 41.780000"117, 2' 26.890000"



13594_L4_D 1.North 33, 58' 38.660000"117, 2' 18.370000"



13594_L4_D 3.East 33, 58' 38.620000"117, 2' 18.370000"



13594_L4_D 2.South 33, 58' 38.630000"117, 2' 18.370000"



13594_L5_E 1.North 33, 58' 30.750000"117, 2' 11.010000"



13594_L5_E 2.South 33, 58' 30.680000"117, 2' 10.900000"



13594_L5_E 4.West 33, 58' 30.590000"117, 2' 10.850000"



13594_L5_E 3.East 33, 58' 30.560000"117, 2' 10.850000"



13594_L6_F 1.North 33, 58' 29.640000"117, 2' 15.460000"



13594_L6_F 2.South 33, 58' 29.470000"117, 2' 15.490000"



13594_L6_F 4.West 33, 58' 29.320000"117, 2' 15.600000"



13594_L6_F 3.East 33, 58' 29.340000"117, 2' 15.600000"



13594_L7_H 1.North 33, 58' 22.730000"117, 2' 20.350000"





13594_L7_H 4.West 33, 58' 22.500000"117, 2' 20.520000"



13594_L7_H 3.East 33, 58' 22.540000"117, 2' 20.490000"



13594_L8_L4_E 33, 58' 13.130000"117, 2' 37.350000"





13594_L8_L4_N 33, 58' 13.140000"117, 2' 37.380000"

13594_L8_L4_S 33, 58' 13.130000"117, 2' 37.350000"



13594_L8_L4_W 33, 58' 13.160000"117, 2' 37.350000"

APPENDIX 5.2:

NOISE LEVEL MEASUREMENT WORKSHEETS



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24-Hour Noise Level Measurement Summary Date: Tuesday, July 11, 2023 Location: L1 - Located Northwest of the site near the residence at 35275 JN: 13594 Meter: Piccolo II Project: Oak Valley North Source: Singleton Road Analyst: z. Ibrahim Hourly L eq dBA Readings (unadjusted) 80.0 75.0 70.0 65.0 60.0 Hourly 1 55.0 55.0 45.0 40.0 64. 45.0 40.0 35.0 2 5 6 7 8 9 10 13 15 17 18 19 20 21 22 23 0 1 3 4 11 12 14 16 **Hour Beginning** L2% L8% L25% L95% L_{eq} Adj. L _{eq} Timeframe Hour L_{eq} L max L min L1% L5% L50% L90% L99% Adj. 62.6 60.7 52.8 57.2 66.0 51.6 65.7 65.0 57.0 55.3 52.3 51.7 57.2 10.0 67.2 1 57.3 67.0 49.7 66.5 65.8 63.3 61.5 54.4 51.2 50.5 49.9 10.0 67.3 56.5 57.3 2 60.2 71.8 50.2 71.4 71.0 68.4 64.5 56.3 54.6 51.7 51.0 50.4 60.2 10.0 70.2 61.3 71.8 54.1 71.4 67.5 65.3 57.9 55.4 10.0 71.3 Night 3 70.6 60.1 54.8 54.3 61.3 73.5 64.8 58.6 73.1 72.4 70.3 69.2 62.1 59.7 59.2 58.8 10.0 74.8 4 64.9 64.8 5 66.4 74.6 60.7 74.2 73.4 71.6 70.5 66.8 63.9 61.6 61.3 60.8 66.4 10.0 76.4 6 66.2 75.2 58.4 74.7 73.9 71.9 70.6 66.8 62.8 59.4 59.0 58.5 66.2 10.0 76.2 74.4 55.6 74.0 73.3 71.2 69.9 61.9 56.8 56.3 55.7 65.4 0.0 65.4 65.4 66.3 8 64.6 73.1 55.1 72.7 72.0 70.3 69.3 65.5 61.2 56.4 55.8 55.3 64.6 0.0 64.6 9 78.9 78.4 77.2 70.0 55.2 66.3 54.1 73.1 64.6 60.1 54.7 54.2 66.3 0.0 66.3 10 64.8 75.5 53.9 75.1 74.4 71.3 69.2 60.2 54.9 54.4 0.0 64.8 64.7 54.0 64.8 63.5 73.5 73.1 72.2 68.1 59.5 55.1 54.6 11 54.0 69.6 63.8 54.2 63.5 0.0 63.5 12 72.6 72.2 55.5 63.2 54.5 71.4 69.2 67.8 63.4 59.9 55.1 54.6 63.2 0.0 63.2 13 63.2 72.1 54.3 71.7 70.9 69.0 67.9 63.8 60.0 55.4 54.9 54.4 63.2 0.0 63.2 Day 14 64.1 73.7 54.8 73.4 72.7 70.7 69.0 63.9 59.9 55.8 55.4 54.9 64.1 0.0 64.1 15 63.8 71.8 56.6 70.8 69.2 57.1 71.4 68.1 64.5 61.3 57.5 56.7 63.8 0.0 63.8 16 65.0 74.3 56.2 73.8 73.1 71.0 69.4 65.2 61.8 57.4 56.8 56.3 65.0 0.0 65.0 17 64.8 74.0 56.1 73.5 72.7 70.4 68.9 65.2 62.1 57.4 56.8 56.3 64.8 0.0 64.8 18 65.2 74.6 56.6 74.2 73.5 71.5 69.7 62.1 57.8 57.2 65.2 0.0 65.2 65.2 56.7 19 64.3 73.3 56.8 72.9 72.2 69.9 68.5 64.5 61.6 58.1 57.5 57.0 64.3 5.0 69.3 20 75.1 57.0 74.2 70.9 68.4 58.0 69.6 64.6 74.7 63.9 61.0 57.6 57.1 64.6 5.0 67.7 21 72.5 72.0 71.0 68.4 66.8 62.5 59.8 56.6 56.2 55.6 5.0 22 58.7 55.9 55.4 10.0 72.3 62.3 71.8 54.7 71.5 70.8 68.5 66.7 61.9 54.9 62.3 Night 23 58.7 66.5 54.1 66.2 65.6 63.1 61.7 58.8 57.2 55.1 54.7 54.3 58.7 10.0 68.7 L1% L2% L5% L8% L25% L50% L90% L95% L99% Leq (dBA) **Timeframe** Hour L_{eq} L max L min 24-Hour Min 62.7 71.8 53.9 71.4 70.8 68.4 66.8 62.5 59.5 54.9 54.4 54.0 Daytime Nighttime **CNEL** Day 66.3 78.9 57.0 77.2 73.1 70.0 62.1 58.1 57.6 57.1 (7am-10pm) Max 78.4 66.3 (10pm-7am) 64.5 Average 73.5 72.8 70.4 68.7 64.5 60.8 56.5 56.0 55.5 **Energy Average** 64.5 62.9 69.9 57.2 65.7 65.0 62.6 60.7 56.3 54.4 51.2 50.5 49.9 Min 66.0 49.7 Night Max 66.4 75.2 60.7 74.7 73.9 71.9 70.6 66.8 63.9 61.6 61.3 60.8 **Energy Average** 62.9 Average: 70.5 69.8 67.5 65.6 61.0 58.5 55.9 55.4 54.8



24-Hour Noise Level Measurement Summary Date: Tuesday, July 11, 2023 Location: L2 - Located north of the site near the residence at 9690 JN: 13594 Meter: Piccolo II Project: Oak Valley North Source: Sharondale Road Analyst: z. Ibrahim Hourly L ea dBA Readings (unadjusted) 80.0 75.0 70.0 65.0 60.0 63.3 Hourly 1 55.0 55.0 45.0 40.0 4 63 35.0 2 5 7 8 9 10 13 17 18 19 20 21 22 23 0 1 3 4 6 11 12 14 15 16 **Hour Beginning** L2% L8% Adj. L _{eq} Timeframe Hour L min L1% L5% L25% L50% L90% L95% L99% Adj. L_{eq} L max L_{eq} 63.2 60.1 50.6 56.4 68.2 49.6 67.5 66.3 53.7 52.3 50.2 49.8 56.4 10.0 66.4 1 56.8 69.3 47.4 68.9 68.0 64.0 60.5 50.5 48.5 48.1 47.6 10.0 66.8 53.3 56.8 2 55.8 68.2 47.1 67.5 66.4 62.9 59.8 52.5 50.4 48.3 47.8 47.3 55.8 10.0 65.8 68.2 48.3 62.9 59.9 50.7 49.2 66.0 Night 3 56.0 67.8 66.7 52.5 48.9 48.5 56.0 10.0 73.3 60.8 53.5 72.9 67.5 64.2 56.7 55.7 54.5 54.2 53.7 60.8 10.0 70.8 4 71.8 5 63.6 74.8 57.6 74.3 73.3 70.3 67.9 60.9 59.3 58.4 58.2 57.8 63.6 10.0 73.6 6 64.8 76.7 57.6 76.3 75.4 71.8 68.8 61.4 59.4 58.3 58.1 57.8 64.8 10.0 74.8 75.4 52.8 74.8 73.8 68.8 61.2 55.8 54.0 53.7 53.1 0.0 63.5 63.5 70.9 63.5 8 62.7 74.5 50.4 74.0 73.0 70.4 68.3 59.9 53.7 51.3 51.0 50.6 62.7 0.0 62.7 9 77.0 50.5 50.2 63.7 49.7 76.2 74.9 71.1 68.2 60.0 53.6 49.8 63.7 0.0 63.7 10 64.3 77.9 48.8 77.0 75.5 71.2 68.6 53.8 49.8 49.4 49.0 0.0 64.3 60.7 64.3 62.7 75.1 49.2 74.5 73.5 70.3 50.3 62.7 11 68.3 59.1 53.1 49.9 49.4 62.7 0.0 12 73.5 73.1 72.2 62.3 51.0 69.5 67.8 60.7 54.7 51.9 51.5 51.1 62.3 0.0 62.3 13 63.5 74.9 51.1 74.3 73.3 70.6 68.6 62.5 56.2 52.1 51.6 51.2 63.5 0.0 63.5 Day 14 64.4 77.3 52.0 76.4 75.2 70.9 68.7 62.3 56.2 53.0 52.6 52.2 64.4 0.0 64.4 15 74.4 72.8 70.1 52.8 63.3 52.3 73.8 68.3 62.4 56.5 53.2 52.4 63.3 0.0 63.3 16 64.5 76.4 52.0 75.7 74.7 71.6 69.4 62.8 56.8 53.0 52.5 52.1 64.5 0.0 64.5 17 64.1 76.0 51.6 75.1 73.9 71.1 69.1 63.2 56.6 52.5 52.1 51.7 64.1 0.0 64.1 18 63.6 74.7 51.0 74.1 73.3 70.8 69.0 55.7 52.0 51.6 0.0 63.6 62.7 51.2 63.6 19 62.9 73.5 51.2 73.0 72.2 70.1 68.5 62.0 55.5 52.3 51.8 51.3 62.9 5.0 67.9 20 75.1 73.7 68.7 55.4 63.4 51.6 74.6 70.5 61.4 52.4 52.1 51.7 63.4 5.0 68.4 52.6 21 74.4 73.9 72.8 69.4 66.7 59.2 55.0 52.2 51.8 62.1 5.0 67.1 22 50.0 50.9 50.6 10.0 74.8 74.4 73.6 70.4 67.1 59.2 53.7 50.2 72.6 62.6 62.6 Night 23 57.1 68.4 50.2 67.8 67.0 63.8 61.3 54.6 53.2 51.3 50.8 50.3 57.1 10.0 67.1 L1% L2% L5% L8% L25% L50% L90% L95% L99% Leq (dBA) **Timeframe** Hour L_{eq} L max L min 24-Hour Min 62.1 73.5 48.8 73.0 72.2 69.4 66.7 59.1 53.1 49.8 49.4 49.0 Daytime Nighttime **CNEL** Day 64.5 77.9 77.0 75.5 69.4 54.0 53.7 (7am-10pm) Max 52.8 71.6 63.2 56.8 53.1 (10pm-7am) 63.4 Average 74.7 73.7 70.6 68.5 61.3 55.2 52.1 51.7 51.2 **Energy Average** 63.4 60.7 68.0 55.8 67.5 66.3 62.9 59.8 52.5 50.4 48.3 47.8 47.3 Min 68.2 47.1 Night Max 64.8 76.7 57.6 76.3 75.4 71.8 68.8 61.4 59.4 58.4 58.2 57.8 **Energy Average** 60.7 Average: 70.8 69.8 66.3 63.3 56.1 53.9 52.2 51.9 51.4



24-Hour Noise Level Measurement Summary Date: Tuesday, July 11, 2023 Location: L3 - Located north of the site near the residence at 35345 JN: 13594 Meter: Piccolo II Project: Oak Valley North Source: Beckwith Ave. Analyst: z. Ibrahim Hourly L eq dBA Readings (unadjusted) 80.0 75.0 70.0 65.0 60.0 55.0 50.0 Hourly g 9 Ŋ 45.0 40.0 55. 53. 35.0 2 5 7 8 13 17 19 20 21 23 0 1 3 4 6 9 10 11 12 14 15 16 18 22 **Hour Beginning** L2% L8% Adj. L _{eq} Timeframe Hour L min L1% L5% L25% L50% L90% L95% L99% Adj. L_{eq} L max L_{eq} 53.1 50.3 55.3 54.9 56.6 56.3 56.0 53.7 52.7 51.1 50.8 50.4 53.1 10.0 63.1 1 52.7 57.4 49.2 57.1 56.7 55.9 55.2 52.0 50.2 49.3 10.0 62.7 53.4 49.8 52.7 2 53.8 57.4 50.7 57.1 56.8 56.2 55.7 54.5 53.5 51.7 51.3 50.8 53.8 10.0 63.8 58.0 55.6 60.5 60.0 59.6 57.7 56.4 68.0 Night 3 61.0 60.8 58.6 56.0 55.7 58.0 10.0 60.2 62.2 58.5 62.0 61.6 61.4 60.0 59.0 58.8 58.6 60.2 10.0 70.2 4 61.9 60.6 5 61.6 63.9 59.6 63.7 63.6 63.2 62.9 62.1 61.4 60.2 60.0 59.7 61.6 10.0 71.6 6 60.7 65.0 58.9 64.4 63.6 62.7 62.2 60.9 60.3 59.4 59.2 59.0 60.7 10.0 70.7 77.3 50.2 76.1 73.7 67.0 62.2 56.3 53.2 50.9 50.6 50.3 61.7 0.0 61.7 61.7 8 53.9 60.2 50.8 59.2 58.4 57.0 56.3 54.4 53.2 51.5 51.2 50.9 53.9 0.0 53.9 9 57.6 50.8 57.2 53.2 53.6 56.8 56.2 55.8 54.2 51.6 51.3 50.9 53.6 0.0 53.6 10 52.6 58.7 49.8 58.0 57.5 56.4 55.4 50.4 50.1 49.9 0.0 52.6 52.8 51.7 52.6 52.9 56.9 50.5 50.9 52.9 11 56.6 56.3 55.4 54.9 53.4 52.4 51.1 50.6 52.9 0.0 12 57.9 57.1 51.7 54.2 58.6 51.3 58.3 56.6 54.9 53.6 52.0 51.4 54.2 0.0 54.2 13 54.4 59.4 51.2 58.9 58.5 57.6 56.9 55.0 53.6 52.0 51.6 51.3 54.4 0.0 54.4 Day 14 55.3 61.0 51.5 60.6 60.2 59.0 58.4 55.8 54.2 52.3 52.0 51.6 55.3 0.0 55.3 52.2 60.1 59.3 52.8 15 56.2 61.8 61.4 61.0 57.0 55.3 53.1 52.4 56.2 0.0 56.2 16 56.1 63.5 51.6 62.8 62.2 61.0 60.2 55.8 54.4 52.5 52.1 51.7 56.1 0.0 56.1 17 54.3 58.2 51.5 57.8 57.5 56.9 56.4 54.9 53.8 52.3 52.0 51.6 54.3 0.0 54.3 18 53.8 60.1 50.8 59.8 59.5 57.5 55.9 53.9 52.8 51.5 51.3 50.9 53.8 0.0 53.8 19 53.5 56.6 51.0 56.4 56.1 55.6 55.3 54.0 53.0 51.7 51.5 51.1 53.5 5.0 58.5 20 55.9 64.5 58.1 53.4 60.9 52.9 64.0 63.4 60.9 55.3 54.4 53.2 53.0 55.9 5.0 21 58.7 58.1 57.0 56.6 55.8 55.1 54.1 53.8 53.5 55.4 5.0 60.4 22 54.0 53.8 53.5 10.0 57.9 64.0 53.4 63.7 63.5 62.5 61.8 58.5 55.8 57.9 67.9 Night 23 55.4 57.3 53.4 57.2 57.0 56.8 56.6 56.0 55.3 54.1 53.9 53.5 55.4 10.0 65.4 L1% L2% L5% L8% L25% L50% L90% L95% L99% Leq (dBA) **Timeframe** Hour L_{eq} L max L min 24-Hour Min 52.6 56.6 49.8 56.4 56.1 55.4 54.9 52.8 51.7 50.4 50.1 49.9 Daytime Nighttime **CNEL** Day 77.3 73.7 67.0 57.0 55.3 54.1 53.8 53.5 (7am-10pm) Max 61.7 53.4 76.1 62.2 (10pm-7am) 55.7 Average 60.4 59.8 58.3 57.2 54.9 53.6 52.0 51.7 51.4 **Energy Average** 55.7 58.1 64.4 52.7 56.3 56.0 55.3 54.9 53.4 52.0 50.2 49.8 49.3 Min 56.6 49.2 Night Max 61.6 65.0 59.6 64.4 63.6 63.2 62.9 62.1 61.4 60.2 60.0 59.7 **Energy Average** 58.1 Average: 60.3 59.9 59.3 58.9 57.6 56.5 55.1 54.8 54.5



24-Hour Noise Level Measurement Summary Date: Tuesday, July 11, 2023 Location: L4 - Located north of the site near the residence at 35704 JN: 13594 Meter: Piccolo II Project: Oak Valley North Source: Beckwith Ave. Analyst: z. Ibrahim Hourly L eq dBA Readings (unadjusted) 80.0 75.0 70.0 65.0 66.0 Hourly 1 55.0 55.0 45.0 40.0 48.5 46.6 46.8 49.1 45.0 40.0 48 45. 48 49 48 35.0 2 5 6 7 8 19 23 0 1 3 4 9 10 11 12 13 14 15 16 17 18 20 21 22 **Hour Beginning** L2% L8% Adj. L eq Timeframe Hour L min L1% L5% L25% L50% L90% L95% L99% L_{eq} L max Adj. L_{eq} 49.3 48.2 45.2 50.0 41.1 49.7 47.7 46.0 44.4 42.3 41.8 41.3 45.2 10.0 55.2 1 46.1 51.7 40.7 51.3 50.9 50.0 49.5 44.4 42.0 40.9 10.0 56.1 47.6 41.5 46.1 2 42.6 47.0 38.9 46.6 46.1 45.4 44.9 43.5 42.2 40.0 39.6 39.1 42.6 10.0 52.6 51.7 40.7 50.5 49.5 49.0 56.0 Night 3 46.0 51.1 47.2 45.2 41.7 41.4 40.8 46.0 10.0 45.6 50.6 41.6 50.2 49.8 48.9 48.3 44.8 42.6 42.2 10.0 55.6 4 46.3 41.7 45.6 5 49.5 53.4 46.6 53.1 52.8 52.0 51.6 50.2 49.1 47.5 47.2 46.8 49.5 10.0 59.5 51.2 6 50.8 57.6 47.6 57.0 56.1 53.6 52.8 50.1 48.3 48.0 47.7 50.8 10.0 60.8 59.1 48.4 58.8 58.2 56.0 54.8 51.9 50.8 48.8 48.5 51.9 0.0 51.9 51.9 49.2 8 49.4 57.1 44.0 56.5 56.0 54.3 52.9 49.6 47.8 45.1 44.6 44.1 49.4 0.0 49.4 9 59.4 37.3 58.4 48.5 57.5 55.6 53.9 47.1 43.4 38.7 38.0 37.4 48.5 0.0 48.5 10 48.7 57.0 41.9 55.9 55.0 53.6 52.6 47.0 43.2 42.7 0.0 48.7 49.6 42.1 48.7 57.0 36.6 37.9 37.3 46.9 11 46.9 56.5 55.9 54.2 52.4 46.4 42.4 36.7 46.9 0.0 12 52.6 50.3 46.1 53.2 36.7 52.2 51.1 46.9 44.7 37.8 37.3 36.8 46.1 0.0 46.1 13 50.2 58.7 44.3 58.3 57.8 56.3 54.6 50.3 46.9 44.8 44.6 44.4 50.2 0.0 50.2 Day 14 48.3 58.5 38.2 57.8 56.8 54.0 52.6 48.7 44.2 40.1 39.4 38.5 48.3 0.0 48.3 56.3 36.8 53.4 37.5 15 46.6 55.8 55.2 51.5 46.6 42.9 38.0 37.0 46.6 0.0 46.6 16 47.8 58.0 41.1 57.7 56.9 54.4 52.2 46.4 44.2 42.0 41.6 41.2 47.8 0.0 47.8 17 52.1 59.4 46.8 59.2 58.8 57.9 56.9 52.0 49.5 47.7 47.4 47.1 52.1 0.0 52.1 18 48.7 58.8 43.0 58.4 57.7 54.8 52.3 45.9 43.7 48.7 0.0 48.7 47.6 43.4 43.1 19 45.7 51.6 42.4 51.1 50.4 48.5 47.9 46.3 44.9 43.3 42.9 42.6 45.7 5.0 50.7 20 50.5 49.6 49.0 43.9 46.8 51.4 43.8 51.0 47.3 46.2 44.6 44.3 46.8 5.0 51.8 21 49.1 53.4 53.0 52.2 51.7 49.8 48.4 46.4 46.0 45.6 49.1 5.0 54.1 22 41.9 50.1 49.3 45.1 43.0 42.6 10.0 55.9 45.9 50.9 50.5 48.7 46.7 42.0 45.9 Night 23 46.2 52.2 42.0 52.0 51.6 49.9 49.1 46.9 45.2 43.0 42.6 42.2 46.2 10.0 56.2 L min L1% L2% L5% L8% L25% L50% L90% L95% L99% Leq (dBA) **Timeframe** Hour L_{eq} L max 24-Hour Min 45.7 51.4 36.6 51.0 50.4 48.5 47.9 46.3 42.4 37.8 37.3 36.7 Daytime Nighttime **CNEL** Day 52.1 59.4 58.8 57.9 56.9 49.2 48.8 48.5 (7am-10pm) Max 48.4 59.2 52.0 50.8 (10pm-7am) 48.9 Average 56.1 55.5 53.7 52.4 48.4 45.9 42.8 42.4 41.9 **Energy Average** 48.9 47.1 54.1 42.6 47.0 46.6 46.1 45.4 44.9 43.5 42.2 40.0 39.6 39.1 Min 38.9 Night Max 50.8 57.6 47.6 57.0 56.1 53.6 52.8 51.2 50.1 48.3 48.0 47.7 **Energy Average** 47.1 Average: 51.3 50.8 49.6 49.1 47.3 45.6 43.4 43.0 42.5



24-Hour Noise Level Measurement Summary Date: Tuesday, July 11, 2023 JN: 13594 Location: L5 - Located east of the site near the residence at 10320 Meter: Piccolo II Project: Oak Valley North Source: Calimesa Blvd #229 Analyst: z. Ibrahim Hourly L eq dBA Readings (unadjusted) 80.0 75.0 70.0 65.0 60.0 Hourly 1 55.0 55.0 45.0 40.0 50.2 53.1 9 45.0 40.0 55 35.0 2 6 7 10 23 0 1 3 4 5 8 9 11 12 13 14 15 16 17 18 19 20 21 22 **Hour Beginning** L2% Adj. L _{eq} Timeframe Hour L min L1% L5% L8% L25% L50% L90% L95% L99% L_{eq} L max Adj. L_{eq} 48.4 58.3 55.0 58.4 58.9 41.2 57.4 52.7 46.7 45.1 42.6 42.1 41.4 48.4 10.0 1 48.5 56.1 43.6 55.7 55.1 53.1 51.5 47.2 44.9 43.9 10.0 58.5 48.6 44.5 48.5 2 48.2 58.6 41.7 57.6 56.4 53.6 52.3 47.4 45.9 43.4 42.8 42.0 48.2 10.0 58.2 56.1 45.5 55.3 53.4 47.9 59.1 Night 3 49.1 55.8 51.7 49.0 46.3 46.0 45.6 49.1 10.0 53.3 63.6 49.0 63.0 62.3 58.9 56.4 50.7 49.6 49.3 49.1 53.3 10.0 63.3 4 51.8 5 52.9 61.4 48.9 61.1 60.5 58.0 56.1 52.4 51.0 49.6 49.4 49.0 52.9 10.0 62.9 54.3 65.0 47.3 64.6 64.0 61.4 58.8 52.0 49.7 48.0 47.7 47.4 54.3 10.0 64.3 6 53.3 64.2 40.4 63.7 63.0 58.6 52.1 47.2 41.4 41.0 40.5 53.3 0.0 53.3 60.5 8 52.4 63.6 41.4 63.2 62.6 60.0 57.7 50.3 45.6 42.4 42.0 41.5 52.4 0.0 52.4 9 50.2 59.0 50.2 60.0 40.7 59.6 56.7 55.1 50.2 45.5 41.5 41.2 40.8 50.2 0.0 10 56.9 69.6 41.7 69.2 68.4 65.2 42.6 42.3 41.9 0.0 56.9 61.8 52.5 46.4 56.9 53.6 42.8 64.5 11 66.1 65.6 61.3 58.3 49.6 46.0 43.4 43.2 42.9 53.6 0.0 53.6 12 62.5 60.3 55.3 66.7 46.9 66.1 65.3 52.9 49.8 47.5 47.3 47.0 55.3 0.0 55.3 13 55.0 65.9 46.1 65.6 65.2 62.8 60.4 52.8 49.3 46.8 46.5 46.2 55.0 0.0 55.0 Day 14 54.6 67.0 45.3 66.2 65.4 62.0 58.8 51.4 48.2 45.9 45.7 45.4 54.6 0.0 54.6 48.7 60.3 58.8 15 55.6 64.2 63.6 62.8 55.8 53.9 50.7 49.8 48.9 55.6 0.0 55.6 16 55.5 64.9 47.0 64.4 63.7 61.7 60.4 55.3 51.6 48.4 47.8 47.1 55.5 0.0 55.5 17 53.4 64.5 43.5 64.0 63.3 60.4 57.8 52.1 48.4 44.8 44.2 43.7 53.4 0.0 53.4 18 54.8 66.9 44.3 66.2 65.2 61.4 58.8 52.9 49.5 45.6 45.0 0.0 54.8 44.4 54.8 19 53.1 63.2 43.6 63.0 62.6 60.4 58.2 51.9 48.4 44.8 44.3 43.8 53.1 5.0 58.1 20 44.0 52.2 62.7 43.0 62.3 61.8 59.8 57.3 50.3 46.9 43.6 43.1 52.2 5.0 57.2 21 50.4 60.5 59.7 57.4 55.3 49.7 45.9 42.3 41.9 41.5 50.4 5.0 55.4 41.3 60.2 22 56.5 55.4 40.2 10.0 60.2 50.2 58.1 39.4 57.9 57.6 51.4 45.9 40.7 39.6 50.2 Night 23 44.9 52.4 40.4 52.2 51.7 49.9 48.4 45.1 43.0 41.1 40.9 40.5 44.9 10.0 54.9 L1% L2% L5% L8% L25% L50% L90% L95% L99% Leq (dBA) **Timeframe** Hour L_{eq} L max L min 24-Hour Min 50.2 60.0 40.4 59.6 59.0 56.7 55.1 49.6 45.5 41.4 41.0 40.5 Daytime Nighttime **CNEL** Day 56.9 48.7 68.4 65.2 50.7 49.8 48.9 (7am-10pm) Max 69.6 69.2 61.8 55.8 53.9 (10pm-7am) 54.1 Average 64.2 63.5 60.8 58.5 52.0 48.2 44.8 44.4 43.9 **Energy Average** 54.1 50.9 **58.2** 44.9 52.4 52.2 51.7 49.9 48.4 45.1 43.0 40.7 40.2 39.6 Min 39.4 Night Max 54.3 65.0 49.0 64.6 64.0 61.4 58.8 52.4 51.0 49.6 49.4 49.1 **Energy Average** 50.9 Average: 58.5 57.8 55.5 53.7 49.4 47.4 45.1 44.8 44.3



24-Hour Noise Level Measurement Summary Date: Tuesday, July 11, 2023 JN: 13594 Location: L6 - Located east of the site near the residence at 10320 Meter: Piccolo II Project: Oak Valley North Source: Calimesa Blvd #218 Analyst: z. Ibrahim Hourly L eq dBA Readings (unadjusted) 80.0 75.0 70.0 65.0 660.0 Hourly L 55.0 50.0 45.0 40.0 39.7 39.8 40.7 O 48.0 41.7 45.0 40.0 48. 49. 48. 45. 49. 84 47 35.0 2 5 7 8 19 23 0 1 3 4 6 9 10 12 13 14 15 16 17 18 20 21 22 11 **Hour Beginning** L2% Adj. L _{eq} Timeframe Hour L min L1% L5% L8% L25% L50% L90% L95% L99% L eq L_{eq} L max Adj. 39.8 41.4 38.0 49.8 42.7 37.3 42.5 42.2 41.7 40.5 39.6 37.8 37.4 39.8 10.0 1 39.8 44.4 36.7 43.9 43.4 42.5 41.9 37.3 37.0 36.8 10.0 49.8 40.5 39.4 39.8 2 40.7 45.1 37.1 44.8 44.5 43.6 43.2 41.4 40.1 38.0 37.6 37.2 40.7 10.0 50.7 45.3 40.4 45.1 44.5 44.2 52.6 Night 3 42.6 45.0 43.2 42.4 41.1 40.8 40.5 42.6 10.0 44.0 45.8 42.8 45.6 45.5 45.0 44.8 43.9 43.2 43.1 42.9 10.0 54.0 4 44.3 44.0 5 46.3 50.2 44.6 49.5 49.1 48.2 47.8 46.6 45.9 45.0 44.9 44.6 46.3 10.0 56.3 6 47.4 55.7 42.6 54.9 54.1 52.0 50.6 47.6 45.7 43.6 43.3 42.8 47.4 10.0 57.4 48.0 59.5 38.9 58.4 57.4 54.7 52.9 47.3 42.7 39.8 39.5 39.1 48.0 0.0 48.0 8 49.6 58.4 42.8 56.7 55.9 54.4 53.3 50.4 47.8 44.3 43.7 43.1 49.6 0.0 49.6 9 56.3 39.8 47.1 55.6 55.0 53.0 51.6 47.8 43.4 40.7 40.3 40.0 47.1 0.0 47.1 10 48.1 57.2 39.3 56.1 55.3 53.3 52.2 45.9 41.4 40.5 0.0 48.1 48.8 39.6 48.1 53.2 40.1 52.5 50.5 49.4 40.7 11 45.6 51.9 46.4 43.8 41.1 40.3 45.6 0.0 45.6 12 55.9 53.8 49.0 41.5 55.2 54.7 53.1 50.3 47.2 42.7 42.1 41.6 49.0 0.0 49.0 13 49.3 57.5 41.5 56.6 56.0 54.6 53.6 50.4 46.7 42.5 42.1 41.7 49.3 0.0 49.3 47.4 Day 14 42.8 40.4 46.8 46.2 45.2 44.8 43.4 42.3 41.0 40.8 40.5 42.8 0.0 42.8 50.5 42.5 49.9 49.3 48.2 47.6 15 45.4 46.0 44.7 43.3 43.0 42.6 45.4 0.0 45.4 16 48.0 55.4 42.6 54.8 54.2 53.0 52.0 48.8 46.1 43.5 43.1 42.7 48.0 0.0 48.0 17 46.4 55.2 41.5 53.9 53.1 51.6 49.6 46.6 44.5 42.3 42.0 41.6 46.4 0.0 46.4 18 48.6 55.4 42.2 54.7 54.2 53.2 52.6 49.9 43.4 43.0 42.4 48.6 0.0 48.6 46.7 19 47.5 57.1 42.2 56.0 54.2 52.0 50.9 47.8 45.5 43.2 42.8 42.3 47.5 5.0 52.5 20 53.0 50.5 49.1 50.6 45.6 55.1 41.3 54.0 45.3 43.3 41.8 41.6 41.4 45.6 5.0 46.7 21 41.7 48.7 39.0 47.8 47.2 45.6 41.7 40.7 39.6 39.4 39.1 41.7 5.0 44.1 22 56.0 38.3 10.0 58.8 48.8 56.5 37.8 56.2 55.6 55.0 49.4 41.9 38.7 37.9 48.8 Night 23 39.7 42.1 37.8 41.8 41.6 41.3 41.1 40.3 39.5 38.4 38.2 37.9 39.7 10.0 49.7 L1% L5% L8% L25% L50% L90% L95% L99% Leq (dBA) **Timeframe** Hour L_{eq} L max L min L2% 24-Hour Min 41.7 47.4 38.9 46.8 46.2 45.2 44.1 41.7 40.7 39.6 39.4 39.1 Daytime Nighttime **CNEL** Day 49.6 59.5 58.4 57.4 54.7 47.8 44.3 43.7 43.1 (7am-10pm) Max 42.8 53.6 50.4 (10pm-7am) 47.3 Average 53.9 53.2 51.6 50.4 47.4 44.7 42.0 41.6 41.2 **Energy Average** 47.3 **51.8** 44.5 39.7 42.1 41.8 41.6 41.3 41.1 40.3 39.4 37.3 37.0 36.8 Min 36.7 Night Max 48.8 56.5 44.6 56.2 56.0 55.6 55.0 49.4 45.9 45.0 44.9 44.6 **Energy Average** 44.5 Average: 47.2 46.8 46.1 45.5 43.8 42.0 40.4 40.1 39.8



24-Hour Noise Level Measurement Summary Date: Tuesday, July 11, 2023 JN: 13594 Location: L7 - Located east of the site near the residence at 10320 Meter: Piccolo II Project: Oak Valley North Source: Calimesa Blvd #52 Analyst: z. Ibrahim Hourly L eq dBA Readings (unadjusted) 80.0 75.0 70.0 65.0 60.0 Hourly 1 55.0 55.0 45.0 40.0 9 48.4 45.0 40.0 3 55 8 43 49 43 35.0 2 6 7 23 0 1 3 4 5 8 9 10 12 13 14 15 16 17 18 19 20 21 22 11 **Hour Beginning** L2% L8% Adj. L _{eq} Timeframe Hour L min L1% L5% L25% L50% L90% L95% L99% L_{eq} L max Adj. L_{eq} 43.6 50.1 40.7 49.3 48.2 47.2 46.0 43.8 42.8 41.3 41.1 40.8 43.6 10.0 53.6 1 43.6 53.8 39.2 53.2 52.2 48.6 46.2 10.0 53.6 42.6 41.4 39.8 39.5 39.2 43.6 2 42.5 46.3 39.8 46.0 45.7 45.0 44.5 43.1 42.1 40.5 40.2 39.9 42.5 10.0 52.5 49.8 44.2 48.8 44.9 56.5 Night 3 46.5 49.6 49.4 48.3 47.0 46.2 44.6 44.3 46.5 10.0 51.0 55.2 49.1 54.7 54.4 53.4 52.8 50.4 49.5 49.4 49.2 51.0 10.0 61.0 4 51.5 5 51.6 55.5 49.7 54.8 54.4 53.8 53.4 52.1 51.2 50.3 50.1 49.8 51.6 10.0 61.6 51.6 49.8 55.0 47.7 54.4 54.0 52.7 49.9 49.2 48.3 48.1 47.8 49.8 10.0 59.8 6 48.7 56.2 44.3 55.5 54.8 53.1 51.8 48.8 47.6 45.0 44.7 44.4 48.7 0.0 48.7 8 51.2 58.6 46.2 57.7 57.0 55.5 54.6 51.7 49.8 47.3 46.9 46.4 51.2 0.0 51.2 9 59.5 50.5 54.0 66.9 45.7 65.3 62.9 57.5 53.2 47.3 46.8 46.0 54.0 0.0 54.0 10 47.2 54.2 43.7 53.7 53.3 52.5 45.3 44.2 44.0 0.0 47.2 51.4 46.8 43.8 47.2 47.1 54.9 52.1 47.1 11 43.4 54.2 53.6 50.5 46.8 45.6 44.1 43.8 43.5 47.1 0.0 12 52.7 48.7 56.8 44.0 55.7 54.7 51.8 49.3 47.2 45.0 44.7 44.1 48.7 0.0 48.7 13 46.4 53.2 43.3 52.7 52.3 50.8 49.6 46.2 44.9 43.8 43.6 43.4 46.4 0.0 46.4 Day 14 47.9 56.5 43.3 56.0 55.6 54.3 52.7 46.6 45.1 43.9 43.6 43.4 47.9 0.0 47.9 52.4 49.3 15 49.3 56.4 46.3 55.2 54.3 51.3 49.5 48.4 47.1 46.8 46.5 49.3 0.0 16 52.6 60.5 46.0 59.7 59.3 58.3 57.3 53.1 49.5 46.7 46.4 46.1 52.6 0.0 52.6 17 55.0 61.0 49.0 60.5 59.9 58.7 58.0 55.8 54.1 51.2 50.5 49.5 55.0 0.0 55.0 18 48.4 56.0 44.9 55.5 54.8 53.2 51.8 48.2 45.5 45.2 45.0 48.4 0.0 48.4 46.8 19 51.9 58.3 46.6 57.9 57.5 56.4 55.2 52.4 50.9 48.2 47.6 46.9 51.9 5.0 56.9 20 47.7 43.9 54.5 44.5 44.0 56.2 55.4 52.6 51.0 47.5 46.0 44.3 47.7 5.0 52.7 49.9 21 44.9 51.9 41.9 51.3 49.9 48.4 43.5 42.5 42.3 42.0 44.9 5.0 51.6 44.4 22 41.1 10.0 43.0 47.7 40.7 47.3 46.8 45.7 44.7 43.3 42.5 41.3 40.8 43.0 53.0 Night 23 43.3 45.6 41.4 45.4 45.2 44.9 44.7 43.9 43.2 42.0 41.8 41.5 43.3 10.0 53.3 L min L1% L2% L5% L8% L25% L50% L90% L95% L99% Leq (dBA) **Timeframe** Hour L_{eq} L max 24-Hour Min 44.9 51.9 41.9 51.6 51.3 49.9 48.4 44.4 43.5 42.5 42.3 42.0 Daytime Nighttime **CNEL** Day 55.0 66.9 62.9 59.5 58.0 51.2 50.5 49.5 (7am-10pm) Max 49.0 65.3 55.8 54.1 (10pm-7am) 50.4 Average 56.4 55.7 54.1 52.9 49.4 47.7 45.7 45.4 45.0 **Energy Average** 47.6 54.9 50.4 42.5 45.4 45.2 44.9 44.5 42.6 41.4 39.8 39.5 39.2 Min 45.6 39.2 Night Max 51.6 55.5 49.7 54.8 54.4 53.8 53.4 52.1 51.2 50.3 50.1 49.8 **Energy Average** 47.6 Average: 50.5 50.0 48.9 48.0 46.4 45.4 44.2 44.0 43.7



24-Hour Noise Level Measurement Summary Location: L4 - Located south of the Project site near single-family Date: Tuesday, May 24, 2022 Meter: Piccolo II JN: 13594 Analyst: B. Lawson Project: Oak Valley North Source: residence at 1035 Marigold Court. Hourly L ea dBA Readings (unadjusted) 80.0 75.0 70.0 65.0 60.0 55.0 50.0 Hourly 4 9 61. 8 59. 35.0 2 7 5 6 8 9 10 13 17 19 20 21 22 23 0 1 3 4 11 12 14 15 16 18 **Hour Beginning** L2% L8% L_{eq} Adj. L eq Timeframe Hour L min L1% L5% L25% L50% L90% L95% L99% Adj. L_{eq} L max 55.7 60.0 59.5 59.1 57.7 60.4 60.2 58.2 57.4 56.2 56.0 55.8 57.7 10.0 67.7 1 56.9 60.4 54.0 60.2 60.0 59.4 59.0 57.7 56.5 54.8 54.5 54.2 10.0 66.9 56.9 2 57.4 60.8 54.2 60.6 60.4 59.8 59.6 58.3 57.0 55.1 54.8 54.3 57.4 10.0 67.4 58.2 62.0 55.0 61.7 61.0 60.5 57.7 55.9 55.5 55.1 68.2 Night 3 61.5 58.9 58.2 10.0 74.2 64.2 73.3 57.6 72.8 72.4 70.4 69.5 62.9 60.8 58.6 58.2 57.8 64.2 10.0 4 5 63.7 67.4 60.7 67.2 66.9 66.3 65.9 64.5 63.2 61.5 61.2 60.8 63.7 10.0 73.7 6 62.4 66.8 59.6 66.5 66.1 65.5 65.0 62.9 61.8 60.3 60.1 59.7 62.4 10.0 72.4 71.1 53.6 70.6 70.0 67.7 60.1 55.9 54.3 54.0 53.7 60.7 0.0 60.7 60.7 65.5 8 55.4 63.0 50.9 62.7 62.4 61.4 60.3 54.8 53.1 51.5 51.3 51.1 55.4 0.0 55.4 9 51.7 52.1 56.5 64.7 64.2 63.6 62.7 61.1 56.0 54.2 52.4 51.9 56.5 0.0 56.5 10 56.8 64.7 51.9 64.4 64.0 62.4 61.0 54.5 52.8 52.5 0.0 56.8 56.2 52.1 56.8 67.3 53.5 66.2 57.0 54.0 59.3 11 59.3 66.9 65.4 63.6 59.5 54.4 53.6 59.3 0.0 12 59.5 59.5 65.6 54.5 65.1 64.7 63.6 62.9 60.4 58.2 55.6 55.1 54.6 59.5 0.0 13 60.3 69.3 54.5 69.0 68.5 67.3 65.9 59.0 56.8 55.2 55.0 54.6 60.3 0.0 60.3 Day 14 60.9 72.8 53.5 72.3 71.6 68.6 64.8 57.1 55.7 54.2 53.9 53.6 60.9 0.0 60.9 15 77.2 53.7 76.5 73.7 69.4 54.3 64.9 64.9 76.9 57.6 56.0 54.5 53.8 64.9 0.0 16 63.4 76.0 56.5 75.4 74.2 70.9 67.0 59.0 58.0 57.0 56.8 56.6 63.4 0.0 63.4 17 59.0 66.1 56.4 65.5 65.1 63.1 61.4 58.7 58.0 56.9 56.7 56.5 59.0 0.0 59.0 18 60.3 68.7 56.4 68.3 68.0 65.9 63.5 59.8 58.2 57.0 56.8 56.5 60.3 0.0 60.3 19 61.4 67.1 58.8 66.8 66.5 65.6 64.3 61.2 60.4 59.4 59.2 58.9 61.4 5.0 66.4 20 59.7 56.9 62.0 58.8 64.7 66.5 66.2 65.4 63.3 59.6 57.5 57.3 57.1 59.7 5.0 65.0 21 60.0 56.5 64.9 64.7 63.1 60.8 58.8 57.2 56.9 56.7 60.0 5.0 64.0 22 56.0 55.8 55.5 10.0 57.8 61.7 55.4 61.4 61.2 60.4 59.7 58.3 57.4 57.8 67.8 Night 23 57.3 60.2 54.9 60.0 59.8 59.3 58.9 57.9 57.0 55.6 55.3 55.0 57.3 10.0 67.3 L1% L2% L5% L8% L25% L50% L90% L95% L99% Leq (dBA) **Timeframe** Hour L_{eq} L max L min 24-Hour Min 55.4 63.0 50.9 62.7 62.4 61.4 60.3 54.8 53.1 51.5 51.3 51.1 Daytime Nighttime **CNEL** Day 64.9 77.2 76.5 73.7 69.4 59.4 59.2 58.9 (7am-10pm) Max 58.8 76.9 61.2 60.4 (10pm-7am) 60.5 Average 68.0 67.4 65.7 63.7 58.7 56.9 55.3 55.1 54.8 **Energy Average** 60.5 60.5 67.2 56.9 60.2 60.0 59.8 59.3 58.9 57.7 56.5 54.8 54.5 54.2 Min 54.0 Night Max 64.2 73.3 60.7 72.8 72.4 70.4 69.5 64.5 63.2 61.5 61.2 60.8 **Energy Average** 60.5 Average: 63.4 63.1 62.4 61.9 59.9 58.8 57.1 56.8 56.5



APPENDIX 6.1:

WITH PROJECT VEHICLE MIX



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SegmentID Alternative	Roadway	Segment	A_Daily	MT_Daily	HT_Daily
1E	Calimesa Bl.	n/o Sandalwood Dr.	97.53%	1.49%	0.98%
1EP	Calimesa Bl.	n/o Sandalwood Dr.	97.25%	1.51%	1.24%
12025 NP	Calimesa Bl.	n/o Sandalwood Dr.	97.53%	1.49%	0.98%
12025 S1	Calimesa Bl.	n/o Sandalwood Dr.	97.36%	1.49%	1.15%
1 2025 S2	Calimesa Bl.	n/o Sandalwood Dr.	96.97%	1.56%	1.47%
1 2028 NP	Calimesa Bl.	n/o Sandalwood Dr.	97.53%	1.49%	0.98%
1 2028 S1	Calimesa Bl.	n/o Sandalwood Dr.	97.40%	1.48%	1.12%
1 2028 S2	Calimesa Bl.	n/o Sandalwood Dr.	97.32%	1.50%	1.18%
1 HY NP	Calimesa Bl.	n/o Sandalwood Dr.	97.53%	1.49%	0.98%
1 HY S1	Calimesa Bl.	n/o Sandalwood Dr.	97.41%	1.48%	1.11%
1 HY S2	Calimesa Bl.	n/o Sandalwood Dr.	97.33%	1.50%	1.16%
1 HY S3	Calimesa Bl.	n/o Sandalwood Dr.	97.52%	1.48%	1.00%
2 E	Calimesa Bl.	s/o Sandalwood Dr.	97.53%	1.49%	0.98%
2 EP	Calimesa Bl.	s/o Sandalwood Dr.	97.19%	1.51%	1.30%
2 2025 NP	Calimesa Bl.	s/o Sandalwood Dr.	97.53%	1.49%	0.98%
2 2025 S1	Calimesa Bl.	s/o Sandalwood Dr.	97.31%	1.49%	1.20%
2 2025 S2	Calimesa Bl.	s/o Sandalwood Dr.	96.81%	1.58%	1.61%
2 2028 NP	Calimesa Bl.	s/o Sandalwood Dr.	97.53%	1.49%	0.98%
2 2028 S1	Calimesa Bl.	s/o Sandalwood Dr.	97.38%	1.48%	1.14%
2 2028 S2	Calimesa Bl.	s/o Sandalwood Dr.	97.29%	1.50%	1.21%
2 HY NP	Calimesa Bl.	s/o Sandalwood Dr.	97.53%	1.49%	0.98%
2 HY S1	Calimesa Bl.	s/o Sandalwood Dr.	97.43%	1.48%	1.10%
2 HY S2	Calimesa Bl.	s/o Sandalwood Dr.	97.36%	1.50%	1.15%
2 HY S3	Calimesa Bl.	s/o Sandalwood Dr.	97.53%	1.48%	0.99%
3 E	Calimesa Bl.	n/o Singleton Rd.	97.53%	1.49%	0.98%
3 EP	Calimesa Bl.	n/o Singleton Rd.	96.85%	1.53%	1.62%
3 2025 NP	Calimesa Bl.	n/o Singleton Rd.	97.53%	1.49%	0.98%
3 2025 S1	Calimesa Bl.	n/o Singleton Rd.	97.09%	1.50%	1.41%
3 2025 S2	Calimesa Bl.	n/o Singleton Rd.	96.13%	1.67%	2.20%
3 2028 NP	Calimesa Bl.	n/o Singleton Rd.	97.53%	1.49%	0.98%
3 2028 S1	Calimesa Bl.	n/o Singleton Rd.	97.29%	1.47%	1.24%
3 2028 S2	Calimesa Bl.	n/o Singleton Rd.	97.13%	1.51%	1.36%
3 HY NP	Calimesa Bl.	n/o Singleton Rd.	97.53%	1.49%	0.98%
3 HY S1	Calimesa Bl.	n/o Singleton Rd.	97.29%	1.47%	1.24%
3 HY S2	Calimesa Bl.	n/o Singleton Rd.	97.14%	1.51%	1.35%
3 HY S3	Calimesa Bl.	n/o Singleton Rd.	97.52%	1.47%	1.01%
4 E	Calimesa Bl.	s/o Singleton Rd.	97.53%	1.49%	0.98%
4 EP	Calimesa Bl.	s/o Singleton Rd.	77.58%	3.95%	18.47%
4 2025 NP	Calimesa Bl.	s/o Singleton Rd.	97.53%	1.49%	0.98%
4 2025 S1	Calimesa Bl.	s/o Singleton Rd.	78.51%	2.42%	19.07%
4 2025 S2	Calimesa Bl.	s/o Singleton Rd.	75.25%	4.40%	20.35%
4 2028 NP	Calimesa Bl.	s/o Singleton Rd.	97.53%	1.49%	0.98%
4 2028 S1	Calimesa Bl.	s/o Singleton Rd.	87.03%	1.86%	11.11%
4 2028 S2	Calimesa Bl.	s/o Singleton Rd.	83.54%	3.22%	13.24%
4 HY NP	Calimesa Bl.	s/o Singleton Rd.	97.53%	1.49%	0.98%
4 HY S1	Calimesa Bl.	s/o Singleton Rd.	88.67%	1.80%	9.52%

SegmentID Alternative	Roadway	Segment	A_Daily	MT_Daily	HT_Daily
4 HY S2	Calimesa Bl.	s/o Singleton Rd.	85.42%	2.98%	11.60%
4 HY S3	Calimesa Bl.	s/o Singleton Rd.	96.07%	1.47%	2.46%
5 E	Calimesa Bl.	n/o Cherry Valley Bl.	97.53%	1.49%	0.98%
5 EP	Calimesa Bl.	n/o Cherry Valley Bl.	84.55%	3.04%	12.42%
5 2025 NP	Calimesa Bl.	n/o Cherry Valley Bl.	97.53%	1.49%	0.98%
5 2025 S1	Calimesa Bl.	n/o Cherry Valley Bl.	87.46%	1.98%	10.56%
5 2025 S2	Calimesa Bl.	n/o Cherry Valley Bl.	84.09%	3.24%	12.66%
5 2028 NP	Calimesa Bl.	n/o Cherry Valley Bl.	97.53%	1.49%	0.98%
5 2028 S1	Calimesa Bl.	n/o Cherry Valley Bl.	93.56%	1.60%	4.85%
5 2028 S2	Calimesa Bl.	n/o Cherry Valley Bl.	91.60%	2.19%	6.20%
5 HY NP	Calimesa Bl.	n/o Cherry Valley Bl.	97.53%	1.49%	0.98%
5 HY S1	Calimesa Bl.	n/o Cherry Valley Bl.	94.65%	1.57%	3.78%
5 HY S2	Calimesa Bl.	n/o Cherry Valley Bl.	93.15%	2.01%	4.84%
5 HY S3	Calimesa Bl.	n/o Cherry Valley Bl.	97.19%	1.44%	1.36%
6 E	5th St.	e/o Sandalwood Dr.	97.53%	1.49%	0.98%
6 EP	5th St.	e/o Sandalwood Dr.	97.56%	1.47%	0.97%
6 2025 NP	5th St.	e/o Sandalwood Dr.	97.53%	1.49%	0.98%
6 2025 S1	5th St.	e/o Sandalwood Dr.	97.53%	1.49%	0.98%
6 2025 S2	5th St.	e/o Sandalwood Dr.	97.53%	1.49%	0.98%
6 2028 NP	5th St.	e/o Sandalwood Dr.	97.53%	1.49%	0.98%
6 2028 S1	5th St.	e/o Sandalwood Dr.	97.55%	1.47%	0.97%
6 2028 S2	5th St.	e/o Sandalwood Dr.	97.55%	1.47%	0.97%
6 HY NP	5th St.	e/o Sandalwood Dr.	97.53%	1.49%	0.98%
6 HY S1	5th St.	e/o Sandalwood Dr.	97.55%	1.48%	0.98%
6 HY S2	5th St.	e/o Sandalwood Dr.	97.55%	1.48%	0.98%
6 HY S3	5th St.	e/o Sandalwood Dr.	97.54%	1.48%	0.98%
7 E	Beckwith Av.	s/o Singleton Rd.	97.53%	1.49%	0.98%
7 EP	Beckwith Av.	s/o Singleton Rd.	97.53%	1.49%	0.98%
7 2025 NP	Beckwith Av.	s/o Singleton Rd.	97.53%	1.49%	0.98%
7 2025 S1	Beckwith Av.	s/o Singleton Rd.	97.53%	1.49%	0.98%
7 2025 S2	Beckwith Av.	s/o Singleton Rd.	97.53%	1.49%	0.98%
7 2028 NP	Beckwith Av.	s/o Singleton Rd.	97.53%	1.49%	0.98%
7 2028 S1	Beckwith Av.	s/o Singleton Rd.	97.53%	1.49%	0.98%
7 2028 S2	Beckwith Av.	s/o Singleton Rd.	97.53%	1.49%	0.98%
7 HY NP	Beckwith Av.	s/o Singleton Rd.	97.53%	1.49%	0.98%
7 HY S1	Beckwith Av.	s/o Singleton Rd.	97.53%	1.49%	0.98%
7 HY S2	Beckwith Av.	s/o Singleton Rd.	97.53%	1.49%	0.98%
7 HY S3	Beckwith Av.	s/o Singleton Rd.	97.54%	1.48%	0.98%
8 E	Singleton Rd.	w/o I-10 EB Ramps	97.53%	1.49%	0.98%
8 EP	Singleton Rd.	w/o I-10 EB Ramps	99.99%	0.01%	0.00%
8 2025 NP	Singleton Rd.	w/o I-10 EB Ramps	97.53%	1.49%	0.98%
8 2025 S1	Singleton Rd.	w/o I-10 EB Ramps	97.53%	1.49%	0.98%
8 2025 S2	Singleton Rd.	w/o I-10 EB Ramps	97.53%	1.49%	0.98%
8 2028 NP	Singleton Rd.	w/o I-10 EB Ramps	97.53%	1.49%	0.98%
8 2028 S1	Singleton Rd.	w/o I-10 EB Ramps	97.55%	1.48%	0.98%
8 2028 S2	Singleton Rd.	w/o I-10 EB Ramps	97.55%	1.47%	0.97%

SegmentID Alternat	cive Roadway	Segment	A_Daily	MT_Daily	HT_Daily
8 HY NP	Singleton Rd.	w/o I-10 EB Ramps	97.53%	1.49%	0.98%
8 HY S1	Singleton Rd.	w/o I-10 EB Ramps	97.55%	1.48%	0.98%
8 HY S2	Singleton Rd.	w/o I-10 EB Ramps	97.55%	1.48%	0.98%
8 HY S3	Singleton Rd.	w/o I-10 EB Ramps	97.54%	1.48%	0.98%
9 E	Singleton Rd.	e/o Calimesa Bl.	97.53%	1.49%	0.98%
9 EP	Singleton Rd.	e/o Calimesa Bl.	97.09%	1.53%	1.39%
9 2025 NP	Singleton Rd.	e/o Calimesa Bl.	97.53%	1.49%	0.98%
9 2025 S1	Singleton Rd.	e/o Calimesa Bl.	97.26%	1.49%	1.24%
9 2025 S2	Singleton Rd.	e/o Calimesa Bl.	96.66%	1.60%	1.74%
9 2028 NP	Singleton Rd.	e/o Calimesa Bl.	97.53%	1.49%	0.98%
9 2028 S1	Singleton Rd.	e/o Calimesa Bl.	97.42%	1.48%	1.09%
9 2028 S2	Singleton Rd.	e/o Calimesa Bl.	97.35%	1.50%	1.15%
9 HY NP	Singleton Rd.	e/o Calimesa Bl.	97.53%	1.49%	0.98%
9 HY S1	Singleton Rd.	e/o Calimesa Bl.	97.46%	1.49%	1.06%
9 HY S2	Singleton Rd.	e/o Calimesa Bl.	97.42%	1.50%	1.09%
9 HY S3	Singleton Rd.	e/o Calimesa Bl.	97.53%	1.48%	0.99%
10 E	Singleton Rd.	w/o Singleton Cyn. R	97.53%	1.49%	0.98%
10 EP	Singleton Rd.	w/o Singleton Cyn. R	97.05%	1.53%	1.42%
10 2025 NP	Singleton Rd.	w/o Singleton Cyn. R	97.53%	1.49%	0.98%
10 2025 S1	Singleton Rd.	w/o Singleton Cyn. R	97.24%	1.49%	1.26%
10 2025 S2	Singleton Rd.	w/o Singleton Cyn. R	96.60%	1.61%	1.79%
10 2028 NP	Singleton Rd.	w/o Singleton Cyn. R	97.53%	1.49%	0.98%
10 2028 S1	Singleton Rd.	w/o Singleton Cyn. R	97.38%	1.48%	1.14%
10 2028 S2	Singleton Rd.	w/o Singleton Cyn. R	97.29%	1.51%	1.20%
10 HY NP	Singleton Rd.	w/o Singleton Cyn. R	97.53%	1.49%	0.98%
10 HY S1	Singleton Rd.	w/o Singleton Cyn. R	97.43%	1.48%	1.08%
10 HY S2	Singleton Rd.	w/o Singleton Cyn. R	97.38%	1.50%	1.12%
10 HY S3	Singleton Rd.	w/o Singleton Cyn. R	97.52%	1.48%	0.99%
11 E	Singleton Rd.	e/o Singleton Cyn. R	97.53%	1.49%	0.98%
11 EP	Singleton Rd.	e/o Singleton Cyn. R	97.10%	1.52%	1.37%
11 2025 NP	Singleton Rd.	e/o Singleton Cyn. R	97.53%	1.49%	0.98%
11 2025 S1	Singleton Rd.	e/o Singleton Cyn. R	97.27%	1.49%	1.23%
11 2025 S2	Singleton Rd.	e/o Singleton Cyn. R	96.69%	1.60%	1.71%
11 2028 NP	Singleton Rd.	e/o Singleton Cyn. R	97.53%	1.49%	0.98%
11 2028 S1	Singleton Rd.	e/o Singleton Cyn. R	97.39%	1.48%	1.13%
11 2028 S2	Singleton Rd.	e/o Singleton Cyn. R	97.30%	1.51%	1.19%
11 HY NP	Singleton Rd.	e/o Singleton Cyn. R	97.53%	1.49%	0.98%
11 HY S1	Singleton Rd.	e/o Singleton Cyn. R	97.43%	1.48%	1.09%
11 HY S2	Singleton Rd.	e/o Singleton Cyn. R	97.36%	1.50%	1.14%
11 HY S3	Singleton Rd.	e/o Singleton Cyn. R	97.52%	1.48%	1.00%
12 E	· · · · · · · · · · · · · · · · · · ·	Blw/o Roberts Rd.	97.53%	1.49%	0.98%
12 EP	·	Blw/o Roberts Rd.	97.25%	1.51%	1.24%
12 2025 NP		Blw/o Roberts Rd.	97.53%	1.49%	0.98%
12 2025 S1		Blw/o Roberts Rd.	97.39%	1.49%	1.11%
12 2025 S2		Blw/o Roberts Rd.	97.09%	1.54%	1.37%
12 2028 NP	Cherry Valley B	Blw/o Roberts Rd.	97.53%	1.49%	0.98%

SegmentID A	Alternative Road	way	Segment	A_Daily	MT_Daily	HT_Daily
12 20	28 S1 Cherry V	alley Bl w/	o Roberts Rd.	97.43%	1.49%	1.09%
12 20	28 S2 Cherry V	alley Bl w/	o Roberts Rd.	97.37%	1.50%	1.13%
12 HY	NP Cherry V	alley Bl w/	o Roberts Rd.	97.53%	1.49%	0.98%
12 HY	'S1 Cherry V	alley Bl w/	o Roberts Rd.	97.44%	1.49%	1.07%
12 HY	'S2 Cherry V	alley Bl w/	o Roberts Rd.	97.38%	1.50%	1.11%
12 HY	'S3 Cherry V	alley Bl w/	o Roberts Rd.	97.53%	1.48%	0.99%
13 E	Cherry V	alley Bl e/d	o Roberts Rd.	97.53%	1.49%	0.98%
13 EP	Cherry V	alley Bl e/d	o Roberts Rd.	97.34%	1.50%	1.16%
13 20	25 NP Cherry V	alley Bl e/d	o Roberts Rd.	97.53%	1.49%	0.98%
13 20	25 S1 Cherry V	alley Bl e/d	o Roberts Rd.	97.44%	1.49%	1.08%
13 20	25 S2 Cherry V	alley Bl e/d	o Roberts Rd.	97.22%	1.53%	1.25%
13 20	28 NP Cherry V	alley Bl e/d	o Roberts Rd.	97.53%	1.49%	0.98%
13 20	28 S1 Cherry V	alley Bl e/d	o Roberts Rd.	97.46%	1.48%	1.06%
13 20	28 S2 Cherry V	alley Bl e/d	o Roberts Rd.	97.41%	1.50%	1.09%
13 HY	' NP Cherry V	alley Bl e/d	o Roberts Rd.	97.53%	1.49%	0.98%
13 HY	'S1 Cherry V	alley Bl e/d	o Roberts Rd.	97.46%	1.49%	1.05%
13 HY	' S2 Cherry V	alley Bl e/d	o Roberts Rd.	97.42%	1.50%	1.08%
13 HY	' S3 Cherry V	alley Bl e/d	o Roberts Rd.	97.54%	1.48%	0.99%
14 E	Cherry V	alley Bl e/d	o Calimesa Bl.	97.53%	1.49%	0.98%
14 EP	Cherry V	alley Bl e/d	o Calimesa Bl.	97.15%	1.52%	1.33%
14 20	25 NP Cherry V	alley Bl e/d	o Calimesa Bl.	97.53%	1.49%	0.98%
14 20	25 S1 Cherry V	alley Bl e/d	o Calimesa Bl.	97.41%	1.49%	1.10%
14 20	25 S2 Cherry V	alley Bl e/d	o Calimesa Bl.	97.13%	1.54%	1.33%
14 20	28 NP Cherry V	alley Bl e/d	o Calimesa Bl.	97.53%	1.49%	0.98%
14 20	28 S1 Cherry V	alley Bl e/d	o Calimesa Bl.	97.44%	1.48%	1.07%
14 20	28 S2 Cherry V	alley Bl e/d	o Calimesa Bl.	97.39%	1.50%	1.12%
14 HY	NP Cherry V	alley Bl e/d	o Calimesa Bl.	97.53%	1.49%	0.98%
14 HY	'S1 Cherry V	alley Bl e/d	o Calimesa Bl.	97.45%	1.48%	1.06%
14 HY	S2 Cherry V	alley Bl e/d	o Calimesa Bl.	97.41%	1.50%	1.10%
14 HY	' S3 Cherry V	alley Bl e/d	o Calimesa Bl.	97.53%	1.48%	0.99%
15 E	I-10 Fwy	n/d	o Cherry Valley Bl.	97.53%	1.49%	0.98%
15 EP	I-10 Fwy	n/d	o Cherry Valley Bl.	97.53%	1.49%	0.98%
15 20	25 NP I-10 Fwy	n/d	o Cherry Valley Bl.	97.53%	1.49%	0.98%
15 20	25 S1 I-10 Fwy	n/d	o Cherry Valley Bl.	97.53%	1.49%	0.98%
15 20	25 S2 I-10 Fwy	n/d	o Cherry Valley Bl.	97.53%	1.49%	0.98%
15 20	28 NP I-10 Fwy	n/d	o Cherry Valley Bl.	97.53%	1.49%	0.98%
15 20	28 S1 I-10 Fwy	n/d	o Cherry Valley Bl.	97.53%	1.49%	0.98%
15 20	28 S2 I-10 Fwy	n/d	o Cherry Valley Bl.	97.53%	1.49%	0.98%
15 HY	NP I-10 Fwy	n/d	o Cherry Valley Bl.	97.53%	1.49%	0.98%
15 HY	S1 I-10 Fwy	n/d	o Cherry Valley Bl.	97.53%	1.49%	0.98%
15 HY	' S2 I-10 Fwy		o Cherry Valley Bl.	97.53%	1.49%	0.98%
15 HY	'S3 I-10 Fwy	n/d	o Cherry Valley Bl.	97.53%	1.49%	0.98%

APPENDIX 7.1:

OFF-SITE TRAFFIC NOISE LEVEL CALCULATIONS



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	FHWA-R	D-77-108 HIGH	WAY	NOISE	PREDIC	CTION M	ODEL	(9/12/2	021)			
Road Na	ario: E me: Calimesa l lent: n/o Sandal				Project Name: Oak Valley North SP Job Number: 13594							
	SPECIFIC II	NPUT DATA							L INPUT	s		
Highway Data				5	ite Cor	ditions	(Hara :					
-	y Traffic (Adt):	13,519 vehicl	es					Autos:				
	ır Percentage:	7.70%				edium Tru		,				
	Hour Volume:	1,041 vehicle	S		He	eavy Truc	cks (3+	Axles):	15			
	ehicle Speed:	40 mph		ν	ehicle	Mix						
Near/Far L	.ane Distance:	57 feet			Veh	icleType		Dav	Evening	Niaht	Dailv	
Site Data							Autos:	70.6%	13.6%	15.8%	97.53%	
-	arrier Height:	0.0 feet			М	edium Ti	rucks:	80.3%	4.7%	14.9%	1.49%	
Barrier Type (0-		0.0				Heavy Ti	rucks:	75.9%	8.2%	15.9%	0.98%	
	Dist. to Barrier:	46.0 feet		۸	loise S	ource El	evatio	ns (in f	eet)			
Centerline Dis	t. to Observer:	46.0 feet				Auto:		.000	,			
Barrier Distanc	e to Observer:	0.0 feet			Mediu	m Trucks	s: 2	297				
Observer Heigh		Hear	vy Trucks	s: 8	.004	Grade Ad	liustmen	t: 0.0				
	Pad Elevation:	0.0 feet								,		
R	oad Elevation:	0.0 feet		L	ane Eq	uivalent		_ •	feet)			
	Road Grade:	0.0%				Autos		.452				
	Left View:	-90.0 degre	es			m Trucks		.209				
	Right View:	90.0 degre	es		Hea	vy Trucks	s: 36	5.232				
FHWA Noise Mo	del Calculation	ıs										
VehicleType	REMEL	Traffic Flow	Dis	tance	Finite	Road	Fres	nel	Barrier Att	en Be	rm Atten	
Auto	s: 66.51	I -1.26		1.96		-1.20		-4.63	0.0	000	0.000	
Medium Truck	s: 77.72	-19.43		2.00		-1.20		-4.87	0.0	000	0.000	
Heavy Trucks	82.99	-21.23		1.99	1	-1.20		-5.47	0.0	000	0.000	
Unmitigated Noi			barrie	er attenu	ıation)							
VehicleType	Leq Peak Ho	ur Leq Da	<i>y</i>	Leq Ev	ening	Leq	Night		Ldn	С	NEL	
Auto	s: 6	6.0	64.8		63.7		59	.6	67.	2	67.7	
Medium Truck	s: 5	9.1	58.5		52.2		52	.4	60.	1	60.3	
Heavy Truck	*	2.6	61.7		58.1		56		63.		64.1	
Vehicle Noise	e: 6	8.2	67.2		65.0		61	.8	69.	4	69.8	
Centerline Dista	nce to Noise C	ontour (in feet)									
			L	70 d		65 (dBA	_	60 dBA		dBA	
		_	Ldn:		42		9	-	193		417	
		С	NEL:		44		9	6	206	6	444	

	o: 2025 S1 e: Calimesa E nt: n/o Sandal				Project Name: Oak Valley North SP Job Number: 13594								
	SPECIFIC IN	IPUT DATA			NOISE MODEL INPUTS								
Highway Data				5	Site Conditions (Hard = 10, Soft = 15)								
Average Daily	. ,	14,785 vehic	cles		Autos: 15								
	Percentage:	7.70%				edium Ti		,					
	our Volume:	1,138 vehicl	es		He	eavy Tru	icks (3+	Axles):	15				
	hicle Speed:	40 mph		V	'ehicle	Mix							
Near/Far Lar	ne Distance:	57 feet			Veh	icleType	9	Day	Evening	Night	Daily		
Site Data							Autos:	70.6%	13.6%	15.8%	97.36%		
Par	rier Heiaht:	0.0 feet			M	edium 7	rucks:	80.3%	4.7%	14.9%	1.49%		
Barrier Type (0-W		0.0				Heavy 7	rucks:	75.9%	8.2%	15.9%	1.15%		
Centerline Dis	t. to Barrier:	46.0 feet			Inica S	ource E	lovatio	ne (in f	not)				
Centerline Dist. t	to Observer:	46.0 feet		-	10/36 0	Auto		0.000	,				
Barrier Distance t	to Observer:	0.0 feet			Modiu	m Truck		2.297					
Observer Height (A	Observer Height (Above Pad): 5.0 feet							3.004	Grade Ad	iustmant	. 0 0		
Pa	Pad Elevation: 0.0 feet						is. c	5.004	Orace Au	Justinent	. 0.0		
Roa	d Elevation:	0.0 feet		L	ane Eq	uivalen	t Distar	nce (in	feet)				
F	Road Grade:	0.0%				Auto	s: 36	6.452					
	Left View:	-90.0 degr	ees		Mediu	m Truck	rs: 36	6.209					
	Right View:	90.0 degr	ees		Hea	vy Truck	rs: 36	3.232					
FHWA Noise Mode	l Calculation	s											
VehicleType	REMEL	Traffic Flow	Di	stance	Finite	Road	Fres	inel	Barrier Att	en Ber	m Atten		
Autos:	66.51	-0.8	8	1.96	ì	-1.20		-4.63	0.0	000	0.00		
Medium Trucks:	77.72	-19.0	3	2.00)	-1.20		-4.87	0.0	000	0.000		
Heavy Trucks:	82.99	-20.1	5	1.99)	-1.20		-5.47	0.0	000	0.000		
Unmitigated Noise	Levels (with	out Topo and	d barri	ier attenı	uation)								
	Leq Peak Hou		,	Leq Ev			Night		Ldn		NEL		
Autos:		6.4	65.2		64.1		60		67.0		68.		
Medium Trucks:).5 3.6	58.9 62.8		52.6		52		60.		60.7		
Heavy Trucks:		59.1		57	.2	64.8	3	65.1					
Vehicle Noise:	68	3.8	67.8		65.5		62	.3	69.9	9	70.		
Centerline Distanc	e to Noise C	ontour (in fee	et)					1					
			[70 d		65	dBA		60 dBA		dBA		
			Ldn:		46		9	8	212		456		
			CNEL:		49		10	_	225		485		

Scenario	2025 NP	-				Project N	lame:	Oak Va	alley North	SP				
Road Name:	Calimesa Bi	L			Job Number: 13594									
Road Segment:	n/o Sandalw	ood Dr.												
	PECIFIC IN	PUT DATA			NOISE MODEL INPUTS Site Conditions (Hard = 10, Soft = 15)									
Highway Data				S	ite Con	ditions (I	Hard =	10, So	ft = 15)					
Average Daily Tr	raffic (Adt):	14,686 vehicle	S					Autos:	15					
Peak Hour P	ercentage:	7.70%			Me	dium Truc	cks (2)	Axles):	15					
Peak Ho	ur Volume:	1,131 vehicles			He	avy Truck	ıs (3+)	Axles):	15					
Vehi	cle Speed:	40 mph		ν	ehicle I	Mix								
Near/Far Lane	Distance:	57 feet		Ė	Vehi	icleType		Day	Evening	Night	Daily			
Site Data						Au	ıtos:	70.6%	13.6%	15.8%	97.53			
Barri	er Heiaht:	0.0 feet			Me	edium Tru	icks:	80.3%	4.7%	14.9%	1.49			
Barrier Type (0-Wai		0.0			F	deavy Tru	icks:	75.9%	8.2%	15.9%	0.98			
Centerline Dist.	to Barrier:	46.0 feet			loise So	urce Ele	vation	s (in fe	et)					
Centerline Dist. to	Observer:	46.0 feet				Autos:		000						
Barrier Distance to	Observer:	0.0 feet			Mediu	m Trucks:		297						
Observer Height (A	bove Pad):	5.0 feet				v Trucks:		004	Grade Ad	iustment	0.0			
	Elevation:	0.0 feet				,				,				
Road	Elevation:	0.0 feet		L	ane Equ	uivalent l			eet)					
Ro	oad Grade:	0.0%				Autos:		452						
	Left View:	-90.0 degree				m Trucks:		209						
F	Right View:	90.0 degree	S		Heav	y Trucks:	36.	232						
FHWA Noise Model	Calculations	;												
VehicleType	REMEL	Traffic Flow	Dis	tance	Finite	Road	Fresr	nel	Barrier Att	en Ber	m Atter			
Autos:	66.51	-0.90		1.96		-1.20		-4.63	0.0	000	0.00			
Medium Trucks:	77.72	-19.07		2.00		-1.20		-4.87		000	0.00			
Heavy Trucks:	82.99	-20.87		1.99)	-1.20		-5.47	0.0	000	0.00			
Unmitigated Noise L			arrie							1				
	eq Peak Hou			Leq Ev		Leq N	•		Ldn		NEL			
Autos:	66.		5.2		64.1		59.9	-	67.	-	68			
Medium Trucks:	59.		8.8		52.6		52.	-	60.	-	60			
Heavy Trucks:	62.		2.1		58.4		56.		64.		64			
Vehicle Noise:	68.		37.5		65.4		62.	ı	69.	7	70			
Centerline Distance	to Noise Co	ntour (in feet)		70.1							10.4			
			L	70 d		65 di			i0 dBA		dBA			
		_	.dn: IFL:		44		95		204		44			
					47		101		218		469			

Monday, July 3, 2023

	FHWA-RI	D-77-108 HIGH\	WAY N	OISE	PREDIC	TION M	ODEL	(9/12/2	(021)			
Road Na	nrio: 2025 S2 me: Calimesa E ent: n/o Sandal							Oak \ 13594	alley North	SP		
SITE Highway Data	SPECIFIC IN	IPUT DATA			NOISE MODEL INPUTS Site Conditions (Hard = 10, Soft = 15)							
Average Daily Peak Hou Peak	y Traffic (Adt): ir Percentage: Hour Volume: 'ehicle Speed:	14,912 vehicle: 7.70% 1,148 vehicles 40 mph			Ме	dium Tru	ıcks (2	Autos Axles)	: 15 : 15			
Near/Far L	ane Distance:	57 feet		,		icleType	П	Day	Evening	Night	Daily	
Site Data Barrier Type (0-V	arrier Height:	0.0 feet 0.0			Autos: 70.6% 13.6% 15.8% 96.97 Medium Trucks: 80.3% 4.7% 14.9% 1.56 Heavy Trucks: 75.9% 8.2% 15.9% 1.47							
Centerline D	Centerline Dist. to Barrier: 46.0 feet Centerline Dist. to Observer: 46.0 feet					Noise Source Elevations (in feet) Autos: 0.000						
Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet					Medium Trucks: 2.297 Heavy Trucks: 8.004 Grade Adjustment: 0.0						t: 0.0	
Ro	Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees				Lane Equivalent Distance (in feet) Autos: 36.452 Medium Trucks: 36.209 Heavy Trucks: 36.232							
FHWA Noise Mod	del Calculation	s										
VehicleType	REMEL	Traffic Flow	Dista	nce	Finite	Road	Fres	nel	Barrier Att	en Be	rm Atten	
Autos Medium Trucks	77.72			1.96 2.00 1.99)	-1.20 -1.20		-4.63 -4.87 -5.47	0.	000 000 000	0.000	
Heavy Trucks						-1.20		-5.47	0.	000	0.000	
Unmitigated Nois VehicleType	Leg Peak Hou			.eq Ev		Lea	Night	1	Ldn	С	NEL	
Autos			5.2	. ,	64.1		60	.0	67.	6	68.1	
Medium Trucks	: 59).7 5	9.1		52.8		53	.0	60.	7	60.9	
Heavy Trucks	: 64	l.7 6	3.9		60.3		58	.4	65.	9	66.2	
Vehicle Noise	: 69).2 6	88.2		65.8		62	.7	70.	4	70.7	
Centerline Distar	nce to Noise Co	ontour (in feet)		70		0.5	·D.4		00 /04			
		,	dn:	70 d	<i>BA</i> 49	65 (<i>dBA</i> 10		60 dBA 225		6 dBA 486	
Ldn: CNEL:					52 111 239				486 516			

Monday, July 3, 2023 Monday, July 3, 2023

	FHWA-RE)-77-108 HIGH	WAY	NOISE	E PREDIC	TION N	IODEL	(9/12/2	021)				
Road Nam	io: 2028 NP ne: Calimesa B nt: n/o Sandalv				Project Name: Oak Valley North SP Job Number: 13594								
	SPECIFIC IN	IPUT DATA			NOISE MODEL INPUTS								
Highway Data					Site Conditions (Hard = 10, Soft = 15)								
Average Daily	Traffic (Adt):	17,768 vehicle	es					Autos:	15				
	Percentage:	7.70%			Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15								
Peak H	lour Volume:	1,368 vehicles	3		He	avy Tru	cks (3+	Axles):	15				
Ve	hicle Speed:	40 mph			Vehicle I	Mix							
Near/Far La	ne Distance:	57 feet				icleType		Dav	Evening	Night	Dailv		
Site Data							Autos:	70.6%		15.8%	. ,		
	rrier Height:	0.0 feet			M	edium T	rucks:	80.3%	4.7%	14.9%	1.49%		
Barrier Type (0-W		0.0			1	Heavy T	rucks:	75.9%	8.2%	15.9%			
Centerline Di		46.0 feet											
Centerline Dist.		46.0 feet		Į.	Noise Sc	ource E	levatio	ıs (in fe	eet)				
Barrier Distance		0.0 feet				Auto	s: 0	.000					
		5.0 feet			Mediu	m Truck	s: 2	.297					
Observer Height	0.0 feet			Heav	ry Truck	s: 8	.004	Grade Ad	ljustment	: 0.0			
Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Lane Equivalent Distance (in feet)													
	au cievalion. Road Grade:	0.0%			Lane Ly	Auto		.452	ccij				
	Left View:	-90.0 degree			Modiu	m Truck		209					
	Right View:					y Truck		.232					
		90.0 degree	#5		ricas	y ITUCK	3. 30	.232					
FHWA Noise Mod													
VehicleType	REMEL	Traffic Flow	Dis	stance	Finite		Fres		Barrier Att		m Atten		
Autos:	66.51	-0.07		1.9		-1.20		-4.63		000	0.000		
Medium Trucks:		-18.24		2.0		-1.20		-4.87		000	0.000		
Heavy Trucks:		-20.04		1.9		-1.20		-5.47	0.0	000	0.000		
Unmitigated Noise			_					_					
VehicleType	Leq Peak Hou		_	Leq E	vening	Leq	Night		Ldn		NEL		
Autos:	67		66.0		64.9		60	-	68.		68.9		
Medium Trucks:			59.7		53.4		53	-	61.	-	61.5		
Heavy Trucks:		••	62.9		59.3		57		64.	-	65.2		
Vehicle Noise:			68.4		66.2		62	.9	70.	5	71.0		
Centerline Distant	ce to Noise Co	ntour (in feet))								-		
			I	70	dBA	65	dBA	(0 dBA	55	dBA		
			Ldn:		50		10	В	232	2	500		
		CI	VEL:		53		11	5	247	,	532		

FHWA-RD-77-108 HI	SHWAY NOIS	E PREDIC	TION MO	DEL (9/12/	2021)			
Scenario: 2028 S2 Road Name: Calimesa Bl. Road Segment: n/o Sandalwood Dr.				lame: Oak ' nber: 1359	/alley North 4	SP		
SITE SPECIFIC INPUT DATA	A				EL INPUTS	S		
Average Daily Traffic (Adt): Average Daily Traffic (Adt): Peak Hour Percentage: 7.70% Peak Hour Volume: 1,388 vehic Vehicle Speed: 40 mph 57 feet Site Data Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0	cles	Med Hea Vehicle N	dium Truc avy Truck lix cleType		8: 15): 15): 15 Evening % 13.6% % 4.7%	Night 15.8% 14.9% 15.9%	Daily 97.32% 1.50% 1.18%	
Centerline Dist. to Barrier: 46.0 feet Centerline Dist. to Observer: 46.0 feet Barrier Distance to Observer: 0, feet Observer Height (Above Pad): 5,0 feet Pad Elevation: 0,0 feet		Noise Source Elevations (in feet) Autos: 0,000 Medium Trucks: 2.297 Heavy Trucks: 8,004 Grade Adjustment: Lane Equivalent Distance (in feet)						
Road Grade: 0.0% Left View: -90.0 deg Right View: 90.0 deg	rees		Autos: n Trucks: y Trucks:	36.452 36.209 36.232	,			
FHWA Noise Model Calculations VehicleType REMEL Traffic Flow	v Distance	Finite	Road	Fresnel	Barrier Atte	en Ber	m Atten	
Autos: 66.51 -0.1 Medium Trucks: 77.72 -18. Heavy Trucks: 82.99 -19.	02 1 13 2	96 00 99	-1.20 -1.20 -1.20	-4.63 -4.87 -5.47	7 0.0	000	0.00 0.00 0.00	
Unmitigated Noise Levels (without Topo ar	nd barrier atte	nuation)						
VehicleType Leq Peak Hour Leq E		Evening	Leq Ni	-	Ldn		VEL	
Autos: 67.2 Medium Trucks: 60.4 Heavy Trucks: 64.6 Vehicle Noise: 69.7	66.1 59.8 63.7	64.9 53.5 60.1		60.8 53.7 58.2	68.4 61.4 65.8	1	68. 61. 66.	
				50.L	. 0.0	•		
Centerline Distance to Noise Contour (in fe) dBA	65 dE	RΔ	60 dBA	EE	dBA	
	Ldn: CNEL:	52 56	03 GE	113 120	243 258		ова 523 557	

0000.07							0 1 1 .		0.0			
								alley North	SP			
					JOD N	umber:	13594					
			-									
SPECIFIC IN	IPUT DATA		Si	Site Conditions (Hard = 10, Soft = 15)								
Froffic (Adt):	17 042 vobiele	20		· · · · · · · · · · · · · · · · · · ·								
. ,		-5										
			, ,									
	,	5	rieavy Trucks (3+ Axies): 15									
			Vehicle Mix									
e Distalle.			Veh						Daily			
rier Height:	0.0 feet											
all, 1-Berm):	0.0			F	Heavy T	rucks:	75.9%	8.2%	15.9%	1.129		
t. to Barrier:	46.0 feet		N	niea Sr	urce F	ovation	e (in fa	not)				
o Observer:	46.0 feet		-	0.00 00				,,,,				
o Observer:	0.0 feet			Mediu								
Above Pad):	5.0 feet							Grade Ad	iustment	0.0		
d Elevation:	0.0 feet			77007	y maon	J. U.						
d Elevation:	0.0 feet		Lá	ne Eq	uivalen	Distan	ce (in i	feet)				
Road Grade:	0.0%											
Left View:	-90.0 degree	es										
Right View:	90.0 degree	es		Heav	y Truck	s: 36.	232					
l Calculation	s											
REMEL	Traffic Flow	Distai	nce	Finite	Road	Fresr	nel	Barrier Att	en Ber	m Atten		
										0.00		
										0.00		
82.99	-19.44		1.99		-1.20		-5.47	0.0	000	0.00		
		_	eq Eve	_	Leq					NEL		
		66.1		64.9			-			68.		
Medium Trucks: 60.3 59.7				53.4		53.0	-	61.3		61.		
		63.5		59.9		58.0		65.5		65.		
64		00.0										
64	1.6	68.6		66.3		63.	1	70.7	7	71.		
64			70 45		65					71.		
64	1.6		70 dE		65	63. ⁻ dBA 111	6	70.7 60 dBA 239	55	71. dBA 51		
	is: 2028 S1 is: Calimesa Bt n/o Sandali is: PECIFIC IN Traffic (Adt): Percentage: Dur Volume: Dur Volume: Disped: Disp	2: 2028 S1 2: Calimesa BI. 2: Calimesa BI. 2: Tribesa BI. 2: Calimesa BI. 2: C	2: 2028 S1 2: Calimesa BI. 2: Calimesa BI. 2: In/o Sandalwood Dr. 3: PECIFIC INPUT DATA **Traffic (Adt): 17,942 vehicles 2-percentage: 7.70% 2-pur Volume: 1,382 vehicles 3: sicle Speed: 40 mph 3: e Distance: 57 feet **Trefre Height: 0.0 feet 3: 1, 1-Berm): 0.0 feet 3: 1, 1-Berm): 0.0 feet 46.0 feet 50 Observer: 46.0 feet 50 Observer: 0.0 feet 6 Elevation: 0.0 feet 6 Elevation: 0.0 feet 6 Elevation: 0.0 feet 6 Elevation: 90.0 degrees 8 Right View: 90.0 degrees 8 Right View: 90.0 degrees 8 Right View: 90.0 degrees 1 Calculations **REMEL** Traffic Flow Distanting 1	2028 S1 2028	2028 S1 2028	2028 S1	Distance Colored Heavy Trucks Colored H	Distance Colore Colore	PECIFIC INPUT DATA	Project Name: Oak Valley North SP Job Number: 13594 Job Number: 14594 Job Numb		

Monday, July 3, 2023

	FHWA-RE	0-77-108 HIGH	WAY	NOISE	PREDIC	TION MO	ODEL	(9/12/2	021)		
Scenari	o: HY NP					Project I	Name:	Oak V	alley North	SP	
	e: Calimesa B					Job Nu	ımber:	13594			
Road Segmen	nt: n/o Sandalv	vood Dr.									
	SPECIFIC IN	PUT DATA			0'' 0				L INPUT	S	
Highway Data					Site Con	aitions (Hara =				
Average Daily	. ,	19,164 vehicle	es					Autos:			
	Percentage:	7.70%				dium Tru					
	our Volume:	1,476 vehicle	S		He	avy Truci	ks (3+	Axles):	15		
	nicle Speed:	40 mph		ŀ	Vehicle I	Wix					
Near/Far Lar	ne Distance:	57 feet		ı	Veh	icleType		Day	Evening	Night	Daily
Site Data						A	utos:	70.6%	13.6%	15.8%	97.53%
Rar	rier Heiaht:	0.0 feet			Me	edium Tru	ucks:	80.3%	4.7%	14.9%	1.49%
Barrier Type (0-W		0.0			F	Heavy Tru	ucks:	75.9%	8.2%	15.9%	0.98%
Centerline Dis	. ,	46.0 feet		ŀ	Noise Sc	urco Elo	wation	e (in f	not)		
Centerline Dist. 1	to Observer:	46.0 feet		ŀ	NOISE SC	Autos		.000	eei)		
Barrier Distance t	to Observer:	0.0 feet			A decedio o	m Trucks		.000			
Observer Height (ry Trucks		.004	Grade Ad	iustman	t· 0.0		
Pad Elevation: 0.0 feet					пеач	ry Trucks	. 0	.004	Orace Au	justinen	. 0.0
Roa	d Elevation:	0.0 feet			Lane Eq	uivalent l	Distan	ce (in	feet)		
F	Road Grade:	0.0%				Autos	: 36	.452			
	Left View:	-90.0 degree	es		Mediui	m Trucks	: 36	.209			
	Right View:	90.0 degree	es		Heav	y Trucks	: 36	.232			
FHWA Noise Mode	l Calculation:	s									
VehicleType	REMEL	Traffic Flow	Dis	tance	Finite		Fres		Barrier Att		rm Atten
Autos:	66.51	0.26		1.9	-	-1.20		-4.63		000	0.000
Medium Trucks:	77.72	-17.92		2.0	-	-1.20		-4.87		000	0.000
Heavy Trucks:	82.99	-19.72		1.9	19	-1.20		-5.47	0.0	000	0.000
Unmitigated Noise											
	Leq Peak Hou			Leq E	vening	Leq N	-		Ldn		NEL
Autos:	67		66.4		65.2		61.	-	68.		69.2
Medium Trucks:	60		60.0		53.7		53.	-	61.0	-	61.8
Heavy Trucks:	64		63.2		59.6		57.		65.3		65.6
Vehicle Noise:	69	.7	68.7		66.5		63.	3	70.9	9	71.3
Centerline Distanc	e to Noise Co	ntour (in feet)								
				70	dBA	65 d			60 dBA		dBA
			Ldn:		53		113	-	244		526
		C	NEL:		56		12	1	260)	560

Monday, July 3, 2023

	FHWA-RI	0-77-108 HIGH	WAY	NOISE	PREDIC	CTION M	ODEL	(9/12/2	021)		
Road Na	ario: HY S1 me: Calimesa B ent: n/o Sandalv							Oak V 13594	alley North	SP	
	SPECIFIC IN	IPUT DATA			0:- 0				L INPUT	s	
Highway Data					Site Con	ditions	(Hara				
	y Traffic (Adt):	19,338 vehicle	es					Autos:	15		
Peak Hou	ır Percentage:	7.70%				edium Tru		/			
Peak	Hour Volume:	1,489 vehicles	3		He	eavy Truc	cks (3+	Axles):	15		
V	'ehicle Speed:	40 mph		- 1	Vehicle I	Mix					
Near/Far L	ane Distance:	57 feet		F		icleType		Dav	Evening	Night	Dailv
Site Data							Autos:	70.6%		15.8%	97.41%
R	arrier Height:	0.0 feet			М	edium Ti	ucks:	80.3%	4.7%	14.9%	1.48%
Barrier Type (0-1		0.0			1	Heavy Ti	ucks:	75.9%	8.2%	15.9%	1.11%
Centerline D	Dist. to Barrier:	46.0 feet		H	Noisa Si	ource El	ovatio	ne (in f	not)		
Centerline Dist	t. to Observer:	46.0 feet		ľ	10/30 00	Auto		0.000	,		
Barrier Distance	e to Observer:	0.0 feet			Modiu	m Trucks		2.297			
Observer Height	(Above Pad):	5.0 feet				vy Trucks		3.004	Grade Ad	iuetman	- 00
F	Pad Elevation:	0.0 feet		L	rica	vy Trucks	s. c	5.004	Orace Au	Justinen	. 0.0
Re	oad Elevation:	0.0 feet			Lane Eq	uivalent	Distar	nce (in	feet)		
	Road Grade:	0.0%				Autos	s: 36	3.452			
	Left View:	-90.0 degree	es		Mediu	m Trucks	s: 36	3.209			
	Right View:	90.0 degree	es		Heav	vy Trucks	s: 36	3.232			
FHWA Noise Mod	del Calculation	s									
VehicleType	REMEL	Traffic Flow	Dis	stance	Finite	Road	Fres	inel	Barrier Att	en Be	rm Atten
Autos	: 66.51	0.29		1.9	6	-1.20		-4.63	0.0	000	0.000
Medium Trucks	: 77.72	-17.88		2.0	0	-1.20		-4.87	0.0	000	0.000
Heavy Trucks	82.99	-19.15		1.9	9	-1.20		-5.47	0.0	000	0.000
Unmitigated Nois	se Levels (with	out Topo and	barri	er atten	uation)						
VehicleType	Leq Peak Hou			Leq E	vening		Night		Ldn		NEL
Autos			66.4		65.3		61		68.7		69.2
Medium Trucks			60.0		53.8		54		61.7		61.8
Heavy Trucks			63.8		60.1		58		65.8		66.1
Vehicle Noise	: 69	.9	68.9		66.7		63	.5	71.	1	71.5
Centerline Distar	nce to Noise Co	ontour (in feet)	1	70	/D.4		dBA				
			,L	70 (dBA	65 (60 dBA		dBA
			Ldn:	54 117 251			541				
		CI	VEL:		58		12	4	267		576

	FHWA-RI	D-77-108 HIGH	1 YAWI	NOISE	PREDIC	TION	ODEL (9	/12/2	021)		
Road Nam	io: HY S3 le: Calimesa E nt: n/o Sandal						Name: (lumber: 1		alley North S	P	
SITE	SPECIFIC IN	IPUT DATA							L INPUTS		
Highway Data				5	Site Con	ditions	(Hard =	10, S	oft = 15)		
Peak H	Percentage: lour Volume:	19,232 vehicle 7.70% 1,481 vehicle					ucks (2 A cks (3+ A	,	15		
	hicle Speed:	40 mph		١	/ehicle i	Mix					
Near/Far La	ne Distance:	57 feet		-	Veh	icleType		Dav	Evening	Night	Daily
Site Data								70.69		15.8%	97.52%
Rai	rrier Heiaht:	0.0 feet			М	edium T	rucks:	80.39	4.7%	14.9%	1.48%
Barrier Type (0-W		0.0				Heavy T	rucks:	75.9%	8.2%	15.9%	1.00%
Centerline Dis	st. to Barrier:	46.0 feet			Inisa Si	urco F	levations	(in f	oot)		
Centerline Dist.	to Observer:	46.0 feet		-	10/36 00	Auto		000	<i>cci)</i>		
Barrier Distance	to Observer:	0.0 feet			Modiu	m Truck	-	297			
Observer Height ('Above Pad):	5.0 feet				/v Truck		004	Grade Adju	stment:	0.0
Pá	ad Elevation:	0.0 feet				,					
	ad Elevation:	0.0 feet		L	ane Eq		t Distanc	_	feet)		
I	Road Grade:	0.0%				Auto					
	Left View:	-90.0 degre				m Truck	00				
	Right View:	90.0 degre	es		Heav	y Truck	s: 36.2	232			
FHWA Noise Mode	el Calculation	s									
VehicleType	REMEL	Traffic Flow	Dista	ance	Finite	Road	Fresn	e/	Barrier Atter	n Berr	n Atten
Autos:	66.51	0.27		1.96	3	-1.20		-4.63	0.00	10	0.000
Medium Trucks:	77.72	-17.91		2.00)	-1.20		-4.87	0.00	0	0.000
Heavy Trucks:	82.99	-19.63		1.99	9	-1.20		-5.47	0.00	10	0.000
Unmitigated Noise	Levels (with	out Topo and	barrier	atten	uation)						
VehicleType	Leq Peak Hot	ır Leq Day	/	Leq Ev	ening	Leq	Night		Ldn	CN	IEL
Autos:	67	7.5	66.4		65.2		61.1		68.7		69.2
Medium Trucks:	60	0.6	60.0		53.7		53.9		61.6		61.8
Heavy Trucks:	64	1.2	63.3		59.7		57.8		65.3		65.7
Vehicle Noise:	69).7	68.7		66.5		63.3		70.9		71.3
Centerline Distanc	e to Noise C	ontour (in feet)								
				70 a		65	dBA		60 dBA	55	dBA
			Ldn:		53		114		245		528
		C	NEL:		56		121		261		563

		D-77-108 HIGH		NOIDE	I KEDIC			•					
	o: HY S2								alley North	SP			
	e: Calimesa E					Job N	umber:	13594					
Road Segmen	nt: n/o Sandal	wood Dr.											
	SPECIFIC IN	IPUT DATA							L INPUT	S			
Highway Data					Site Con	ditions	(Hard =	= 10, Sc	oft = 15)				
Average Daily	Traffic (Adt):	19,420 vehicle	es					Autos:	15				
Peak Hour	Percentage:	7.70%				dium Tru							
Peak H	our Volume:	1,495 vehicle	S		Heavy Trucks (3+ Axles): 15								
Vel	hicle Speed:	40 mph		1	/ehicle	Mix							
Near/Far Lar	ne Distance:	57 feet		F	Veh	icleType		Day	Evening	Night	Daily		
Site Data							lutos:	70.6%	13.6%	15.8%	97.339		
Rar	rier Height:	0.0 feet			М	edium Ti	rucks:	80.3%	4.7%	14.9%	1.509		
Barrier Type (0-W	-	0.0				Heavy Ti	rucks:	75.9%	8.2%	15.9%	1.169		
Centerline Dis	. ,	46.0 feet			Vaisa C	ource El	o rotio	an (in f	n m d l				
Centerline Dist.	to Observer:	46.0 feet		- '	voise s	Auto:			et)				
Barrier Distance t	to Observer:	0.0 feet				Auto: m Truck:		.000					
Observer Height (Above Pad):	5.0 feet				vy Truck:	-	.004	Grade Ad	iuctment	0.0		
Pa	ad Elevation:	0.0 feet			пеа	ry Truck	s. o	.004	Grade Au	usunent	0.0		
Roa	ad Elevation:	0.0 feet		L	ane Eq	uivalent	Distar	ice (in i	feet)				
F	Road Grade:	0.0%				Auto	s: 36	.452					
	Left View:	-90.0 degre	es		Mediu	m Truck	s: 36	.209					
	Right View:	90.0 degre	es		Hear	y Truck	s: 36	.232					
FHWA Noise Mode	el Calculation	s											
VehicleType	REMEL	Traffic Flow	Dis	stance	Finite	Road	Fres	nel	Barrier Att	en Ber	m Atten		
Autos:	66.51	0.30		1.96	3	-1.20		-4.63	0.0	000	0.00		
Medium Trucks:	77.72	-17.81		2.00)	-1.20		-4.87	0.0	000	0.00		
Heavy Trucks:	82.99	-18.92		1.99	9	-1.20		-5.47	0.0	000	0.00		
Unmitigated Noise	Levels (with	out Topo and	barri	er atten	uation)								
VehicleType	Leq Peak Hot	ur Leq Day	/	Leg Ev	ening/	Leq	Night		Ldn	CI	VEL		
Autos:	67	7.6	66.4		65.3		61.	.1	68.	7	69.		
Medium Trucks:	60).7	60.1		53.8		54.	.0	61.	7	61.		
Heavy Trucks:	64	1.9	64.0		60.4		58.	.5	66.	1	66.		
Vehicle Noise:	70	0.0	69.0		66.7		63.	.5	71.	1	71.		
Centerline Distanc	e to Noise C	ontour (in feet)					_					
			L	70 d		65	dBA		60 dBA		dBA		
		_	Ldn:		55		118		255		548		
	CNEL:					58 126 271				584			

Monday, July 3, 2023

	FHWA-RD	-77-108 HIGH	WAY NO	ISE F	PREDIC	TION N	IODEL ((9/12/2	2021)		
	io: E e: Calimesa B nt: s/o Sandalv						Name: lumber:		/alley North	SP	
	SPECIFIC IN	PUT DATA							EL INPUT	S	
Highway Data				S	ite Con	ditions	(Hard =	10, S	oft = 15)		
Average Daily	. ,	10,536 vehicle	S					Autos			
	Percentage:	7.70%					ucks (2	/			
	our Volume:	811 vehicles			He	avy Tru	cks (3+	Axles)	: 15		
	hicle Speed:	40 mph		ν	ehicle l	Vix					
Near/Far Lai	ne Distance:	57 feet			Veh	icleType	•	Day	Evening	Night	Daily
Site Data						,	Autos:	70.69	6 13.6%	15.8	% 97.53%
Bar	rier Height:	0.0 feet			Me	edium T	rucks:	80.39	6 4.7%	14.9	% 1.49%
Barrier Type (0-W	-	0.0			F	Heavy T	rucks:	75.99	6 8.2%	15.9	% 0.98%
Centerline Dis	st. to Barrier:	46.0 feet		N	loise Sc	urce F	levation	e (in i	foot)		
Centerline Dist.	to Observer:	46.0 feet		/*	0/36 00	Auto		.000	ccij		
Barrier Distance	to Observer:	0.0 feet			Mediu	m Truck		.297			
Observer Height (Above Pad):	5.0 feet				y Truck		.004	Grade Ad	iustme	nt: 0.0
	ad Elevation:	0.0 feet		<u> </u>		•					
	ad Elevation:	0.0 feet		L	ane Eq		t Distan		feet)		
F	Road Grade:	0.0%				Auto		.452			
	Left View:	-90.0 degree				m Truck	- 00	.209			
	Right View:	90.0 degree	S		Heav	y Truck	s: 36	.232			
FHWA Noise Mode											
VehicleType	REMEL	Traffic Flow	Distan		Finite		Fresi		Barrier Atte		erm Atten
Autos:	66.51	-2.34		1.96		-1.20		-4.63		000	0.000
Medium Trucks:	77.72	-20.51		2.00		-1.20		-4.87		000	0.000
Heavy Trucks:	82.99	-22.31		1.99		-1.20		-5.47	0.0	000	0.000
Unmitigated Noise VehicleType	Leq Peak Hou				ening	Lea	Night	1	Ldn		CNEL
Autos:	64		33.8	7	62.6	209	58.	5	66.1		66.6
Medium Trucks:	58		57.4		51.1		51.		59.0		59.2
Heavy Trucks:	61	.5	30.6		57.0		55.	1	62.7	7	63.0
Vehicle Noise:	67	.1 (36.1		63.9		60.	7	68.3	3	68.7
Centerline Distanc	e to Noise Co	ntour (in feet)									
			L	70 di		65	dBA		60 dBA		55 dBA
		-	Ldn:		35		76		164		353
		CN	IEL:		38		81		174		376

Monday, July 3, 2023

	FHWA-RI	D-77-108 HIGH	WAY	NOISE	PREDIC	TION N	IODEL	(9/12/2	021)		
Road Nan	io: 2025 NP ne: Calimesa E nt: s/o Sandal						Name: lumber:		alley North	SP	
	SPECIFIC IN	IPUT DATA			o:. o				L INPUT	s	
Highway Data					Site Con	aitions	(Hara =				
Average Daily	. ,	11,521 vehicle	es					Autos:			
Peak Hour	Percentage:	7.70%				dium Tr					
Peak F	lour Volume:	887 vehicle	S		He	avy Tru	cks (3+	Axles):	15		
Ve	hicle Speed:	40 mph		1	Vehicle i	Mix					
Near/Far La	ne Distance:	57 feet		F		icleType	,	Dav	Evenina	Niaht	Dailv
Site Data							Autos:	70.6%	13.6%	15.89	6 97.53%
Ra	rrier Height:	0.0 feet			М	edium T	rucks:	80.3%	4.7%	14.99	6 1.49%
Barrier Type (0-W		0.0				Heavy T	rucks:	75.9%	8.2%	15.99	% 0.98%
Centerline Di	st. to Barrier:	46.0 feet			Noise So	urce F	lovation	ne (in fa	not)		
Centerline Dist.	to Observer:	46.0 feet		Ľ	V0/36 30	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	livetmer	nt: 0.0
P	ad Elevation:	0.0 feet			i ica	ry IIUCK	s. o	.004	Orauc Au	gasanci	n. 0.0
Ro	ad Elevation:	0.0 feet		1	Lane Eq	uivalen	t Distan	ce (in	feet)		
	Road Grade:	0.0%				Auto	s: 36	.452			
	Left View:	-90.0 degree	es		Mediu	m Truck	s: 36	.209			
	Right View:	90.0 degree	es		Heav	y Truck	s: 36	.232			
FHWA Noise Mod	el Calculation	s									
VehicleType	REMEL	Traffic Flow	Dis	stance	Finite	Road	Fres	nel	Barrier At	ten Be	erm Atten
Autos:	66.51			1.9	-	-1.20		-4.63	0.	000	0.000
Medium Trucks:	77.72	-20.13		2.0	0	-1.20		-4.87	0.	000	0.000
Heavy Trucks:	82.99	-21.93		1.9	9	-1.20		-5.47	0.	000	0.000
Unmitigated Noise	e Levels (with	out Topo and	barrie	er atten	uation)						
VehicleType	Leq Peak Hou	ır Leq Day	/	Leq E	vening	Leq	Night		Ldn	(CNEL
Autos:	65	5.3	64.1		63.0		58.	9	66.	5	67.0
Medium Trucks:	58	3.4	57.8		51.5		51.	.7	59.	4	59.6
Heavy Trucks:	61	.9	61.0		57.4		55.	.5	63.	1	63.4
Vehicle Noise:	67	7.5	66.5		64.3		61.	.1	68.	7	69.1
Centerline Distant	ce to Noise C	ontour (in feet)								
				70 (dBA	65	dBA	6	60 dBA	5	5 dBA
			Ldn:		37		8	1	174	1	375
		C	NEL:		40		86	3	185	5	399

FHWA-F	RD-77-108 HIGH	IWAY N	OISE PREDI	CTION I	MODEL (9	/12/20	21)		
Scenario: 2025 S2 Road Name: Calimesa Road Segment: s/o Sanda					t Name: 0 lumber: 1		lley North	SP	
SITE SPECIFIC	NPUT DATA		04- 0-				INPUTS	3	
Highway Data Average Daily Traffic (Adt): Peak Hour Percentage: Peak Hour Volume: Vehicle Speed: Near/Far Lane Distance:	11,747 vehicl 7.70% 904 vehicle 40 mph 57 feet		M. H	ledium Ti leavy Tru Mix	rucks (2 A icks (3+ A	Autos: ixles): ixles):	15 15 15	AC 44 T	
Site Data	**		Ve	hicleType		Day 70.6%	Evening 13.6%	Night 15.8%	Daily 96.81%
Barrier Height: Barrier Type (0-Wall, 1-Berm):	0.0 feet 0.0		_ ′	Medium 1 Heavy 1	rucks:	70.0% 80.3% 75.9%	4.7% 8.2%	14.9% 15.9%	1.58%
Centerline Dist. to Barrier: Centerline Dist. to Observer: Barrier Distance to Observer Observer Height (Above Pad): Pad Elevation: Road Elevation:	46.0 feet 46.0 feet 0.0 feet 5.0 feet 0.0 feet 0.0 feet		Medi Hea	Auto um Truck avy Truck	s: 2.2	000 297 004	Grade Adj	ustment	0.0
Road Grade: Left View: Right View:	90.0 degre			Auto um Truck avy Truck	s: 36.2	209			
FHWA Noise Model Calculation VehicleType REMEL	ns Traffic Flow	Dista		e Road	Fresne	-1 0	Barrier Atte		m Atten
VehicleType REMEL Autos: 66.5 Medium Trucks: 77.7 Heavy Trucks: 82.9	1 -1.90 2 -19.78		1.96 2.00 1.99	-1.20 -1.20 -1.20		-4.63 -4.87 -5.47	0.0 0.0 0.0	100	0.000 0.000 0.000
Unmitigated Noise Levels (wit	hout Topo and	barrier	attenuation))					
VehicleType Leq Peak H	our Leq Da	/ L	eq Evening	Leq	Night		Ldn	CI	VEL
Medium Trucks:	65.4 68.7 64.1	64.2 58.1 63.2	63. 51. 59.	9	58.9 52.1 57.7		66.5 59.8 65.3		67.0 60.0 65.6
Vehicle Noise:	8.3	67.3	64.	9	61.9		69.5	·	69.8
Centerline Distance to Noise	Contour (in feet)	70 dBA	65	dBA	60) dBA	55	dBA
	С	Ldn: NEL:	42 45	2	91 97		196 209	30	423 450

Scenario: 2025 S1						Project N	ame: ()ak Va	alley North	SP	
Road Name: Calimesa	RI					Job Nui			incy reorar	OI .	
Road Segment: s/o Sanda		r.				000 / 10/		.0001			
SITE SPECIFIC	NPUT	DATA							L INPUT	s	
Highway Data					Site Con	ditions (F	lard =	10, So	ft = 15)		
Average Daily Traffic (Adt):	11,620) vehicle	S				/	Autos:	15		
Peak Hour Percentage:	7.70	%			Me	dium Truc	ks (2 A	xles):	15		
Peak Hour Volume:	895	vehicles			He	avy Truck	s (3+ A	xles):	15		
Vehicle Speed:		mph		١	/ehicle l	Mix					
Near/Far Lane Distance:	57	feet		F	Veh	icleType		Day	Evening	Night	Daily
Site Data						Au	tos:	70.6%	13.6%	15.8%	97.31
Barrier Height:	0.0) feet			M	edium Tru	cks:	80.3%	4.7%	14.9%	1.49
Barrier Type (0-Wall, 1-Berm):	0.0				1	Heavy Tru	cks:	75.9%	8.2%	15.9%	1.20
Centerline Dist. to Barrier:	46.0) feet		,	Voise So	ource Elev	rations	(in fe	et)		
Centerline Dist. to Observer:	46.0) feet				Autos:		000	/		
Barrier Distance to Observer:	0.0) feet			Mediu	m Trucks:		97			
Observer Height (Above Pad):) feet				v Trucks:		004	Grade Ad	iustment	0.0
Pad Elevation:) feet		L		,					
Road Elevation:	0.0) feet		L	ane Eq	uivalent E			eet)		
Road Grade:	0.0%	ó				Autos:					
Left View:	-90.0	degree	3			m Trucks:					
Right View:	90.0) degree	3		Heav	y Trucks:	36.2	232			
FHWA Noise Model Calculatio											
VehicleType REMEL	_	c Flow	Dis	tance		Road	Fresn	_	Barrier Att		m Atter
Autos: 66.5		-1.93		1.96	-	-1.20		-4.63		000	0.00
Medium Trucks: 77.7	_	-20.07		2.00	-	-1.20		-4.87		000	0.00
Heavy Trucks: 82.9		-21.03		1.99		-1.20		-5.47	0.0	000	0.00
Unmitigated Noise Levels (with VehicleType Leg Peak H		•	arrie	r atten Leg Ev		Leg N	iosht		Ldn	-	NEL
	55.3	Leq Day	4.2	Ley Ev	63.0		911L 58.9		66.5	_	VEL 67
	8.4	-	7.8		51.6		51.8		59.5	-	59
	32.8	-	1.9		58.3		56.4		64.0	-	64
· · · · · · · · · · · · · · · · · · ·	7.8		6.8		64.5		61.3		68.9		69
Centerline Distance to Noise (Contour	(in feet)									
		,		70 d	iBA	65 dE	BA	6	0 dBA	55	dBA
		,	dn:		39		84		182		39
		L	uii.		39		04		102		

Monday, July 3, 2023

FHWA-F	RD-77-108 HIGHW	AY NOIS	E PREDIC	CTION MO	DEL (9/12	2021)			
Scenario: 2028 NP				Project N	ame: Oak	Valley North	SP		
Road Name: Calimesa	BI.			Job Nun	nber: 1359	4			
Road Segment: s/o Sanda	lwood Dr.								
SITE SPECIFIC I	NPUT DATA		Site Con	NO ditions (H		EL INPUT	S		
Average Daily Traffic (Adt):	14,618 vehicles		Onto Con	u	Auto				
Peak Hour Percentage:	7.70%		Ma	dium Truci					
Peak Hour Volume:	1.126 vehicles			avy Trucks					
Vehicle Speed:	40 mph			•	7 (0 - 7 151100	y. 10			
Near/Far Lane Distance:	57 feet		Vehicle I		1				
	37 1001		Veh	icleType	Day	Evening	Night	Daily	
Site Data					tos: 70.6		15.8%		
Barrier Height:	0.0 feet			edium Truc			14.9%		
Barrier Type (0-Wall, 1-Berm):	0.0		1	Heavy Truc	ks: 75.9	% 8.2%	15.9%	0.98%	
Centerline Dist. to Barrier:	46.0 feet		Noise So	ource Elev	ations (in	feet)			
Centerline Dist. to Observer:	46.0 feet			Autos:	0.000	,			
Barrier Distance to Observer:	0.0 feet		Medium Trucks: 2.297						
Observer Height (Above Pad):	5.0 feet			y Trucks:	8.004	Grade Ad	iustment	0.0	
Pad Elevation:	0.0 feet			•					
Road Elevation:	0.0 feet		Lane Eq	uivalent D		ı feet)			
Road Grade:	0.0%			Autos:	36.452				
Left View:	-90.0 degrees			m Trucks:	36.209				
Right View:	90.0 degrees		Heav	y Trucks:	36.232				
FHWA Noise Model Calculatio									
VehicleType REMEL	Traffic Flow	Distance		Road	Fresnel	Barrier Att		m Atten	
Autos: 66.5			.96	-1.20	-4.6	-	000	0.000	
Medium Trucks: 77.7			.00	-1.20	-4.8		000	0.000	
Heavy Trucks: 82.9			.99	-1.20	-5.4	7 0.0	000	0.000	
Unmitigated Noise Levels (wit				1 15		1 -1		NEL	
VehicleType Leq Peak Ho		Leq	Evening 64.0	Leq Ni	59.9	Ldn 67.		VEL 68.0	
		5.2 3.8	52.5		52.8	60.	-	60.6	
		2.0	52.5 58.4		56.5	64.	-	64.4	
		1.0	30.4						
Heavy Trucks:		7.5	65.3		62.1	69.	7	70.1	
Heavy Trucks:	88.5 67	7.5	65.3		62.1	69.	/	70.1	
Heavy Trucks: 6	88.5 67		65.3 0 dBA	65 dB		69. 60 dBA		70.1	
Heavy Trucks: 6	88.5 67 Contour (in feet)						55		

Monday, July 3, 2023

	FHWA-R	D-77-108 HIGH	IWAY	NOISE	PREDIC	TION N	IODEL (9/12/20	021)		
Road Nam	io: 2028 S1 ne: Calimesa E nt: s/o Sandal						Name: lumber:		alley North	SP	
SITE	SPECIFIC II	IPUT DATA				1	IOISE	MODE	L INPUT	s	
Highway Data					Site Con	ditions	(Hard =	10, Sc	oft = 15)		
Average Daily	Traffic (Adt):	14,867 vehicl	es					Autos:	15		
Peak Hour	Percentage:	7.70%			Me	dium Tr	ucks (2	Axles):	15		
Peak H	lour Volume:	1,145 vehicle	s		He	avy Tru	cks (3+)	Axles):	15		
Ve	hicle Speed:	40 mph		-	Vehicle i	Miv					
Near/Far La	ne Distance:	57 feet		H		icleType		Dav	Evening	Night	Dailv
Site Data							Autos:	70.6%	-	15.8%	. ,
	rrier Height:	0.0 feet			М	edium T	rucks:	80.3%	4.7%	14.9%	1.48%
Barrier Type (0-W		0.0				Heavy T	rucks:	75.9%	8.2%	15.9%	1.14%
Centerline Di		46.0 feet		L							
Centerline Dist		46.0 feet			Noise So				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			Heav	y Truck	s: 8.	004	Grade Ad	ustment	0.0
Ro	ad Elevation:	0.0 feet		1	Lane Eq	uivalen	t Distan	ce (in i	feet)		
	Road Grade:	0.0%				Auto	s: 36.	452			
	Left View:	-90.0 degre	es		Mediu	m Truck	s: 36.	209			
	Right View:	90.0 degre	es		Heav	y Truck	s: 36	232			
FHWA Noise Mode	el Calculation	ıs									
VehicleType	REMEL	Traffic Flow	Dis	stance		Road	Fresi	_	Barrier Att		m Atten
Autos:	66.51			1.9	-	-1.20		-4.63		000	0.00
Medium Trucks:				2.0		-1.20		-4.87		000	0.00
Heavy Trucks:				1.9		-1.20		-5.47	0.0	000	0.00
Unmitigated Noise								_			
VehicleType	Leq Peak Ho			Leq E	vening		Night		Ldn	_	NEL
Autos:		3.4	65.2		64.1		60.	-	67.6	-	68.
Medium Trucks:		9.5	58.9		52.6		52.	-	60.	-	60.
Heavy Trucks: Vehicle Noise:		3.6	62.8		59.1 65.5		57.: 62.:		64.8 70.0		65. 70.
Centerline Distant					00.0		02.		70.		70.
centernine Distant	te to Noise C	untour (in reet	,	70 (dBA	65	dBA	6	0 dBA	55	dBA
			Ldn:		46		98		212		457
	CNEL:				49 105 225				486		

	FHWA-R	D-77-	108 HIGH	WAY	NOISE	PREDIC	CTION	MODEL	(9/12/2	021)		
	o: HY NP									alley North	SP	
	e: Calimesa B						Job I	Number.	13594			
Road Segmen	t: s/o Sandal	wood	Dr.									
SITE S Highway Data	SPECIFIC II	NPU'	T DATA			Cita Car				L INPUT oft = 15)	S	
· ·						Site Coi	luluons	паги				
Average Daily	. ,	. , .	558 vehicle	es					Autos			
	Percentage:		70%				edium T		,			
	our Volume:	, -	33 vehicles	5		H	eavy Tru	ICKS (3+	Axies).	15		
	nicle Speed:		10 mph		1	Vehicle	Mix					
Near/Far Lar	ie Distance:		7 feet			Veh	nicleTyp	е	Day	Evening	Night	Daily
Site Data								Autos:	70.6%	13.6%	15.8%	97.53%
Bar	rier Heiaht:		0.0 feet			M	ledium 1	Trucks:	80.3%	4.7%	14.9%	1.49%
Barrier Type (0-Wa			0.0				Heavy 1	Trucks:	75.9%	8.2%	15.9%	0.989
Centerline Dis			6.0 feet		1	Noise S	ource E	levatio	ns (in f	eet)		
Centerline Dist. t			6.0 feet				Auto	os: (0.000			
Barrier Distance t			0.0 feet			Mediu	ım Truci	ks: 2	2.297			
Observer Height (,		5.0 feet			Hea	vy Truci	ks: 8	3.004	Grade Ad	justment	0.0
	d Elevation:		0.0 feet		<u> </u>							
	d Elevation:		0.0 feet			Lane Eq				reet)		
F	Road Grade:		0%				Auto		6.452			
	Left View:		0.0 degree				ım Truci	0	6.209			
	Right View:	9	0.0 degree	es		неа	vy Truci	KS: 31	6.232			
FHWA Noise Mode		_										
VehicleType	REMEL		ffic Flow	Di	stance		Road	Fres		Barrier Att		m Atten
Autos:	66.51		0.56		1.9	-	-1.20		-4.63		000	0.00
Medium Trucks:	77.72		-17.61		2.0		-1.20		-4.87		000	0.00
Heavy Trucks:	82.99		-19.41		1.9		-1.20		-5.47	0.0	000	0.00
Unmitigated Noise									_			
	Leq Peak Ho		Leq Day		Leq E	vening		Night		Ldn		NEL
Autos:	-	7.8		66.7		65.5		61		69.0	-	69.
Medium Trucks:	-	0.9		60.3		54.0		54		61.9	-	62.
Heavy Trucks:		1.4		63.5 69.0		59.9 66.8		58 63		65.6 71.3		65. 71.
						00.8	,	63	0.0	/1.		71.
Centerline Distanc	e to Noise C	onto	ur (in feet))	70.	dBA	66	dBA	1	60 dBA	55	dBA
				Ldn:	700	льм 55		11		256		0DA 551
				VEL:		59		12		272		587
			Ci	•		33		12		212		301

	o: 2028 S2 e: Calimesa Bl							: Oak Va : 13594	alley North	SP	
	PECIFIC IN					_	MOISE	MODE	L INPUT	e	
Highway Data	T LOII IO III	OI DAIA			Site Con						
Average Daily 1	raffic (Adt):	14,949 vehicles	8					Autos:	15		
Peak Hour F	Percentage:	7.70%			Me	dium Ti	rucks (2	2 Axles):	15		
Peak Ho	our Volume:	1,151 vehicles			He	avy Tru	icks (3+	Axles):	15		
Veh	icle Speed:	40 mph		١,	Vehicle I	Aire					
Near/Far Lan	e Distance:	57 feet		F		icleTypi		Dav	Evenina	Night	Dailv
Site Data					VCIII		Autos:	70.6%		,	97.29
	rier Heiaht:	0.0 feet			Me	edium 7		80.3%		14.9%	
Barrier Type (0-Wa		0.0 feet			F	leavy 7	rucks:	75.9%	8.2%	15.9%	1.219
Centerline Dis	. ,	46.0 feet									
Centerline Dist. to		46.0 feet		1	Noise So			_ •	eet)		
Barrier Distance to		0.0 feet				Auto		0.000			
Observer Height (A		5.0 feet				n Truck		2.297			
	d Elevation:	0.0 feet			Heav	y Truck	(S.	8.004	Grade Ad	iustment.	: 0.0
	d Elevation:	0.0 feet		1	Lane Equ	ıivalen	t Dista	nce (in i	feet)		
	oad Grade:	0.0%		F		Auto	os: 3	6.452	,		
	Left View:	-90.0 degrees	3		Mediur	n Truck	(s: 3	6.209			
	Right View:	90.0 degrees			Heav	y Truck	(s: 3	6.232			
FHWA Noise Mode	l Calculations										
VehicleType	REMEL	Traffic Flow	Dist	tance	Finite	Road	Fre	snel	Barrier Att	en Ber	m Atten
Autos:	66.51	-0.83		1.9	6	-1.20		-4.63	0.0	000	0.00
Medium Trucks:	77.72	-18.95		2.00	0	-1.20		-4.87	0.0	000	0.00
Heavy Trucks:	82.99	-19.88		1.99	9	-1.20		-5.47	0.0	000	0.00
Unmitigated Noise	Levels (witho	ut Topo and b	arrie	r atten	uation)						
VehicleType I	Leq Peak Houi	Leq Day		Leg Ev	vening	Leq	Night		Ldn	CI	NEL
Autos:	66.	4 6	5.3		64.1		60	0.0	67.0	3	68
Medium Trucks:	59.	6 5	9.0		52.7		52	2.9	60.0	3	60
Heavy Trucks:	63.	-	3.1		59.4			7.5	65.		65
Vehicle Noise:	68.	9 6	7.9		65.6		62	2.5	70.	1	70
Centerline Distance	e to Noise Co	ntour (in feet)									
			, L	70 c		65	dBA	_	60 dBA		dBA
		_	.dn:		46		10		216		46
	CNEL:					49 106 229			49		

Monday, July 3, 2023

	FHWA-RD	-77-108 HIGH	WAY NO	ISE P	REDIC	TION N	IODEL ((9/12/2	2021)		
Scenario Road Name Road Segment	: Calimesa B						Name: lumber:		/alley North	SP	
	PECIFIC IN	PUT DATA							EL INPUT	S	
Highway Data				Sit	te Con	ditions	(Hard =	10, S	oft = 15)		
Average Daily T		20,807 vehicle	S					Autos			
Peak Hour F	-	7.70%					ucks (2	/			
	ur Volume:	1,602 vehicles			He	avy Tru	cks (3+	Axles)	: 15		
	icle Speed:	40 mph		Ve	hicle l	Vix					
Near/Far Lan	e Distance:	57 feet			Veh	icleType	•	Day	Evening	Night	Daily
Site Data						,	Autos:	70.69	% 13.6%	15.8	% 97.43%
Barr	ier Height:	0.0 feet			Me	edium T	rucks:	80.39	% 4.7%	14.9	% 1.48%
Barrier Type (0-Wa	-	0.0			F	Heavy T	rucks:	75.99	% 8.2%	15.9	% 1.10%
Centerline Dist	to Barrier:	46.0 feet		No	nise Sc	ource Fl	levation	s (in i	feet)		
Centerline Dist. to	Observer:	46.0 feet			,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	Auto		.000	000		
Barrier Distance to	Observer:	0.0 feet			Mediu	m Truck		.297			
Observer Height (A	lbove Pad):	5.0 feet				y Truck		.004	Grade Ad	ustme	nt: 0.0
	d Elevation:	0.0 feet				•					
	d Elevation:	0.0 feet		La	ne Eq		t Distan		feet)		
R	oad Grade:	0.0%				Auto		.452			
	Left View:	-90.0 degree				m Truck	- 00	.209			
	Right View:	90.0 degree	S		Heav	y Truck	s: 36	.232			
FHWA Noise Model	Calculations										
VehicleType	REMEL	Traffic Flow	Distan		Finite		Fresi		Barrier Atte		erm Atten
Autos:	66.51	0.61		1.96		-1.20		-4.63		000	0.000
Medium Trucks:	77.72	-17.58		2.00		-1.20		-4.87		000	0.000
Heavy Trucks:	82.99	-18.88		1.99		-1.20		-5.47	0.0	000	0.000
Unmitigated Noise			_			10-	Nicolat	1	l do		CNE
VehicleType L Autos:	eq Peak Hou. 67.		6.7	q Eve	ning 65.6	Leq	Night 61.	_	Ldn 69.0		CNEL 69.5
Medium Trucks:	60.	-	30.3		54.1		54.		62.0		62.2
Heavy Trucks:	64	-	34.1		60.4		58.	-	66.1		66.4
Vehicle Noise:	70.		9.2		67.0		63.	-	71.4		71.8
Centerline Distance	to Noise Co	ntour (in feet)									
				70 dB	BA .	65	dBA		60 dBA	5	5 dBA
		I.	.dn:		57		122	2	263		567
		CV	IEL:	60 130 280			603				

Monday, July 3, 2023

	FHWA-RI	D-77-108 HIGH	WAY	NOISE	PREDIC	CTION N	IODEL	(9/12/2	021)		
Road Nam	io: HY S2 ne: Calimesa E nt: s/o Sandal						Name: lumber:		alley North	SP	
	SPECIFIC IN	IPUT DATA			a:: a				L INPUT	s	
Highway Data					Site Cor	ditions	(Hard =	= 10, Sc	oft = 15)		
Average Daily	Traffic (Adt):	20,889 vehicle	es					Autos:			
Peak Hour	Percentage:	7.70%				edium Tr					
Peak H	lour Volume:	1,608 vehicle	S		He	eavy Tru	cks (3+	Axles):	15		
Ve	hicle Speed:	40 mph		H	Vehicle	Mix					
Near/Far La	ne Distance:	57 feet		H	VehicleType Day Evening Night D						
Site Data							Autos:	70.6%	13.6%	15.8%	97.36%
Ra	rrier Height:	0.0 feet			М	edium T	rucks:	80.3%	4.7%	14.9%	1.50%
Barrier Type (0-W		0.0				Heavy T	rucks:	75.9%	8.2%	15.9%	1.15%
Centerline Di	st. to Barrier:	46.0 feet			Noise S	ource Fl	ovation	ne (in fa	not)		
Centerline Dist.	to Observer:	46.0 feet		· F	110/36 01	Auto		.000	,		
Barrier Distance	to Observer:	0.0 feet			Modiu	m Truck		.297			
Observer Height	(Above Pad):	5.0 feet				vy Truck		.004	Grade Ad	liustman	t: 0.0
P	ad Elevation:	0.0 feet			rica	vy IIuck	3. 0	.004	Orace Au	justinen	i. 0.0
Ro	ad Elevation:	0.0 feet			Lane Eq	uivalent	Distar	ice (in i	feet)		
	Road Grade:	0.0%				Auto	s: 36	.452			
	Left View:	-90.0 degree	es		Mediu	m Truck	s: 36	.209			
	Right View:	90.0 degree	es		Hea	vy Truck	s: 36	.232			
FHWA Noise Mode	el Calculation	s									
VehicleType	REMEL	Traffic Flow	Dis	stance	Finite	Road	Fres	nel	Barrier Att	en Be	rm Atten
Autos:	66.51			1.9	-	-1.20		-4.63	0.0	000	0.000
Medium Trucks:	77.72	-17.51		2.0	0	-1.20		-4.87	0.0	000	0.000
Heavy Trucks:	82.99	-18.66		1.9	9	-1.20		-5.47	0.0	000	0.000
Unmitigated Noise	e Levels (with	out Topo and	barrie	er atten	uation)						
VehicleType	Leq Peak Hou	ır Leq Day	/	Leq E	vening	Leq	Night		Ldn	C	NEL
Autos:	67		66.7		65.6		61.	-	69.		69.6
Medium Trucks:	61	.0	60.4		54.1		54.	-	62.	0	62.2
Heavy Trucks:			64.3		60.6		58.		66.	-	66.6
Vehicle Noise:	70).3	69.3		67.0		63.	.8	71.	4	71.8
Centerline Distant	ce to Noise Co	ontour (in feet,)								
				70	dBA	65	dBA	(60 dBA	55	5 dBA
			Ldn:		57		124	4	266	6	574
		C	NEL:		61		132	2	283	3	611

	FHWA-RI	0-77-108 HIG	HWAY	NOISE	PREDIC	TION N	MODEL	(9/12/20	021)		
Scenari									alley North	SP	
	e: Calimesa B					Job N	lumber:	13594			
Road Segmen	t: n/o Singleto	on Rd.									
	SPECIFIC IN	IPUT DATA							L INPUT	S	
Highway Data				S	ite Cor	ditions	(Hard	= 10, So			
Average Daily	Traffic (Adt):	5,099 vehic	les					Autos:	15		
Peak Hour	Percentage:	7.70%						Axles):	15		
Peak H	our Volume:	393 vehicle	es		He	avy Tru	icks (3+	Axles):	15		
	nicle Speed:	40 mph		ν	ehicle	Mix					
Near/Far Lar	ne Distance:	57 feet			Veh	icleType	9	Day	Evening	Night	Daily
Site Data					Autos: 70.6% 13.6% 15.8% !						97.539
Bar	rier Height:	0.0 feet			Medium Trucks: 80.3% 4.7% 14.9% 1.4						
Barrier Type (0-W		0.0				Heavy T	rucks:	75.9%	8.2%	15.9%	0.989
Centerline Dis	t. to Barrier:	46.0 feet		۸	loise S	ource E	levatio	ns (in fe	et)		
Centerline Dist. t	o Observer:	46.0 feet				Auto		0.000	.,		
Barrier Distance t	o Observer:	0.0 feet			Mediu	m Truck		2.297			
Observer Height (Above Pad):	5.0 feet				/y Truck		3.004	Grade Ad	iustment.	0.0
Pa	d Elevation:	0.0 feet				•					
	d Elevation:	0.0 feet		L	ane Eq			nce (in f	eet)		
F	Road Grade:	0.0%				Auto		5.452			
	Left View:	-90.0 degre	ees			m Truck	-	3.209			
	Right View:	90.0 degre	ees		Heavy Trucks: 36.232						
FHWA Noise Mode	l Calculation			-							
VehicleType	REMEL	Traffic Flow	_	stance		Road	Fres		Barrier Att		m Atten
Autos:	66.51	-5.49	-	1.96		-1.20		-4.63		000	0.00
Medium Trucks:	77.72	-23.67		2.00		-1.20		-4.87		000	0.00
Heavy Trucks:	82.99	-25.47		1.99		-1.20		-5.47	0.0	000	0.00
Unmitigated Noise								_			
VehicleType Autos:	Leq Peak Hou 61		60.6	Leq Ev	ening 59.5		Night 55		Ldn 62.9		VEL 63.
Medium Trucks:	54		54.2		48.0		55 48		55.9		56.
Heavy Trucks:	54 58		57.5					-	59.5		59.
Vehicle Noise:	64		63.0							65	
					00.0		- 01	.0	00.		00.
Centerline Distanc	e to Noise Co	ontour (in fee	et)	70 d	BA	65	dBA	6	0 dBA	55	dBA
			Ldn:		22				101		218
					22 47 101 : 23 50 108						

Scenario: HY S3					Project N	ame: O	ak Ma	illey North	SD	
Road Name: Calimesa	. DI				Job Nur			illey North	or.	
					JOD IVUI	iibei. It	0004			
	Road Segment: sio Sandalwood Dr. SITE SPECIFIC INPUT DATA hway Data Average Daily Traffic (Adt): 20,680 vehicles Peak Hour Percentage: 7.70% Peak Hour Volume: 1,592 vehicles Vehicle Speed: 40 mph Near/Far Lane Distance: 57 feet Data Barrier Height: 0.0 feet rrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 46.0 feet Centerline Dist. to Observer: 46.0 feet arrier Distance to Observer: 0.0 feet Seserver 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						ODE	L INPUT	s	
Highway Data			s	ite Con	ditions (H					
Average Daily Traffic (Adt):	20,680 ve	hicles				A	utos:	15		
Peak Hour Percentage:	7.70%			Med	dium Truc	ks (2 Ax	des):	15		
Peak Hour Volume:	1,592 veh	icles		He	avy Truck	s (3+ A)	des):	15		
Vehicle Speed:	40 mpl	h	1/	ehicle N	Niv					
Near/Far Lane Distance:	57 feet	t	-		cleType	D	ay	Evening	Night	Daily
Site Data				Autos: 70.6% 13.6% 15.8% 9						
Barrier Height:	0.0 fee	et		Ме	edium Tru	cks: 8	0.3%	4.7%	14.9%	1.48
Barrier Type (0-Wall, 1-Berm).				F	leavy Tru	cks: 7	5.9%	8.2%	15.9%	0.99
Centerline Dist. to Barrier.	46.0 fee	et		Inisa Sn	urce Elev	rations	(in fo	of)		
Centerline Dist. to Observer.	46.0 fee	et		10/36 00	Autos:			Ci)		
Barrier Distance to Observer.	0.0 fee	et		Mediur	n Trucks:					
Observer Height (Above Pad).					v Trucks:	8.00		Grade Ad	iustment	0.0
					,					
		et	L	ane Equ	ıivalent D		•	eet)		
					Autos:					
		•			n Trucks:					
Right View.	90.0 de	grees		Heav	y Trucks:	36.23	32			
HWA Noise Model Calculation	ons									
VehicleType REMEL	Traffic Flo	_	stance	Finite		Fresne	_	Barrier Att		m Atter
Autos: 66.5		.59	1.96		-1.20		4.63		000	0.0
Medium Trucks: 77.7		.61	2.00		-1.20		4.87		000	0.00
Heavy Trucks: 82.9		.33	1.99		-1.20		5.47	0.0	000	0.00
Inmitigated Noise Levels (wi										
VehicleType Leq Peak H			Leq Ev	_	Leq Ni	_		Ldn	_	NEL
	67.9	66.7		65.6		61.4		69.0	-	69
	60.9	60.3		54.0		54.2		61.9	-	62
	64.5	63.6		60.0		58.1		65.6		66
Vehicle Noise:	70.1	69.0		66.8		63.6		71.2	2	71
	Contour (in t	feet)								
Centerline Distance to Noise		- 1	70 -	DA.	CE -IF					
Centerline Distance to Noise	(Ldn:	70 d	<i>BA</i> 55	65 dE	3A 119	6	0 dBA 257		dBA 55

Monday, July 3, 2023

	FHWA-RD	-77-108 HIGH	WAY N	OISE	PREDIC	TION M	ODEL	(9/12/2	(021)		
Road Nar	rio: 2025 NP ne: Calimesa Bl ent: n/o Singleto							Oak V 13594	alley North	SP	
SITE Highway Data	SPECIFIC IN	PUT DATA			ito Con	N ditions (EL INPUT	s	
Average Daily Peak Houi Peak I	r Percentage: Hour Volume: ehicle Speed:	5,781 vehicle 7.70% 445 vehicles 40 mph			Ме	dium Tru avy Truc	ıcks (2	Autos Axles)	: 15 : 15		
Near/Far La	ane Distance:	57 feet			Veh	icleType		Day	Evening	Night	Daily
Site Data Ba Barrier Type (0-V	arrier Height: Wall, 1-Berm):	0.0 feet 0.0				A edium Tr Heavy Tr		70.6% 80.3% 75.9%	6 4.7%		1.49%
Centerline D	ist. to Barrier:	46.0 feet			Inisa Sr	ource Ele	ovatio	ne (in f	oot)		
Barrier Distance Observer Height	Centerline Dist. to Observer: 46.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet				Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.004 Grade Adjustment: 0.0						
Ro	ad Elevation:	0.0 feet		L	ane Eq	uivalent	Distai	nce (in	feet)		
	Road Grade: Left View: Right View:	0.0% -90.0 degree 90.0 degree				Autos m Trucks vy Trucks	36	6.452 6.209 6.232			
FHWA Noise Mod	lel Calculations	·									
VehicleType	REMEL	Traffic Flow	Dista	nce	Finite	Road	Fres	nel	Barrier Att	ten Be	rm Atten
Autos	66.51	-4.95		1.96	6	-1.20		-4.63	0.	000	0.000
Medium Trucks:	77.72	-23.12		2.00)	-1.20		-4.87	0.	000	0.000
Heavy Trucks:	82.99	-24.92		1.99)	-1.20		-5.47	0.	000	0.000
Unmitigated Nois	e Levels (witho	out Topo and I	barrier a	attenı	uation)						
VehicleType	Leq Peak Hou			.eq Ev		Leq I			Ldn		NEL
Autos:			61.1		60.0 48.5		55		63.	-	64.0
	Medium Trucks: 55.4 54.8						48		56.		56.6
Heavy Trucks: Vehicle Noise:			58.0 63.5		54.4 61.3		52 58		60. 65.		60.4
Centerline Distan	re to Noise Co	ntour (in feet)	1								
Contenine Distan	00 10 110/30 00	mour (III leet)		70 d	BA	65 (dBA		60 dBA	55	dBA
			Ldn:		24		5	1	110)	237
		CN	VEL:		25		5	4	117	7	252

Monday, July 3, 2023

	FHWA-R	D-77-108 HIGH	IWAY	NOIS	E PREDIC	TION N	IODEL	(9/12/2	021)				
Road Na	ario: 2025 S1 me: Calimesa E ent: n/o Singlet						t Name: lumber:		alley North	SP			
	SPECIFIC II	NPUT DATA			0:: 0				L INPUT	S			
Highway Data					Site Conditions (Hard = 10, Soft = 15)								
	y Traffic (Adt):	5,880 vehicle	es					Autos:					
	ır Percentage:	7.70%				dium Tr		,					
	Hour Volume:	453 vehicle	S		He	avy Tru	cks (3+	Axles).	15				
	ehicle Speed:	40 mph			Vehicle I	Mix							
Near/Far L	ane Distance:	57 feet			VehicleType Day Evening Night D								
Site Data							Autos:	70.6%	-	15.8%	97.09%		
	arrier Height:	0.0 feet			М	edium T	rucks:	80.3%	6 4.7%	14.9%	1.50%		
Barrier Type (0-		0.0				Heavy T	rucks:	75.9%	8.2%	15.9%	1.41%		
** '	Dist. to Barrier:	46.0 feet											
Centerline Dis		46.0 feet			Noise So			_ •	eet)				
Barrier Distanc		0.0 feet				Auto m Truck		.000					
	Observer Height (Above Pad): 5.0 feet							.297					
	Pad Elevation:	0.0 feet			Heav	y Truck	:s: 8	.004	Grade Ad	justmen	t: 0.0		
	oad Elevation:	0.0 feet			Lane Eq	uivalen	t Distar	ce (in	feet)				
	Road Grade:	0.0%			,	Auto		.452	,				
	Left View:	-90.0 degre	es		Mediu	m Truck	s: 36	.209					
	Right View:	90.0 degre			Heav	y Truck	s: 36	.232					
FHWA Noise Mo	del Calculation	s											
VehicleType	REMEL	Traffic Flow	Dis	stance	Finite	Road	Fres	nel	Barrier Att	en Be	rm Atten		
Autos	66.51	-4.90		1.9	96	-1.20		-4.63	0.0	000	0.000		
Medium Trucks	s: 77.72	-23.01		2.	00	-1.20		-4.87	0.0	000	0.000		
Heavy Trucks	82.99	-23.28		1.9	99	-1.20		-5.47	0.0	000	0.000		
Unmitigated Nois	se Levels (with	out Topo and	barri	er atte	nuation)								
VehicleType	Leq Peak Ho	ur Leq Day	/	Leq E	vening	Leq	Night		Ldn	C	NEL		
Autos	. 01	2.4	61.2		60.1		55.	9	63.	5	64.0		
Medium Trucks	5: 55	5.5	54.9		48.6		48.	8	56.	5	56.7		
Heavy Trucks	60	0.5	59.7		56.0		54.	1	61.	7	62.0		
Vehicle Noise	e: 65	5.1	64.1		61.7		58.	6	66.2	2	66.6		
Centerline Distar	nce to Noise C	ontour (in feet)										
			I	70	dBA	65	dBA		60 dBA	55	dBA		
			Ldn:		26		56	3	120	1	258		
		C	NEL:		27 59 127				274				

Scenario													
									alley North	SP			
	: Calimesa B					Job №	lumber.	13594					
Road Segment	r n/o Singleto	n Rd.											
	PECIFIC IN	PUT DATA							L INPUT	S			
Highway Data				S	ite Con	ditions	(Hard		oft = 15)				
Average Daily T	raffic (Adt):	8,750 vehicl	es		Autos: 15								
Peak Hour F	Percentage:	7.70%						Axles):					
Peak Ho	ur Volume:	674 vehicle	:S		He	avy Tru	cks (3+	Axles):	15				
	icle Speed:	40 mph		ν	ehicle l	Mix							
Near/Far Lan	e Distance:	57 feet			Veh	icleType	•	Day	Evening	Night	Daily		
Site Data					Autos: 70.6% 13.6% 15.8% 9						97.539		
Barr	ier Height:	0.0 feet			Medium Trucks: 80.3% 4.7% 14.9% 1.49								
Barrier Type (0-Wa		0.0			1	Heavy T	rucks:	75.9%	8.2%	15.9%	0.98%		
Centerline Dist	to Barrier:	46.0 feet		N	loise So	urce F	levatio	ns (in fe	et)				
Centerline Dist. to	Observer:	46.0 feet			.0.00 00	Auto		0.000	,00,				
Barrier Distance to	Observer:	0.0 feet			Modiu	m Truck	(2.297					
Observer Height (A	lbove Pad):	5.0 feet				y Truck		3.004	Grade Ad	iustment	0.0		
Pad	d Elevation:	0.0 feet								,			
Road	d Elevation:	0.0 feet		L	ane Eq			nce (in 1	feet)				
R	oad Grade:	0.0%				Auto		5.452					
	Left View:	-90.0 degre	es			m Truck	0	5.209					
	Right View:	90.0 degre	es		Heav	ry Truck	s: 36	5.232					
FHWA Noise Model	Calculations	5											
VehicleType	REMEL	Traffic Flow	Dis	stance	Finite	Road	Fres	snel	Barrier Att	en Bei	m Atten		
Autos:	66.51	-3.15		1.96		-1.20		-4.63		000	0.00		
Medium Trucks:	77.72	-21.32		2.00		-1.20		-4.87		000	0.00		
Heavy Trucks:	82.99	-23.12		1.99	9	-1.20		-5.47	0.0	000	0.00		
Unmitigated Noise										,			
	.eq Peak Hou			Leq Ev		Leq	Night		Ldn		NEL		
Autos:	64		62.9		61.8		57		65.3	-	65.		
Medium Trucks:	57.	_	56.6		50.3		50		58.2	_	58.		
Heavy Trucks:	60.		59.8		56.2		54		61.9	-	62.		
Vehicle Noise:	66	.3	65.3		63.1		59	.9	67.	5	67.		
Centerline Distance	to Noise Co	ntour (in feet	t)	70.		0.5	10.4						
				70 d	ВА	65	dBA	6	i0 dBA	55	dBA		
			Ldn:		31		6	7	145		312		

					Drainat *	lama: 1	Sale 17-	llov North	en.	
								illey North	SP	
	4				JOD IVUI	iibei.	13394			
FHWA-RD-77-108 HIGHWAY Scenario: 2025 S2 Road Name: Calimesa BI. Road Segment: n/o Singleton Rd. SITE SPECIFIC INPUT DATA hway Data Average Daily Traffic (Adt): 6,007 vehicles Peak Hour Percentage: 7.70% Peak Hour Volume: 463 vehicles Vehicle Speed: 40 mph Near/Far Lane Distance: 57 feet Data Barrier Height: 0.0 feet arrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 46.0 feet Centerline Dist. to Observer: 46.0 feet Distance to Observer: 46.0 feet Distance to Observer: 0.0 feet Distance to Observer: 0.0 feet Distance to Observer: 0.0 feet Road Elevation: 0.0 feet Road Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: 90.0 degrees Right View: 90.0 degrees Right View: 90.0 degrees WAN Noise Model Calculations WAN Noise Model Calculations					NC	ISE N	IODE	INDIT	e .	
INFO	IDAIA		5	Site Con					<u> </u>	
): 6,0	07 vehicles	3				,	Autos:	15		
: 7.7	70%			Ме	dium Truc	ks (2 A	xles):	15		
e: 46	3 vehicles			He	avy Truck	s (3+ A	xles):	15		
f: 4	10 mph		,	/ahicla l	Miv					
e: 5	57 feet					Т.	Dav	Evenina	Night	Daily
				Autos: 70.6% 13.6% 15.8%						,
t: (0.0 feet			Me	edium Tru	cks:	80.3%	4.7%	14.9%	1.67
				F	leavy Tru	cks:	75.9%	8.2%	15.9%	2.20
r: 4	6.0 feet			Voice Se	urco Elo	rations	(in fo	of)		
r: 4	6.0 feet			voise sc			•	ei)		
r: I	0.0 feet			Modiu						
): !	5.0 feet							Grade Ad	iustment	. 0 0
): (0.0 feet		L		,				doumont	0.0
r: (0.0 feet		L	ane Eq	uivalent E	Distanc	e (in f	eet)		
e: 0.0	0%									
/: -91	0.0 degrees	3								
/: 91	0.0 degrees	3		Heav	y Trucks:	36.2	232			
ons										
Tra	ffic Flow	Dist	ance	Finite	Road	Fresn	el .	Barrier Att	en Ber	m Atter
				-						0.0
				-						0.0
99	-21.24		1.99	9	-1.20		-5.47	0.0	000	0.0
	•	arrie								
			Leq Ev	_	Leq N	-			_	NEL
	-								-	64
	-									57
										64
66.0	6	5.0		62.4		59.5		67.	1	67
Conto	ur (in feet)		70	10.4						10.4
		- 1	/U d	IBA	65 dE	5A	6	0 dBA	55	dBA
		dn:		30		64		137		29
	t:	a BL. leton Rd. leton Rd. liNPUT DATA : 6,007 vehicles : 7.70% : 463 vehicles : 463 vehicles : 460 reet : 0.0 feet :	a BI. iletion Rd. iletion Rd.	a BI. eton Rd. Eton DATA	a BI. leton Rd. Site Con Con Con Con Con Con	Table	A BI	A B Job Number: 13594 Internal Job Number: 13594 Int	A B B	A B B

Monday, July 3, 2023

	FHWA-RD	-77-108 HIGH	WAY NO	ISE PR	EDIC	TION MC	DDEL (9/12/2	021)		
Scenario	o: 2028 S1					Project N	Vame:	Oak V	alley North	SP	
	e: Calimesa Bl					Job Nu	mber:	13594			
Road Segmen	t: n/o Singleto	n Rd.									
	SPECIFIC IN	PUT DATA		0.1					L INPUT	S	
Highway Data				Site	Con	ditions (l					
Average Daily	. ,	8,999 vehicle	:S					Autos:			
Peak Hour I	-	7.70%				dium Truc					
	our Volume:	693 vehicles	5		He	avy Truck	ks (3+	Axles):	15		
Vel	nicle Speed:	40 mph		Veh	icle I	Nix					
Near/Far Lar	ne Distance:	57 feet				cleType		Day	Evening	Night	Daily
Site Data						AL	utos:	70.6%	13.6%	15.8%	97.29%
Rar	rier Heiaht:	0.0 feet			Me	edium Tru	icks:	80.3%	4.7%	14.9%	1.479
Barrier Type (0-Wa		0.0			F	leavy Tru	icks:	75.9%	8.2%	15.9%	1.249
Centerline Dis		46.0 feet		Mari	0-		4!	- /:- #	41		
Centerline Dist. t	o Observer:	46.0 feet		NOIS	se 50	urce Ele			eet)		
Barrier Distance t	o Observer:	0.0 feet				Autos:		.000			
Observer Height (Above Pad):	5.0 feet				n Trucks:		.297		. ,	
	d Elevation:	0.0 feet			Heav	y Trucks:	8	.004	Grade Ad	yustmen	t: 0.0
Roa	d Elevation:	0.0 feet		Lan	e Equ	uivalent l	Distan	ce (in	feet)		
F	Road Grade:	0.0%				Autos:	36	.452			
	Left View:	-90.0 degree	es.	N	lediur	n Trucks:	36	.209			
	Right View:	90.0 degree			Heav	y Trucks:	36	.232			
FHWA Noise Mode	I Calculations										
VehicleType	REMEL	Traffic Flow	Distan		inite	Road	Fresi		Barrier Att		rm Atten
Autos:	66.51	-3.04		1.96		-1.20		-4.63		000	0.00
Medium Trucks:	77.72	-21.25		2.00		-1.20		-4.87		000	0.00
Heavy Trucks:	82.99	-21.97		1.99		-1.20		-5.47	0.	000	0.00
Unmitigated Noise	Levels (withou	ut Topo and I	barrier a	ttenuat	ion)						
VehicleType	Leq Peak Houi	Leq Day	Le	eq Eveni	ing	Leq N	light		Ldn	С	NEL
Autos:	64.		63.1		61.9		57.	-	65.		65.
Medium Trucks:	57.	-	56.7		50.4		50.	-	58.	-	58.
Heavy Trucks:	61.		61.0		57.3		55.	•	63.	-	63.
Vehicle Noise:	66.	7	65.7		63.4		60.	3	67.	9	68.
Centerline Distanc	e to Noise Co	ntour (in feet)									
	-			70 dBA		65 di			60 dBA		dBA
			Ldn:		33		72	2	154	1	332
		CN	VEL:		35	35 76 164					354

Monday, July 3, 2023

	FHWA-R	D-77-108 HIGH	WAY	' NOISE	PREDIC	CTION N	IODEL	(9/12/2	021)				
Road Na	ario: 2028 S2 me: Calimesa I ent: n/o Singlet						t Name: lumber:		alley North	SP			
SITE Highway Data	SPECIFIC II	NPUT DATA			Site Con				L INPUT	S			
					Site Con	iditions	(naru -						
	y Traffic (Adt):	9,081 vehicle	es					Autos:					
	ır Percentage:	7.70%				edium Tr		,					
	Hour Volume:	699 vehicle	S		He	eavy Tru	cks (3+	Axles):	15				
	ehicle Speed:	40 mph		ı	Vehicle	Mix							
Near/Far L	.ane Distance:	57 feet		ı	Veh	icleType	9	Day	Evening	Night	Daily		
Site Data					Autos: 70.6% 13.6% 15.8% 9						97.13%		
В	arrier Height:	0.0 feet			Medium Trucks: 80.3% 4.7% 14.9% 1.5								
Barrier Type (0-		0.0				Heavy T	rucks:	75.9%	8.2%	15.9%	1.36%		
** '	Dist. to Barrier:	46.0 feet		-	Noise Source Flevations (in feet)								
	t. to Observer:	46.0 feet			Noise Source Elevations (in feet) Autos: 0.000								
Barrier Distanc	Barrier Distance to Observer: 0.0 feet												
Observer Heigh	Observer Height (Above Pad): 5.0 feet					m Truck		.297	0	·			
	Pad Elevation:	0.0 feet			Hea	vy Truck	:s: 8	.004	Grade Ad	justment	0.0		
R	oad Elevation:	0.0 feet			Lane Eq	uivalen	t Distan	ce (in	feet)				
	Road Grade:	0.0%				Auto	s: 36	.452					
	Left View:	-90.0 degree	es		Mediu	m Truck	s: 36	.209					
	Right View:	90.0 degree	es		Heavy Trucks: 36.232								
FHWA Noise Mo	del Calculation	IS											
VehicleType	REMEL	Traffic Flow	Di	stance		Road	Fres		Barrier Att		m Atten		
Autos				1.9	-	-1.20		-4.63		000	0.000		
Medium Trucks				2.0	-	-1.20		-4.87		000	0.000		
Heavy Trucks				1.9	-	-1.20		-5.47	0.0	000	0.000		
Unmitigated Noi										1			
VehicleType	Leq Peak Ho		_	Leq E	vening		Night		Ldn		NEL		
Autos			63.1		62.0 50.6		57.		65.4		65.9		
	Medium Trucks: 57.4 56.8						50.	-	58.	-	58.6		
Heavy Trucks Vehicle Noise			61.4 65.9		57.8 63.6		55. 60.		63.4		63.3		
Centerline Dista													
Normie Distu	10			70	dBA	65	dBA	6	60 dBA	55	dBA		
			Ldn:		34	•	74	4	159	,	342		
	CNEL:				36 78 169 36					363			

	FRWA-KI	D-77-108 HIGH	TWAY	NOISE	PREDIC	, HON I	NODEL	(9/12/2	021)		
	o: HY S1								alley North	SP	
	e: Calimesa E					Job I	lumber.	13594			
Road Segmen	nt: n/o Singleto	on Rd.									
SITE S	SPECIFIC IN	IPUT DATA			cita Car				L INPUT oft = 15)	S	
· ·				-	site Coi	iuitions	(паги				
Average Daily	. ,	9,261 vehicl	es					Autos:			
	Percentage:	7.70%				edium Ti		,			
	our Volume:	713 vehicle	:S		He	eavy Tru	icks (3+	Axles):	15		
	hicle Speed:	40 mph		١	/ehicle	Mix					
Near/Far Lar	ne Distance:	57 feet			Veh	icleTyp	9	Day	Evening	Night	Daily
Site Data							Autos:	70.6%	13.6%	15.8%	97.299
Bar	rier Heiaht:	0.0 feet			M	edium 1	rucks:	80.3%	4.7%	14.9%	1.479
Barrier Type (0-W	all, 1-Berm):	0.0				Heavy 1	rucks:	75.9%	8.2%	15.9%	1.249
Centerline Dis		46.0 feet		1	Voise S	ource E	levatio	ns (in fe	eet)		
Centerline Dist. 1		46.0 feet				Auto	s: (0.000			
Barrier Distance t		0.0 feet			Mediu	m Truck		2.297			
Observer Height (,	5.0 feet			Hea	vy Truci	(S: 8	3.004	Grade Ad	justment	0.0
	d Elevation:	0.0 feet		_							
	d Elevation:	0.0 feet		L	.ane Eq	uivalen			feet)		
F	Road Grade:	0.0%				Auto		3.452			
	Left View:	-90.0 degre				m Truci		5.209			
	Right View:	90.0 degre	es		Hea	vy Truci	(S: 36	5.232			
FHWA Noise Mode					,						
VehicleType	REMEL	Traffic Flow		stance		Road	Fres		Barrier Att		m Atten
Autos:	66.51	-2.91		1.96	-	-1.20		-4.63		000	0.00
Medium Trucks:	77.72			2.00	-	-1.20		-4.87		000	0.00
Heavy Trucks:	82.99			1.99		-1.20		-5.47	0.0	000	0.00
Unmitigated Noise								_		1	
	Leq Peak Hou			Leq Ev			Night		Ldn		NEL
Autos:	64		63.2		62.1		57		65.	-	66.
Medium Trucks:		7.4	56.8		50.5		50		58.4		58.
Heavy Trucks:		.9	61.1		57.4		55		63.		63.
Vehicle Noise:		3.8	65.8		63.6		60	.4	68.0	J	68.
Centerline Distanc	e to Noise Co	ontour (in fee	t)	70 a	ID A	C.	dBA		60 dBA		dBA
			Ldn:	70 0	1BA 34	00		3	157		
			NEL:		34			8	157		338
		C	IVEL:		30		/	0	167		360

Scenario: I	HY NP					Project N	ame: ()ak \/<	alley North	SP		
Road Name: (Job Nur			iliey ivoitii	OF.		
Road Segment: 1						000 / (0)						
	ECIFIC INI	UT DATA							L INPUT	S		
Highway Data				S	ite Con	ditions (H	lard =	10, So	ft = 15)			
Average Daily Trai	ffic (Adt):	9,012 vehicle	S				A	lutos:	15			
Peak Hour Per	centage:	7.70%			Me	dium Truc	ks (2 A	xles):	15			
Peak Hour	Volume:	694 vehicles			He	avy Truck	s (3+ A	xles):	15			
Vehicle	e Speed:	40 mph		v	/ehicle I	Miv						
Near/Far Lane L	Distance:	57 feet		ľ		cleType		Dav	Evening	Night	Daily	
Site Data					Autos: 70.6% 13.6% 15.8%							
Rarrio	r Height:	0.0 feet			Medium Trucks: 80.3% 4.7% 14.9% 1.4							
Barrier Type (0-Wall,	1-Berm):	0.0			F	leavy Tru	cks:	75.9%	8.2%	15.9%	0.98	
Centerline Dist. to		46.0 feet		٨	loise So	urce Elev	ations	(in fe	et)			
Centerline Dist. to C		46.0 feet				Autos:	0.0	00				
Barrier Distance to C		0.0 feet			Mediur	n Trucks:	2.2	97				
Observer Height (Abo	,	5.0 feet			Heav	v Trucks:	8.0	04	Grade Ad	justment	0.0	
	levation:	0.0 feet		L		,						
	levation:	0.0 feet		L	ane Equ	uivalent D			eet)			
	d Grade:	0.0%				Autos:						
_	.eft View:	-90.0 degree				n Trucks:						
Rig	ght View:	90.0 degree	S		Heav	y Trucks:	36.2	132				
FHWA Noise Model C	alculations											
		Traffic Flow	Dist	ance	Finite		Fresn		Barrier Att		rm Atte	
Autos:	66.51	-3.02		1.96		-1.20		4.63		000	0.0	
Medium Trucks:	77.72	-21.19		2.00		-1.20		4.87		000	0.0	
Heavy Trucks:	82.99	-22.99		1.99		-1.20		5.47	0.0	000	0.0	
Jnmitigated Noise Le VehicleType Led	vels (witho Peak Hour			r attenu Leg Ev		Leg Ni	iosht		Ldn		NEL	
Autos:	4 reak noui 64.		3.1	Ley EV	61.9	Leq IVI	971L 57.8		65.4	_	NEL 65	
Medium Trucks:	57.	-	6.7		50.4		50.7		58.4		58	
Heavy Trucks:	60.		9.9		56.3		54.4		62.1		62	
Vehicle Noise:	66.		5.4		63.2		60.0		67.0	-	68	
Centerline Distance to	o Noise Co	ntour (in feet)										
				70 d		65 dE		6	0 dBA		dBA	
			.dn:		32		69		148		31	
			EL:		34		73		157		33	

Monday, July 3, 2023

	FHWA-RE	0-77-108 HIGHV	VAY NOI	SE PREDIC	CTION N	MODEL (9/12/2	021)		
Road Nam	io: HY S2 ne: Calimesa B nt: n/o Singleto					t Name: lumber:		alley North	SP	
SITE	SPECIFIC IN	PUT DATA				NOISE I	MODE	L INPUTS	3	
Highway Data				Site Cor	nditions	(Hard =	10, S	oft = 15)		
	Traffic (Adt): Percentage: lour Volume:	9,343 vehicles 7.70% 719 vehicles	8			ucks (2)	,	15		
Ve	hicle Speed:	40 mph		Vehicle	Miss					
Near/Far La	ne Distance:	57 feet			iviix nicleType		Dav	Evening	Night	Dailv
Site Data				ver		Autos:	70.69		15.8%	. ,
					ledium T		80.39		14.9%	
	rrier Height:	0.0 feet			Heavy T		75.99		15.9%	
Barrier Type (0-W	. ,	0.0			i icavy i	ruchs.	13.57	0 0.270	13.570	1.5576
Centerline Dis		46.0 feet		Noise S	ource E	levation	s (in f	eet)		
Centerline Dist.		46.0 feet			Auto	s: 0.	000			
Barrier Distance		0.0 feet		Mediu	ım Truck	s: 2.	297			
• ,	bserver Height (Above Pad): 5.0 feet				vy Truck	s: 8.	004	Grade Adj	ustmen	: 0.0
	ad Elevation:	0.0 feet								
	ad Elevation:	0.0 feet		Lane Eq				reet)		
,	Road Grade:	0.0%			Auto		452			
	Left View:	-90.0 degrees			ım Truck	00.	209			
	Right View:	90.0 degrees	5	Hea	vy Truck	s: 36.	232			
FHWA Noise Mode	el Calculation:	s								
VehicleType	REMEL	Traffic Flow	Distanc	e Finite	Road	Fresr	nel	Barrier Atte	en Be	rm Atten
Autos:	66.51	-2.88		1.96	-1.20		-4.63	0.0	100	0.000
Medium Trucks:	77.72	-20.97		2.00	-1.20		-4.87	0.0	100	0.000
Heavy Trucks:	82.99	-21.45		1.99	-1.20		-5.47	0.0	00	0.000
Unmitigated Noise	e Levels (with	out Topo and b	arrier at	tenuation)						
VehicleType	Leq Peak Hou	r Leq Day	Lec	Evening	Leq	Night		Ldn	С	NEL
Autos:	64	.4 6	3.2	62.1		58.0)	65.6	;	66.1
Medium Trucks:	57	.5 5	6.9	50.7	,	50.9	9	58.6	i	58.8
Heavy Trucks:	62	.3 6	1.5	57.8	3	55.9	9	63.5	5	63.8
Vehicle Noise:	67	.0 6	6.0	63.7		60.6	3	68.2	2	68.6
Centerline Distance	ce to Noise Co	ntour (in feet)					_			
				70 dBA	65	dBA		60 dBA	55	dBA
		_	.dn:	35		75		161		348
		CN	EL:	37		80	1	172		370

Monday, July 3, 2023

	FHWA-RI	D-77-108 HIGH	WAY	NOISE	PREDIC	TION N	IODEL	(9/12/2	021)		
Road Nam	io: HY S3 ie: Calimesa E nt: n/o Singleti						Name: lumber:		alley North	SP	
	SPECIFIC IN	IPUT DATA							L INPUT	s	
Highway Data					Site Cor	aitions	(Hara =	: 10, Sc	ort = 15)		
Average Daily	Traffic (Adt):	9,134 vehicle	es					Autos:			
Peak Hour	Percentage:	7.70%				dium Tr					
Peak H	lour Volume:	703 vehicles	S		He	avy Tru	cks (3+	Axles):	15		
Ve	hicle Speed:	40 mph		,	/ehicle	Mix					
Near/Far La	ne Distance:	57 feet				icleType		Day	Evening	Night	Daily
Site Data							Autos:	70.6%	13.6%	15.8	% 97.52%
Ba	rrier Height:	0.0 feet			М	edium T	rucks:	80.3%	4.7%	14.9	% 1.47%
Barrier Type (0-W		0.0				Heavy T	rucks:	75.9%	8.2%	15.9	% 1.01%
Centerline Di	st. to Barrier:	46.0 feet		-	Voise S	urce Fl	ovation	e (in f	not)		
Centerline Dist.	to Observer:	46.0 feet		F.	10/36 01	Auto		.000	,		
Barrier Distance	to Observer:	0.0 feet			Modiu	m Truck		297			
Observer Height	Above Pad):	5.0 feet				/y Truck		.004	Grade Ad	liuetma	at: 0.0
P	ad Elevation:	0.0 feet								juouno	n. 0.0
Ro	ad Elevation:	0.0 feet		1	Lane Eq	uivalent	Distan	ce (in	feet)		
	Road Grade:	0.0%				Auto	s: 36	.452			
	Left View:	-90.0 degree	es		Mediu	m Truck	s: 36	.209			
	Right View:	90.0 degree	es		Hea	y Truck	s: 36	.232			
FHWA Noise Mode	el Calculation	s									
VehicleType	REMEL	Traffic Flow	Dis	tance		Road	Fres		Barrier At		erm Atten
Autos:	66.51			1.9	-	-1.20		-4.63		000	0.000
Medium Trucks:	77.72			2.0	-	-1.20		-4.87		000	0.000
Heavy Trucks:	82.99	-22.82		1.9	9	-1.20		-5.47	0.	000	0.000
Unmitigated Noise			barrie	er atten	uation)						
VehicleType	Leq Peak Hou		_	Leq E		_	Night		Ldn		CNEL
Autos:	64		63.1		62.0		57.	-	65.	-	66.0
Medium Trucks:			56.7		50.5		50.		58.		58.5
Heavy Trucks:			60.1		56.5		54.	-	62.		62.5
Vehicle Noise:	66	3.5	65.5		63.3		60.	1	67.	7	68.1
Centerline Distant	ce to Noise Co	ontour (in feet)					,		,	
			L	70 (IBA	65	dBA		60 dBA		5 dBA
			Ldn:		32		69	9	150)	322
		C	NEL:		34		74	1	159	9	343

	FHWA-RD	-77-108 HIGH	IWAY	NOISE	PREDIC	TION	MODEL	(9/12/20	021)		
Road Nam	nio: 2025 NP ne: Calimesa Bl nt: s/o Singletor						t Name: lumber:		alley North	SP	
	SPECIFIC IN	PUT DATA			0:4- 0				L INPUT	s	
Highway Data					Site Cor	aitions	(Hara =				
Average Daily	. ,	2,684 vehicle	es					Autos:			
	Percentage:	7.70%					rucks (2	,			
	lour Volume:	207 vehicle	S		He	avy Iru	icks (3+	Axies):	15		
	hicle Speed:	40 mph			Vehicle	Mix					
Near/Far La	ne Distance:	57 feet		Ī	Veh	icleType	9	Day	Evening	Night	Daily
Site Data							Autos:	70.6%	13.6%	15.8%	97.53%
Rai	rrier Height:	0.0 feet			М	edium 7	rucks:	80.3%	4.7%	14.9%	1.49%
Barrier Type (0-W		0.0				Heavy 7	rucks:	75.9%	8.2%	15.9%	0.98%
Centerline Dis	st. to Barrier:	46.0 feet			Noise S	ource E	levation	ns (in fe	eet)		
Centerline Dist.	to Observer:	46.0 feet				Auto		.000	,		
Barrier Distance	Barrier Distance to Observer: 0.0 feet							.297			
Observer Height ((Above Pad):	5.0 feet				/v Truck		.004	Grade Ad	iustment	0.0
Pa	ad Elevation:	0.0 feet				,					
Roa	ad Elevation:	0.0 feet		L	Lane Eq				feet)		
i i	Road Grade:	0.0%				Auto		.452			
	Left View:	-90.0 degree	es			m Truck		.209			
	Right View:	90.0 degree	es		Hea	y Truck	(s: 36	.232			
FHWA Noise Mode	el Calculations										
VehicleType	REMEL	Traffic Flow		stance		Road	Fres		Barrier Att		m Atten
Autos:		-8.28		1.9	-	-1.20		-4.63		000	0.00
Medium Trucks:		-26.45		2.0	-	-1.20		-4.87		000	0.00
Heavy Trucks:	82.99	-28.25		1.9	19	-1.20		-5.47	0.0	000	0.00
Unmitigated Noise								_			
VehicleType	Leq Peak Hour			Leq E	vening 56.7		Night		Ldn		NEL
	Autos: 59.0 57.8						52.		60.2		60.
Medium Trucks: 52.1 51.5					45.2		45.		53.		53.
Heavy Trucks: Vehicle Noise:		-	54.7 60.2		51.0 58.0		49. 54.		56.7 62.3		57.0 62.7
Centerline Distance	re to Noise Co	ntour (in feet)								
Contenine Distant		ur (m reet	,	70	dBA	65	dBA	6	60 dBA	55	dBA
			Ldn:		14		3	1	66		142
		C	NEL:		15		33	3	70		151

Scenario						Danie 1	Maria	0-1-11	-UNI "	CD.			
	0: E e: Calimesa l	01						13594	alley North	SP			
Road Name						JOD IV	umber.	13594					
SITE S Highway Data	PECIFIC II	NPUT DATA			0:4- 0				L INPUT	S			
					Site Conditions (Hard = 10, Soft = 15)								
Average Daily	. ,	2,444 vehicl	es					Autos:					
Peak Hour I	-	7.70%				edium Tr							
	our Volume:	188 vehicle	s		He	eavy True	cks (3+	Axles):	15				
	icle Speed:	40 mph			Vehicle	Mix							
Near/Far Lar	e Distance:	57 feet			Veh	icleType		Day	Evening	Night	Daily		
Site Data					Autos: 70.6% 13.6% 15.8%						97.53		
Bar	rier Height:	0.0 feet			M	edium T	rucks:	80.3%	4.7%	14.9%	1.499		
Barrier Type (0-Wa	-	0.0				Heavy Ti	rucks:	75.9%	8.2%	15.9%	0.98		
Centerline Dis	t. to Barrier:	46.0 feet			Noise S	ourco El	ovatio	ne (in f	not)				
Centerline Dist. t	o Observer:	46.0 feet			Noise 3	Auto.		0.000	et)				
Barrier Distance t	o Observer:	0.0 feet			Madi	m Truck		2.297					
Observer Height (/	Observer Height (Above Pad): 5.0 feet							3.004	Grade Ad	iuctment	. 0.0		
Pa	d Elevation:	0.0 feet			1100	vy Truck	s. c	5.004	Orauc Au	justinent	. 0.0		
Roa	d Elevation:	0.0 feet			Lane Eq	uivalent	Distar	nce (in	feet)				
F	Road Grade:	0.0%				Auto.	s: 36	3.452					
	Left View:	-90.0 degre	es		Mediu	m Truck	s: 36	3.209					
	Right View:	90.0 degre	es		Hea	vy Truck	s: 36	5.232					
FHWA Noise Mode	I Calculation	ıs											
VehicleType	REMEL	Traffic Flow	Di	stance	Finite	Road	Fres	snel	Barrier Att	en Ber	m Atten		
Autos:	66.51	-8.69)	1.5	96	-1.20		-4.63	0.0	000	0.00		
Medium Trucks:	77.72	-26.86	i	2.	00	-1.20		-4.87	0.0	000	0.00		
Heavy Trucks:	82.99	-28.66	i	1.	99	-1.20		-5.47	0.0	000	0.00		
Unmitigated Noise	Levels (with	out Topo and	barr	er atte	nuation)								
VehicleType	Leq Peak Ho	ur Leq Da	y	Leq I	Evening	Leq	Night		Ldn	C	NEL		
Autos:	-	3.6	57.4		56.3		52		59.8	-	60		
Medium Trucks:	5	1.7	51.0		44.8		45	.0	52.7	7	52		
Heavy Trucks:	5.1	54.3		50.6	i	48	.7	56.3	3	56.			
Vehicle Noise:	6	0.8	59.8		57.6	i	54	.3	61.9	9	62		
Centerline Distanc	e to Noise C	ontour (in fee	t)										
				70	dBA	65	dBA		60 dBA		dBA		
			Ldn:		13		2	9	62		13		
			NEL:		14		3		66		14		

Monday, July 3, 2023

F	HWA-RD-	77-108 HIGH	WAY	NOISE	E PREDIC	TION MO	DDEL	(9/12/2	021)		
Scenario: 20 Road Name: Ca Road Segment: s/o	ilimesa Bl.					Project I Job Nu			alley North	SP	
SITE SPEC	CIFIC INF	UT DATA							L INPUT	s	
Highway Data					Site Con						
Average Daily Traffic	c (Adt):	4,914 vehicle	:S					Autos:	15		
Peak Hour Perce	entage:	7.70%			Me	dium Tru	cks (2	Axles):	15		
Peak Hour V	olume:	378 vehicles	3		He	avy Truci	ks (3+	Axles):	15		
Vehicle -	Speed:	40 mph		ł	Vehicle I	Niv					
Near/Far Lane Dis	stance:	57 feet		1		cleType	П	Dav	Evening	Night	Daily
Site Data							utos:	70.6%	-	15.8%	,
Barrier I	loiaht:	0.0 feet			Me	edium Tru	ıcks:	80.3%	4.7%	14.9%	2.42%
Barrier Type (0-Wall, 1-		0.0			F	leavy Tru	ıcks:	75.9%	8.2%	15.9%	19.07%
Centerline Dist. to I	,	46.0 feet		-							
Centerline Dist. to Ob		46.0 feet			Noise So				eet)		
Barrier Distance to Ob	server:	0.0 feet				Autos		.000			
Observer Height (Abov	e Pad):	5.0 feet				n Trucks		.297			
Pad Ele	,	0.0 feet			Heav	y Trucks	: 8	.004	Grade Ad	justmen	t: 0.0
Road Ele	vation:	0.0 feet		İ	Lane Equ	iivalent	Distar	ice (in	feet)		
Road	Grade:	0.0%		Ī		Autos	: 36	.452			
Lei	ft View:	-90.0 degree	es.		Mediur	n Trucks	36	.209			
Righ	t View:	90.0 degree	es.		Heav	y Trucks	36	.232			
FHWA Noise Model Cal	culations										
		Traffic Flow	Dis	tance	Finite		Fres		Barrier Att		rm Atten
Autos:	66.51	-6.60		1.9		-1.20		-4.63		000	0.000
Medium Trucks:	77.72	-21.70		2.0		-1.20		-4.87		000	0.000
Heavy Trucks:	82.99	-12.74		1.9	99	-1.20		-5.47	0.0	000	0.000
Inmitigated Noise Leve	els (witho	ut Topo and	barrie	er attei	nuation)						
	Peak Hour		_	Leq E	vening	Leq N	-		Ldn		NEL
Autos:	60.7		59.5		58.4		54.	_	61.	-	62.3
Medium Trucks:	56.8		56.2		49.9		50.		57.	-	58.0
Heavy Trucks:	71.0		70.2		66.5		64.		72.:		72.5
Vehicle Noise:	71.6	3	70.7		67.2		65.	.2	72.	В	73.1
Centerline Distance to	Noise Cor	ntour (in feet)									
				70	dBA	65 d			60 dBA		5 dBA
			Ldn:		70		15		326		702
		CI	VEL:		74		159	9	342	2	738

Monday, July 3, 2023

	FHWA-RI	D-77-108 HIGH	WAY	NOISE	PREDIC	N NOIT	MODEL ((9/12/2	021)			
	: 2025 S2 : Calimesa B : s/o Singleto						t Name: lumber:		alley North	SP		
SITE S Highway Data	PECIFIC IN	IPUT DATA			Cita Car		NOISE (Hard =		L INPUT	S		
		0.004			one Con	uitions	(naru -	Autos:				
Average Daily T	. ,	6,634 vehicle	es		Me	dium Tr	ucks (2					
Peak Hour F	ur Volume:	511 vehicle			Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15							
	icle Speed:	40 mph	5			•	cno (o ·	Axicoj.	10			
Near/Far Lan		57 feet		١	/ehicle		-				Daily	
	Distance.	07 1001			VehicleType Day Evening Night							
Site Data							Autos:	70.6%		15.8%		
Barr	ier Height:	0.0 feet				edium T		80.3%		14.9%		
Barrier Type (0-Wa	II, 1-Berm):	0.0				Heavy T	rucks:	75.9%	8.2%	15.9%	20.35%	
Centerline Dist		46.0 feet 46.0 feet			Voise S	ource E	levation	ıs (in fe	eet)			
Centerline Dist. to			Autos: 0.000									
Barrier Distance to		Mediu	m Truck	(s: 2	.297							
Observer Height (A		5.0 feet			Hear	y Truck	(s: 8	.004	Grade Ad	justment	0.0	
	d Elevation:	0.0 feet		L.		•						
	d Elevation:	0.0 feet		L	ane Eq		t Distan		feet)			
R	oad Grade:	0.0%				Auto		.452				
	Left View:	-90.0 degree				m Truck		.209				
,	Right View:	90.0 degree	es		неа	y Truck	(S. 36	.232				
FHWA Noise Model					1							
VehicleType	REMEL	Traffic Flow	Dis	stance		Road	Fres		Barrier Att		m Atten	
Autos:	66.51	-5.48		1.96	-	-1.20		-4.63		000	0.00	
Medium Trucks:	77.72	-17.81		2.00	-	-1.20		-4.87		000	0.00	
Heavy Trucks:	82.99	-11.16		1.99		-1.20		-5.47	0.0	000	0.00	
VehicleType L	eq Peak Hou			er atteni Leg Ev		Loa	Night		Ldn		NFL.	
Autos:	.eq r eax 1100		60.6	Ley Lv	59.5		Trigiti 55	4	63.0	_	63.5	
Medium Trucks:	60		60.1		53.8		54.		61.7	-	61.	
Heavy Trucks: 72.6 71.8					68.1		66.	-	73.4		74.	
Vehicle Noise:	73		72.4		68.8		66.		74.4		74.	
Contorlino Dietanco	to Noise Co	ontour (in feet)									
Centennie Distance				70 a	ID A	65	dBA	-	60 dBA	55	dBA	
Centernine Distance				700	IDA	00	UDA	,	JO UDA	00	UDA	
Centerline Distance			Ldn:	700	90	00	198		420		905	

		D-77-108 HIGI	HIV/A	NOISE	TREDIC			•				
	o: 2028 S1								alley North	SP		
	e: Calimesa E					Job I	Number:	13594				
Road Segmen	t: s/o Singlet	on Rd.										
	SPECIFIC IN	NPUT DATA			a a				L INPUT	S		
Highway Data					Site Cor	aitions	(Hara		oft = 15)			
Average Daily	. ,	8,687 vehic	les					Autos:				
Peak Hour I		7.70%				edium Ti		,				
	our Volume:	669 vehicle	es		He	eavy Tru	icks (3+	Axles).	15			
	nicle Speed:	40 mph		1	Vehicle	Mix						
Near/Far Lar	ne Distance:	57 feet			Veh	icleTyp	е	Day	Evening	Night	Daily	
Site Data							Autos:	70.6%	13.6%	15.8%	87.039	
Bar	rier Heiaht:	0.0 feet			M	ledium 1	rucks:	80.3%	4.7%	14.9%	1.86%	
Barrier Type (0-Wa	all, 1-Berm):	0.0				Heavy T	rucks:	75.9%	8.2%	15.9%	11.119	
Centerline Dis		46.0 feet 46.0 feet		1	Noise S	ource E	levatio	ns (in f	eet)			
Centerline Dist. t			Autos: 0.000									
Barrier Distance t			Mediu	m Truck		2.297						
Observer Height (5.0 feet			Hea	vy Truci	ks: 8	3.004	Grade Ad	justment	0.0	
	d Elevation:	0.0 feet		L.		•						
	d Elevation:	0.0 feet		- 4	Lane Eq				reet)			
F	Road Grade:	0.0%				Auto		3.452				
	Left View:	-90.0 degre				m Truck	00	3.209				
	Right View:	90.0 degre	ees		Hea	vy Truci	(S: 36	3.232				
FHWA Noise Mode												
VehicleType	REMEL	Traffic Flow		stance		Road	Fres		Barrier Att		m Atten	
Autos:	66.51			1.9	-	-1.20		-4.63		000	0.00	
Medium Trucks:	77.72			2.0		-1.20		-4.87		000	0.00	
Heavy Trucks:	82.99			1.9		-1.20		-5.47	0.0	000	0.00	
Unmitigated Noise												
	Leq Peak Ho		,	Leq E			Night		Ldn		VEL	
Autos:		3.6	62.4		61.3		57		64.8	-	65.	
Medium Trucks:		3.1	57.5		51.3		51		59.2	_	59.	
Heavy Trucks:		1.2	70.3		66.7		64		72.4		72.	
Vehicle Noise:	72	2.1	71.2		67.9)	65	.6	73.2	2	73.	
Centerline Distanc	e to Noise C	ontour (in fee	t)		/D.4		15.4				10.1	
			!	70 c		65	dBA		60 dBA		dBA	
		_	Ldn:		76		16		351		756	
		C	CNEL:		79		17	1	369		795	

)-77-108 HIGH		IOIOL I	ILLDIC		`							
	: 2028 NP								alley North	SP				
	e: Calimesa B					Job Ni	umber:	13594						
Road Segmen	t: s/o Singleto	n Rd.												
	PECIFIC IN	PUT DATA			·4- O				L INPUT	8				
Highway Data				31	Site Conditions (Hard = 10, Soft = 15)									
Average Daily 1	. ,	5,555 vehicle	es				-	Autos:	15					
Peak Hour I	-	7.70%			Medium Trucks (2 Axles): 15									
	our Volume:	428 vehicles	S		He	avy Truc	ks (3+ A	(xles	15					
	icle Speed:	40 mph		V	ehicle l	Wix								
Near/Far Lar	e Distance:	57 feet			Veh	icleType		Day	Evening	Night	Daily			
Site Data					Autos: 70.6% 13.6% 15.8%									
Ban	rier Heiaht:	0.0 feet			Medium Trucks: 80.3% 4.7% 14.9% 1.									
Barrier Type (0-Wa		0.0			1	Heavy Tr	ucks:	75.9%	8.2%	15.9%	0.989			
Centerline Dis	. ,	46.0 feet			-: 0			- /: #-	-41					
Centerline Dist. t	o Observer:	46.0 feet		N	oise so	ource Ele		•	et)					
Barrier Distance t	o Observer:	0.0 feet				Autos		000						
Observer Height (Above Pad):	5.0 feet				m Trucks		297	0					
Pa	d Elevation:	0.0 feet			Heav	y Trucks	8.1	004	Grade Adj	ustment.	0.0			
Roa	d Elevation:	0.0 feet		La	ane Eq	uivalent	Distanc	e (in f	eet)					
F	load Grade:	0.0%				Autos	: 36.	452						
	Left View:	-90.0 degree	es		Mediu	m Trucks	36.	209						
	Right View:	90.0 degree	es		Heav	y Trucks	36.	232						
FHWA Noise Mode	I Calculation:	S												
VehicleType	REMEL	Traffic Flow	Dista	ance	Finite	Road	Fresn	el .	Barrier Att	en Ber	m Atten			
Autos:	66.51	-5.12		1.96		-1.20		-4.63	0.0	000	0.00			
Medium Trucks:	77.72	-23.29		2.00		-1.20		-4.87		000	0.00			
Heavy Trucks:	82.99	-25.09		1.99		-1.20		-5.47	0.0	000	0.00			
Unmitigated Noise					_									
-,-	Leq Peak Hou			Leq Eve		Leq I			Ldn		NEL			
Autos:	62		61.0		59.8		55.7		63.3		63.			
Medium Trucks:	55		54.6		48.3		48.5		56.2	-	56.			
Heavy Trucks:	58		57.8		54.2		52.3		59.9		60.			
Vehicle Noise:	64		63.3		61.1		57.9	,	65.5)	65.			
		ntour (in foot)											
Centerline Distanc	e to Noise Co	intour (in reet,		70 45	RΔ	65.0	HRΔ	6	O dRA	55	dRΔ			
Centerline Distanc	e to Noise Co	, ,	Ldn:	70 dE	BA 23	65 d	<i>BA</i> 50	6	i0 dBA 107		dBA 230			

Monday, July 3, 2023

	FHWA-RD-	77-108 HIGH	WAY	NOISE	PREDIC	TION M	ODEL	(9/12/2	(021)		
Scenario: Road Name: Road Segment:	Calimesa Bl.	Rd.						Oak V 13594	alley North	SP	
SITE SP	ECIFIC INF	UT DATA			Site Con				EL INPUT	s	
Average Daily Tra Peak Hour Pei Peak Hour	rcentage:	0,407 vehicle 7.70% 801 vehicles 40 mph			Ме	dium Tru	ıcks (2	Autos Axles)	: 15 : 15		
Near/Far Lane	Distance:	57 feet		ŀ		icleType		Dav	Evening	Night	Dailv
Site Data Barrie Barrier Type (0-Wall,	r Height:	0.0 feet 0.0			М			70.69 80.39 75.99	6 13.6% 6 4.7%	15.8% 14.9%	83.54%
Centerline Dist. t	o Barrier:	46.0 feet			Noise Sc	,					
Centerline Dist. to 0 Barrier Distance to 0 Observer Height (Abo Pad B	Observer:	46.0 feet 0.0 feet 5.0 feet 0.0 feet				Autos m Trucks vy Trucks	s: 2	0.000 0.297 0.004	Grade Ad	ljustmen	t: 0.0
Road E	Elevation:	0.0 feet			Lane Eq				feet)		
L	nd Grade: Left View: ght View:	0.0% -90.0 degree 90.0 degree				Autos m Trucks ry Trucks	36	3.452 3.209 3.232			
FHWA Noise Model C	alculations										
VehicleType I	REMEL	Traffic Flow	Dis	tance	Finite	Road	Fres	nel	Barrier Att	ten Be	rm Atten
Autos:	66.51	-3.07		1.9	96	-1.20		-4.63	0.	000	0.000
Medium Trucks: Heavy Trucks:	77.72 82.99	-17.22 -11.07		2.0 1.9		-1.20 -1.20		-4.87 -5.47		000 000	0.000
Unmitigated Noise Le	evels (witho	ut Topo and	barrie	er atter	nuation)						
	g Peak Hour				vening	Leq	Night		Ldn	C	NEL
Autos:	64.2	2	63.0		61.9		57	.8	65.	4	65.9
Medium Trucks:	61.3	3	60.7		54.4		54	.6	62.	3	62.5
Heavy Trucks:	72.7	7	71.9		68.2		66	.3	73.	9	74.2
Vehicle Noise:	73.6	3	72.7		69.3		67	.1	74.	7	75.1
Centerline Distance t	o Noise Cor	ntour (in feet))					-		1 .	
			,L	70	dBA 95	65 (dBA 20		60 dBA 442		952
			Ldn: VEL:		95 100		20 21	-	464	-	952 1,000

Monday, July 3, 2023

	FHWA-RD	-77-108 HIGH	WAY	NOISE	PREDIC	TION N	IODEL	(9/12/2	021)				
Road Name	o: HY NP e: Calimesa Bl. t: s/o Singletor						Name: lumber:		alley North	SP			
	SPECIFIC IN	PUT DATA							L INPUT	s			
Highway Data					Site Conditions (Hard = 10, Soft = 15)								
Average Daily	Traffic (Adt):	7,169 vehicle	es		Autos: 15								
Peak Hour	Percentage:	7.70%				dium Tr		,					
Peak H	our Volume:	552 vehicles	S		He	avy Tru	cks (3+	Axles):	15				
	nicle Speed:	40 mph		ŀ	Vehicle	Mix							
Near/Far Lar	ne Distance:	57 feet		ľ	Veh	icleType		Day	Evening	Night	Daily		
Site Data							Autos:	70.6%	13.6%	15.8%	97.53%		
Rar	rier Height:	0.0 feet			Medium Trucks: 80.3% 4.7% 14.9% 1.								
Barrier Type (0-W		0.0				Heavy T	rucks:	75.9%	8.2%	15.9%	0.98%		
Centerline Dis		46.0 feet		f	Noise S	ource E	levatio	ns (in fe	eet)				
Centerline Dist. t	to Observer:	f	Autos: 0.000										
Barrier Distance t	Barrier Distance to Observer: 0.0 feet							297					
Observer Height (Above Pad):	5.0 feet			Hear	/y Truck	s: 8	.004	Grade Ad	iustment	0.0		
Pa	d Elevation:	0.0 feet		L		•							
	d Elevation:	0.0 feet			Lane Eq				feet)				
F	Road Grade:	0.0%				Auto		.452					
	Left View:	-90.0 degree				m Truck		3.209					
	Right View:	90.0 degree	es		Hea	y Truck	s: 36	5.232					
FHWA Noise Mode					_								
VehicleType	REMEL	Traffic Flow	Dis	stance	_	Road	Fres		Barrier Att		m Atten		
Autos:	66.51	-4.02		1.9	-	-1.20		-4.63		000	0.00		
Medium Trucks:	77.72	-22.19		2.0	-	-1.20		-4.87		000	0.000		
Heavy Trucks:	82.99	-23.99		1.9		-1.20		-5.47	0.0	000	0.000		
Unmitigated Noise VehicleType	Levels (witho Leg Peak Hour				vening	100	Night		Ldn	_	NFL		
Autos:	63.1		62.1	LUYL	61.0		7vigrit 56	8	64.4		64.9		
Medium Trucks:		49.5		49	-	57.4	•	57.5					
Heavy Trucks:	56.3 59.8	-	55.7 58.9		55.3		53		61.0	•	61.3		
Vehicle Noise:	65.4		64.4		62.2		59		66.0	-	67.0		
Centerline Distanc	e to Noise Co	ntour (in feet))										
			L	70	dBA	65	dBA	_	60 dBA		dBA		
			Ldn:		27		5	9	127		273		
			NEL:		29		6		135		291		

Road Name	o: HY S2 e: Calimesa E						t Name. lumber.		alley North	SP			
Road Segmen						_							
Highway Data	SPECIFIC IN	IPUT DATA		S	ite Cor				L INPUT oft = 15)	5			
Average Daily	Traffic (Adt):	12.021 vehicl	es		Autos: 15								
	Percentage:	7.70%			Medium Trucks (2 Axles): 15								
	our Volume:	926 vehicle	s		He	avy Tru	cks (3+	Axles):	15				
Vel	hicle Speed:	40 mph			ehicle	Miv							
Near/Far Lar	ne Distance:	57 feet		F.		icleTyp	9	Day	Evening	Night	Daily		
Site Data							Autos:	70.6%	-	15.8%			
	rier Heiaht:	0.0 feet			М	edium 1		80.3%		14.9%			
Barrier Type (0-W		0.0				Heavy 1	rucks:	75.9%	8.2%	15.9%	11.60%		
Centerline Dis	. ,	46.0 feet			laica S	ource E	lovatio	ne (in f	not)				
Centerline Dist. t	to Observer:	46.0 feet		,	10136 31	Auto		0.000	ei)				
Barrier Distance t	to Observer:	0.0 feet			Modiu	m Truck		2.297					
Observer Height (A	Above Pad):	5.0 feet				vy Truci		3.004	Grade Ad	iustmant	. 0 0		
Pa	d Elevation:	0.0 feet			пеа	vy Truci	is. c	5.004	Orace Au	Justinoni	. 0.0		
Roa	d Elevation:	0.0 feet		L	ane Eq	uivalen	t Distai	nce (in	feet)				
F	Road Grade:	0.0%				Auto	s: 36	3.452					
	Left View:	-90.0 degre	es		Mediu	m Truck	rs: 36	3.209					
	Right View:	90.0 degre	es		Hea	vy Truci	rs: 36	3.232					
FHWA Noise Mode	l Calculation	s											
VehicleType	REMEL	Traffic Flow	Dis	stance	Finite	Road	Fres	inel	Barrier Att	en Ber	m Atten		
Autos:	66.51	-2.35		1.96	ì	-1.20		-4.63	0.0	000	0.00		
Medium Trucks:	77.72	-16.91		2.00)	-1.20		-4.87	0.0	000	0.00		
Heavy Trucks:	82.99	-11.02		1.99)	-1.20		-5.47	0.0	000	0.00		
Unmitigated Noise	Levels (with	out Topo and	barri	er atteni	uation)								
	Leq Peak Hou			Leq Ev			Night		Ldn		NEL		
Autos:		1.9	63.8		62.6		58		66.		66.		
Medium Trucks: 61.6 61.0					54.7		54		62.		62.		
Heavy Trucks:	2.8	71.9		68.3		66		74.	-	74.			
Vehicle Noise:	73	3.7	72.8		69.5		67	.3	74.	9	75.		
Centerline Distanc	e to Noise Co	ontour (in feet)	70	-		10.4				10.4		
			L	70 d		65	dBA		60 dBA		dBA		
			Ldn: NFL:		97 102		21 22	-	452 475		974 1.023		

Scenario: HY S1					Proiect N	lame:	Oak Va	alley North	SP	
Road Name: Calimesa I	31.				Job Nu			,		
Road Segment: s/o Singlet	on Rd.									
SITE SPECIFIC II	NPUT DATA							L INPUT	s	
Highway Data			S	ite Con	ditions (F	ara =	10, Sc	itt = 15)		
Average Daily Traffic (Adt):	10,301 vehicle	S					Autos:	15		
Peak Hour Percentage:	7.70%				dium Truc			15		
Peak Hour Volume:	793 vehicles			He	avy Truck	s (3+ /	Axles):	15		
Vehicle Speed:	40 mph		V	ehicle N	Nix					
Near/Far Lane Distance:	57 feet			Vehi	cleType		Day	Evening	Night	Daily
Site Data					Αι	itos:	70.6%	13.6%	15.8%	88.67
Barrier Height:	0.0 feet			Ме	edium Tru	cks:	80.3%	4.7%	14.9%	1.80
Barrier Type (0-Wall, 1-Berm):	0.0			F	łeavy Tru	cks:	75.9%	8.2%	15.9%	9.52
Centerline Dist. to Barrier:	46.0 feet		N	oise So	urce Ele	vation	s (in fe	et)		
Centerline Dist. to Observer:	46.0 feet		-		Autos		000			
Barrier Distance to Observer:	0.0 feet			Mediur	n Trucks:		297			
Observer Height (Above Pad):	5.0 feet				v Trucks:		004	Grade Ad	iustment	0.0
Pad Elevation:	0.0 feet				,					
Road Elevation:	0.0 feet		Li	ane Equ	ıivalent L	Distan	ce (in t	feet)		
Road Grade:	0.0%				Autos:		452			
Left View:	-90.0 degree	s			n Trucks:		209			
Right View:	90.0 degree	s		Heav	y Trucks:	36.	232			
FHWA Noise Model Calculation	ıs									
VehicleType REMEL	Traffic Flow	Distar		Finite		Fresr	_	Barrier Att		m Atter
Autos: 66.51			1.96		-1.20		-4.63		000	0.0
Medium Trucks: 77.72			2.00		-1.20		-4.87		000	0.00
Heavy Trucks: 82.99	-12.54		1.99		-1.20		-5.47	0.0	000	0.00
Unmitigated Noise Levels (with										
VehicleType Leq Peak Ho			eq Eve	-	Leq N	•		Ldn	_	NEL
		33.2		62.1		58.0	-	65.0	-	66
		58.1		51.9		52.1		59.	-	60
		70.4		66.7		64.9		72.		72
Vehicle Noise: 7:		71.4		68.1		65.8	3	73.4	1	73
Centerline Distance to Noise C	ontour (in feet)		70 4	24	65 4	24		n dra	55	dRΔ
Centerline Distance to Noise C		l dn:	70 dl	3 <i>A</i> 78	65 dl	3 <i>A</i> 168		i0 dBA 362		dBA 78

Monday, July 3, 2023

	FHWA-RD-	77-108 HIGH	WAY N	OISE	PREDIC	TION M	ODEL	(9/12/2	021)		
Scenario									alley North	SP	
	Calimesa Bl.					Job Nu	ımber:	13594			
Road Segment:	s/o Singleton	Rd.									
	PECIFIC INF	UT DATA							L INPUT	S	
Highway Data				S	ite Con	ditions (Hard =	10, S			
Average Daily Tr	raffic (Adt):	8,020 vehicle	s					Autos:			
Peak Hour P	ercentage:	7.70%				dium Tru					
	ur Volume:	618 vehicles			He	avy Truc	ks (3+	Axles):	15		
Vehi	cle Speed:	40 mph		ν	ehicle l	Mix					
Near/Far Lane	Distance:	57 feet		F		icleType		Day	Evening	Night	Daily
Site Data						A	utos:	70.6%	13.6%	15.89	6 96.07%
Rarri	er Heiaht:	0.0 feet			Me	edium Tn	ucks:	80.3%	4.7%	14.99	6 1.47%
Barrier Type (0-Wal		0.0			F	leavy Tri	ucks:	75.9%	8.2%	15.99	6 2.46%
Centerline Dist.	. ,	46.0 feet			laina Ce	urce Ele	tio	o (in f	n o é l		
Centerline Dist. to	Observer:	46.0 feet		N	oise Sc	Autos			eet)		
Barrier Distance to	Observer:	0.0 feet						.000			
Observer Height (A	bove Pad):	5.0 feet				m Trucks	•	.297	0	e	4. 0.0
Pad	Elevation:	0.0 feet			Heav	y Trucks	: 8	.004	Grade Ad	ijusiirieri	t. 0.0
Road	Elevation:	0.0 feet		L	ane Eq	uivalent	Distan	ce (in	feet)		
Ro	oad Grade:	0.0%				Autos	: 36	.452			
	Left View:	-90.0 degree	s		Mediui	m Trucks	: 36	.209			
F	Right View:	90.0 degree	s		Heav	y Trucks	: 36	.232			
FHWA Noise Model											
VehicleType		Traffic Flow	Dista		Finite		Fres		Barrier Att		erm Atten
Autos:	66.51	-3.59		1.96		-1.20		-4.63		000	0.000
Medium Trucks:	77.72	-21.76		2.00		-1.20		-4.87		000	0.000
Heavy Trucks:	82.99	-19.50		1.99		-1.20		-5.47	0.	000	0.000
Inmitigated Noise L											
	eq Peak Hour			.eq Ev		Leq N	-		Ldn		CNEL
Autos:	63.7		32.5		61.4		57.	-	64.	-	65.3
Medium Trucks:	56.8		56.1		49.9		50.		57.	-	58.0
Heavy Trucks:	64.3		33.4		59.8		57.	-	65.	-	65.8
Vehicle Noise:	67.4	1 (66.4		63.8		61.	0	68.	6	68.9
Centerline Distance	to Noise Cor	ntour (in feet)									-
				70 di		65 a			60 dBA		5 dBA
		-	Ldn:		37		79		171		369
		CN	IEL:		39		84	1	181	1	391

Monday, July 3, 2023

	FHWA-RD	-77-108 HIGH	WAY	NOISE	PREDIC	TION M	ODEL (9/12/20	021)		
	o: E e: Calimesa B nt: n/o Cherry \						Name: umber:		alley North	SP	
	SPECIFIC IN	PUT DATA			a:. a				L INPUT	S	
Highway Data					Site Con	aitions	•		rt = 15)		
Average Daily	Traffic (Adt):	2,470 vehicle	es					Autos:	15		
Peak Hour	Percentage:	7.70%				dium Tri			15		
Peak H	our Volume:	190 vehicles	S		He	avy Truc	cks (3+.	Axles):	15		
Vei	hicle Speed:	35 mph		1	Vehicle I	Mix					
Near/Far Lai	ne Distance:	57 feet		F	Veh	icleType		Day	Evening	Night	Daily
Site Data						-	Autos:	70.6%	13.6%	15.8%	97.53%
Rar	rier Height:	0.0 feet			М	edium Ti	rucks:	80.3%	4.7%	14.9%	1.49%
Barrier Type (0-W		0.0			-	Heavy Ti	rucks:	75.9%	8.2%	15.9%	0.98%
Centerline Dis	st. to Barrier:	46.0 feet			Noise So	ource El	evation	s (in fe	et)		
Centerline Dist.	to Observer:	46.0 feet				Auto		000			
Barrier Distance	Barrier Distance to Observer: 0.0 feet							297			
Observer Height (Above Pad):	5.0 feet				vy Truck		004	Grade Ad	iustment	0.0
Pa	d Elevation:	0.0 feet									
Roa	d Elevation:	0.0 feet		1	Lane Eq	uivalent	Distan	ce (in f	eet)		
F	Road Grade:	0.0%				Auto		452			
	Left View:	-90.0 degree	es		Mediu	m Truck	s: 36	209			
	Right View:	90.0 degree	es		Heav	y Truck	s: 36	.232			
FHWA Noise Mode	l Calculations										
VehicleType	REMEL	Traffic Flow	Di	stance	Finite	Road	Fresi		Barrier Att	en Ber	m Atten
Autos:	64.30	-8.06		1.9		-1.20		-4.63		000	0.000
Medium Trucks:	75.75	-26.23		2.0	0	-1.20		-4.87	0.0	000	0.000
Heavy Trucks:	81.57	-28.03		1.9	9	-1.20		-5.47	0.0	000	0.000
Unmitigated Noise											
	Leq Peak Hou		_	Leq E	vening	_	Night		Ldn		NEL
Autos:	57.	-	55.8		54.7		50.	-	58.2	-	58.7
Medium Trucks:	50		49.7		43.4		43.	-	51.3	-	51.5
Heavy Trucks: Vehicle Noise:	54. 59.		53.5 58.4		49.8 56.2		47. 53.	_	55.8 60.6		55.8 61.0
Centerline Distance)								
torinio Biotalio	5 .10.00 00			70 (dBA	65	dBA	6	0 dBA	55	dBA
			Ldn:		11		23	,	50		109
	CNEL:										

	FHWA-RE	0-77-108 HIGH	WAY N	OISE	PREDIC	TION N	IODEL (9/12/2	2021)		
	o: 2025 S1 e: Calimesa B nt: n/o Cherry					.,	Name: lumber:		alley North	SP	
	SPECIFIC IN	PUT DATA							EL INPUTS	3	
Highway Data				S	ite Con	ditions	(Hard =	10, S	oft = 15)		
Average Daily	Traffic (Adt):	3,977 vehicle	es					Autos	: 15		
Peak Hour	Percentage:	7.70%					ucks (2)	/			
Peak H	our Volume:	306 vehicles	\$		He	avy Tru	cks (3+)	Axles)	: 15		
Ve	hicle Speed:	35 mph		ν	ehicle l	Mix					
Near/Far Lai	ne Distance:	57 feet		F		icleType		Day	Evening	Night	Daily
Site Data							Autos:	70.69	6 13.6%	15.8%	87.46%
Bar	rier Heiaht:	0.0 feet			М	edium T	rucks:	80.39	6 4.7%	14.9%	1.98%
Barrier Type (0-W		0.0			-	Heavy T	rucks:	75.99	6 8.2%	15.9%	10.56%
Centerline Dis		46.0 feet		٨	loise So	ource E	levation	s (in t	eet)		
Centerline Dist.		46.0 feet				Auto	s: 0.	000	,		
	Barrier Distance to Observer: 0.0 feet					m Truck	s: 2.	297			
	bserver Height (Above Pad): 5.0 feet					y Truck	s: 8.	004	Grade Adj	ustment	0.0
	d Elevation:	0.0 feet					4 Di-4	//	£4)		
	d Elevation:	0.0 feet			ane ⊑q		t Distan	_	reet)		
,	Road Grade: Left View:	0.0%			Madiu	Auto		452			
	Right View:	-90.0 degree		Medium Trucks: 36.209 Heavy Trucks: 36.232							
FHWA Noise Mode	el Calculation	s									
VehicleType	REMEL	Traffic Flow	Dista	nce	Finite	Road	Fresr	nel	Barrier Atte	en Bei	m Atten
Autos:	64.30	-6.47		1.96	6	-1.20		-4.63	0.0	100	0.000
Medium Trucks:	75.75	-22.91		2.00)	-1.20		-4.87	0.0	00	0.000
Heavy Trucks:	81.57	-15.65		1.99	9	-1.20		-5.47	0.0	00	0.000
Unmitigated Noise	Levels (with	out Topo and	barrier	attenı	uation)						
	Leq Peak Hou			eq Ev			Night		Ldn		NEL
Autos:	58		57.4		56.3		52.2		59.8		60.3
Medium Trucks:	53		53.0		46.8		47.0		54.7		54.8
Heavy Trucks:	66		65.9		62.2		60.0		67.9		68.2
Vehicle Noise:	67		66.6		63.3		61.	1	68.7		69.0
Centerline Distanc	e to Noise Co	ontour (in feet)		70 d	D A	65	dBA	1	60 dBA	55	dBA
			Ldn:	70 U	38	03	и <i>Б</i> А 81		175	33	377
								396			
	CNEL:						00		104		000

	FHWA-RI	D-77-108 HIGH	WAY I	NOISE	PREDIC	TION M	ODEL	(9/12/20	021)		
Road Nan	rio: 2025 NP ne: Calimesa E ent: n/o Cherry						Name: umber:		alley North	SP	
	SPECIFIC IN	IPUT DATA							L INPUT	S	
Highway Data				S	ite Con	ditions	(Hard =	= 10, So	ft = 15)		
Average Daily	Traffic (Adt):	3,021 vehicle	es					Autos:	15		
Peak Hour	r Percentage:	7.70%			Me	edium Tru	ıcks (2	Axles):	15		
Peak I	Hour Volume:	233 vehicles	S		He	avy Truc	cks (3+	Axles):	15		
Ve	ehicle Speed:	35 mph		ν	ehicle	Mix					
Near/Far La	ane Distance:	57 feet		Ė		icleType		Day	Evening	Night	Daily
Site Data						F	lutos:	70.6%	13.6%	15.8%	97.539
Ba	rrier Height:	0.0 feet			М	edium Tr	rucks:	80.3%	4.7%	14.9%	1.499
Barrier Type (0-V	-	0.0				Heavy Tr	rucks:	75.9%	8.2%	15.9%	0.989
Centerline D	ist. to Barrier:	46.0 feet		N	laisa Si	ource Ele	ovation	ne (in fa	of)		
Centerline Dist.	to Observer:	46.0 feet			0/36 00	Autos		.000	icij		
Barrier Distance	to Observer:	0.0 feet			Modiu	m Trucks		.000			
Observer Height	(Above Pad):	5.0 feet				vy Trucks		.004	Grade Ad	iustmant	. 0 0
P	ad Elevation:	0.0 feet			77001	ry mache	J. U	.004	0/440 / 14	doumont	. 0.0
Ro	ad Elevation:	0.0 feet		L	ane Eq	uivalent	Distan	ice (in t	eet)		
	Road Grade:	0.0%				Autos	s: 36	.452			
	Left View:	-90.0 degree	es			m Trucks		.209			
	Right View:	90.0 degree	es		Heav	y Trucks	s: 36	.232			
FHWA Noise Mod	lel Calculation	s									
VehicleType	REMEL	Traffic Flow	Dist	tance	Finite	Road	Fres	nel	Barrier Att	en Ber	m Atten
Autos:		-7.19		1.96		-1.20		-4.63		000	0.00
Medium Trucks:	75.75			2.00		-1.20		-4.87		000	0.00
Heavy Trucks:	81.57	-27.16		1.99		-1.20		-5.47	0.0	000	0.00
Unmitigated Nois											
VehicleType	Leq Peak Hou			Leq Ev			Night		Ldn	_	NEL
Autos:			56.7		55.6		51.		59.0	-	59.
Medium Trucks:	-		50.6		44.3		44.	-	52.	-	52.
Heavy Trucks: Vehicle Noise:		·-	54.3 59.3		50.7 57.0		48. 53.	-	56.4 61.5		56. 61.
					37.0		55.	.5	01.	,	01.
Centerline Distan	ce to Noise Co	ontour (in feet,)	70 di	RA.	65 (dBA	6	i0 dBA	55	dBA
			Ldn:		12		27		58		124
	CNEL:				13 28 61			132			

Monday, July 3, 2023

	FHWA-RD-	-77-108 HIGH	WAY I	NOISE	PREDIC	TION MO	DDEL	(9/12/2	021)		
Scenario: Road Name: Road Segment:	Calimesa Bl.					Project I Job Nu			alley North	SP	
	ECIFIC IN	PUT DATA							L INPUT	S	
Highway Data					Site Con	ditions (Hard =	= 10, Sc	oft = 15)		
Average Daily Tra	ffic (Adt):	4,714 vehicle	:S					Autos:	15		
Peak Hour Pe	rcentage:	7.70%			Med	dium Tru	cks (2	Axles):	15		
Peak Hou	Volume:	363 vehicles	3		He	avy Truci	ks (3+	Axles):	15		
Vehic	le Speed:	35 mph		ŀ	Vehicle N	Nix					
Near/Far Lane	Distance:	57 feet		H		cleType		Day	Evening	Night	Daily
Site Data						A	utos:	70.6%	13.6%	15.8%	84.09%
Parrio	r Height:	0.0 feet			Ме	edium Tru	ıcks:	80.3%	4.7%	14.9%	3.24%
Barrier Type (0-Wall,		0.0 1661			F	leavy Tru	ıcks:	75.9%	8.2%	15.9%	12.66%
Centerline Dist. t	,	46.0 feet		ļ							
Centerline Dist. to 0		46.0 feet		Ļ	Noise So				eet)		
Barrier Distance to 0		0.0 feet				Autos		.000			
Observer Height (Ab	ove Pad):	5.0 feet				n Trucks		.297			
	Elevation:	0.0 feet			Heavy Trucks: 8.004 Grade Adjustment: 0.0						: 0.0
Road I	Elevation:	0.0 feet		Ī	Lane Equ	ivalent i	Distan	ce (in	feet)		
Ros	ad Grade:	0.0%		Ī		Autos	: 36	.452			
i i	Left View:	-90.0 degree	es.		Mediur	n Trucks	: 36	.209			
Ri	ght View:	90.0 degree			Heav	y Trucks	36	.232			
FHWA Noise Model C											
		Traffic Flow	Dist	tance	Finite		Fres	-	Barrier Att		m Atten
Autos:	64.30	-5.90		1.9	-	-1.20		-4.63		000	0.000
Medium Trucks:	75.75	-20.04		2.0		-1.20		-4.87		000	0.000
Heavy Trucks:	81.57	-14.12		1.9	19	-1.20		-5.47	0.0	000	0.000
Inmitigated Noise Le			barrie	r atter	nuation)						
VehicleType Le	q Peak Hour	Leq Day		Leq E	vening	Leq N	light		Ldn	С	NEL
Autos:	59.2	2	58.0		56.9		52.	7	60.3	3	60.8
Medium Trucks:	56.	5	55.9		49.6		49.	8	57.	5	57.
Heavy Trucks:	68.2		67.4		63.7		61.		69.4		69.7
Vehicle Noise:	69.0)	68.1		64.7		62.	6	70.:	2	70.5
Centerline Distance t	o Noise Cor	ntour (in feet)	1								
				70	dBA	65 d	BA	- 6	60 dBA	55	dBA
			Ldn:		47		102	2	219	,	473
		CI	VEL:		50		107	7	230)	497

Monday, July 3, 2023

	FHWA-RD	-77-108 HIGH	WAY	NOISE	PREDIC	TION N	IODEL	(9/12/2	021)		
Road Nar	rio: 2028 NP me: Calimesa Bl ent: n/o Cherry \	-					Name: lumber:		alley North	SP	
	SPECIFIC IN	PUT DATA			0:4- 0				L INPUT	S	
Highway Data					Site Cor	aitions	(Hara =				
Average Daily	. ,	8,144 vehicle	es					Autos:			
	r Percentage:	7.70%				dium Tr	,	,			
	Hour Volume:	627 vehicles	S		He	avy Tru	cks (3+	Axles):	15		
	ehicle Speed:	35 mph		-	Vehicle	Mix					
Near/Far L	ane Distance:	57 feet		-	Veh	icleType	,	Day	Evening	Night	Daily
Site Data							Autos:	70.6%	13.6%	15.89	6 97.53%
R:	arrier Height:	0.0 feet			М	edium T	rucks:	80.3%	4.7%	14.99	6 1.49%
Barrier Type (0-V	Vall, 1-Berm):	0.0				Heavy T	rucks:	75.9%	8.2%	15.99	% 0.98%
	ist. to Barrier:	46.0 feet		-	Noise S	ource El	evation	ıs (in f	eet)		
Centerline Dist		46.0 feet				Auto	s: 0	.000	,		
Barrier Distance	to Observer:	0.0 feet			Mediu	m Truck	s: 2	.297			
Observer Height	. ,	5.0 feet			Hear	y Truck	s: 8	.004	Grade Ad	justmei	nt: 0.0
	Pad Elevation:	0.0 feet		ļ							
Ro	oad Elevation:	0.0 feet			Lane Eq				feet)		
	Road Grade:	0.0%				Auto		.452			
	Left View:	-90.0 degree				m Truck		.209			
	Right View:	90.0 degree	es		Hea	y Truck	s: 36	.232			
FHWA Noise Mod	lel Calculations	;									
VehicleType	REMEL	Traffic Flow	Dis	stance	Finite	Road	Fres	nel	Barrier Att	en Be	erm Atten
Autos	64.30	-2.88		1.9		-1.20		-4.63	0.0	000	0.000
Medium Trucks	75.75	-21.05		2.0	00	-1.20		-4.87	0.0	000	0.000
Heavy Trucks	81.57	-22.85		1.9	99	-1.20		-5.47	0.0	000	0.000
Unmitigated Nois			_							1 .	21.51
VehicleType	Leq Peak Hou			Leq E	vening	_	Night	^	Ldn		ONEL
Autos Medium Trucks			61.0 54.9		59.9 48.6		55. 48.		63.3 56.3		63.8 56.7
		-	58.7		48.6 55.0		48. 53.	-	60.3	-	56.7 61.0
Heavy Trucks Vehicle Noise		-	63.6		61.3		58.		65.8		66.2
Centerline Distan	ce to Noise Co	ntour (in feet)								
				70	dBA	65	dBA	-	60 dBA	5	5 dBA
			Ldn:		24		52	2	112	!	241
	CNEL:								256		

	FHWA-KL	0-77-108 HIG	HWAY	NOISE	PKEDI	STION N	IODEL	(9/12/20	J21)		
	o: 2028 S2								alley North	SP	
	e: Calimesa B					Job N	lumber:	13594			
Road Segmen	t: n/o Cherry	valley Bl.									
	SPECIFIC IN	PUT DATA							L INPUT	S	
Highway Data				S	ite Cor	nditions	(Hard	= 10, Sc	oft = 15)		
Average Daily	Traffic (Adt):	10,438 vehic	les					Autos:	15		
Peak Hour I	Percentage:	7.70%				edium Tr		,			
Peak Ho	our Volume:	804 vehicle	es		He	eavy Tru	cks (3+	Axles):	15		
	nicle Speed:	35 mph		v	'ehicle	Mix					
Near/Far Lar	ne Distance:	57 feet			Ver	icleType	9	Day	Evening	Night	Daily
Site Data							Autos:	70.6%	13.6%	15.8%	91.60%
Bar	rier Height:	0.0 feet			M	ledium T	rucks:	80.3%	4.7%	14.9%	2.19%
Barrier Type (0-Wa		0.0				Heavy T	rucks:	75.9%	8.2%	15.9%	6.20%
Centerline Dis	t. to Barrier:	46.0 feet			loisa S	ource E	lovatio	ne (in fa	not)		
Centerline Dist. t	o Observer:	46.0 feet			10/36 0	Auto		0.000	.01)		
Barrier Distance t	o Observer:	0.0 feet			Modiu	m Truck		2.297			
Observer Height (/	Above Pad):	5.0 feet				vy Truck		3.004	Grade Ad	iustment	. 0.0
Pa	d Elevation:	0.0 feet				•				dourrorn	. 0.0
Roa	d Elevation:	0.0 feet		L	ane Eq	uivalen			feet)		
F	Road Grade:	0.0%				Auto		3.452			
	Left View:	-90.0 degre	ees			m Truck	00	6.209			
	Right View:	90.0 degre	ees		Hea	vy Truck	s: 36	5.232			
FHWA Noise Mode	l Calculation										
VehicleType	REMEL	Traffic Flow	_	stance		Road	Fres		Barrier Att		m Atten
Autos:	64.30	-2.0	-	1.96		-1.20		-4.63		000	0.00
Medium Trucks:	75.75	-18.2	-	2.00		-1.20		-4.87		000	0.00
Heavy Trucks:	81.57	-13.7		1.99		-1.20		-5.47	0.0	000	0.00
Unmitigated Noise											
	Leq Peak Hou		,	Leq Ev			Night	<u> </u>	Ldn		NEL
Autos:	63		61.8		60.7		56		64.2	-	64.
Medium Trucks:	58		57.7		51.4		51		59.3	-	59.
Heavy Trucks:	68		67.7		64.1		62	-	69.8		70.
Vehicle Noise:	70		69.1		65.9	'	63	.5	71.	l	71.
Centerline Distanc	e to Noise Co	ontour (in fee	et)	70 d	DΛ	65	dBA	-	i0 dBA	55	dBA
				70 U		00	и <i>Б</i> А 11		254		UDA 547
			Ldn:		55						

	FHWA-RI	D-77-108 HIGH	WAY NO	DISE	PREDIC	TION N	MODEL	(9/12/2	021)		
Road Nar	rio: 2028 S1 me: Calimesa E ent: n/o Cherry						t Name: lumber:		alley North	SP	
	SPECIFIC IN	IPUT DATA			0'' 0				L INPUT	s	
Highway Data				_	Site Con	aitions	(Hara =				
Average Daily	/ Traffic (Adt):	9,701 vehicle	S					Autos:			
Peak Hou	r Percentage:	7.70%					ucks (2	,			
Peak I	Hour Volume:	747 vehicles			He	avy Tru	cks (3+	Axles):	15		
V	ehicle Speed:	35 mph		ŀ	Vehicle I	Mix					
Near/Far La	ane Distance:	57 feet		ŀ		cleType		Day	Evening	Night	Daily
Site Data							Autos:	70.6%	13.6%	15.8%	93.56
Ra	arrier Height:	0.0 feet			Ме	edium T	rucks:	80.3%	4.7%	14.9%	1.60
Barrier Type (0-V		0.0			F	leavy T	rucks:	75.9%	8.2%	15.9%	4.85
	ist. to Barrier:	46.0 feet		-	Noise So			- /:- #	41		
Centerline Dist	to Observer:	46.0 feet		-	Noise So				eet)		
Barrier Distance	to Observer:	0.0 feet				Auto n Truck		.000			
Observer Height	(Above Pad):	5.0 feet						.297	0		
	Pad Elevation:	0.0 feet			Heav	y Truck	s: 8	.004	Grade Ad	yustment	. 0.0
Ro	oad Elevation:	0.0 feet		Ī	Lane Equ	ıivalen	t Distar	ce (in	feet)		
	Road Grade:	0.0%		ſ		Auto	s: 36	.452			
	Left View:	-90.0 degree	S		Mediur	n Truck	s: 36	.209			
	Right View:	90.0 degree	s		Heav	y Truck	s: 36	.232			
FHWA Noise Mod	del Calculation	s									
VehicleType	REMEL	Traffic Flow	Distan	псе	Finite	Road	Fres	nel	Barrier Att	en Bei	rm Atte
Autos	: 64.30	-2.30		1.9	96	-1.20		-4.63	0.0	000	0.0
Medium Trucks	75.75	-19.98		2.0	00	-1.20		-4.87	0.0	000	0.0
Heavy Trucks	81.57	-15.16		1.9	99	-1.20		-5.47	0.0	000	0.0
Unmitigated Nois	, ,			_						,	
VehicleType	Leq Peak Hou			eq E	vening	Leq	Night		Ldn		NEL
Autos			61.6		60.5		56.	-	63.9		64
Medium Trucks			56.0		49.7		49.	-	57.0	-	57
Heavy Trucks. Vehicle Noise			66.3 67.9		62.7 64.9		60.	-	68.4 70.1		68 70
					04.9		02.	4	70.0	U	/(
Centerline Distan	ice to Noise Co	ontour (in feet)		70	dBA	65	dBA		60 dBA	55	dBA
			l dn:	, ,	46	00	99	_	213		45
		-	IEL:		48		104		225		48
		01			40		10-	*	220	,	40

Monday, July 3, 2023

F	HWA-RD-	77-108 HIGH	WAY	NOISE	PREDIC	TION MO	DDEL	9/12/2	021)				
Scenario: HY Road Name: Ca Road Segment: n/o	limesa Bl.	alley Bl.				Project I Job Nu			alley North	SP			
SITE SPEC	IFIC INP	UT DATA							L INPUT	s			
Highway Data					Site Conditions (Hard = 10, Soft = 15)								
Average Daily Traffic	(Adt): 1	1,840 vehicle	s					Autos:	15				
Peak Hour Perce	entage:	7.70%			Med	dium Tru	cks (2	Axles):	15				
Peak Hour V	olume:	912 vehicles			He	avy Truci	ks (3+	Axles):	15				
Vehicle 3	Speed:	35 mph		ł	Vehicle N	Niv							
Near/Far Lane Dis	stance:	57 feet		-		cleType		Dav	Evening	Night	Daily		
Site Data							utos:	70.6%	-	15.8%			
Barrier H	lainht	0.0 feet			Me	edium Tru	ıcks:	80.3%	4.7%	14.9%	6 1.49%		
Barrier Type (0-Wall, 1-		0.0 feet			F	leavy Tru	ıcks:	75.9%	8.2%	15.9%	6 0.98%		
Centerline Dist. to I	,	46.0 feet											
Centerline Dist. to Ob		46.0 feet		-	Noise So				eet)				
Barrier Distance to Ob		0.0 feet				Autos		.000					
Observer Height (Above	e Pad):	5.0 feet			Medium Trucks: 2.297								
Pad Fle	,	0.0 feet			Heavy Trucks: 8.004 Grade Adjustment: 0.0						t: 0.0		
Road Fle	vation:	0.0 feet		İ	Lane Equ	ivalent i	Distan	ce (in	feet)				
Road	Grade:	0.0%		İ		Autos	: 36	.452					
Let	t View:	-90.0 degree	s		Mediur	n Trucks	: 36	.209					
Righ	t View:	90.0 degree			Heav	y Trucks	36	.232					
FHWA Noise Model Cal	culations			1									
		Traffic Flow	Dis	tance	Finite		Fres	-	Barrier Att		rm Atten		
Autos:	64.30	-1.26		1.9		-1.20		-4.63		000	0.000		
Medium Trucks:	75.75	-19.43		2.0		-1.20		-4.87		000	0.000		
Heavy Trucks:	81.57	-21.23		1.9	99	-1.20		-5.47	0.0	000	0.000		
Inmitigated Noise Leve	els (withou	it Topo and i	barrie	er attei	nuation)								
VehicleType Leq F	Peak Hour	Leq Day		Leq E	vening	Leq N	light		Ldn	C	NEL		
Autos:	63.8		32.6		61.5		57.	4	65.0	D	65.5		
Medium Trucks:	57.1		56.5		50.2		50.		58.2	_	58.3		
Heavy Trucks:	61.1		30.3		56.6		54.		62.3		62.6		
Vehicle Noise:	66.2	(35.2		63.0		59.	8	67.4	4	67.8		
Centerline Distance to I	Noise Con	tour (in feet)											
				70	dBA	65 d			60 dBA	55	5 dBA		
		-	Ldn:		31		67		143		309		
		CN	IEL:		33		7	l	153		329		

Monday, July 3, 2023

	FHWA-R	D-77-108 HIGH	WAY	NOISE	PREDIC	TION N	IODEL (9/12/20	021)				
	io: HY S1								alley North	SP			
	ne: Calimesa E					Job N	lumber:	13594					
Road Segme	nt: n/o Cherry	Valley Bl.											
	SPECIFIC II	NPUT DATA							L INPUT	S			
Highway Data					Site Con	ditions	(Hard =	10, Sc	oft = 15)				
Average Daily	Traffic (Adt):	13,397 vehicle	es		Autos: 15								
Peak Hour	Percentage:	7.70%			Me	dium Tr	ucks (2)	Axles):	15				
Peak H	lour Volume:	1,032 vehicle	S		He	avy Tru	cks (3+)	Axles):	15				
Ve	hicle Speed:	35 mph		7	Vehicle I	Mix							
Near/Far La	ne Distance:	57 feet		F		icleType		Day	Evening	Night	Daily		
Site Data							Autos:	70.6%	13.6%	15.8%	94.65		
Ra	rrier Height:	0.0 feet			М	edium T	rucks:	80.3%	4.7%	14.9%	1.579		
Barrier Type (0-W		0.0				Heavy T	rucks:	75.9%	8.2%	15.9%	3.78		
Centerline Di	st. to Barrier:	46.0 feet		- 1	Noise So	ource F	levation	s (in fe	eet)				
Centerline Dist.	Centerline Dist. to Observer: 46.0 feet					Autos: 0.000							
Barrier Distance	Barrier Distance to Observer: 0.0 feet					m Truck		297					
Observer Height	(Above Pad):	5.0 feet				ry Truck		004	Grade Ad	iustment	. 0.0		
P	ad Elevation:	0.0 feet								Juotimom	. 0.0		
Ro	ad Elevation:	0.0 feet		1	Lane Eq	uivalen	t Distan	ce (in i	feet)				
	Road Grade:	0.0%				Auto		452					
	Left View:	-90.0 degre	es		Mediu	m Truck	s: 36.	209					
	Right View:	90.0 degre	es		Heav	y Truck	s: 36.	232					
HWA Noise Mode	el Calculation	s		-									
VehicleType	REMEL	Traffic Flow	Dis	stance	Finite	Road	Fresr	nel .	Barrier Att	en Ber	m Atten		
Autos:	64.30	-0.85		1.9	6	-1.20		-4.63	0.0	000	0.00		
Medium Trucks:	75.75	-18.66		2.0	0	-1.20		-4.87	0.0	000	0.00		
Heavy Trucks:	81.57	-14.84		1.9	9	-1.20		-5.47	0.0	000	0.00		
Inmitigated Noise			barri										
VehicleType	Leq Peak Ho			Leq E	vening		Night		Ldn		NEL		
Autos:	-	1.2	63.0		61.9		57.8	-	65.4	•	65		
Medium Trucks:		7.9	57.3		51.0		51.2	-	58.9	-	59		
Heavy Trucks:		7.5	66.7		63.0		61.		68.7		69		
Vehicle Noise:	69	9.5	68.6		65.7		63.	ı	70.7	7	71		
Centerline Distan	ce to Noise C	ontour (in feet)										
				70 (dBA	65	dBA	ϵ	0 dBA	55	dBA		
			Ldn:		51		110		237		51		
	CNEL:				54 116 250			539					

	FHWA-R	D-77-108 HIGH	IWAY I	NOISE	PREDIC	TION	MODEL	(9/12/2	021)		
	io: HY S3								alley North	SP	
	e: Calimesa E					Job I	lumber.	13594			
Road Segmer	nt: n/o Cherry	Valley Bl.									
	SPECIFIC II	NPUT DATA							L INPUT	S	
Highway Data				5	Site Con	aitions	(Hara				
Average Daily	. ,	12,513 vehicl	es					Autos:	15		
	Percentage:	7.70%						Axles):			
	lour Volume:	964 vehicle	:S		He	avy Tru	icks (3+	Axles):	15		
	hicle Speed:	35 mph		ν	/ehicle l	Wix					
Near/Far Lai	ne Distance:	57 feet			Veh	icleTyp	9	Day	Evening	Night	Daily
Site Data							Autos:	70.6%	13.6%	15.8%	97.199
Bar	rrier Heiaht:	0.0 feet			M	edium 1	rucks:	80.3%	4.7%	14.9%	1.449
Barrier Type (0-W		0.0			- 1	Heavy 1	rucks:	75.9%	8.2%	15.9%	1.369
Centerline Dis	st. to Barrier:	46.0 feet		۸	loise So	ource E	levatio	ns (in f	eet)		
Centerline Dist.	to Observer:	46.0 feet				Auto		0.000	,		
Barrier Distance	to Observer:	0.0 feet			Mediu	m Truck		2.297			
Observer Height ('Above Pad):	5.0 feet				v Truci		3.004	Grade Ad	iustment	0.0
Pa	ad Elevation:	0.0 feet				,					
Roa	ad Elevation:	0.0 feet		L	ane Eq	uivalen	t Distai	nce (in	feet)		
F	Road Grade:	0.0%				Auto	s: 36	3.452			
	Left View:	-90.0 degre	es		Mediu	m Truci	rs: 36	5.209			
	Right View:	90.0 degre	es		Heav	ry Truck	(S: 36	3.232			
FHWA Noise Mode	el Calculation	s									
VehicleType	REMEL	Traffic Flow		tance	Finite		Fres		Barrier Att		
VehicleType Autos:	REMEL 64.30	Traffic Flow -1.03		1.96	3	-1.20		-4.63	0.0	000	0.00
VehicleType Autos: Medium Trucks:	REMEL 64.30 75.75	-1.03 -19.31		1.96	6	-1.20 -1.20		-4.63 -4.87	0.0	000	0.00
VehicleType Autos:	REMEL 64.30	-1.03 -19.31		1.96	6	-1.20		-4.63	0.0	000	0.00
VehicleType Autos: Medium Trucks: Heavy Trucks: Unmitigated Noise	REMEL 64.30 75.75 81.57 e Levels (with	-1.03 -19.31 -19.56	barrie	1.96 2.00 1.99	S)) uation)	-1.20 -1.20 -1.20		-4.63 -4.87	0.0 0.0 0.0	000 000 000	0.00 0.00 0.00
VehicleType Autos: Medium Trucks: Heavy Trucks: Unmitigated Noise VehicleType	REMEL 64.30 75.75 81.57 e Levels (with Leq Peak Ho	-1.03 -19.31 -19.56	barrie y	1.96 2.00 1.99	auation)	-1.20 -1.20 -1.20	Night	-4.63 -4.87 -5.47	0.0 0.0 0.0	000 000 000	0.00 0.00 0.00
VehicleType Autos: Medium Trucks: Heavy Trucks: Unmitigated Noise VehicleType Autos:	REMEL 64.30 75.75 81.57 2 Levels (with Leq Peak Hon	-1.03 -19.31 -19.56 out Topo and ur Leq Da	barrie y 62.9	1.96 2.00 1.99	ouation) rening 61.7	-1.20 -1.20 -1.20	Night 57	-4.63 -4.87 -5.47	0.0 0.0 0.0 <i>Ldn</i>	000 000 000 000 CI	0.00 0.00 VEL 65.
VehicleType Autos: Medium Trucks: Heavy Trucks: Unmitigated Noise VehicleType Autos: Medium Trucks:	REMEL 64.30 75.75 81.57 8 Levels (with Leq Peak Hol	-1.03 -19.31 -19.56 out Topo and ur Leq Da 4.0 7.2	barrie y 62.9 56.6	1.96 2.00 1.99	(auation) vening 61.7 50.4	-1.20 -1.20 -1.20	Night 57	-4.63 -4.87 -5.47	0.0 0.0 0.0 <i>Ldn</i> 65.2 58.3	000 000 000 000 <i>CI</i>	0.00 0.00 0.00 VEL 65. 58.
VehicleType Autos: Medium Trucks: Heavy Trucks: Unmitigated Noise VehicleType Autos: Medium Trucks: Heavy Trucks:	REMEL 64.30 75.75 81.57 8 Levels (with Leq Peak Hol 64 57	7.2 2.8	barrie 9 62.9 56.6 62.0	1.96 2.00 1.99	61.7 50.4 58.3	-1.20 -1.20 -1.20	Night 57 50 56	-4.63 -4.87 -5.47	0.0 0.0 0.0 <i>Ldn</i> 65.2 58.3 64.0	000 000 000 000 CI	0.00 0.00 0.00 VEL 65. 58. 64.
VehicleType Autos: Medium Trucks: Heavy Trucks: Unmitigated Noise VehicleType Autos: Medium Trucks:	REMEL 64.30 75.75 81.57 8 Levels (with Leq Peak Hol 64 57	-1.03 -19.31 -19.56 out Topo and ur Leq Da 4.0 7.2	barrie y 62.9 56.6	1.96 2.00 1.99	(auation) vening 61.7 50.4	-1.20 -1.20 -1.20	Night 57	-4.63 -4.87 -5.47	0.0 0.0 0.0 <i>Ldn</i> 65.2 58.3	000 000 000 000 CI	0.00 0.00 0.00 VEL 65. 58. 64.
VehicleType Autos: Medium Trucks: Heavy Trucks: Unmitigated Noise VehicleType Autos: Medium Trucks: Heavy Trucks: Vehicle Noise:	REMEL 64.30 75.75 81.57 8 Levels (with Leq Peak Hol 64 51 62 67	Traffic Flow -1.03 -19.31 -19.56 out Topo and ur Leq Da 1.0 2.8	62.9 56.6 62.0 66.0	1.96 2.00 1.99 er attenu Leq Ev	61.7 50.4 58.3 63.6	-1.20 -1.20 -1.20	Night 57 50 56	-4.63 -4.87 -5.47	0.0 0.0 0.0 <i>Ldn</i> 65.2 58.3 64.0	0000 0000 0000 CI	0.00 0.00 0.00 VEL 65. 58. 64. 68.
VehicleType Autos: Medium Trucks: Heavy Trucks: Unmitigated Noise VehicleType Autos: Medium Trucks: Heavy Trucks: Vehicle Noise:	REMEL 64.30 75.75 81.57 8 Levels (with Leq Peak Hol 64 51 62 67	Traffic Flow -1.03 -19.31 -19.56 out Topo and ur Leq Da 1.0 2.8	62.9 56.6 62.0 66.0	1.96 2.00 1.99	(a) (b) (a) (a) (a) (a) (b) (a) (b) (b) (c) (d) (d) (d) (d) (d) (d) (d) (d) (d) (d	-1.20 -1.20 -1.20	Night 57 50 56 60	-4.63 -4.87 -5.47	0.0 0.0 0.0 0.0 65.2 58.3 64.0 68.7	000 000 000 000 000 000 000	0.00 0.00 0.00 NEL 65. 58. 64. 68.
Autos: Medium Trucks: Heavy Trucks: Unmitigated Noise VehicleType Autos: Medium Trucks: Heavy Trucks:	REMEL 64.30 75.75 81.57 8 Levels (with Leq Peak Hol 64 51 62 67	Traffic Flow -1.03 -19.31 -19.56 out Topo and ur	62.9 56.6 62.0 66.0	1.96 2.00 1.99 er attenu Leq Ev	61.7 50.4 58.3 63.6	-1.20 -1.20 -1.20	Night 57 50 56 60 dBA 7	-4.63 -4.87 -5.47	0.0 0.0 0.0 <i>Ldn</i> 65.2 58.3 64.0	000 000 000 000 CI 22 33 0)	0.000 0.000 0.000 VEL 65. 58.6 64.4

		D-77-108 HIGHV	VAT INC	лос	PREDIC		•				
	rio: HY S2								alley North	SP	
	me: Calimesa E					Job N	umber:	13594			
Road Segme	ent: n/o Cherry	Valley Bl.									
	SPECIFIC IN	IPUT DATA							L INPUT	S	
Highway Data				- 1	Site Con	ditions	(Hard =	10, So	oft = 15)		
Average Daily	/ Traffic (Adt):	14,134 vehicles	8					Autos:			
Peak Hou	r Percentage:	7.70%				dium Tru		/			
Peak i	Hour Volume:	1,088 vehicles			He	avy Truc	ks (3+)	Axles):	15		
	ehicle Speed:	35 mph		1	Vehicle I	Mix					
Near/Far La	ane Distance:	57 feet		F	Vehi	icleType		Day	Evening	Night	Daily
Site Data						A	lutos:	70.6%	13.6%	15.8%	93.15
Ва	arrier Height:	0.0 feet			Me	edium Ti	ucks:	80.3%	4.7%	14.9%	2.019
Barrier Type (0-V		0.0			F	Heavy Ti	ucks:	75.9%	8.2%	15.9%	4.849
Centerline D	ist. to Barrier:	46.0 feet		-	Noise So	urco El	ovation	r (in fo	not)		
Centerline Dist	to Observer:	46.0 feet		ď	140/36 30	Auto:		000	et)		
Barrier Distance	e to Observer:	0.0 feet			Modius	m Truck:		297			
Observer Height	(Above Pad):	5.0 feet				y Truck		004	Grade Ad	iustmani	- 0.0
F	Pad Elevation:	0.0 feet		L	ricav	y IIuch	s. o.	JU4	Orauc Au	justineni	. 0.0
Ro	oad Elevation:	0.0 feet		ı	Lane Equ	uivalent	Distan	e (in t	feet)		
	Road Grade:	0.0%				Auto		452			
	Left View:	-90.0 degrees	8			m Trucks		209			
	Right View:	90.0 degrees	8		Heav	y Truck	36.	232			
FHWA Noise Mod	del Calculation	s									
VehicleType	REMEL	Traffic Flow	Distar	псе	Finite		Fresr		Barrier Att	en Bei	rm Atten
Autos	64.30	-0.69		1.9	6	-1.20		-4.63	0.0	000	0.00
Medium Trucks	75.75	-17.35		2.0	0	-1.20		-4.87	0.0	000	0.00
Heavy Trucks	: 81.57	-13.53		1.9	9	-1.20		-5.47	0.0	000	0.00
Unmitigated Nois	, ,										
Vehicle Type	Leq Peak Hou		_	eq E	vening	Leq	Night		Ldn		NEL
Autos			3.2		62.1		57.9		65.	-	66
Medium Trucks		-	8.6		52.3		52.5		60.	_	60
Heavy Trucks. Vehicle Noise			8.0 9.6		64.3 66.5		62.4		70.0		70 72
			19.0		00.5		04.	l	71.	1	12
Centerline Distan	ice to Noise Co	ontour (in feet)		70.0	dBA	65	dBA	6	60 dBA	55	dBA
		1	dn:	, 0 (59	001	128		276		594
		_	EL:		63		135		291		62
		011			03		100		251		02

Monday, July 3, 2023

	FHWA-RD	-77-108 HIGHV	VAY NOI	SE PREDIC	TION N	IODEL (9/12/2	021)		
Scenario: Road Name: Road Segment:	5th St.	ood Dr.				Name: lumber:		alley North	SP	
	PECIFIC IN	PUT DATA						L INPUT	S	
Highway Data				Site Cor	ditions	(Hard =	10, S	oft = 15)		
Average Daily Tr Peak Hour Po Peak Hou	. ,	6,727 vehicles 7.70% 518 vehicles	•		edium Tr eavy Tru	ucks (2)	,	15		
Vehi	cle Speed:	25 mph		Vehicle	Mix					
Near/Far Lane	Distance:	36 feet			icleType		Dav	Evening	Night	Dailv
Site Data						Autos:	70.69		15.89	
Rarri	er Height:	0.0 feet		M	edium T	rucks:	80.39	6 4.7%	14.99	6 1.49%
Barrier Type (0-Wal		0.0			Heavy T	rucks:	75.99	6 8.2%	15.99	6 0.98%
Centerline Dist.	to Barrier:	44.0 feet		Noise S	ource Fl	evation	s (in f	eet)		
Centerline Dist. to	Observer:	44.0 feet		140/30 0	Auto		000	coty		
Barrier Distance to	Observer:	0.0 feet		Modiu	m Truck	0.	297			
Observer Height (Al	bove Pad):	5.0 feet					004	Grade Ad	iuctmar	nt: 0.0
Pad	Elevation:	0.0 feet		неа	y Truck	S. 8.	004	Grade Au	usunci	n. 0.0
Road	Elevation:	0.0 feet		Lane Eq	uivalen	t Distan	ce (in	feet)		
Ro	oad Grade:	0.0%			Auto	s: 40.	460			
	Left View:	-90.0 degrees	;	Mediu	m Truck	s: 40.	241			
F	Right View:	90.0 degrees		Hea	y Truck	s: 40.	262			
FHWA Noise Model	Calculations									
VehicleType	REMEL	Traffic Flow	Distance	e Finite	Road	Fresi	nel	Barrier Att	en Be	erm Atten
Autos:	58.73	-2.25	1	1.28	-1.20		-4.61	0.0	000	0.000
Medium Trucks:	70.80	-20.42	1	1.31	-1.20		-4.87	0.0	000	0.000
Heavy Trucks:	77.97	-22.22	1	1.31	-1.20		-5.50	0.0	000	0.000
Unmitigated Noise L	evels (with	ut Topo and b	arrier att	enuation)						
VehicleType L	eq Peak Hou	Leq Day	Leq	Evening	Leq	Night		Ldn	(CNEL
Autos:	56.	6 5	5.4	54.3		50.	-	57.		58.2
Medium Trucks:	50.	5 4	9.9	43.6		43.	В	51.	5	51.7
Heavy Trucks:	55.	9 5	5.0	51.4		49.	5	57.	1	57.4
Vehicle Noise:	59.	8 5	8.8	56.3		53.	3	60.9	9	61.3
Centerline Distance	to Noise Co	ntour (in feet)					_			
				0 dBA	65	dBA		60 dBA	_	5 dBA
		_	dn:	11		24		51		110
		CN	EL:	12		25		54		116

Monday, July 3, 2023

	FHWA-R	D-77-108 HIGH	IWAY	NOISE	PREDIC	CTION M	IODEL	(9/12/20	021)		
Road Na	ario: 2025 NP me: 5th St. ent: e/o Sandal	wood Dr.					Name: lumber:		alley North	SP	
	SPECIFIC II	IPUT DATA			·:4- O	N ditions			L INPUT	s	
Highway Data				٥	ite Cor	laitions	(Hara =				
	y Traffic (Adt):	7,139 vehicl	es					Autos:	15		
	ır Percentage:	7.70%				edium Tri		,			
	Hour Volume:	550 vehicle	S		He	eavy Truc	cks (3+	Axles):	15		
	ehicle Speed:	25 mph		ν	ehicle	Mix					
Near/Far L	.ane Distance:	36 feet			Veh	icleType		Day	Evening	Night	Daily
Site Data							Autos:	70.6%	13.6%	15.8%	97.53%
F	arrier Height:	0.0 feet			М	edium Ti	rucks:	80.3%	4.7%	14.9%	1.49%
Barrier Type (0-		0.0				Heavy Ti	rucks:	75.9%	8.2%	15.9%	0.98%
	Dist. to Barrier:	44.0 feet		٨	loise S	ource El	evation	ıs (in fe	eet)		
	t. to Observer:	44.0 feet				Auto	s: 0	.000			
Barrier Distanc	e to Observer:	0.0 feet 5.0 feet			Mediu	m Truck	s: 2	.297			
Observer Heigh			Hear	vy Truck	s: 8	.004	Grade Ad	liustment	: 0.0		
	Pad Elevation:	0.0 feet								,	
R	oad Elevation:	0.0 feet		L	ane Eq	uivalent		_ •	feet)		
	Road Grade:	0.0%				Auto		.460			
	Left View:	-90.0 degre	es			m Truck		.241			
	Right View:	90.0 degre	es		Hea	vy Truck	s: 40	.262			
FHWA Noise Mo											
VehicleType	REMEL	Traffic Flow		stance		Road	Fres		Barrier Att		m Atten
Auto				1.28		-1.20		-4.61		000	0.00
Medium Truck				1.31		-1.20		-4.87		000	0.000
Heavy Truck				1.31		-1.20		-5.50	0.0	000	0.000
Unmitigated Noi										1 -	
VehicleType	Leq Peak Ho			Leq Ev		. ,	Night		Ldn		NEL
Auto		3.8	55.6		54.5		50.		58.	-	58.
Medium Truck).7	50.1		43.9		44.		51.		52.0
Heavy Truck: Vehicle Noise		3.1 0.0	55.3 59.1		51.6 56.6		49. 53.		57. 61.	-	57.0 61.0
Centerline Dista	nce to Noise C	ontour (in feet	9								
2		(111 1001		70 d	BA	65	dBA	6	i0 dBA	55	dBA
			Ldn:		11		25	5	53	3	114
		С	NEL:		12		26	3	56	5	121

Average Daily Traffic (Adt): 7,139 vehicles	
SITE SPECIFIC INPUT DATA	
SITE SPECIFIC INPUT DATA Site Conditions (Hard = 10, Soft = 15)	
Average Daily Traffic (Adt): 7,139 vehicles Peak Hour Percentage: 7,70% Medium Trucks (2 Axles): 15 Vehicle Speed: Vehicle Speed: 25 mph Vehicle Speed: 25 mph Vehicle Type Day Evening Night Vehicle Type Night N	
Peak Hour Percentage: 7.70% Medium Trucks (2 Axies): 15	
Peak Hour Volume: Vehicle Speed: 25 mph Near/Far Lane Distance: 36 feet Vehicle Mix Vehicle	
Vehicle Speed: Near/Far Lane Distance: 25 mph 36 feet Vehicle Mix Vehicle Type Day Evening Night Site Data Barrier Height: 10.0 feet 0.0 feet Medium Trucks: 80.3% 4.7% 15.8% 15.8% Medium Trucks: 80.3% 4.7% 14.9% 14.9% Heavy Trucks: 75.9% 8.2% 15.9% 14.0 feet Barrier Distance to Observer: Observer Height (Above Pad): 5.0 feet Road Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Autos: 40.460 Medium Trucks: 2.297 Heavy Trucks: 8.004 Grade Adjustment: Autos: 40.460 Medium Trucks: 40.241 Heavy Trucks: 40.262 FHWA Noise Model Calculations Weichel Type REMEL Traffic Flow Distance Finite Road Fresnel Barrier Atten Berrier Autos: 50.73 1.1.99 1.28 1.20 4.61 0.000 Heavy Trucks: 77.97 -21.96 1.31 -1.20 -5.50 0.000 Heavy Trucks: 77.97 -21.96 1.31 -1.20 -5.50 0.000 Unmittgated Noise Levels (without Topo and barrier attenuation) Finite Road Fresnel Barrier Atten Berrier Attenuation Barrier Atten Berrier Attenuation Vehicle Type Leq Peak Hour Leq Day Leq Evening Leq Night Ldn School Autos: 50.7 50.1 43.9 44.1 51.8 Leq Day Leq Evening Leq Night Ldn School 51.0 51.0 51.0 51.0 51.0 51.0 51.0 51.0	
Near/Far Lane Distance: 36 feet Vehicle Mix Vehicle Type Day Evening Night Night Site Data Autos: 70.6% 13.6% 15.8%	
Site Data Autos: 70.6% 13.6% 15.8% 1	
Barrier Height: 0.0 feet	Daily
Heavy Trucks: 75.9% 8.2% 15.9% Reavy Trucks: 8.004 97.53	
Noise Source Elevations (in feet)	1.49
Centerline Dist. to Observer:	0.98
Barrier Distance to Observer: 0.00 feet Autos: 0.000	
Medium Trucks: 2.29	
Pad Elevation: 0.0 feet	
Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: 90.0 degrees Right View: 90.0 degrees Heavy Trucks: 40.241 Heavy Trucks: 40.262 Heavy Trucks: 70.80 -20.16 1.31 -1.20 -4.61 0.000 Heavy Trucks: 70.80 -20.16 1.31 -1.20 -4.87 0.000 Heavy Trucks: 70.97 -21.96 1.31 -1.20 -5.50 0.000 Heavy Trucks: 70.97 -21.96 1.31 -1.20 -5.50 0.000 Heavy Trucks: 70.97 -21.96 1.31 -1.20 -5.50 0.000 Heavy Trucks: 56.8 55.6 54.5 50.4 58.0 Heavy Trucks: 50.7 50.1 43.9 44.1 51.8 Heavy Trucks: 56.1 55.3 51.6 49.7 57.3 Heavy Trucks: 56.1 55.3 51.6 49.7 57.3 Heavy Trucks: 56.1 55.3 51.6 Heavy Trucks: 56.1 56.8 Heavy Trucks: 56.1 55.3 51.6 Heavy Trucks: 56.1 56.8 Heavy Trucks: 56.1 56.8 56.6 56.8 56.6 56.8 56.6 56.8 56.6 56.8 5	0.0
Road Grade: 0.0%	
Left View:	
Right View: 90.0 degrees Heavy Trucks: 40.262	
VehicleType	
Autos: 58.73 -1.99 1.28 -1.20 -4.61 0.000	
Medium Trucks: 70.80 -20.16 1.31 -1.20 -4.87 0.000 Heavy Trucks: 77.97 -21.96 1.31 -1.20 -5.50 0.000 Unmitigated Noise Levels (without Topo and barrier attenuation) VehicleType Leq Peak Hour Leq Day Leq Evening Leq Night Ldn CN Autos: 56.8 55.6 54.5 50.4 58.0 Medium Trucks: 50.7 50.1 43.9 44.1 51.8 Heavy Trucks: 56.1 55.3 51.6 49.7 57.3	n Atten
Heavy Trucks: 77.97 -21.96 1.31 -1.20 -5.50 0.000 Unmitigated Noise Levels (without Topo and barrier attenuation) Vehicle Type Leq Peak Hour Leq Day Leq Evening Leq Night Ldn CN Autos: 56.8 55.6 54.5 50.4 58.0 Medium Trucks: 50.7 50.1 43.9 44.1 51.8 Heavy Trucks: 56.1 55.3 51.6 49.7 57.3	0.00
Unmitigated Noise Levels (without Topo and barrier attenuation)	0.00
VehicleType Leq Peak Hour Leq Day Leq Evening Leq Night Ldn CN Autos: 56.8 55.6 54.5 50.4 58.0 Medium Trucks: 50.7 50.1 43.9 44.1 51.8 Heavy Trucks: 56.1 55.3 51.6 49.7 57.3	0.00
Autos: 56.8 55.6 54.5 50.4 58.0 Medium Trucks: 50.7 50.1 43.9 44.1 51.8 Heavy Trucks: 56.1 55.3 51.6 49.7 57.3	
Medium Trucks: 50.7 50.1 43.9 44.1 51.8 Heavy Trucks: 56.1 55.3 51.6 49.7 57.3	
Heavy Trucks: 56.1 55.3 51.6 49.7 57.3	
	58
Vehicle Noise: 60.0 59.1 56.6 53.6 61.2	58 52
	58 52 57
Centerline Distance to Noise Contour (in feet)	58 52
	58 52 57 61
Ldn: 11 25 53	58 52 57 61 dBA
CNEL: 12 26 56	58 52 57 61

Scenario Road Name Road Segmen		wood Dr.					Name: umber:		alley North	SP	
	PECIFIC IN	IPUT DATA			0:4- 0				L INPUT	s	
Highway Data					Site Con	aitions	(Hara =				
Average Daily 1	. ,	7,139 vehic	les					Autos:	15		
Peak Hour F	-	7.70%				dium Tru		,	15		
	our Volume:	550 vehicle	es		He	avy Truc	cks (3+	Axles):	15		
	icle Speed:	25 mph		1	Vehicle I	Mix					
Near/Far Lan	e Distance:	36 feet			Veh	icleType		Day	Evening	Night	Daily
Site Data							Autos:	70.6%	13.6%	15.8%	97.539
Barı	ier Height:	0.0 feet			M	edium Ti	rucks:	80.3%	4.7%	14.9%	1.499
Barrier Type (0-Wa	-	0.0			- 1	Heavy Ti	rucks:	75.9%	8.2%	15.9%	0.989
Centerline Dis	. ,	44.0 feet		-							
Centerline Dist. to	Observer:	44.0 feet		- 4	Noise So			- 1	eet)		
Barrier Distance to	Observer:	0.0 feet				Auto		.000			
Observer Height (A	Above Pad):	5.0 feet				m Truck		.297	0		
	d Elevation:	0.0 feet			Heav	y Truck	s: 8	.004	Grade Ad	iustment.	0.0
Roa	d Elevation:	0.0 feet		1	Lane Eq	uivalent	Distan	ice (in t	eet)		
R	oad Grade:	0.0%				Auto	s: 40	.460			
	Left View:	-90.0 degre	es		Mediu	m Trucks	s: 40	.241			
	Right View:	90.0 degre	es		Heav	y Truck	s: 40	.262			
FHWA Noise Mode	Calculation	s									
VehicleType	REMEL	Traffic Flow		stance		Road	Fres		Barrier Att		m Atten
Autos:	58.73			1.2	-	-1.20		-4.61		000	0.00
Medium Trucks:	70.80			1.3		-1.20		-4.87		000	0.00
Heavy Trucks:	77.97			1.3		-1.20		-5.50	0.0	000	0.00
Unmitigated Noise			barri	er atten	uation)						
	Leq Peak Hou		,	Leg E	vening	Leq	Night		Ldn	_	VEL
Autos:		3.8	55.6		54.5		50.		58.0	-	58.
Medium Trucks:).7	50.1		43.9		44.		51.8	-	52.
Heavy Trucks:		3.1	55.3		51.6		49.		57.3		57.
Vehicle Noise:		0.0	59.1		56.6		53.	.6	61.2	2	61.
Centerline Distance	e to Noise Co	ontour (in fee	t)	70 (HRΔ	65	dBA	- 6	i0 dBA	55	dBA
			Ldn:	,,,,	11	00 .	2!	5	53		114

Monday, July 3, 2023

	FHWA-RD-	77-108 HIGH	NAY N	OISE	PREDIC	TION MO	DDEL (9/12/2	021)		
Scenario Road Name	2028 NP					Project I			alley North	SP	
Road Segmen		and Dr				JOD IVU	mber.	13394			
	PECIFIC INF					N	NISE I	MODE	L INPUT	9	
Highway Data	r Lon Io III	UIDAIA			Site Con	ditions (
Average Daily 1	raffic (Adt):	9.354 vehicle	s			· ·		Autos:	15		
Peak Hour F	. ,	7.70%			Me	dium Tru	cks (2)	Axles):	15		
	our Volume:	720 vehicles			He	avy Truci	ks (3+)	Axles):	15		
Veh	icle Speed:	25 mph		,	/ehicle I	Miss					
Near/Far Lan	e Distance:	36 feet		- 1		cleType		Dav	Evening	Night	Daily
Site Data				-	verii		utos:	70.6%	-	15.8%	. ,
					M	edium Tri		80.3%		14.9%	
	rier Height:	0.0 feet				leavy Tru		75.9%		15.9%	
Barrier Type (0-Wa	. ,	0.0 44.0 feet								10.57	0.507
Centerline Dist. to		44.0 feet		1	Voise So	urce Ele	vation	s (in fe	eet)		
Barrier Distance to		0.0 feet				Autos	0.	000			
Observer Height (A		5.0 feet			Mediur	n Trucks		297			
	d Elevation:	0.0 feet			Heav	y Trucks	8.	004	Grade Ad	justmen	t: 0.0
	d Elevation:	0.0 feet		1	ane Equ	uivalent	Distan	ce (in	feet)		
	oad Grade:	0.0%				Autos		460	,		
•	Left View:	-90.0 degree	s		Mediur	n Trucks		241			
	Right View:	90.0 degree			Heav	y Trucks	40.	262			
HWA Noise Mode											
VehicleType		Traffic Flow	Diets	ance	Finite	Road	Fresi	nel la	Barrier Att	en Re	rm Atten
Autos:	58.73	-0.82	Dist	1.2		-1.20	1 1031	-4.61		000	0.000
Medium Trucks:	70.80	-18.99		1.3	-	-1.20		-4.87		000	0.000
Heavy Trucks:	77.97	-20.79		1.3	1	-1.20		-5.50	0.0	000	0.000
Inmitigated Noise	Levels (witho	ut Topo and I	parrier	atten	uation)						
VehicleType I	Leg Peak Hour	Leq Day		Leg Ev	ening	Leq N	light		Ldn	С	NEL
Autos:	58.0) 5	6.8		55.7		51.6	3	59.2	2	59.7
Medium Trucks:	51.9	9 5	51.3		45.0		45.2	2	52.9	9	53.
Heavy Trucks:	57.3	3 5	6.4		52.8		50.9	9	58.5	5	58.8
Vehicle Noise:	61.2	2 (30.2		57.7		54.8	3	62.4	4	62.8
Centerline Distance	e to Noise Cor	ntour (in feet)									
				70 c		65 d			60 dBA		dBA
		-	_dn:		14		29		63		136
		CN	IEL:		14		31		67		145

Monday, July 3, 2023

	FHWA-RE	0-77-108 HIGH	WAY	NOISE	PREDIC	TION N	IODEL	(9/12/2	021)		
Road Nan	rio: 2028 S1 ne: 5th St. nt: e/o Sandalv	wood Dr.					Name: lumber:		alley North	SP	
	SPECIFIC IN	IPUT DATA			0				L INPUT	s	
Highway Data					Site Con	aitions	(Hara :	= 10, Sc			
Average Daily	Traffic (Adt):	9,429 vehicle	es					Autos:	15		
	Percentage:	7.70%				dium Tr					
Peak H	lour Volume:	726 vehicles	3		He	avy Tru	cks (3+	Axles):	15		
Vé	ehicle Speed:	25 mph		-	Vehicle I	Wix					
Near/Far La	ne Distance:	36 feet		f		icleType		Dav	Evening	Night	Dailv
Site Data							Autos:	70.6%		15.8%	. ,
	rrier Height:	0.0 feet			М	edium T	rucks:	80.3%	4.7%	14.9%	1.47%
Barrier Type (0-V		0.0			1	Heavy T	rucks:	75.9%	8.2%	15.9%	
*, .	ist to Barrier:	44.0 feet		ļ							
Centerline Dist.		44.0 feet		ļ	Noise Sc			ns (in fe	eet)		
Barrier Distance		0.0 feet				Auto		.000			
Observer Height		5.0 feet				m Truck		.297			
	ad Elevation:	0.0 feet			Heav	ry Truck	s: 8	.004	Grade Ac	ljustmen	t: 0.0
Ro	ŀ	Lane Eq	uivalen	t Distar	ce (in	feet)					
	Road Grade:	0.0 feet 0.0%		-		Auto		.460	,		
	Left View:	-90.0 degree	ae .		Mediu	m Truck		.241			
	Right View:	90.0 degree				y Truck		.262			
FHWA Noise Mod	ol Calculation	-									
VehicleType	REMEL	Traffic Flow	Dis	stance	Finite	Road	Fres	nel	Barrier At	ten Re	rm Atten
Autos:		-0.78		1.2		-1.20	,,,,,	-4.61		000	0.000
Medium Trucks:	70.80	-18.99		1.3	31	-1.20		-4.87		000	0.000
Heavy Trucks:	77.97	-20.79		1.3	31	-1.20		-5.50	0.	000	0.000
Unmitigated Nois	e Levels (with	out Topo and	barri	er attei	nuation)						
VehicleType	Leq Peak Hou	ır Leq Day	,	Leq E	vening	Leq	Night		Ldn	С	NEL
Autos:	58	.0	56.9		55.7		51	.6	59.	2	59.7
Medium Trucks:	51	.9	51.3		45.0		45	.2	52.	9	53.1
Heavy Trucks:	57	.3	56.4		52.8		50	.9	58.	5	58.8
Vehicle Noise:	61	.2	60.3		57.8		54	.8	62.	4	62.8
Centerline Distan	ce to Noise Co	ntour (in feet)									
				70	dBA	65	dBA	6	60 dBA	55	dBA
			Ldn:		14		2	9	64	1	137
		CI	VEL:		15		3	1	67	7	145

Autos: 58.73 0.37 1.28 -1.20 -4.61 0.000	
Average Daily Traffic (Adi):	
Average Daily Traffic (Adt): 12,296 vehicles Peak Hour Percentage: 7,70% Medium Trucks (2 Axles): 15 Seek Hour Volume: 947 vehicles Vehicle Speed: 25 mph Near/Far Lane Distance: 36 feet Vehicle Mix Vehicle Type Day Evening Night Vehicle Type Day Evening Night Site Data Autos: 70.0% 13.6% 15.8% 15.9% Near/Far Lane Distance: 10.0 feet Medium Trucks: 80.3% 4.7% 14.9% 14.9% Nedium Trucks: 75.9% 8.2% 15.9% Near/Far Lane Dist. to Barrier: 44.0 feet Autos: 0.00 Heavy Trucks: 75.9% 8.2% 15.9% Noise Source Elevations (in feet) Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.004 Grade Adjustment: 10.0 feet Autos: 0.000 Autos: 0.000 Autos: 10.0 feet Autos: 0.000 Autos: 10.0 feet Autos:	
Peak Hour Percentage:	
Peak Hour Volume: Vehicle Speed: Near/Far Lane Distance: 36 feet	
Vehicle Speed: 25 mph Vehicle Mix Vehicle Type Day Evening Night ght Night Night Night	
Near/Far Lane Distance: 36 feet Vehicle MIX Vehicle Type Day Evening Night	
Site Data	
Barrier Height: 0.0 feet	Daily
Barrier Trype (0-Wall, 1-Berm) 0.0 telet 44.0 feet 44.0 feet Centerline Dist. to Diserver: 44.0 feet Autos: 0.000 Barrier Distance to Observer: 0.0 feet Autos: 0.000 Barrier Distance (in feet) Barrier Distance (i	97.539
Barrier Type (0-Wall, 1-Berm): 0.0	1.499
Centerline Dist. to Observer:	0.989
Centerline Dist. to Observer:	
Barrier Distance to Observer: 0.0 feet Medium Trucks: 2.297 Heavy Trucks: 8.004 Grade Adjustment:	
Diserver Height (Above Pad): 5.0 feet Heavy Trucks: 8.004 Grade Adjustment:	
Pad Elevation: 0.0 feet	0.0
Road Grade: 0.0%	0.0
Left View: -90.0 degrees Heavy Trucks: 40.241 Heavy Trucks: 40.241 Heavy Trucks: 40.241 Heavy Trucks: 40.262 Heavy Trucks: 58.73	
Right View: 90.0 degrees Heavy Trucks: 40.262	
FHWA Noise Model Calculations	
VehicleType	
Medium Trucks: 58.73	
Medium Trucks: 70.80	n Atten
Heavy Trucks: 77.97 -19.60 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 CN Autos: 59.2 58.0 56.9 52.8 60.4 Medium Trucks: 53.1 52.5 46.2 46.4 54.1	0.00
VehicleType Leq Peak Hour Leq Day Leq Evening Leq Night Ldn CN Autos: 59.2 58.0 56.9 52.8 60.4 Medium Trucks: 53.1 52.5 46.2 46.4 54.1	0.00
Autos: 59.2 58.0 56.9 52.8 60.4 Medium Trucks: 53.1 52.5 46.2 46.4 54.1	
Medium Trucks: 53.1 52.5 46.2 46.4 54.1	
	60.
	54.
Heavy Trucks: 58.5 57.6 54.0 52.1 59.7 Vehicle Noise: 62.4 61.4 58.9 56.0 63.6	60.
Centerline Distance to Noise Contour (in feet)	
70 dBA 65 dBA 60 dBA 55	iBA
Ldn: 16 35 76	164
CNEL: 17 37 81	174

Scenario	o: 2028 S2					Project	Name:	Oak Va	alley North	SP	
Road Name							ımber:		, . 401111	٠.	
Road Segmen	t: e/o Sandal	wood Dr.									
	SPECIFIC IN	IPUT DATA							L INPUT	s	
Highway Data				Si	te Cond	litions (Hard =	10, Sc	oft = 15)		
Average Daily 1	Traffic (Adt):	9,429 vehicle	es					Autos:			
Peak Hour I	Percentage:	7.70%				lium Tru		,			
Peak Ho	our Volume:	726 vehicles	S		Hea	avy Truc	ks (3+	Axles):	15		
	nicle Speed:	25 mph		Ve	ehicle N	lix					
Near/Far Lan	ne Distance:	36 feet			Vehic	cleType		Day	Evening	Night	Daily
Site Data						Α	utos:	70.6%	13.6%	15.8%	97.559
Bar	rier Height:	0.0 feet			Me	dium Tr	ucks:	80.3%	4.7%	14.9%	1.479
Barrier Type (0-Wa	-	0.0			Н	leavy Tr	ucks:	75.9%	8.2%	15.9%	0.979
Centerline Dis	t. to Barrier:	44.0 feet		N	oise So	urce Fle	vation	e (in fa	not)		
Centerline Dist. t	o Observer:	44.0 feet		/**	36 00	Autos		000	.01)		
Barrier Distance t	o Observer:	0.0 feet			Mediun	n Trucks		297			
Observer Height (A	Above Pad):	5.0 feet				/ Trucks	. –	004	Grade Ad	iustment	0.0
Pa	d Elevation:	0.0 feet									
Roa	d Elevation:	0.0 feet		La	ne Equ				feet)		
F	Road Grade:	0.0%				Autos		.460			
	Left View:	-90.0 degree	es			n Trucks		.241			
	Right View:	90.0 degree	es		Heav	/ Trucks	: 40	.262			
FHWA Noise Mode											
VehicleType	REMEL	Traffic Flow	Dista		Finite I		Fresi	_	Barrier Att		m Atten
Autos:	58.73			1.28		-1.20		-4.61		000	0.00
Medium Trucks:	70.80			1.31		-1.20		-4.87		000	0.00
Heavy Trucks:	77.97			1.31		-1.20		-5.50	0.0	000	0.00
Unmitigated Noise								1			
VehicleType Autos:	Leq Peak Hou		56.9	.eq Eve	ning 55.7	Leq I	vignt 51.	0	Ldn 59.1		VEL 59
Medium Trucks:	51		51.3		45.0		45.	-	52.	-	53.
Heavy Trucks:	57		56.4		45.0 52.8		45. 50.	_	58.	-	58.
Vehicle Noise:	61		60.3		57.8		54.	-	62.4		62
					57.0		04.		02.	•	02.
			,								
Centerline Distance	e to Noise Co	ontour (in reet,		70 dE	3A	65 0	lBA .	6	60 dBA	55	dBA
	e to Noise Co	,	Ldn:	70 dE	3A 14	65 (IBA 29		60 dBA 64		dBA 137

Monday, July 3, 2023

	FHWA-RD	-77-108 HIGH	WAY I	NOISE	PREDIC	TION M	ODEL (9/12/2	021)		
Scenario Road Name	o: HY S1						Name:		alley North	SP	
	e. 501 50. nt: e/o Sandalw	ood Dr.				JOD IVE	irriber.	13394			
	SPECIFIC INI					N	OISE	MODE	L INPUT	s	
Highway Data					Site Con					_	
Average Daily	Traffic (Adt):	12,371 vehicle	s					Autos:	15		
Peak Hour I	Percentage:	7.70%			Me	dium Tru	cks (2	Axles):	15		
Peak He	our Volume:	953 vehicles			He	avy Truc	ks (3+ .	Axles):	15		
Vel	hicle Speed:	25 mph		H	Vehicle I	Miv					
Near/Far Lar	ne Distance:	36 feet		H		icleType		Dav	Evening	Night	Dailv
Site Data							utos:	70.6%		15.8%	. ,
	rier Heiaht:	0.0 feet			Ме	edium Tr		80.3%		14.9%	
Barrier Type (0-Wa		0.0 feet			F	leavy Tr	ucks:	75.9%	8.2%	15.9%	0.98%
Centerline Dis	. ,	44.0 feet		-							
Centerline Dist. t		44.0 feet		H	Noise So				eet)		
Barrier Distance t		0.0 feet				Autos	. 0.	000			
Observer Height (Above Pad):	5.0 feet				m Trucks	•	297	Crodo Ad	ii iatma a	t- 0 0
Pa	d Elevation:	0.0 feet			Heav	y Trucks	. 8.	004	Grade Ad	jusunem	. 0.0
Roa	d Elevation:	0.0 feet			Lane Equ	uivalent	Distan	ce (in :	feet)		
F	Road Grade:	0.0%				Autos	: 40	460			
	Left View:	-90.0 degree	s		Mediur	m Trucks	: 40	241			
	Right View:	90.0 degree	S		Heav	y Trucks	: 40	262			
FHWA Noise Mode	l Calculations										
VehicleType		Traffic Flow	Dist	ance	Finite		Fresi		Barrier Att		rm Atten
Autos:	58.73	0.40		1.2	-	-1.20		-4.61		000	0.000
Medium Trucks:	70.80	-17.80		1.3		-1.20		-4.87		000	0.000
Heavy Trucks:	77.97	-19.60		1.3	1	-1.20		-5.50	0.0	000	0.000
Inmitigated Noise											
	Leq Peak Hour			Leq E	vening	Leq I	-		Ldn		NEL
Autos:	59.:	_	58.0		56.9		52.	-	60.4		60.9
Medium Trucks:	53.		52.5		46.2		46.		54.		54.3
Heavy Trucks:	58.	-	57.6		54.0		52.		59.		60.0
Vehicle Noise:	62.		61.4		58.9		56.	J	63.0	Ď	64.0
Centerline Distanc	e to Noise Co	ntour (in feet)	_	70	-/D4		(D.4		20 -(0.4		
			l dn:	/0	dBA 16	65 c	IBA 35		50 dBA 76		6 dBA 164
		-	Lan: IEL:		16		38		76 81		164
		Cr	ull.		1/		38		81		1/4

Monday, July 3, 2023

	FHWA-RI	D-77-108 HIGH	IWAY	NOISE	PREDIC	TION N	ODEL (9/12/2	021)		
Road Nam	io: HY S2 ne: 5th St. nt: e/o Sandal	wood Dr.					Name: lumber:		alley North	SP	
	SPECIFIC IN	IPUT DATA			a:: a				L INPUT	s	
Highway Data					Site Con	aitions					
Average Daily	. ,	12,371 vehicl	es					Autos:			
	Percentage:	7.70%					ucks (2 /	/			
	lour Volume:	953 vehicle	:S		He	avy Tru	cks (3+ A	Axles):	15		
	hicle Speed:	25 mph			Vehicle i	Mix					
Near/Far La	ne Distance:	36 feet		F	Veh	icleType		Day	Evening	Night	Daily
Site Data							Autos:	70.6%	13.6%	15.8%	97.55%
Ba	rrier Height:	0.0 feet			М	edium T	rucks:	80.3%	4.7%	14.9%	1.48%
Barrier Type (0-W		0.0			-	Heavy T	rucks:	75.9%	8.2%	15.9%	0.98%
Centerline Di	st. to Barrier:	44.0 feet		H	Noise So	urce F	lovation	e (in fa	not)		
Centerline Dist.	to Observer:	44.0 feet		F.	110/36 00	Auto		000	,		
Barrier Distance	to Observer:	0.0 feet			Mediu	m Truck		297			
Observer Height ((Above Pad):	5.0 feet				ry Truck		004	Grade Ad	iustmen	- 00
P	ad Elevation:	0.0 feet								,000,77077	0.0
Ro	ad Elevation:	0.0 feet			Lane Eq				feet)		
	Road Grade:	0.0%				Auto		460			
	Left View:	-90.0 degre	es			m Truck					
	Right View:	90.0 degre	es		Heav	y Truck	s: 40.	262			
FHWA Noise Mod											
VehicleType	REMEL	Traffic Flow		stance		Road	Fresr	_	Barrier Att		rm Atten
Autos:	58.73			1.2	-	-1.20		-4.61		000	0.000
Medium Trucks:				1.3		-1.20		-4.87		000	0.000
Heavy Trucks:	77.97	-19.60	1	1.3	1	-1.20		-5.50	0.0	000	0.000
Unmitigated Noise			barri	er atten	uation)						
VehicleType	Leq Peak Hou			Leq E	vening		Night		Ldn	_	NEL
Autos:		0.2	58.0		56.9		52.8		60.4		60.9
Medium Trucks:		3.1	52.5		46.2		46.4		54.	-	54.3
Heavy Trucks:		3.5	57.6		54.0		52.1		59.1		60.0
Vehicle Noise:	-	2.4	61.4		58.9		56.0)	63.0	ö	64.0
Centerline Distant	ce to Noise Co	ontour (in fee	t)					_		_	
			Ĺ	70	dBA	65	dBA		60 dBA		dBA
			Ldn:		16		35		76		164
		С	NEL:		17		38		81		174

	FHWA-RI	0-77-108 HIGH	IWAY	NOISE	PREDIC	CTION	MODEL	(9/12/2	021)		
Scenario Road Name Road Segmen	e: Beckwith A						t Name: Number:		alley North	SP	
	SPECIFIC IN	PUT DATA							L INPUT	s	
Highway Data				5	Site Con	ditions	(Hard		oft = 15)		
Average Daily	. ,	957 vehicl	es					Autos:			
	Percentage:	7.70%				edium Ti		,			
	our Volume:	74 vehicle	:S		He	eavy Tru	icks (3+	Axles):	15		
	hicle Speed:	25 mph		١	/ehicle	Mix					
Near/Far Lar	ne Distance:	20 feet			Veh	icleType	е	Day	Evening	Night	Daily
Site Data							Autos:	70.6%	13.6%	15.8%	97.53%
Bar	rier Height:	0.0 feet			М	edium 7	rucks:	80.3%	4.7%	14.9%	1.49%
Barrier Type (0-Wa		0.0				Heavy 7	rucks:	75.9%	8.2%	15.9%	0.98%
Centerline Dis	st. to Barrier:	26.0 feet			Voise S	nurca E	levatio	ne (in f	not)		
Centerline Dist. t	to Observer:	26.0 feet		,	10/36 0	Auto		0.000			
Barrier Distance t	to Observer:	0.0 feet			Modiu	m Truck		2.297			
Observer Height (/	Above Pad):	5.0 feet				vy Truck		3.004	Grade Ad	iustment	. 0.0
Pa	d Elevation:	0.0 feet			rica	vy IIucr	13.	5.004	07440714	doumont	. 0.0
Roa	d Elevation:	0.0 feet		L	ane Eq	uivalen	t Distar	nce (in	feet)		
F	Road Grade:	0.0%				Auto	os: 24	1.515			
	Left View:	-90.0 degre	es		Mediu	m Truck	ks: 24	1.152			
	Right View:	90.0 degre	es		Hea	vy Truck	ks: 24	1.187			
FHWA Noise Mode	l Calculation	S									
VehicleType	REMEL	Traffic Flow		stance		Road	Fres		Barrier Att		m Atten
Autos:	58.73	-10.72		4.54	-	-1.20		-4.43		000	0.00
Medium Trucks:	70.80	-28.89		4.64		-1.20		-4.85		000	0.00
Heavy Trucks:	77.97	-30.69		4.63		-1.20		-5.90	0.0	000	0.00
Unmitigated Noise							A E l- 4		Ldn		
VehicleType Autos:	Leq Peak Hou		50.2	Leq Ev	rening 49.1		Night 44	0	Lan 52.5		VEL 53.0
Medium Trucks:	45		44.7		38.5		38		46.4	-	46.0
Heavy Trucks:	50		49.9		46.2		44		51.9		52.
Vehicle Noise:	54		53.6		51.1		48		55.8		56.
Centerline Distanc	e to Noise Co	ntour (in fee	t)								
				70 a		65	dBA		60 dBA		dBA
			Ldn:		3			6	14		29
		С	NEL:		3			7	14		31

Scenario: HY S3	. INPUT		
Highway Data Site Conditions (Hard = 10, Soft Average Daily Traffic (Adt): 12,350 vehicles Peak Hour Percentage: 7.70% Medium Trucks (2 Axles):		s	
Average Daily Traffic (Adt): 12,350 vehicles Autos: Peak Hour Percentage: 7.70% Medium Trucks (2 Axles):	t = 15)		
Peak Hour Percentage: 7.70% Medium Trucks (2 Axles):			
, ,	15		
Peak Hour Volume: 951 vehicles Heavy Trucks (3+ Axles):	15		
	15		
Vehicle Speed: 25 mph Vehicle Mix			
Near/Ear Lane Dictance: 36 feet	Evening	Night	Daily
Site Data Autos: 70.6%	13.6%	15.8%	97.549
Barrier Height: 0.0 feet Medium Trucks: 80.3%	4.7%	14.9%	1.489
Barrier Type (0-Wall, 1-Berm): 0.0 Heavy Trucks: 75.9%	8.2%	15.9%	0.989
Centerline Dist. to Barrier: 44.0 feet Noise Source Elevations (in fee	af)		
Centerline Dist. to Observer: 44.0 feet Autos: 0.000	,,,		
Barrier Distance to Observer: 0.0 feet Medium Trucks: 2.297			
Observer Height (Above Pad): 5.0 foot	Grade Ad	iustmant	. 0.0
Pad Elevation: 0.0 feet	5,440,14	Juotimom	. 0.0
Road Elevation: 0.0 feet Lane Equivalent Distance (in feet	et)		
Road Grade: 0.0% Autos: 40.460			
Left View: -90.0 degrees Medium Trucks: 40.241			
Right View: 90.0 degrees Heavy Trucks: 40.262			
FHWA Noise Model Calculations			
VehicleType REMEL Traffic Flow Distance Finite Road Fresnel B	Barrier Att	en Ber	m Atten
Autos: 58.73 0.39 1.28 -1.20 -4.61	0.0	000	0.00
Medium Trucks: 70.80 -17.80 1.31 -1.20 -4.87		000	0.00
Heavy Trucks: 77.97 -19.60 1.31 -1.20 -5.50	0.0	000	0.00
Unmitigated Noise Levels (without Topo and barrier attenuation)		,	
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Ldn		NEL
Autos: 59.2 58.0 56.9 52.8	60.4		60.
Medium Trucks: 53.1 52.5 46.2 46.4	54.	•	54.
Heavy Trucks: 58.5 57.6 54.0 52.1 Vehicle Noise: 62.4 61.4 58.9 56.0	59.7 63.6		60.
	03.0	U	04.
Centerline Distance to Noise Contour (in feet) 70 dBA 65 dBA 60) dBA	55	dBA
	76		164
Ldn: 16 35			

Monday, July 3, 2023

	FHWA-RE	-77-108 HIGHV	VAY NOI	SE PREDIC	CTION M	IODEL	(9/12/2	2021)		
Road Nar	rio: 2025 NP me: Beckwith A ent: s/o Singleto						Oak \ 13594	/alley North	SP	
SITE Highway Data	SPECIFIC IN	PUT DATA		Site Cor				EL INPUT	S	
Average Daily Peak Hou	Traffic (Adt): r Percentage: Hour Volume:	1,016 vehicles 7.70% 78 vehicles	8	Ме	edium True	ucks (2	Autos Axles)	: 15 : 15		
	ehicle Speed: ane Distance:	25 mph 20 feet		Vehicle	Mix nicleType	. 1	Day	Evening	Night	Daily
Site Data Barrier Type (0-V	arrier Height:	0.0 feet 0.0		М		Autos: rucks:	70.69 80.39 75.99	% 13.6% % 4.7%	15.8% 14.9% 15.9%	97.53% 1.49%
	ist. to Barrier: to Observer: to Observer:	26.0 feet 26.0 feet 0.0 feet 5.0 feet			Auto Truck	s: (ns (in 1 0.000 2.297 3.004	Feet) Grade Ad	liustment	: 0.0
	Pad Elevation: pad Elevation: Road Grade: Left View:	0.0 feet 0.0 feet 0.0% -90.0 degrees		Lane Eq		t Dista s: 24 s: 24				
FHWA Noise Mod	Right View:	90.0 degrees	5	1164	vy IIuck	s. 2	+. 107			
VehicleType	REMEL	Traffic Flow	Distance	e Finite	Road	Fres	nel	Barrier Att	en Bei	m Atten
Autos. Medium Trucks. Heavy Trucks.	70.80	-10.46 -28.63 -30.43	4	1.54 1.64 1.63	-1.20 -1.20 -1.20		-4.43 -4.85 -5.90	0.	000 000 000	0.000
Unmitigated Nois					-1.20		-0.50	0.		0.000
VehicleType	Leq Peak Hou			Evening	Leq	Night		Ldn	C	NEL
Autos	51	.6 5	0.4	49.3		45	.2	52.	8	53.3
Medium Trucks	45	.6 4	5.0	38.7		38.9		46.	6	46.8
Heavy Trucks			0.1	46.5		44		52.		52.5
Vehicle Noise			3.9	51.4		48	.4	56.	0	56.4
Centerline Distan	ce to Noise Co	ntour (in feet)	7	'0 dBA	65	dBA	1	60 dBA	55	dBA
		L	.dn:	3		-	7	14		30
		CN	EL:	3			7	15	5	32

Monday, July 3, 2023

FHWA-R	D-77-108 HIGH	IWAY	NOISE	PREDIC	TION N	IODEL	(9/12/20	021)		
Scenario: 2025 S1 Road Name: Beckwith I Road Segment: s/o Singlet						Name: lumber:		alley North	SP	
SITE SPECIFIC I	NPUT DATA			0:4- 0				L INPUT	s	
Highway Data			2	Site Con	aitions	(Hara =	= 10, 50	itt = 15)		
Average Daily Traffic (Adt):	1,016 vehicle	es					Autos:	15		
Peak Hour Percentage:	7.70%				dium Tr		,	15		
Peak Hour Volume:	78 vehicle	S		He	avy Tru	cks (3+	Axles):	15		
Vehicle Speed:	25 mph		١	Vehicle I	Mix					
Near/Far Lane Distance:	20 feet		F	Veh	icleType		Day	Evening	Night	Daily
Site Data						Autos:	70.6%	13.6%	15.8%	97.53%
Barrier Height:	0.0 feet			М	edium T	rucks:	80.3%	4.7%	14.9%	1.49%
Barrier Type (0-Wall, 1-Berm):	0.0			1	Heavy T	rucks:	75.9%	8.2%	15.9%	0.98%
Centerline Dist. to Barrier:	26.0 feet		1	Noise So	ource E	levation	ns (in fe	et)		
Centerline Dist. to Observer:	26.0 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	y Truck	s: 8	.004	Grade Ad	iustment	0.0
Pad Elevation:	0.0 feet				•					
Road Elevation:	0.0 feet		L	Lane Eq	uivalen	t Distar	ice (in f	eet)		
Road Grade:	0.0%				Auto		.515			
Left View:	-90.0 degre	es		Mediu	m Truck	s: 24	.152			
Right View:	90.0 degre	es		Heav	ry Truck	s: 24	.187			
FHWA Noise Model Calculation	ıs									
VehicleType REMEL	Traffic Flow	Dis	stance	Finite	Road	Fres	nel	Barrier Att	en Ber	m Atten
Autos: 58.73	-10.46		4.5	4	-1.20		-4.43	0.0	000	0.000
Medium Trucks: 70.80	-28.63		4.6	4	-1.20		-4.85	0.0	000	0.000
Heavy Trucks: 77.97	-30.43		4.60	3	-1.20		-5.90	0.0	000	0.000
Unmitigated Noise Levels (with							_		T	
VehicleType Leq Peak Ho			Leg Ev			Night		Ldn		NEL
	1.6	50.4		49.3		45.		52.		53.3
		45.0		38.7		38.		46.0	-	46.8
	1.0	50.1		46.5		44.	-	52.2		52.5
Vehicle Noise: 5	4.9	53.9		51.4		48.	.4	56.0)	56.4
Centerline Distance to Noise C)	70.4	HRΔ	£E.	dRΔ	6	in dBA	EE	dRΔ
) Ldn:	70 c	dBA 3	65	dBA .	6	0 dBA 14		dBA 30

Barrier Height: 0.0 feet Heavy Trucks: 80.3% 4.7% 14.9% Heavy Trucks: 75.9% 8.2% 15.9% Centerline Dist. to Barrier: 26.0 feet Centerline Dist. to Observer: 26.0 feet Barrier Distance to Observer: 26.0 feet Centerline Dist. feet Centerline Dist. f	Scenario: : Road Name: : Road Segment: :	Beckwith A						t Name. Number		alley North	SP	
Average Daily Traffic (Adt): 5,946 vehicles Peak Hour Percentage: 7,70% Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15 Heavy Trucks (3+ Axles): 15 Heavy Trucks (3+ Axles): 15 Heavy Trucks (3+ Axles): 15 Heavy Trucks (3+ Axles): 15 Heavy Trucks (3+ Axles): 15 Heavy Trucks (3+ Axles): 15 Heavy Trucks (3+ Axles): 15 Heavy Trucks (3+ Axles): 15 Heavy Trucks (3+ Axles): 15 Heavy Trucks (3+ Axles): 15 Heavy Trucks (3+ Axles): 15 Heavy Trucks (3+ Axles): 15 Heavy Trucks (3+ Axles): 15 Heavy Trucks (3+ Axles): 15 Heavy Trucks (3+ Axles): 15 Heavy Trucks (3+ Axles): 15 Heavy Trucks (3+ Axles): 15 Heavy Trucks: 10 Heavy Trucks (3+ Axles): 15 Heavy Trucks: 10		ECIFIC IN	IPUT DATA								s	
Peak Hour Percentage: 7.70% Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15	•				3	ite Cor	aitions	(Hard				
Peak Hour Volume: Vehicle Speed: 25 mph Vehicle Mix		. ,	- ,	es								
Vehicle Speed: 25 mph Vehicle Mix Vehicle Mix Vehicle Type Day Evening Night		-							,			
Near/Far Lane Distance: 20 feet VehicleType Day Evening Night				:S		He	eavy Tru	icks (3+	Axles):	15		
Site Date Day Evening Night		,			V	/ehicle	Mix					
Barrier Height: 0.0 feet Heavy Trucks: 80.3% 4.7% 14.9% Heavy Trucks: 75.9% 8.2% 15.9% Noise Source Elevations (in feet)	Near/Far Lane	Distance:	20 feet			Ver	icleTyp	е	Day	Evening	Night	Daily
Barrier Type (0-Weil, 1-Berm):	ata							Autos:	70.6%	13.6%	15.8%	97.53%
Barrier Type (0-Wall, 1-Berm):	Parrio	r Hojaht:	0.0 foot			M	ledium 1	rucks:	80.3%	4.7%	14.9%	1.49%
Centerline Dist. to Observer: Barrier Distance to Observer: Barrier Distance to Observer: Do Server Height (Above Pad): 5,0 feet Pad Elevation: 0.0 feet Road Glevation: 0.0 feet Road Glevation: 0.0 feet Road Glevation: 0.0 feet Road Grade: 0.0% Road Grade: 0.							Heavy 1	rucks:	75.9%	8.2%	15.9%	0.98%
Centerline Dist. to Observer: 26.0 feet Barrier Distance to Observer: 0.0 feet Barrier Distance to Observer: 0.0 feet Characterine Distance to Observer:	Centerline Dist. t	o Barrier:	26.0 feet			loise S	nurce F	levatio	ns (in f	pet)		
Barrier Distance to Observer: 0.0 feet Medium Trucks: 2.297 Heavy Trucks: 8.004 Grade Adjustmen Grade Adjustmen Heavy Trucks: 8.004 Grade Adjustmen Heavy Trucks: 24.152 Heavy Trucks: 24.1	nterline Dist. to 0	Observer:	26.0 feet		F.	.0.00				301)		
Diserver Height (Above Pad): 5.0 feet Heavy Trucks: 8.004 Grade Adjustmen Fad Elevation: 0.0 feet Lane Equivalent Distance (in feet)	ier Distance to 0	Observer:	0.0 feet			Modiu						
Pad Elevation: 0.0 feet Lane Equivalent Distance (in feet)	rver Height (Abo	ove Pad):	5.0 feet							Grade An	liuetmant	. 0.0
Road Grade: 0.0%	Pad E	Elevation:	0.0 feet			пеа	vy IIuci	15. 0	5.004	Orace Au	justinoni	. 0.0
Left View:	Road E	Elevation:	0.0 feet		L	ane Eq	uivalen	t Distai	nce (in	feet)		
	Roa	d Grade:	0.0%				Auto	os: 24	1.515			
Private Part L	eft View:	-90.0 degre	es		Mediu	m Truck	ks: 24	1.152				
VehicleType	Ri	ght View:	90.0 degre	es		Hea	vy Truck	ks: 24	1.187			
Autos: 58.73	Noise Model C	alculation	s									
Medium Trucks: 70.80 -20.96 4.64 -1.20 -4.85 0.000 Heavy Trucks: 77.97 -22.76 4.63 -1.20 -5.90 0.000 Unmitigated Noise Levels (without Topo and barrier attenuation) VehicleType Leq Peak Hour Leq Day Leq Evening Leq Night Ldn C Autos: 59.3 58.1 57.0 52.9 60.5 64.3 Medium Trucks: 53.3 52.7 46.4 46.6 54.3 64.2 54.1 52.2 59.8 Vehicle Noise: 62.5 61.6 59.1 56.1 63.7 Centerline Distance to Noise Contour (in feet) 70 dBA 65 dBA 60 dBA 55 Ldn: 10 21 46	icleType I	REMEL	Traffic Flow	Dis	stance	Finite	Road	Fres	snel	Barrier Att	en Bei	m Atten
Heavy Trucks: 77.97 -22.76 4.63 -1.20 -5.90 0.000	Autos:	58.73	-2.79	1	4.54	1	-1.20		-4.43	0.0	000	0.000
Unmitigated Noise Levels (without Topo and barrier attenuation) VehicleType	lium Trucks:	70.80	-20.96	i	4.64	1	-1.20		-4.85	0.0	000	0.000
VehicleType	eavy Trucks:	77.97	-22.76	i	4.63	3	-1.20		-5.90	0.0	000	0.000
Autos: 59.3 58.1 57.0 52.9 60.5 Medium Trucks: 53.3 52.7 46.4 46.6 54.3 Heavy Trucks: 58.6 57.8 54.1 52.2 59.8 Vehicle Noise: 62.5 61.6 59.1 56.1 63.7 Centerline Distance to Noise Contour (in feet) 70 dBA 65 dBA 60 dBA 55 Ldn: 10 21 46	igated Noise Le	evels (with	out Topo and	barri	er atteni	uation)						
Medium Trucks: 53.3 52.7 46.4 46.6 54.3 Heavy Trucks: 58.6 57.8 54.1 52.2 59.8 Vehicle Noise: 62.5 61.6 59.1 56.1 63.7 Centerline Distance to Noise Contour (in few) TO dBA 65 dBA 60 dBA 55 Ldn: 10 21 46					Leq Ev							NEL
Heavy Trucks: 58.6 57.8 54.1 52.2 59.8												61.0
Vehicle Noise: 62.5 61.6 59.1 56.1 63.7 Centerline Distance to Noise Contour (in feet) 70 dBA 65 dBA 60 dBA 55 dBA Ldn: 10 21 46												54.5
Centerline Distance to Noise Contour (in feet) 70 dBA 65 dBA 60 dBA 55 dBA Ldn: 10 21 46											-	60.1
70 dBA 65 dBA 60 dBA 55 Ldn: 10 21 46	hicle Noise:	62	1.5	61.6		59.1		56	.1	63.	7	64.
Ldn: 10 21 46	rline Distance t	o Noise Co	ontour (in fee	t)	70	·D4	-	-10.4		CO 4D4		-10.4
				1 400	70 a		65					dBA
GNEL: 10 23 49			_					_				99 105
			C	IVEL:		10		2	.0	49	,	105

	0005.00					n : .	.,	0 1 1/		00	
	: 2025 S2								alley North	SP	
Road Name. Road Segment	: Beckwith Av					JOD NI	ımber:	13594			
				-				_		_	
SITE Si lighway Data	PECIFIC IN	PUT DATA			Site Con				L INPUT off = 15)	5	
Average Daily Ti	raffic (Adt):	1.016 vehicle	^		J.1.0 0011	0110110		Autos:			
Peak Hour P	. ,	7.70%	0		Mo	dium Tru					
	ur Volume:	7.70% 78 vehicles				avy Truc		,			
	icle Speed:	25 mph					10 (01)	1/103).	10		
Near/Far Lane		20 feet			Vehicle I						
	e Distallee.	20 leet			Vehi	cleType		Day	Evening	Night	Daily
ite Data							utos:	70.6%		15.8%	
Barn	ier Height:	0.0 feet				edium Tr		80.3%		14.9%	
Barrier Type (0-Wa	II, 1-Berm):	0.0			F	leavy Tri	ucks:	75.9%	8.2%	15.9%	0.989
Centerline Dist.	to Barrier:	26.0 feet		- 1	Noise So	urce Fle	vation	s (in f	oet)		
Centerline Dist. to	Observer:	26.0 feet				Autos		000	,		
Barrier Distance to	Observer:	0.0 feet			Mediu	n Trucks		297			
Observer Height (A	bove Pad):	5.0 feet				y Trucks		004	Grade Ad	iustment	: 0.0
Pad	d Elevation:	0.0 feet				•					
Road	d Elevation:	0.0 feet		1	Lane Equ				feet)		
Ro	oad Grade:	0.0%				Autos		515			
	Left View:	-90.0 degree	S			n Trucks		152			
,	Right View:	90.0 degree	S		Heav	y Trucks	: 24.	187			
HWA Noise Model	Calculations	;									
VehicleType	REMEL	Traffic Flow	Di	stance	Finite	Road	Fresr	nel	Barrier Att	en Bei	m Atten
Autos:	58.73	-10.46		4.5	4	-1.20		-4.43	0.0	000	0.00
Medium Trucks:	70.80	-28.63		4.6	4	-1.20		-4.85	0.0	000	0.00
Heavy Trucks:	77.97	-30.43		4.6	3	-1.20		-5.90	0.0	000	0.00
Inmitigated Noise I	Levels (witho	ut Topo and b	arri	er atten	uation)						
VehicleType L	.eq Peak Hou			Leg E	vening	Leq N	light		Ldn		NEL
Autos:	51.	6 5	0.4		49.3		45.2	2	52.	3	53.
Medium Trucks:	45.	6 4	5.0		38.7		38.9	9	46.0	3	46
Heavy Trucks:	51.		0.1		46.5		44.6		52.		52
	54.	9 5	3.9		51.4		48.4	1	56.0)	56
Vehicle Noise:											
Vehicle Noise: Centerline Distance	to Noise Co	ntour (in feet)		70 (65.0			60 dBA		dBA

Monday, July 3, 2023

F	HWA-RD-7	77-108 HIGH	WAY	NOISE	PREDIC	TION M	ODEL (9/12/20	021)		
Scenario: 20: Road Name: Be Road Segment: s/o	ckwith Av.	Rd.					Name: (umber:		alley North	SP	
SITE SPEC	IFIC INP	UT DATA							L INPUT	S	
Highway Data					Site Con	ditions (Hard =	10, Sc	oft = 15)		
Average Daily Traffic	(Adt):	5,946 vehicle	S					Autos:	15		
Peak Hour Perce	ntage:	7.70%			Me	dium Tru	cks (2 A	Axles):	15		
Peak Hour V	olume:	458 vehicles			He	avy Truc	ks (3+ A	Axles):	15		
Vehicle S	Speed:	25 mph		H	Vehicle I	Miv					
Near/Far Lane Dis	tance:	20 feet		-		icleType		Dav	Evening	Night	Daily
Site Data						Α.	utos:	70.6%	13.6%	15.8%	97.53%
Barrier H	laimhti	0.0 feet			Me	edium Tr	ucks:	80.3%	4.7%	14.9%	1.49%
Barrier Type (0-Wall, 1-		0.0			F	leavy Tr	ucks:	75.9%	8.2%	15.9%	0.98%
Centerline Dist. to E	,	26.0 feet		-	M-: 0-		4!	- /: #-	41		
Centerline Dist. to Ob-	server:	26.0 feet		-	Noise Sc				eet)		
Barrier Distance to Ob-	server:	0.0 feet				Autos		000			
Observer Height (Above	Pad):	5.0 feet				m Trucks		297			
Pad Fle	,	0.0 feet			Heav	y Trucks	: 8.0	004	Grade Adj	ustment	: 0.0
Road Fle	vation:	0.0 feet		-	Lane Eq	uivalent	Distanc	e (in i	feet)		
Road	Grade:	0.0%				Autos	: 24.	515			
Lef	t View:	-90.0 degree	s		Mediui	m Trucks	: 24.	152			
Righ	t View:	90.0 degree			Heav	y Trucks	24.	187			
FHWA Noise Model Cal	culations										
		raffic Flow	Dis	stance	Finite		Fresn		Barrier Atte		m Atten
Autos:	58.73	-2.79		4.5		-1.20		-4.43		000	0.000
Medium Trucks:	70.80	-20.96		4.6		-1.20		-4.85		000	0.00
Heavy Trucks:	77.97	-22.76		4.6	33	-1.20		-5.90	0.0	000	0.000
Unmitigated Noise Leve	els (withou	it Topo and i	barrie	er attei	nuation)						
VehicleType Leq F	Peak Hour	Leq Day		Leq E	vening	Leq I	Vight		Ldn	C	NEL
Autos:	59.3		58.1		57.0		52.9)	60.5	5	61.0
Medium Trucks:	53.3		52.7		46.4		46.6		54.3		54.5
Heavy Trucks:	58.6		57.8		54.1		52.2		59.8		60.
Vehicle Noise:	62.5	•	31.6		59.1		56.1	l	63.7	7	64.
Centerline Distance to I	Voise Con	tour (in feet)									
			-T	70	dBA	65 d		6	60 dBA	55	dBA
		-	Ldn:		10		21		46		99
		CN	IEL:		10		23		49		105

Monday, July 3, 2023 Monday, July 3, 2023

	FHWA-RI	D-77-108 HIGH	WAY	NOISE	PREDIC	CTION N	MODEL	(9/12/2	021)		
Road Nam	io: 2028 S2 e: Beckwith A nt: s/o Singleto						t Name: lumber:		alley North	SP	
SITE :	SPECIFIC IN	IPUT DATA			N:4- O				L INPUT	s	
Average Daily Peak Hour	Traffic (Adt): Percentage: our Volume:	5,946 vehicle 7.70% 458 vehicle			Ме	edium Tr	rucks (2	Autos: Axles):	15 15		
	hicle Speed:	25 mph		V	/ehicle	Mix					
Near/Far La	ne Distance:	20 feet			Veh	icleType	9	Day	Evening	Night	Daily
Site Data							Autos:	70.6%	13.6%	15.8%	97.53%
Bai	rier Height:	0.0 feet			M	ledium T	rucks:	80.3%	4.7%	14.9%	1.49%
Barrier Type (0-W	all, 1-Berm):	0.0				Heavy T	rucks:	75.9%	8.2%	15.9%	0.98%
Centerline Dis	st. to Barrier:	26.0 feet		^	loise S	ource E	levation	ns (in f	eet)		
Centerline Dist.	to Observer:	26.0 feet		F		Auto		.000	,		
Barrier Distance	to Observer:	0.0 feet			Mediu	ım Truck	(s: 2	297			
Observer Height (,	5.0 feet			Hea	vy Truck	s: 8	.004	Grade Ad	ljustmen	t: 0.0
	ad Elevation: ad Elevation:	0.0 feet 0.0 feet		,	ano Eo	uivalen	t Dietar	oco (in	foot)		
	Road Grade:	0.0 reet 0.0%		-	ane Ly	Auto		.515	ieeij		
,	Left View:	-90.0 degree	20		Mediu	ım Truck		1.152			
	Right View:	90.0 degree				vy Truck		.187			
FHWA Noise Mode	el Calculation	s									
VehicleType	REMEL	Traffic Flow	Dis	stance	Finite	Road	Fres	nel	Barrier At	ten Be	rm Atten
Autos:	58.73	-2.79		4.54		-1.20		-4.43	0.	000	0.000
Medium Trucks:	70.80	-20.96		4.64	1	-1.20		-4.85	0.	000	0.000
Heavy Trucks:	77.97	-22.76		4.63	3	-1.20		-5.90	0.	000	0.000
Unmitigated Noise	Levels (with	out Topo and	barri	er atteni	uation)						
	Leq Peak Hou			Leq Ev			Night		Ldn	_	NEL
Autos:			58.1		57.0		52.	-	60.	-	61.0
Medium Trucks:			52.7		46.4		46.		54.		54.5
Heavy Trucks:			57.8		54.1		52.		59.	-	60.1
Vehicle Noise:	62	2.5	61.6		59.1		56.	.1	63.	7	64.1
Centerline Distance	e to Noise C	ontour (in feet)							1	
			L	70 d		65	dBA	_	60 dBA		dBA
			Ldn:		10		2		46		99
		C	NEL:		10		2	3	49	,	105

	FHWA-R	D-77-108 HIGH	IWAY	NOISE	PREDIC	CTION N	MODEL (9/1	2/2021)		
	o: HY S1 e: Beckwith A nt: s/o Singlet						t Name: Oa Number: 135	k Valley North 594	SP	
SITE S	SPECIFIC IN	NPUT DATA					NOISE MO	DEL INPUT	S	
Highway Data				S	ite Cor	ditions	(Hard = 10	, Soft = 15)		
Peak H	Percentage: our Volume:	12,212 vehicle 7.70% 940 vehicle					Aut rucks (2 Axle icks (3+ Axle	,		
	nicle Speed:	25 mph		V	'ehicle	Mix				
Near/Far Lar	ne Distance:	20 feet			Ver	icleType	e Da	y Evening	Night	Daily
Site Data								.6% 13.6%	15.89	
Bar	rier Height:	0.0 feet				edium 7		.3% 4.7%	14.99	
Barrier Type (0-W	all, 1-Berm):	0.0				Heavy 1	rucks: 75	.9% 8.2%	15.99	6 0.98%
Centerline Dis		26.0 feet		٨	loise S	ource E	levations (i	in feet)		
Centerline Dist. t		26.0 feet				Auto	os: 0.000)		
Barrier Distance t	o Observer:	0.0 feet			Mediu	m Truck				
Observer Height (,	5.0 feet				vy Truck		4 Grade Ad	justmer	nt: 0.0
	d Elevation:	0.0 feet		<u> </u>						
	d Elevation:	0.0 feet		L	ane Eq		t Distance	, ,		
F	Road Grade:	0.0%				Auto		-		
	Left View:	-90.0 degre				m Truck		='		
	Right View:	90.0 degre	es		неа	vy Truck	ks: 24.18	7		
FHWA Noise Mode	l Calculation	s								
VehicleType	REMEL	Traffic Flow	Dis	tance	Finite	Road	Fresnel	Barrier Att	en Be	erm Atten
Autos:	58.73			4.54		-1.20			000	0.000
Medium Trucks:	70.80			4.64		-1.20			000	0.000
Heavy Trucks:	77.97			4.63		-1.20	-5.	.90 0.0	000	0.000
Unmitigated Noise										
	Leq Peak Ho			Leq Ev			Night	Ldn		CNEL
Autos:		2.4	61.2		60.1		56.0	63.	-	64.1
Medium Trucks:		3.4	55.8		49.5		49.7	57.		57.6
Heavy Trucks:		1.8	60.9		57.3		55.4	63.		63.3
Vehicle Noise:		5.7	64.7		62.2		59.2	66.	В	67.2
Centerline Distanc	e to Noise C	ontour (in feet)	70	D.4		-10.4	CO -(D.)		C -(D.4
			L	70 d		65	dBA	60 dBA		5 dBA
		_	Ldn:		16		34	74		160
		C	NEL:		17		37	79	,	169

	THVA-INE	0-77-108 HIGH		NOISE	FKLDIC	711014 1111	ODLL (91 12120	, <u>-</u> . ,		
	: HY NP								alley North	SP	
	e: Beckwith A					Job Ni	umber:	13594			
Road Segmen	t: s/o Singleto	n Rd.									
	SPECIFIC IN	PUT DATA							L INPUT	S	
Highway Data					Site Con	ditions ((Hard =	10, So	ft = 15)		
Average Daily	Traffic (Adt):	12,212 vehicle	es					Autos:	15		
Peak Hour I	Percentage:	7.70%			Me	dium Tru	icks (2	Axles):	15		
Peak He	our Volume:	940 vehicle	s		He	avy Truc	ks (3+ .	Axles):	15		
Vel	nicle Speed:	25 mph		- 1	Vehicle I	Mix					
Near/Far Lar	ne Distance:	20 feet		F		icleType		Dav	Evenina	Night	Dailv
Site Data							lutos:	70.6%	. ,	15.8%	
Rar	rier Heiaht:	0.0 feet			М	edium Tr	ucks:	80.3%	4.7%	14.9%	1.499
Barrier Type (0-Wa		0.0			1	Heavy Tr	ucks:	75.9%	8.2%	15.9%	0.989
Centerline Dis	. ,	26.0 feet		- L							
Centerline Dist. t		26.0 feet		- 1	Noise So				et)		
Barrier Distance t	o Observer:	0.0 feet				Autos		000			
Observer Height (Above Pad):	5.0 feet				m Trucks		297			
	d Elevation:	0.0 feet			Heav	y Trucks	s: 8.	004	Grade Ad	iustment.	0.0
Roa	d Elevation:	0.0 feet		1	Lane Eq	uivalent	Distan	ce (in t	eet)		
F	Road Grade:	0.0%				Autos	3: 24	.515			
	Left View:	-90.0 degree	es		Mediu	m Trucks	s: 24	152			
	Right View:	90.0 degree	es		Heav	y Trucks	3: 24	.187			
FHWA Noise Mode	I Calculation:	s									
VehicleType	REMEL	Traffic Flow		stance		Road	Fresi	_	Barrier Att		m Atten
Autos:	58.73	0.34		4.5	•	-1.20		-4.43		000	0.00
Medium Trucks:	70.80	-17.83		4.6		-1.20		-4.85		000	0.00
Heavy Trucks:	77.97	-19.63		4.6	3	-1.20		-5.90	0.0	000	0.00
Unmitigated Noise	•										
	Leq Peak Hou	-, -,		Leq E	vening	Leq I			Ldn	_	VEL
Autos:	62		61.2		60.1		56.		63.6		64.
Medium Trucks:	56		55.8		49.5		49.		57.4		57.
Heavy Trucks:	61		60.9		57.3		55.		63.0		63.
Vehicle Noise:	65	.7	64.7		62.2		59.	2	66.8	3	67.
Centerline Distanc	e to Noise Co	ntour (in feet)	70	dBA	CF.	-/D 4		0.404		-/
			I do:	700		65 (_	0 dBA		dBA
	Ldn				16 34 74		160				
		_	NEL:		17		37		79		169

Monday, July 3, 2023

	FHWA-RD	-77-108 HIGH	WAY	NOISE	PREDIC	TION M	ODEL (9/12/20	021)		
Scenari	o: HY S2					Project I	Name:	Oak Va	alley North	SP	
	e: Beckwith Av					Job Nu	ımber:	13594			
Road Segmen	nt: s/o Singleto	n Rd.									
	SPECIFIC IN	PUT DATA			0'' 0				L INPUT	s	
Highway Data					Site Con	ditions (
Average Daily	. ,	12,212 vehicle	:S					Autos:	15		
	Percentage:	7.70%				dium Tru					
	our Volume:	940 vehicles	6		He	avy Truc	ks (3+)	Axles):	15		
Vel	nicle Speed:	25 mph		ŀ	Vehicle I	Wix					
Near/Far Lar	ne Distance:	20 feet		-		icleType		Day	Evening	Night	Daily
Site Data						A	utos:	70.6%	13.6%	15.8%	97.53%
Rar	rier Heiaht:	0.0 feet			Me	edium Tn	ucks:	80.3%	4.7%	14.9%	1.49%
Barrier Type (0-W		0.0			F	Heavy Tri	ucks:	75.9%	8.2%	15.9%	0.98%
Centerline Dis	. ,	26.0 feet		-							
Centerline Dist.		26.0 feet		ŀ	Noise Sc				eet)		
Barrier Distance I		0.0 feet				Autos	. 0.	000			
Observer Height (Above Pad):	5.0 feet				m Trucks		297			
	d Elevation:	0.0 feet			Heav	ry Trucks	: 8.	004	Grade Ad	ustment	. 0.0
	d Elevation:	0.0 feet		-	Lane Eq	uivalent	Distan	ce (in i	feet)		
F	Road Grade:	0.0%				Autos	: 24.	515			
	Left View:	-90.0 degree	es.		Mediui	m Trucks	: 24.	152			
	Right View:	90.0 degree			Heav	y Trucks	: 24.	187			
FHWA Noise Mode	l Calculations										
VehicleType	REMEL	Traffic Flow	Dis	stance	Finite	Road	Fresi	nel	Barrier Att	en Bei	rm Atten
Autos:	58.73	0.34		4.5	i4	-1.20		-4.43	0.0	000	0.000
Medium Trucks:	70.80	-17.83		4.6	i4	-1.20		-4.85	0.0	000	0.000
Heavy Trucks:	77.97	-19.63		4.6	13	-1.20		-5.90	0.0	000	0.000
Unmitigated Noise	Levels (witho	ut Topo and	barrie	er atter	nuation)						
VehicleType	Leq Peak Hou	r Leq Day		Leq E	vening	Leq N	light		Ldn	С	NEL
Autos:	62.	-	61.2		60.1		56.0		63.6	3	64.
Medium Trucks:	56.	-	55.8		49.5		49.	7	57.4		57.6
Heavy Trucks:	61.		60.9		57.3		55.4		63.0		63.3
Vehicle Noise:	65.	7	64.7		62.2		59.2	2	66.8	3	67.2
Centerline Distanc	e to Noise Co	ntour (in feet)									
				70	dBA	65 a		6	60 dBA		dBA
			Ldn:		16		34		74		160
		CI	VEL:		17		37		79		169

Monday, July 3, 2023

	FHWA-RI	0-77-108 HIGH	WAY	NOISE	PREDIC	TION N	MODEL	(9/12/2	021)		
Road Nan	rio: HY S3 ne: Beckwith A nt: s/o Singleto						t Name: lumber:		alley North	SP	
SITE Highway Data	SPECIFIC IN	IPUT DATA			Site Con				L INPUT	S	
					Site Con	uitions	(naru -				
Average Daily	. ,	12,244 vehicle	es					Autos:	15		
	Percentage:	7.70%				dium Tr					
	lour Volume:	943 vehicles	3		He	avy Tru	cks (3+	Axles):	15		
	hicle Speed:	25 mph		İ	Vehicle I	Vlix					
Near/Far La	ne Distance:	20 feet		f	Veh	icleType	9	Dav	Evening	Niaht	Daily
Site Data							Autos:	70.6%		15.8%	97.54%
	rrier Height:	0.0 feet			M	edium T	rucks:	80.3%	4.7%	14.9%	1.48%
Barrier Type (0-V		0.0			1	Heavy T	rucks:	75.9%	8.2%	15.9%	0.98%
** '	ist to Barrier:	26.0 feet		L							
Centerline Dist.		26.0 feet		L	Noise Sc				eet)		
Barrier Distance		0.0 feet				Auto	s: C	.000			
		5.0 feet				m Truck		.297			
Observer Height	ad Elevation:	0.0 feet			Heav	ry Truck	:s: 8	.004	Grade Ad	ljustmen	t: 0.0
	ad Elevation:	0.0 feet		F	Lane Eq	uivalon	t Dietai	nce (in	foot)		
	Road Grade:	0.0%		F	Lune Ly	Auto		.515	ccij		
	Left View:	-90.0 degree			Modiu	m Truck		1.152			
	Right View:					y Truck		.187			
	3 · · ·	90.0 degree	, s		77001	y much	.s. z-				
FHWA Noise Mod											
VehicleType	REMEL	Traffic Flow	Dis	stance	Finite		Fres		Barrier Att		rm Atten
Autos:		0.35		4.5		-1.20		-4.43		000	0.000
Medium Trucks:		-17.83		4.6		-1.20		-4.85		000	0.000
Heavy Trucks:		-19.63		4.6		-1.20		-5.90	0.0	000	0.000
Unmitigated Nois			_								
VehicleType	Leq Peak Hou		_	Leq E	vening	Leq	Night		Ldn	_	NEL
Autos:			61.3		60.1		56	-	63.	-	64.1
Medium Trucks:			55.8		49.5		49		57.		57.6
Heavy Trucks:			60.9		57.3		55		63.	-	63.3
Vehicle Noise:	65	.7	64.7		62.2		59	.2	66.	8	67.2
Centerline Distan	ce to Noise Co	ontour (in feet))								
				70	dBA	65	dBA	6	0 dBA	55	dBA
			Ldn:		16		3	4	74	-	160
		CI	VEL:		17		3	7	79)	170

	FHWA-RI	D-77-108 HIGH	IWAY N	OISE I	PREDIC	N NOIT	10DEL (9/12/	2021)	
Scenario: Road Name: Road Segment:	9						Name: Oak ' lumber: 1359	/alley North SF 4)
SITE SI	PECIFIC IN	IPUT DATA						EL INPUTS	
Highway Data				S	ite Con	ditions	(Hard = 10, S	Soft = 15)	
Average Daily Tr	raffic (Adt):	8,231 vehicl	es				Auto	s: 15	
Peak Hour P	ercentage:	7.70%			Me	dium Tr	ucks (2 Axles): 15	
Peak Hou	ur Volume:	634 vehicle	s		He	avy Tru	cks (3+ Axles): 15	
Vehi	cle Speed:	35 mph		V	ehicle i	Miv			
Near/Far Lane	Distance:	36 feet		F.		icleType	Day	Evening N	ight Daily
Site Data					V C//		Autos: 70.6	-	5.8% 97.53%
		0.0 feet			М	edium T			4.9% 1.49%
Barrier Type (0-Wal	er Height:	0.0 reet 0.0				Heavy T			5.9% 0.98%
Centerline Dist.		44.0 feet							
Centerline Dist. to		44.0 feet		N	loise So		levations (in	feet)	
Barrier Distance to		0.0 feet				Auto	- 0.000		
Observer Height (A		5.0 feet			Mediu	m Truck	s: 2.297		
	l Flevation:	0.0 feet			Heav	y Truck	s: 8.004	Grade Adjus	tment: 0.0
	Elevation:	0.0 feet		L	ane Ea	uivalen	t Distance (in	feet)	
	nad Grade:	0.0 feet		F	u = q	Auto		7000	
710	Left View:	-90.0 degre	00		Mediu	m Truck			
F	Right View:	90.0 degre				y Truck			
FHWA Noise Model	Calculation	s							
VehicleType	REMEL	Traffic Flow	Dista	nce	Finite	Road	Fresnel	Barrier Atten	Berm Atten
Autos:	64.30	-2.84		1.28		-1.20	-4.6		0.00
Medium Trucks:	75.75			1.31		-1.20	-4.87		
Heavy Trucks:	81.57			1.31		-1.20	-5.50	0.000	0.00
Unmitigated Noise L									01/5/
VehicleType L Autos:	eq Peak Hou			.eq Ev			Night	Ldn	CNEL
Autos: Medium Trucks:	61	l.5 l.9	60.4 54.2		59.2 48.0		55.1 48.2	62.7 55.9	63.i 56.
Meaium Trucks: Heavy Trucks:		1.9 3.9	54.2					55.9 60.1	
Vehicle Noise:	58 64		63.0		54.4 60.7		52.5 57.5	65.1	60.4
Centerline Distance									
coamine Distance	110/30 00	JJui (iii leei	,	70 d	BA	65	dBA	60 dBA	55 dBA
			Ldn:		21		45	97	209

	FHWA-RI	D-77-108 HIGH	WAY	NOISE	PREDIC	TION M	ODEL	(9/12/2	021)		
Scenar		u.					Name:		alley North	SP	
	ne: Singleton R nt: w/o I-10 EE					JOD IV	umber:	13594			
SITE :	SPECIFIC IN	IPUT DATA			Site Cor				L INPUT	S	
• •					Site Cor	uilions	(naru -				
Average Daily	. ,	1 vehicle	es					Autos:			
	Percentage:	7.70%				edium Tri		,			
	lour Volume:	0 vehicle	S		He	avy Tru	cks (3+	Axles):	15		
	hicle Speed:	35 mph			Vehicle	Mix					
Near/Far La	ne Distance:	36 feet			Veh	icleType	!	Day	Evening	Night	Daily
Site Data						-	Autos:	70.6%	13.6%	15.8%	97.539
Bai	rrier Height:	0.0 feet			M	edium T	rucks:	80.3%	4.7%	14.9%	1.499
Barrier Type (0-W	-	0.0				Heavy T	rucks:	75.9%	8.2%	15.9%	0.989
Centerline Di	st. to Barrier:	44.0 feet		-	Noise S	ource El	ovation	ne (in f	oot)		
Centerline Dist.	to Observer:	44.0 feet		-	110/36 0	Auto.		.000	001)		
Barrier Distance	to Observer:	0.0 feet			Modiu	m Truck.		297			
Observer Height ((Above Pad):	5.0 feet				/y Truck		.004	Grade Ad	iustmant	. 0 0
Pa	ad Elevation:	0.0 feet			rica	ry ITUCK	s. u	.004	Orace Au	justinoni	. 0.0
Roa	ad Elevation:	0.0 feet		_	Lane Eq	uivalent	Distar	ice (in	feet)		
1	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 Mode	el Calculation	s									
VehicleType	REMEL	Traffic Flow	Dis	stance	Finite	Road	Fres	nel	Barrier Att	en Ber	m Atten
Autos:	64.30	-41.99		1.2	18	-1.20		-4.61	0.0	000	0.00
Medium Trucks:	75.75	-60.16		1.3	11	-1.20		-4.87	0.0	000	0.00
Heavy Trucks:	81.57	-61.96		1.3	11	-1.20		-5.50	0.0	000	0.00
Unmitigated Noise	e Levels (with	out Topo and	barri	er atter	nuation)						
VehicleType	Leq Peak Hou	ır Leq Day	/	Leg E	vening	Leq	Night		Ldn		NEL
Autos:	22	.4	21.2		20.1		16.	.0	23.0	6	24.
Medium Trucks:	15	.7	15.1		8.8		9.	.0	16.	7	16.
Heavy Trucks:			18.9		15.2		13.		20.9		21.
Vehicle Noise:	24	.8	23.8		21.6		18.	.4	26.0	0	26.
Centerline Distant	ce to Noise Co	ntour (in feet)					,		,	
			L	70	dBA	65	dBA		60 dBA		dBA
		_	Ldn:		0			0	0		
		C	NEL:		0		(0	0		

Monday, July 3, 2023

	FHWA-RE	-77-108 HIGH	WAY	NOISE	PREDIC	TION M	DDEL (9/12/2	021)		
Scenari	io: 2025 S1					Project I	Vame:	Oak V	alley North	SP	
	e: Singleton R					Job Nu	mber:	13594			
Road Segmer	nt: w/o I-10 EB	Ramps									
	SPECIFIC IN	PUT DATA							L INPUT	s	
Highway Data					Site Con	ditions (Hard =	10, Sc			
Average Daily	Traffic (Adt):	8,231 vehicle	es					Autos:			
Peak Hour	Percentage:	7.70%				dium Tru					
	our Volume:	634 vehicles	S		He	avy Truc	ks (3+ /	Axles):	15		
Ve	hicle Speed:	35 mph		ŀ	Vehicle I	Wix					
Near/Far La	ne Distance:	36 feet				icleType		Day	Evening	Night	Daily
Site Data						A	utos:	70.6%	13.6%	15.8%	97.53%
Rai	rier Heiaht:	0.0 feet			Me	edium Tri	ıcks:	80.3%	4.7%	14.9%	1.49%
Barrier Type (0-W		0.0			F	Heavy Tri	ıcks:	75.9%	8.2%	15.9%	0.98%
Centerline Dis	. ,	44.0 feet		-	Noise Sc		4!	- /: #	41		
Centerline Dist.	to Observer:	44.0 feet		-	Noise Sc	Autos			eet)		
Barrier Distance	to Observer:	0.0 feet					. 0.	000 297			
Observer Height (Above Pad):	5.0 feet				m Trucks			Grade Ad	iuotmoni	
Pa	ad Elevation:	0.0 feet			Heav	y Trucks	8.	004	Grade Au	usunem	. 0.0
Roa	ad Elevation:	0.0 feet			Lane Eq	uivalent	Distan	ce (in i	feet)		
F	Road Grade:	0.0%				Autos	: 40.	460			
	Left View:	-90.0 degree	es		Mediui	m Trucks	40.	241			
	Right View:	90.0 degree	es		Heav	y Trucks	40.	262			
FHWA Noise Mode	el Calculation:	5									
VehicleType	REMEL	Traffic Flow	Dis	tance	Finite		Fresi		Barrier Att		rm Atten
Autos:	64.30	-2.84		1.2		-1.20		-4.61		000	0.000
Medium Trucks:	75.75	-21.01		1.3		-1.20		-4.87		000	0.000
Heavy Trucks:	81.57	-22.81		1.3	31	-1.20		-5.50	0.0	000	0.000
Unmitigated Noise	Levels (with	out Topo and	barrie	er attei	nuation)						
VehicleType	Leq Peak Hou	r Leq Day	,	Leq E	vening	Leq N	light		Ldn	С	NEL
Autos:	61	-	60.4		59.2		55.		62.7		63.2
Medium Trucks:	54		54.2		48.0		48.2	-	55.9	-	56.
Heavy Trucks:	58		58.0		54.4		52.		60.1		60.4
Vehicle Noise:	64	.0	63.0		60.7		57.	5	65.	1	65.
Centerline Distanc	e to Noise Co	ntour (in feet))								
				70	dBA	65 a	BA	6	60 dBA		dBA
			Ldn:		21		45		97		209
		CI	NEL:		22		48		103		222

Monday, July 3, 2023

	FHWA-RI	D-77-108 HIGH	IWAY	NOISE	PREDIC	TION N	ODEL	(9/12/2	021)		
Road Nar	rio: 2025 S2 ne: Singleton F ent: w/o I-10 EE						Name: lumber:		alley North	SP	
	SPECIFIC IN	IPUT DATA			a:: a				L INPUT	s	
Highway Data					Site Cor	aitions	(Hara =				
Average Daily	. ,	8,231 vehicle	es					Autos:			
	r Percentage:	7.70%				dium Tr					
	Hour Volume:	634 vehicle	S		He	avy Tru	cks (3+	Axles):	15		
Ve	ehicle Speed:	35 mph			Vehicle	Mix					
Near/Far La	ane Distance:	36 feet		F		icleType	,	Dav	Evenina	Niaht	Dailv
Site Data							Autos:	70.6%	13.6%	15.8%	97.53%
Rs	arrier Height:	0.0 feet			М	edium T	rucks:	80.3%	4.7%	14.9%	1.49%
Barrier Type (0-V		0.0				Heavy T	rucks:	75.9%	8.2%	15.9%	0.98%
*, ,	ist. to Barrier:	44.0 feet		-	Noise S			- /:- #	41		
Centerline Dist.	to Observer:	44.0 feet		H.	worse 3	Auto			eet)		
Barrier Distance	to Observer:	0.0 feet			A de elle			.000			
Observer Height	(Above Pad):	5.0 feet				m Truck		.004	Crada Aa	livotmont	. 0.0
F	Pad Elevation:	0.0 feet			неа	y Truck	S: 8	.004	Grade Ad	justrnent	. 0.0
Ro	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 degre	es		Mediu	m Truck	s: 40	.241			
	Right View:	90.0 degre	es		Hea	y Truck	s: 40	.262			
FHWA Noise Mod	lel Calculation	s									
VehicleType	REMEL	Traffic Flow	Dis	stance	Finite	Road	Fres	nel	Barrier Att	en Ber	m Atten
Autos:	64.30	-2.84		1.2	8	-1.20		-4.61	0.0	000	0.000
Medium Trucks:	75.75	-21.01		1.3	1	-1.20		-4.87	0.0	000	0.000
Heavy Trucks:	81.57	-22.81		1.3	1	-1.20		-5.50	0.0	000	0.000
Unmitigated Nois	e Levels (with	out Topo and	barrie	er atten	uation)						
VehicleType	Leq Peak Hou	ur Leq Day	/	Leq E	vening	Leq	Night		Ldn	C	NEL
Autos:	: 61	.5	60.4		59.2		55.	1	62.	7	63.2
Medium Trucks:	: 54	1.9	54.2		48.0		48.	2	55.	9	56.1
Heavy Trucks:	58	3.9	58.0		54.4		52.	5	60.	1	60.4
Vehicle Noise:	64	1.0	63.0		60.7		57.	5	65.	1	65.5
Centerline Distan	ce to Noise C	ontour (in feet)								
				70	dBA	65	dBA	6	60 dBA		dBA
			Ldn:		21		45	5	97	,	209
	CNEL:				22 48 103			3	222		

	FHWA-RI	D-77-108 HIGH	WAY I	NOISE F	PREDIC	TION	MODEL (9	/12/20	021)		
	o: 2028 S1 e: Singleton F nt: w/o I-10 EE						t Name: 0 Number: 1		alley North S	SP	
	SPECIFIC IN	IPUT DATA							L INPUTS	1	
Highway Data				S	ite Cor	ditions	(Hard =	10, So	ft = 15)		
Peak H	Traffic (Adt): Percentage: our Volume: hicle Speed:	29,595 vehicle 7.70% 2,279 vehicle 35 mph		1/		avy Tru	rucks (2 A icks (3+ A	,	15 15 15		
Near/Far Lar	ne Distance:	36 feet				icleTyp		Day	Evening	Night	Daily
Site Data							Autos:	70.6%	13.6%	15.8%	97.55%
	rier Height:	0.0 feet				edium 1		30.3%		14.9%	1.48%
Barrier Type (0-W	. ,	0.0				Heavy 1	rucks:	75.9%	8.2%	15.9%	0.98%
Centerline Dis		44.0 feet		N	oise S	ource E	levations	(in fe	et)		
Roa	to Observer:	44.0 feet 0.0 feet 5.0 feet 0.0 feet 0.0 feet 0.0%		L	Hea	Auto m Truck ry Truck uivalen	ks: 2.2 ks: 8.0 at Distanc	97 04 e (in f	Grade Adju eet)	ıstment:	0.0
	Left View: Right View:	-90.0 degree				m Truck /y Truck	ks: 40.2	41			
FHWA Noise Mode		s Traffic Flow	D:-4		Fi-14-	D/	F		Di 4#-	- 1 0	
VehicleType Autos:	REMEL 64.30	2.72		ance 1.28		Road -1.20	Fresne	4.61	Barrier Atte 0.00		n Atten 0.000
Medium Trucks:	75.75			1.31		-1.20		4.87	0.00		0.00
Heavy Trucks:	81.57			1.31		-1.20		5.50	0.00		0.000
Unmitigated Noise	Levels (with	out Topo and	barrie	r attenu	ıation)						
	Leq Peak Hou			Leq Eve		Leg	Night		Ldn	C٨	
Autos:	67		65.9		64.8		60.7		68.3		68.8
Medium Trucks:	60		59.8		53.5		53.7		61.4		61.6
Heavy Trucks:	64		63.5		59.9		58.0		65.6		65.9
Vehicle Noise:	69).5	68.5		66.3		63.1		70.7		71.1
Centerline Distanc	e to Noise C	ontour (in feet)	70 4	0.4		-40.4		:0 -1D4		-10.4
			L	70 di		05	dBA	6	0 dBA	55 (
	Ldn: CNFL:				49 105 227				489		
		C	NEL:		52		112		242		521

0	2020 ND					Desired N		2-1-1/-	II a N I a adda	CD.	
	2028 NP					Job Nur			illey North	SP	
Road Name: Road Segment:	Singleton Ro					JOD IVUI	nber:	13594			
	PECIFIC IN								L INPUT		
Highway Data	PECIFIC IN	PUIDAIA		s	ite Con	ditions (H				3	
Average Daily Tr	affic (Adt):	29,389 vehicles	8					Autos:	15		
Peak Hour Pe	. ,	7.70%			Med	dium Truc	ks (2 A	(xles):	15		
	-	2,263 vehicles			He	avy Truck	s (3+ A	(xles):	15		
Vehi	cle Speed:	35 mph			ehicle N						
Near/Far Lane	Distance:	36 feet		V		riix cleType		Dav	Evening	Night	Dailv
Site Data					*0			70.6%			97.53
	er Height:	0.0 feet			Ме	edium Tru		80.3%		14.9%	
Barrier Type (0-Wal	-	0.0 reet			F	leavy Tru		75.9%		15.9%	
Centerline Dist	. ,	44.0 feet		L							
Centerline Dist. to		44.0 feet		٨	loise So	urce Elev		•	et)		
Barrier Distance to		0.0 feet				Autos:		000			
Observer Height (Al		5.0 feet				n Trucks:		297			
	Elevation:	0.0 feet			Heav	y Trucks:	8.0	004	Grade Ad	iustment	0.0
	Elevation:	0.0 feet		L	ane Eau	iivalent D	istano	e (in t	eet)		
	ad Grade:	0.0%				Autos:			,		
7.0	Left View:	-90.0 degrees			Mediur	n Trucks:					
F	Right View:	90.0 degrees			Heav	y Trucks:	40.	262			
VehicleType		Traffic Flow	Diet	ance	Finite	Poad	Fresn	lol	Barrier Att	on Por	m Atter
Autos:	64.30	2.69	Dist	1.28		-1.20		-4.61		000	0.0
Medium Trucks:	75.75	-15.48		1.31		-1.20		-4.87		000	0.0
Heavy Trucks:	81.57	-17.28		1.31		-1.20		-5.50		000	0.00
Unmitigated Noise L	evels (witho	ut Tono and h	arrier	atteni	uation)						
	eq Peak Hour			Leq Ev		Leq Ni	ight		Ldn	C	NEL
Autos:	67.		5.9		64.8		60.6	6	68.2	2	68
Medium Trucks:	60.4	4 5	9.8		53.5		53.7	7	61.4	1	61
Heavy Trucks:	64.	4 6	3.5		59.9		58.0)	65.6	3	65
Vehicle Noise:	69.	5 6	8.5		66.2		63.1		70.7	7	71
Centerline Distance	to Noise Co	ntour (in feet)									
				70 d	BA	65 dE	BA	6	0 dBA	55	dBA
		L	.dn:		49		105		226		48
			FL:								

Monday, July 3, 2023

	FHWA-RD	-77-108 HIGHV	VAY NOIS	SE PREDIC	CTION M	ODEL	(9/12/2	2021)		
	o: 2028 S2 e: Singleton R t: w/o I-10 EB						Oak \ 13594	/alley North	SP	
	PECIFIC IN	PUT DATA		04- 0				EL INPUT	s	
Highway Data	F 65 (A III)	00.000 1:1		Site Con	nditions	(Hara	Autos			
Average Daily 1	. ,	29,660 vehicles 7.70%	3	14	edium Tru	iaka (2				
Peak Hour F	ercentage: our Volume:	7.70% 2.284 vehicles			eavy Truc					
	our volume: nicle Speed:	_,		THE.	avy IIu	xs (3±	Axies)	. 15		
Near/Far Lan		35 mph 36 feet		Vehicle	Mix					
iveai/Fai Laii	e Distance.	36 leet		Veh	nicleType		Day	Evening	Night	Daily
Site Data					A	Autos:	70.69	6 13.6%	15.8%	97.55%
Barı	rier Height:	0.0 feet		M	ledium Ti	rucks:	80.39	6 4.7%	14.9%	1.47%
Barrier Type (0-Wa		0.0			Heavy Ti	rucks:	75.99	6 8.2%	15.9%	0.97%
Centerline Dis	t. to Barrier:	44.0 feet		Noise S	ourco El	ovatio	ne (in t	foot)		
Centerline Dist. to	o Observer:	44.0 feet		Worse 3	Auto:		0.000	eei)		
Barrier Distance to	o Observer:	0.0 feet		Modiu	m Truck:		297			
Observer Height (A	Above Pad):	5.0 feet			vy Truck:	-	.004	Grade Ad	iustmant	. 0 0
Pa	d Elevation:	0.0 feet		пеа	vy Truck	s. c	.004	Orado Ad	justinent	. 0.0
Roa	d Elevation:	0.0 feet		Lane Eq	uivalent	Distar	nce (in	feet)		
R	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	Hea	vy Truck:	s: 40).262			
FHWA Noise Mode	I Calculations	5								
VehicleType	REMEL	Traffic Flow	Distance		Road	Fres		Barrier Att		m Atten
Autos:	64.30	2.73		.28	-1.20		-4.61		000	0.000
Medium Trucks:	75.75	-15.48		.31	-1.20		-4.87		000	0.000
Heavy Trucks:	81.57	-17.28		.31	-1.20		-5.50	0.	000	0.000
VehicleType	Levels (without Leg Peak Hou			Evening	100	Night	_	Ldn		NFI.
Autos:	67 Ley Feak		5.9	64.8		ivigrit 60	7	68.	_	68.8
Medium Trucks:	60		9.8	53.5		53		61.		61.6
Heavy Trucks:	64		3.5	59.9		58		65.		65.9
Vehicle Noise:	69		8.5	66.3		63		70.	_	71.1
Centerline Distance	e to Noise Co	ntour (in feet)								
			7	0 dBA	65	dBA		60 dBA		dBA
	Ldn:				49 106 227				490	
	CNEL:				52 112 242				521	

Monday, July 3, 2023

	FHWA-R	D-77-108 HIGH	WAY	NOISE	PREDIC	TION N	IODEL	(9/12/2	021)		
Road Nar	rio: HY NP ne: Singleton F ent: w/o I-10 EE						Name: lumber:		alley North	SP	
SITE Highway Data	SPECIFIC II	NPUT DATA			Site Con				L INPUT	S	
				-	Site Con	aitions	(Hara -				
Average Daily	. ,	37,966 vehicle	es					Autos:	15		
	Percentage:	7.70%				dium Tr					
	Hour Volume:	2,923 vehicle	S		He	avy Tru	cks (3+	Axles):	15		
Ve	ehicle Speed:	35 mph		T I	Vehicle	Mix					
Near/Far La	ane Distance:	36 feet		F		icleType		Dav	Evenina	Niaht	Dailv
Site Data							Autos:	70.6%	13.6%	15.8%	97.53%
D.	rrier Height:	0.0 feet			М	edium T	rucks:	80.3%	4.7%	14.9%	1.49%
Barrier Type (0-V		0.0				Heavy T	rucks:	75.9%	8.2%	15.9%	0.98%
*, ,	ist. to Barrier:	44.0 feet			Noise S	FI	lovetio	an (in f	na#1		
Centerline Dist.	to Observer:	44.0 feet		l l	worse 3	Auto		.000	ei)		
Barrier Distance	to Observer:	0.0 feet			A de elle			297			
Observer Height	(Above Pad):	5.0 feet				m Truck			0	· 4	
	ad Elevation:	0.0 feet			Hea	y Truck	s: 8	.004	Grade Ad	justment	0.0
Ro	ad Elevation:	0.0 feet		1	Lane Eq	uivalent	Distar	ice (in	feet)		
	Road Grade:	0.0%		Ī		Auto	s: 40	.460			
	Left View:	-90.0 degree	es		Mediu	m Truck	s: 40	.241			
	Right View:	90.0 degree			Hea	y Truck	s: 40	.262			
FHWA Noise Mod	lel Calculation	ıs									
VehicleType	REMEL	Traffic Flow	Dis	tance	Finite	Road	Fres	nel	Barrier Att	en Ber	m Atten
Autos:	64.30	3.80		1.2	8	-1.20		-4.61	0.0	000	0.000
Medium Trucks:	75.75	-14.37		1.3	1	-1.20		-4.87	0.0	000	0.000
Heavy Trucks:	81.57	-16.17		1.3	1	-1.20		-5.50	0.0	000	0.000
Unmitigated Nois	e Levels (with	out Topo and	barrie	er atten	uation)						
VehicleType	Leq Peak Ho	ur Leq Day	/	Leq E	vening	Leq	Night		Ldn	C	NEL
Autos:			67.0		65.9		61	-	69.	4	69.9
Medium Trucks:	61	1.5	60.9		54.6		54	.8	62.	-	62.7
Heavy Trucks:	65	5.5	64.7		61.0		59	.1	66.	7	67.0
Vehicle Noise:	70	0.6	69.6		67.3		64	.2	71.	8	72.2
Centerline Distan	ce to Noise C	ontour (in feet)								
			L	70	dBA	65	dBA	6	0 dBA	55	dBA
			Ldn:		58		12	5	269)	579
		C	NEL:		62		13	3	286	6	616

		-77-108 HIGH						•			
	o: HY S2								alley North	SP	
	e: Singleton Ro					Job N	umber.	13594			
Road Segmer	nt: w/o I-10 EB	Ramps									
	SPECIFIC IN	PUT DATA							L INPUT	S	
Highway Data				S	ite Con	ditions	(Hard	= 10, S	oft = 15)		
Average Daily	Traffic (Adt):	38,237 vehicle	es					Autos.			
Peak Hour	Percentage:	7.70%				dium Tri		,			
Peak H	our Volume:	2,944 vehicles	3		He	avy Truc	cks (3+	Axles)	15		
Vei	hicle Speed:	35 mph		V	/ehicle l	Mix					
Near/Far Lar	ne Distance:	36 feet		Ė		icleType		Day	Evening	Night	Daily
Site Data							Autos:	70.69	-	15.8%	,
Rar	rier Heiaht:	0.0 feet			М	edium Ti	rucks:	80.39	4.7%	14.9%	1.48%
Barrier Type (0-W		0.0			- 1	Heavy Ti	rucks:	75.99	8.2%	15.9%	0.98%
Centerline Dis		44.0 feet			laina Ca	ource El	ovetio	na (in f	oot)		
Centerline Dist.	to Observer:	44.0 feet		^	ioise sc				eet)		
Barrier Distance	to Observer:	0.0 feet				Auto		0.000 2.297			
Observer Height (Above Pad):	5.0 feet				m Truck			Grade Ad	liuctment	- 0.0
Pa	d Elevation:	0.0 feet			neav	ry Truck	5. 6	3.004	Grade Ad	jusuneni	. 0.0
Roa	d Elevation:	0.0 feet		L	ane Eq	uivalent	Dista	nce (in	feet)		
F	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 Mode	l Calculations	1									
VehicleType	REMEL	Traffic Flow	Dista	ance	Finite	Road	Fres	inel	Barrier Att	en Bei	m Atten
Autos:	64.30	3.84		1.28	3	-1.20		-4.61	0.0	000	0.000
Medium Trucks:	75.75	-14.37		1.31	I	-1.20		-4.87	0.0	000	0.000
Heavy Trucks:	81.57	-16.17		1.31	I	-1.20		-5.50	0.0	000	0.000
Unmitigated Noise	Levels (witho	ut Topo and	barrier	atteni	uation)						
• • • • • • • • • • • • • • • • • • • •	Leq Peak Hou			Leq Ev		Leq	Night		Ldn		NEL
Autos:	68.		67.0		65.9		61		69.		69.9
Medium Trucks:	61.		60.9		54.6		54		62.		62.7
	65.		64.7		61.0		59		66.		67.0
Heavy Trucks:	70.	6	69.6		67.4		64	.2	71.	8	72.2
Heavy Trucks: Vehicle Noise:	70.										
· · · · ·		ntour (in feet)		70 -	(D.4	0.5	-/0.4	1	CO 4D 4		-/D4
Vehicle Noise:		, ,		70 d		65	dBA		60 dBA		dBA
Vehicle Noise:			Ldn:	70 d	IBA 58	65	dBA 12	5	60 dBA 269 287)	dBA 580 617

Scenario	: HY S1					Project N	lame: I	Dak V	alley North	SP	
	e: Sinaleton R	d				Job Nui			alley North	OF.	
Road Segmen						000 1441	moer.	10004			
	PECIFIC IN					NC	ISE N	/ODE	L INPUT	S	
Highway Data					Site Con	ditions (F	lard =	10, Sc	oft = 15)		
Average Daily 1	raffic (Adt):	38,172 vehicle	es					Autos:	15		
Peak Hour I	Percentage:	7.70%			Ме	dium Truc	ks (2 A	(xles	15		
Peak Ho	our Volume:	2,939 vehicles	s		He	avy Truck	s (3+ A	(xles	15		
Veh	icle Speed:	35 mph			Vehicle I	Niv					
Near/Far Lan	e Distance:	36 feet		F'		cleType		Day	Evening	Night	Daily
Site Data								70.6%	-	15.8%	,
Ran	rier Heiaht:	0.0 feet			Me	edium Tru	cks:	80.3%	4.7%	14.9%	1.489
Barrier Type (0-Wa		0.0			F	leavy Tru	cks:	75.9%	8.2%	15.9%	0.989
Centerline Dis	t. to Barrier:	44.0 feet		,	Noise Sc	urce Elev	/ation	s (in fe	eet)		
Centerline Dist. t	o Observer:	44.0 feet		ľ	10/36 00	Autos:		000	.01)		
Barrier Distance t	o Observer:	0.0 feet			Mediu	n Trucks:		297			
Observer Height (A	Above Pad):	5.0 feet				v Trucks:		004	Grade Ad	iustment	0.0
Pa	d Elevation:	0.0 feet		L		,				,	
Roa	d Elevation:	0.0 feet		1	Lane Eq	uivalent E	Distanc	ce (in i	feet)		
F	Road Grade:	0.0%				Autos:					
	Left View:	-90.0 degree	es			n Trucks:					
	Right View:	90.0 degree	es		Heav	y Trucks:	40.	262			
FHWA Noise Mode	I Calculation	s									
VehicleType	REMEL	Traffic Flow	Dis	tance	Finite	Road	Fresn	iel .	Barrier Att	en Bei	rm Atten
Autos:	64.30	3.83		1.2	-	-1.20		-4.61		000	0.00
Medium Trucks:	75.75	-14.37		1.3		-1.20		-4.87		000	0.00
Heavy Trucks:	81.57	-16.17		1.3	1	-1.20		-5.50	0.0	000	0.00
Unmitigated Noise	•										
	Leq Peak Hou		_	Leg E	_	Leq N	-		Ldn	_	NEL
Autos:	68		67.0		65.9		61.8		69.4		69.
Medium Trucks:	61		60.9		54.6		54.8		62.	-	62
Heavy Trucks:	65		64.7		61.0		59.1		66.		67
Vehicle Noise:	70	.6	69.6		67.4		64.2	2	71.8	В	72
Centerline Distanc	e to Noise Co	ontour (in feet,)	70		05.0		_			
			,	70 c		65 dE			0 dBA		dBA
			Ldn:		58		125		269	1	58
		0	NEL:		62		133		286		61

Monday, July 3, 2023

Autos: 70.6% 13.6% 15.8% 9 Medium Trucks: 80.3% 4.7% 14.9% Medium Trucks: 75.9% 15.9%		FHWA-RI	D-77-108 HIGHW	AY NOI	SE PREDI	CTION M	ODEL	(9/12/2	2021)		
Autos: 15 Autos: 16 Autos: 15 Autos: 16 Autos: 15 Autos: 16 Autos: 16 Autos: 16 Autos: 16 Autos: 16 Autos: 16 Autos: 16 Autos: 16 Autos: 16 Autos: 16 Autos: 16 Autos: 16 Autos: 16 Autos: 16 Autos: 16 Autos: 17 Auto	Road Na	me: Singleton F								SP	
Average Daily Traffic (Adt): 38,084 vehicles Peak Hour Percentage: 7,70% Peak Hour Volume: 2,932 vehicles Vehicle Speed: 35 mph Near/Far Lane Distance: 36 feet Vehicle Type Day Evening Night Distance Night		SPECIFIC IN	IPUT DATA		Cito Co					S	
Near/Far Lane Distance: 36 feet Vehicle Type Day Evening Night I	Average Daily Peak Hou	r Percentage:	7.70%		М	edium Tro	ucks (2	Autos Axles)	: 15 : 15		
Site Data Sarrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 feet Centerline Dist. to Barrier: 44.0 feet Centerline Dist. to Observer: 68.2 67.0 69.6 67.4 64.2 71.8 Centerline Dist. to Observer: 68.2 67.0 69.6 67.4 64.2 71.8 Centerline Dist. to Observer: 68.2 67.0 69.6 67.4 64.2 71.8 Centerline Dist. to Observer:											
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 44.0 feet Centerline Dist. to Observer: 44.0 feet Autos: 0.000 Medium Trucks: 75.9% 8.2% 15.9% 10		une Distance.	30 1001		Vei				-		Daily 97.54%
Centerline Dist. to Observer:	В					/ledium Ti	rucks:	80.39	6 4.7%	14.9%	1.48%
Barrier Distance to Observer:					Noise S				eet)		
Road Elevation: 0.0 feet Road Grade: 0.0% Autos: 40.460 Autos: 40.460	Barrier Distance Observer Height	to Observer: (Above Pad):	0.0 feet 5.0 feet			um Truck	s: 2	2.297	Grade Ad	ljustmen	t: 0.0
Left View:					Lane Ed	quivalent	Dista	nce (in	feet)		
VehicleType REMEL Traffic Flow Distance Finite Road Fresnel Barrier Atten Bermin Autos: 64.30 3.82 1.28 -1.20 -4.67 0.000		Left View:	-90.0 degrees			um Truck	s: 4(0.241			
Autos: 64.30 3.82 1.28 -1.20 -4.61 0.000 Medium Trucks: 75.75 -14.37 1.31 -1.20 -4.67 0.000 Heavy Trucks: 81.57 -16.17 1.31 -1.20 -5.50 0.000 Unmitigated Noise Levels (without Topo and barrier attenuation) VehicleType Leq Peak Hour Leq Day Leq Evening Leq Night Ldn CNE Autos: 68.2 67.0 65.9 61.8 69.4 Medium Trucks: 61.5 60.9 54.6 54.8 62.5 Heavy Trucks: 65.5 64.7 61.0 59.1 66.7 Vehicle Noise: 70.6 69.6 67.4 64.2 71.8 Centerline Distance to Noise Contour (in feet)	FHWA Noise Mod	del Calculation	s								
Medium Trucks: 75.75							Fres				rm Atten
Inmitigated Noise Levels (without Topo and barrier attenuation) VehicleType Leq Peak Hour Leq Day Leq Evening Leq Night Ldn CNE	Medium Trucks	75.75	-14.37	1	1.31	-1.20		-4.87	0.	000	0.000
VehicleType Leq Peak Hour Leq Day Leq Evening Leq Night Ldn CNE Autos: 68.2 67.0 66.9 61.8 69.4 Medium Trucks: 61.5 60.9 54.6 54.8 62.5 Heavy Trucks: 65.5 64.7 61.0 59.1 66.7 Vehicle Noise: 70.6 69.6 67.4 64.2 71.8 Centerline Distance to Noise Contour (in feet) 69.6 69.6 69.6 69.6 69.6	•							-5.50	0.	000	0.000
Autos: 68.2 67.0 65.9 61.8 69.4 Medium Trucks: 61.5 60.9 54.6 54.8 62.5 Heavy Trucks: 65.5 64.7 61.0 59.1 66.7 Vehicle Noise: 70.6 69.6 67.4 64.2 71.8 Centerline Distance to Noise Contour (in feet)							Niaht		Ldn		NEL
Heavy Trucks: 65.5 64.7 61.0 59.1 66.7 Vehicle Noise: 70.6 69.6 67.4 64.2 71.8 Centerline Distance to Noise Contour (in feet)								.8	69.	4	69.9
Vehicle Noise: 70.6 69.6 67.4 64.2 71.8 Centerline Distance to Noise Contour (in feet)	Medium Trucks	: 61	1.5 60	0.9	54.6	6	54	.8	62.	5	62.7
Centerline Distance to Noise Contour (in feet)						-					67.0
				9.6	67.4	4	64	.2	71.	8	72.2
	Centerline Distar	nce to Noise C	ontour (in feet)	7	0 dBA	65	dBA		60 dBA	55	5 dBA
Ldn: 58 125 269		Ldn:									
CNEL: 62 133 286						62 133 286				616	

Monday, July 3, 2023

	FHWA-RI	D-77-108 HIGH	IWAY	NOISE	PREDIC	TION N	IODEL	(9/12/2	021)		
	io: E ne: Singleton F nt: w/o Calime						Name: lumber:		alley North	SP	
	SPECIFIC IN	IPUT DATA			0:4- 0				L INPUT	s	
Highway Data					Site Con	aitions	(Hard =				
Average Daily	. ,	5,526 vehicle	es					Autos:			
	Percentage:	7.70%				dium Tr					
	lour Volume:	426 vehicle	S		He	avy Tru	cks (3+	Axles):	15		
Ve	hicle Speed:	45 mph		ŀ	Vehicle i	Mix					
Near/Far La	ne Distance:	36 feet		ŀ		icleType	,	Dav	Evenina	Niaht	Daily
Site Data							Autos:	70.6%	13.6%	15.8%	97.53%
Ra	rrier Height:	0.0 feet			М	edium T	rucks:	80.3%	4.7%	14.9%	1.49%
Barrier Type (0-W		0.0				Heavy T	rucks:	75.9%	8.2%	15.9%	0.98%
Centerline Di	st. to Barrier:	44.0 feet		ŀ	Noise So	urco E	lovation	e (in f	not)		
Centerline Dist.	to Observer:	44.0 feet		ŀ	140/36 00	Auto		.000	,		
Barrier Distance	to Observer:	0.0 feet			Modiu	m Truck		.297			
Observer Height	(Above Pad):	5.0 feet				/y Truck		.004	Grade Ad	iuetman	t: 0.0
P	ad Elevation:	0.0 feet								, 401111011	0.0
Ro	ad Elevation:	0.0 feet			Lane Eq	uivalen	t Distar	ice (in i	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		Heav	y Truck	s: 40	.262			
FHWA Noise Mode	el Calculation	s									
VehicleType	REMEL	Traffic Flow		stance		Road	Fres		Barrier Att		rm Atten
Autos:	68.46			1.2	-	-1.20		-4.61		000	0.000
Medium Trucks:	79.45			1.3		-1.20		-4.87		000	0.000
Heavy Trucks:	84.25	-25.63		1.3	1	-1.20		-5.50	0.0	000	0.000
Unmitigated Noise	e Levels (with	out Topo and	barri	er atter	nuation)						
VehicleType	Leq Peak Hou	ur Leq Day	/	Leq E	vening	Leq	Night		Ldn	C	NEL
Autos:	62	2.9	61.7		60.6		56.	.5	64.	1	64.6
Medium Trucks:		5.7	55.1		48.9		49.		56.	В	56.9
Heavy Trucks:		3.7	57.9		54.2		52.	-	59.	-	60.2
Vehicle Noise:	64	1.9	63.8		61.7		58.	4	66.)	66.4
Centerline Distant	ce to Noise Co	ontour (in feet)								
				70	dBA	65	dBA		60 dBA	55	5 dBA
			Ldn:		24		5	1	111		239
		C	NEL:		25		5	5	118		255

	FHWA-RI	D-77-108 HIGH	TWAY	NOISE	PREDIC	HON	NODEL	(9/12/2	021)		
	o: 2025 S1								alley North	SP	
	e: Singleton F					Job I	lumber.	13594			
Road Segmen	nt: w/o Calime	sa Bl.									
SITE S	SPECIFIC IN	IPUT DATA			Site Cor				L INPUT	S	
· ·	T	0.074			0116 001	untions	(I Idi d	Autos:			
Average Daily	. ,	9,374 vehicl	ies		14	odium T	nuelse (C	Axles):			
	Percentage:	7.70% 722 vehicle						Axles):			
	our Volume:		s		п	avy III	CKS (ST	Axies).	15		
	hicle Speed:	45 mph			Vehicle	Mix					
Near/Far Lar	ne Distance:	36 feet			Veh	icleTyp	9	Day	Evening	Night	Daily
Site Data							Autos:	70.6%	13.6%	15.8%	88.119
Bar	rier Heiaht:	0.0 feet			M	edium 1	rucks:	80.3%	4.7%	14.9%	1.969
Barrier Type (0-W	. ,	0.0				Heavy 1	rucks:	75.9%	8.2%	15.9%	9.939
Centerline Dis		44.0 feet			Noise S	ource E	levatio	ns (in fe	eet)		
Centerline Dist. 1		44.0 feet				Auto	s: (0.000			
Barrier Distance t		0.0 feet			Mediu	m Truck	(s: 2	2.297			
Observer Height (,	5.0 feet			Hea	vy Truci	(s: 8	3.004	Grade Ad	justment	0.0
	d Elevation:	0.0 feet		L							
	d Elevation:	0.0 feet			Lane Eq				feet)		
F	Road Grade:	0.0%				Auto		0.460			
	Left View:	-90.0 degre				m Truci		0.241			
	Right View:	90.0 degre	es		Hea	vy Truci	(S: 4(0.262			
FHWA Noise Mode											
VehicleType	REMEL	Traffic Flow		stance		Road	Fres		Barrier Att		m Atten
Autos:	68.46			1.2		-1.20		-4.61		000	0.00
Medium Trucks:	79.45			1.3		-1.20		-4.87		000	0.00
Heavy Trucks:	84.25			1.3		-1.20		-5.50	0.0	000	0.00
Unmitigated Noise								_			
	Leq Peak Hou		,	Leq E	vening		Night		Ldn		NEL
Autos:	-	1.7	63.6		62.4		58		65.9	-	66.
Medium Trucks:).2	58.6		52.4		52		60.3	-	60.
Heavy Trucks:		.1	70.2		66.6		64		72.	-	72.
Vehicle Noise:	72	2.2	71.3		68.1		65	.8	73.4	4	73.
Centerline Distanc	e to Noise Co	ontour (in fee	t)		10.4		10.4	т.			10.4
			1 4	70	dBA 74	65	dBA		60 dBA		dBA
			Ldn:				15		343		740
	CNEL:					78 168 362				779	

	D-77-108 HIGH\					•				
Scenario: 2025 NP								alley North	SP	
Road Name: Singleton					Job Nui	mber: 1	3594			
Road Segment: w/o Calim	esa Bl.									
SITE SPECIFIC I	NPUT DATA			ito Con	NC ditions (F			L INPUT	S	
			3	ne com	uitions (i					
Average Daily Traffic (Adt):	7,342 vehicle	S					Autos:	15		
Peak Hour Percentage:	7.70%				dium Truc	- 1	,	15		
Peak Hour Volume:	565 vehicles			Hea	avy Truck	s (3+ A	xies):	15		
Vehicle Speed:	45 mph		V	ehicle N	/lix					
Near/Far Lane Distance:	36 feet			Vehi	cleType		Day	Evening	Night	Daily
Site Data					Au	itos:	70.6%	13.6%	15.8%	97.53
Barrier Height:	0.0 feet			Ме	edium Tru	cks:	80.3%	4.7%	14.9%	1.49
Barrier Type (0-Wall, 1-Berm):	0.0			H	leavy Tru	cks:	75.9%	8.2%	15.9%	0.98
Centerline Dist. to Barrier:	44.0 feet		N	oise So	urce Elev	/ations	(in fe	et)		
Centerline Dist. to Observer:	44.0 feet				Autos:	0.0	000			
Barrier Distance to Observer:	0.0 feet			Mediun	n Trucks:	2.2	97			
Observer Height (Above Pad):	5.0 feet			Heav	y Trucks:	8.0	04	Grade Ad	ustment	: 0.0
Pad Elevation:	0.0 feet									
Road Elevation:	0.0 feet		Li	ane Equ	ıivalent E			eet)		
Road Grade:	0.0%				Autos:					
Left View:	-90.0 degree	S			n Trucks:					
Right View:	90.0 degree	S		Heav	y Trucks:	40.2	262			
HWA Noise Model Calculatio										
VehicleType REMEL	Traffic Flow	Distan		Finite		Fresn		Barrier Att		m Atter
Autos: 68.4			1.28		-1.20		-4.61		000	0.0
Medium Trucks: 79.4			1.31		-1.20		-4.87		000	0.00
Heavy Trucks: 84.2			1.31		-1.20		-5.50	0.0	000	0.00
Inmitigated Noise Levels (wit		_			1 1			Ldn		NFL.
VehicleType Leq Peak Ho		12.9 12.9	eq Eve	ening 61.8	Leq N	19nt 57.7		Lan 65.1		NEL 65
		6.4		50.1		50.3		58.0		58
		6.4 59.1		55.5						
,		9.1 5.1				53.6		61.2		61 67
		00.1		63.0		59.6		67.3	3	67
Centerline Distance to Noise (ontour (in feet)		70 dl	34	65 dE	21	6	0 dBA	55	dBA
Denternine Distance to Noise (
Senterinie Distance to Noise C	1	dn:	70 UL	29	05 U	62		134		28

Monday, July 3, 2023

	FHWA-RI	D-77-108 HIGH	WAY NO	ISE PRED	CTION N	10DEL (9/12/	2021)	
	o: 2025 S2 e: Singleton R t: w/o Calime					Name: Oak \ lumber: 1359	Valley North SF 4	
	PECIFIC IN	IPUT DATA				IOISE MOD	EL INPUTS	
Highway Data				Site Co	nditions	(Hard = 10, S	Soft = 15)	
Average Daily 1 Peak Hour F Peak Ho	. ,	10,841 vehicle 7.70% 835 vehicle				Autos ucks (2 Axles cks (3+ Axles): 15	
Veh	icle Speed:	45 mph		Vehicle	Mix			
Near/Far Lan	e Distance:	36 feet			hicleType	Day	Evening N	ight Daily
Site Data						Autos: 70.6		5.8% 85.45%
Barı	ier Height:	0.0 feet		1	∕ledium T	rucks: 80.3	% 4.7% 1	4.9% 3.07%
Barrier Type (0-Wa		0.0			Heavy T	rucks: 75.9	% 8.2% 1	5.9% 11.48%
Centerline Dis	t. to Barrier:	44.0 feet		Noise S	Source E	levations (in	feet)	
Centerline Dist. to	o Observer:	44.0 feet			Auto	-	,	
Barrier Distance to	o Observer:	0.0 feet		Mod	um Truck	- 0.000		
Observer Height (A	Above Pad):	5.0 feet			avy Truck	0	Grade Adjust	tment: 0.0
Pa	d Elevation:	0.0 feet						
Roa	d Elevation:	0.0 feet		Lane E	quivalen	t Distance (in	feet)	
R	oad Grade:	0.0%			Auto	s: 40.460		
	Left View:	-90.0 degree	es		um Truck			
	Right View:	90.0 degree	es	He	vy Truck	s: 40.262		
FHWA Noise Mode	Calculation	s						
VehicleType	REMEL	Traffic Flow	Distan	ce Finit	e Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	-3.30		1.28	-1.20	-4.61	0.000	0.000
Medium Trucks:	79.45	-17.76		1.31	-1.20	-4.87	7 0.000	0.000
Heavy Trucks:	84.25	-12.02		1.31	-1.20	-5.50	0.000	0.000
Unmitigated Noise	Levels (with	out Topo and	barrier a	ttenuation)			
	Leq Peak Hou			q Evening		Night	Ldn	CNEL
Autos:	65		64.1	62.	-	58.8	66.4	66.9
Medium Trucks:	61		61.2	54.	-	55.1	62.8	63.0
Heavy Trucks:	72		71.5	67.		65.9	73.5	73.8
Vehicle Noise:	73	3.4	72.5	69.	2	67.0	74.6	74.9
Centerline Distance	e to Noise Co	ontour (in feet,	1					
			L	70 dBA		dBA	60 dBA	55 dBA
			Ldn:	89		192	414	891
		Ci	VEL:	94	ŀ	202	435	937

Monday, July 3, 2023

	FHWA-RD	-77-108 HIGH	WAY	NOISE	PREDIC	TION M	IODEL (9/12/20	021)			
Road Nan	nio: 2028 NP ne: Singleton Ro nt: w/o Calimes						Name: lumber:		alley North	SP		
SITE Highway Data	SPECIFIC IN	PUT DATA			NOISE MODEL INPUTS Site Conditions (Hard = 10, Soft = 15)							
Average Daily Peak Hour	Percentage:	22,258 vehicles 7.70% 1,714 vehicles 45 mph 36 feet			Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15							
	hicle Speed: ne Distance:			1	Vehicle Mix VehicleType Day Evening Night Daily							
Site Data					ven		Autos:	Day 70.6%	Evening 13.6%	Night 15.89		
Ba Barrier Type (0-Vi	rrier Height: /all, 1-Berm):	0.0 feet 0.0			Medium Trucks: 80.3% 4.7% 14.9% 1.49' Heavy Trucks: 75.9% 8.2% 15.9% 0.98'							
Centerline Dist. to Barrier: Centerline Dist. to Observer: Barrier Distance to Observer: Observer Height (Above Pad):		44.0 feet 44.0 feet 0.0 feet 5.0 feet 0.0 feet			Noise Source Elevations (in feet) Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.004 Grade Adjustment: 0.0							
Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degre Right View: 90,0 degre					Lane Equivalent Distance (in feet) Autos: 40.460 Medium Trucks: 40.241 Heavy Trucks: 40.262							
FHWA Noise Mod	el Calculations	:										
VehicleType Autos: Medium Trucks: Heavy Trucks:	79.45	0.39 -17.78 -19.58	Dis	1.2 1.3 1.3	8 1	-1.20 -1.20 -1.20	Fresi	-4.61 -4.87 -5.50	0.0	en Be 000 000 000	0.000 0.000 0.000	
Unmitigated Noise	e Levels (witho	ut Topo and i	barrie	er atten	uation)							
VehicleType	Leq Peak Hour	- 1 - 7		Leq E	vening	_	Night		Ldn		CNEL	
Autos: 6 Medium Trucks: 6 Heavy Trucks: 6		61.2			66.6 62.5 54.9 55.7 60.3 58.4		62.8		3	70.6 63.0 66.0		
Vehicle Noise:			69.9		67.8		64.	5	72.1	1	72.5	
Centerline Distan	ce to Noise Co	ntour (in feet)		70 (dBA	65	dBA	6	0 dBA	5	5 dBA	
			Ldn: VEL:	,,,	60 64	30	130 139)	281 299		605 644	

	FHWA-R	D-77-108 HIGH	WAY N	NOISE F	PREDIC	CTION N	MODEL (9/12/2	021)				
Scenario: 2028 S2 Road Name: Singleton Rd. Road Segment: w/o Calimesa Bl.						Project Name: Oak Valley North SP Job Number: 13594							
SITE	SPECIFIC IN	NPUT DATA					NOISE N	IODE	L INPUT	S			
Highway Data				S	ite Cor	nditions	(Hard =	10, Sc	oft = 15)				
Peak H	Percentage: our Volume:	26,523 vehicle 7.70% 2,042 vehicle					rucks (2 A rcks (3+ A	,	15				
	hicle Speed:	45 mph		V	ehicle	Mix							
Near/Far Lai	ne Distance:	36 feet			Ver	icleType	9	Dav	Evening	Night	Daily		
Site Data								70.6%	-	15.89			
Bar	rier Height:	0.0 feet			M	ledium 7	rucks:	80.3%	4.7%	14.99	6 2.14%		
Barrier Type (0-W		0.0				Heavy 7	rucks:	75.9%	8.2%	15.99	6 5.53%		
Centerline Dis	t. to Barrier:	44.0 feet		N	oise S	ource E	levations	(in f	eet)				
Centerline Dist.	to Observer:	44.0 feet		- 1		Auto		000	,				
Barrier Distance	to Observer:	0.0 feet			Modiu	m Truck		97					
Observer Height (Above Pad): 5.0 f					Heavy Trucks: 8.004 Grade Adjustm						t 0.0		
Pa	d Elevation:	0.0 feet			iica	vy IIucr	13. 0.1	JU4	07440714	dourror	. 0.0		
Road Elevation: 0.0 feet				L	ane Eq	uivalen	t Distand	e (in	feet)				
F	Road Grade:	0.0%				Auto	s: 40.	460					
	Left View:	-90.0 degre	-90.0 degrees			Medium Trucks: 40.241							
	Right View:	90.0 degre	es		Hea	vy Truck	s: 40.	262					
FHWA Noise Mode	l Calculation	s											
VehicleType	REMEL	Traffic Flow	Dist	ance	Finite	Road	Fresn	el	Barrier Att	en Be	rm Atten		
Autos:	68.46	0.92		1.28		-1.20		-4.61	0.0	000	0.000		
Medium Trucks:	79.45	-15.43		1.31		-1.20		-4.87	0.0	000	0.000		
Heavy Trucks:	84.25	-11.31		1.31		-1.20		-5.50	0.0	000	0.000		
Unmitigated Noise	Levels (with	out Topo and	barrier	r attenu	ation)								
VehicleType	Leq Peak Ho	ur Leq Daj		Leq Eve	ening	Leq	Night		Ldn		CNEL		
Autos:		9.5	68.3		67.2		63.0		70.6	-	71.1		
Medium Trucks:	64	1.1	63.5		57.3		57.5	,	65.2	2	65.4		
Heavy Trucks: 73.1 72.2				68.6 66.7 74.2					74.5				
Vehicle Noise:	75	5.0	74.1		71.1		68.6	-	76.2	2	76.5		
Centerline Distance	e to Noise C	ontour (in feet)										
				70 dl		65	dBA	(60 dBA		5 dBA		
	Ldn:				113 244				526				
		С	NEL:		120		258		556		1,197		

	-FHWA-R	D-77-108 HIGI	TWVAT	MOISE	FREDIC	HON MC	DEL (31 1212	0 2 1)					
Scenario: 2028 S1						Project Name: Oak Valley North SP								
Road Name: Singleton Rd. Road Segment: w/o Calimesa Bl.						Job Number: 13594								
Road Segmen	ı. w/o Calime	esa bi.												
SITE SPECIFIC INPUT DATA									L INPUT	S				
Highway Data					Site Con	ditions (F	lard =	10, Sc	oft = 15)					
Average Daily	raffic (Adt):	24,966 vehic	es					Autos:						
Peak Hour i	-	7.70%				dium Truc		,						
	our Volume:	1,922 vehicle	s		He	avy Truck	s (3+ /	Axles):	15					
	icle Speed:	45 mph		İ	Vehicle I	Mix								
Near/Far Lar	e Distance:	36 feet		ı	Veh	icleType		Day	Evening	Night	Daily			
Site Data						Au	itos:	70.6%	13.6%	15.8%	94.06			
Bar	rier Height:	0.0 feet			Me	edium Tru	cks:	80.3%	4.7%	14.9%	1.62			
Barrier Type (0-Wa	-	0.0			F	Heavy Tru	cks:	75.9%	8.2%	15.9%	4.31			
Centerline Dis	t. to Barrier:	44.0 feet		1	Noice Se	ource Elev	ration	c (in f	not)					
Centerline Dist. t	o Observer:	44.0 feet		-	NOISE SC	Autos:		000	<i>:ei)</i>					
Barrier Distance t	o Observer:	0.0 feet			Mediu	m Trucks:		297						
Observer Height (/	Above Pad):	5.0 feet				y Trucks:		004	Grade Ad	liustmen	t: 0.0			
Pa	d Elevation:	0.0 feet								,				
	d Elevation:	0.0 feet			Lane Equivalent Distance (in feet)									
F	Road Grade:	0.0%			Autos: 40.460									
	Left View:	-90.0 degre				m Trucks:		241						
	Right View:	90.0 degre	es		Heav	y Trucks:	40.	262						
FHWA Noise Mode	l Calculation	ıs												
VehicleType	REMEL	Traffic Flow		stance		Road	Fresr	_	Barrier Att		rm Atter			
Autos:	68.46			1.2		-1.20		-4.61		000	0.00			
Medium Trucks:	79.45			1.3		-1.20		-4.87		000	0.00			
Heavy Trucks:	84.25			1.3	-	-1.20		-5.50	0.	000	0.00			
Unmitigated Noise VehicleType	Levels (with Leg Peak Ho				nuation) Evening	Leg N	iosht	1	Ldn		NEL			
Autos:		ur Leq Da 9.3	68.1	Ley E	67.0		1911L 62.8	2	70.		70			
Medium Trucks:	-	9.3 2.7	62.1		55.8		56.0	-	63.		63			
Heavy Trucks:	-	1.7	70.9		67.2		65.3	-	72.	-	73			
Vehicle Noise:		4.0	73.1		70.3		67.6		75.	-	75			
Centerline Distanc	e to Noise C	ontour (in fee	t)											
			,	70	dBA	65 dE	BA .	6	60 dBA	55	dBA			
			Ldn:		97		210		452	2	97			

Monday, July 3, 2023

	FHWA-RD	-77-108 HIGH	WAY	NOISE	PREDIC	TION MO	DDEL	(9/12/2	021)					
Scenario: HY NP Road Name: Singleton Rd. Road Segment: w/o Calimesa Bl.					Project Name: Oak Valley North SP Job Number: 13594									
SITE S					L INPUT	s								
Highway Data	Highway Data					Site Conditions (Hard = 10, Soft = 15)								
Average Daily	Traffic (Adt):	34,159 vehicle	es					Autos:	15					
Peak Hour	Percentage:	7.70%			Me	dium Tru	cks (2	Axles):	15					
Peak H	our Volume:	2,630 vehicles	3		He	avy Truci	ks (3+	Axles):	15					
Vel	hicle Speed:	45 mph		ŀ	Vehicle I	Niv								
Near/Far Lar	ne Distance:	36 feet		-		cleType		Dav	Evening	Night	Daily			
Site Data							utos:	70.6%	-	15.8%				
Par	rier Height:	0.0 feet			Ме	edium Tru	ıcks:	80.3%	4.7%	14.9%	1.49%			
Barrier Type (0-W		0.0			F	leavy Tru	ıcks:	75.9%	8.2%	15.9%	0.98%			
Centerline Dis	. ,	44.0 feet												
Centerline Dist.		44.0 feet		H	Noise So				eet)					
Barrier Distance I	o Observer:	0.0 feet				Autos		.000						
Observer Height (Above Pad):	5.0 feet				n Trucks		.297	0		4. 0.0			
Pad Elevation:		0.0 feet			Heav	y Trucks	: 8	.004	Grade Adj	ustmen	r: U.U			
Road Elevation:		0.0 feet			Lane Equ	iivalent	Distan	ce (in	feet)					
F	Road Grade:	0.0%				Autos	: 40	.460						
	Left View:	-90.0 degrees			Mediur	n Trucks	: 40	.241						
	Right View:	90.0 degree	es		Heav	y Trucks	40	.262						
FHWA Noise Mode	l Calculations													
VehicleType	REMEL	Traffic Flow	Dis	tance	Finite		Fres		Barrier Atte		rm Atten			
Autos:	68.46	2.25		1.2	-	-1.20		-4.61		000	0.000			
Medium Trucks:	79.45	-15.92		1.3		-1.20		-4.87		000	0.000			
Heavy Trucks:	84.25	-17.72		1.3	11	-1.20		-5.50	0.0	000	0.000			
Unmitigated Noise	Levels (witho	ut Topo and	barrie	er atter	nuation)									
VehicleType	Leq Peak Houi	Leq Day	,	Leq E	vening	Leq N	light		Ldn	C	NEL			
Autos:	70.	8	69.6		68.5		64.	4	72.0)	72.5			
Medium Trucks:	63.	6	63.0		56.8		57.	0	64.7	7	64.9			
Heavy Trucks:	66.		65.8		62.1		60.		67.8		68.1			
Vehicle Noise:	72.	8	71.8		69.6		66.	3	73.9	9	74.3			
Centerline Distanc	e to Noise Co	ntour (in feet,)											
			T	70	dBA	65 d	BA	- (60 dBA	55	dBA			
			Ldn:		80		173	-	373		805			
CN					86		185	5	398		857			

Monday, July 3, 2023

	FHWA-RD	-77-108 HIGH	WAY	NOISE	PREDIC	CTION N	IODEL	(9/12/2	021)		
Road Nar	rio: HY S1 ne: Singleton Ro ent: w/o Calimes						Name: lumber:		alley North	SP	
SITE Highway Data	SPECIFIC IN	PUT DATA			Site Con				L INPUT	S	
Average Daily Peak Hour Peak I	Percentage:	36,867 vehicle 7.70% 2,839 vehicles 45 mph			Ме	edium Tr eavy Tru	ucks (2	Autos: Axles):	15 15		
Near/Far La	ane Distance:	36 feet		-		icleType	,	Dav	Evening	Night	Dailv
Site Data Ba Barrier Type (0-V	nrrier Height: Vall. 1-Berm):	0.0 feet 0.0			М		Autos: rucks:	70.6% 80.3% 75.9%	13.6% 4.7%	15.8% 14.9% 15.9%	6 95.18% 6 1.58%
Centerline Dist. Barrier Distance Observer Height	to Observer:	44.0 feet 44.0 feet 0.0 feet 5.0 feet 0.0 feet				Auto m Truck vy Truck	s: 0 s: 2	.000 .297 .004	eet) Grade Ad	ljustmer	t: 0.0
	nad Elevation: Road Grade: Left View: Right View:	0.0 feet 0.0% -90.0 degree 90.0 degree				uivalent Auto m Truck vy Truck	s: 40 s: 40	.460 .241 .262	feet)		
FHWA Noise Mod	lel Calculations										
VehicleType Autos: Medium Trucks: Heavy Trucks:	79.45	2.48 -15.32 -12.20	Dis	1.2 1.3 1.3	8 1	-1.20 -1.20 -1.20	Fres	-4.61 -4.87 -5.50	0.0	000 000 000 000	0.000 0.000 0.000
Unmitigated Nois	e Levels (witho	ut Topo and	barri	er atten	uation)						
VehicleType	Leq Peak Hour	Leq Day		Leq E	vening	Leq	Night		Ldn	(NEL
Autos: Medium Trucks: Heavy Trucks: Vehicle Noise:	64. 72.	2	69.8 63.6 71.3		68.7 57.4 67.7		64. 57. 65.	6 8	72. 65. 73. 76.	3 3	72.7 65.5 73.7
								-			7 0.0
Centerline Distan	ce to Noise Co	ntour (in feet)		70	dBA	65	dBA	6	60 dBA	5	5 dBA
			Ldn: VEL:		114 120		245 259		528 559		1,137 1,204

	FHWA-R	D-77-108 HIGI	HWAY	NOISE	PREDIC	CTION N	MODEL (9/1	2/2021)		
	o: HY S3 e: Singleton F nt: w/o Calime						t Name: Oal Number: 135	k Valley North 594	SP	
SITE S	SPECIFIC II	NPUT DATA						DEL INPUT	S	
Highway Data				S	ite Cor	ditions	(Hard = 10,	Soft = 15)		
Peak H	Percentage: our Volume:	34,767 vehicle 7.70% 2,677 vehicle					Aut rucks (2 Axie icks (3+ Axie	es): 15		
	nicle Speed:	45 mph		ν	'ehicle	Mix				
Near/Far Lar	ne Distance:	36 feet			Veh	icleType	e Da	y Evening	Night	Daily
Site Data							Autos: 70	.6% 13.6%	15.8%	97.20%
Bar	rier Height:	0.0 feet			М	edium 7	rucks: 80	.3% 4.7%	14.9%	1.49%
Barrier Type (0-W		0.0				Heavy 7	rucks: 75	.9% 8.2%	15.9%	1.31%
Centerline Dis		44.0 feet			laica S	ourco E	levations (i	n foot)		
Centerline Dist. t	o Observer:	44.0 feet		<u> </u>	ioise si	Auto				
Barrier Distance t	o Observer:	0.0 feet			A 4 17:-		0.000			
Observer Height (Above Pad):	5.0 feet				m Truck			iuctman	t 0.0
Pa	d Elevation:	0.0 feet			Hea	vy Truck	KS: 8.004	Grade Ad	justriieri	ι. υ.υ
Roa	d Elevation:	0.0 feet		L	ane Eq	uivalen	t Distance (in feet)		
F	Road Grade:	0.0%				Auto	os: 40.460)		
	Left View:	-90.0 degre	es		Mediu	m Truck	ks: 40.241	I		
	Right View:	90.0 degre	es		Hea	vy Truck	ks: 40.262	2		
FHWA Noise Mode	l Calculation	ıs								
VehicleType	REMEL	Traffic Flow	Dis	stance	Finite	Road	Fresnel	Barrier Att	en Be	rm Atten
Autos:	68.46	2.32	2	1.28	3	-1.20	-4.	61 0.0	000	0.000
Medium Trucks:	79.45	-15.83	3	1.31	1	-1.20	-4.	87 0.0	000	0.000
Heavy Trucks:	84.25	-16.39)	1.31		-1.20	-5.	50 0.0	000	0.000
Unmitigated Noise	Levels (with	out Topo and	barrie	er atteni	uation)					
VehicleType	Leq Peak Ho	ur Leq Da		Leq Ev	ening	Leq	Night	Ldn		NEL
Autos:	70	0.9	69.7		68.6	i	64.4	72.0)	72.5
Medium Trucks:	63	3.7	63.1		56.9		57.1	64.8	В	64.9
Heavy Trucks:	68	8.0	67.1		63.5		61.6	69.2	2	69.5
Vehicle Noise:	73	3.2	72.2		69.9		66.7	74.3	3	74.7
Centerline Distance	e to Noise C	ontour (in fee	t)				1			
			L	70 d		65	dBA	60 dBA		5 dBA
			Ldn:		86		185	398		857
		C	NEL:		91		197	423		912

		D-77-108 HIGH									
	o: HY S2								alley North	SP	
	e: Singleton R					Job N	umber:	13594			
Road Segmen	t: w/o Calime	sa Bl.									
SITE S Highway Data	SPECIFIC IN	IPUT DATA			ite Con				L INPUT	S	
-				3	ne com	ullions	_				
Average Daily T	. ,	38,424 vehicl	es					Autos:	15		
Peak Hour I	-	7.70%				dium Tru		,	15		
Peak Ho	our Volume:	2,959 vehicle	S		He	avy Truc	ks (3+ .	4xles):	15		
	nicle Speed:	45 mph		ν	ehicle N	/lix					
Near/Far Lar	ne Distance:	36 feet		Ė	Vehi	сіеТуре		Day	Evening	Night	Daily
Site Data						F	utos:	70.6%	13.6%	15.8%	93.94
Ran	rier Heiaht:	0.0 feet			Me	edium Tr	ucks:	80.3%	4.7%	14.9%	1.949
Barrier Type (0-Wa		0.0			F	leavy Tr	ucks:	75.9%	8.2%	15.9%	4.12
Centerline Dis	t. to Barrier:	44.0 feet		N	loise So	urce Fl	evation	s (in fe	oet)		
Centerline Dist. t	o Observer:	44.0 feet			0.00 00	Autos		000	,,,,		
Barrier Distance t	o Observer:	0.0 feet			Modiur	n Trucks		297			
Observer Height (A	Above Pad):	5.0 feet				v Trucks		004	Grade Ad	iustment	. 0.0
Pa	d Elevation:	0.0 feet			ricav	y mucho	. 0.	004	Ordao riaj	dolinon	. 0.0
Roa	d Elevation:	0.0 feet		L	ane Equ	ıivalent	Distan	ce (in i	feet)		
F	Road Grade:	0.0%				Autos	: 40	460			
	Left View:	-90.0 degre	es		Mediur	n Trucks	: 40	241			
	Right View:	90.0 degre	es		Heav	y Trucks	: 40	262			
FHWA Noise Mode	l Calculation	s									
VehicleType	REMEL	Traffic Flow	Dista	ance	Finite	Road	Fresi	nel	Barrier Att	en Ber	m Atten
Autos:	68.46	2.60		1.28		-1.20		-4.61		000	0.00
Medium Trucks:	79.45	-14.25		1.31		-1.20		-4.87	0.0	000	0.00
Heavy Trucks:	84.25	-10.98		1.31		-1.20		-5.50	0.0	000	0.00
Unmitigated Noise		-						1			
	Leq Peak Hou			Leq Ev		Leq	Vight		Ldn		NEL
Autos:	71		70.0		68.8		64.		72.3	-	72
Medium Trucks:	65		64.7		58.4		58.	-	66.3	-	66
Heavy Trucks:	73		72.5		68.9		67.	-	74.6		74
Vehicle Noise:	75	i.8	74.9		72.1		69.	4	77.0)	77.
Centerline Distanc	e to Noise Co	ntour (in feet)	70 "	D4		/D /		20 404		-10.4
			L	70 di		65 (0 dBA		dBA
			Ldn:		129		277		597		1,28
		_	NEL:		136		293		631		1.36

Monday, July 3, 2023

	FHWA-RD	-77-108 HIGH	WAY	NOISE	PREDIC	TION M	DDEL (9/12/2	021)		
Scenari									alley North	SP	
	e: Singleton Ro					Job Nu	ımber:	13594			
Road Segmer	nt: e/o Calimes	a Bl.									
	SPECIFIC IN	PUT DATA							L INPUT	S	
Highway Data					Site Con	ditions (Hard =	: 10, Sc	oft = 15)		
Average Daily	Traffic (Adt):	8,456 vehicle	:S					Autos:	15		
Peak Hour	Percentage:	7.70%			Ме	dium Tru	cks (2	Axles):	15		
Peak H	our Volume:	651 vehicles	3		He	avy Truc	ks (3+	Axles):	15		
Ve	hicle Speed:	45 mph		ŀ	Vehicle I	Miv					
Near/Far Lai	ne Distance:	36 feet		1		icleType		Dav	Evening	Night	Daily
Site Data							utos:	70.6%		15.8%	
Rai	rier Heiaht:	0.0 feet			Me	edium Tri	ucks:	80.3%	4.7%	14.9%	1.49%
Barrier Type (0-W		0.0			F	Heavy Tri	ucks:	75.9%	8.2%	15.9%	0.98%
Centerline Dis	. ,	44.0 feet		-	M-: 0-	51-	4!	- /:- #	4)		
Centerline Dist.	to Observer:	44.0 feet		-	Noise Sc				eet)		
Barrier Distance	to Observer:	0.0 feet				Autos		.000			
Observer Height (Above Pad):	5.0 feet				m Trucks		.297	Crada Ad	inatman	t: 0.0
Pa	nd Elevation:	0.0 feet			Heav	y Trucks	. 8	.004	Grade Ad	jusunen	t. U.U
Roa	ad Elevation:	0.0 feet			Lane Eq	uivalent	Distan	ce (in	feet)		
F	Road Grade:	0.0%				Autos	: 40	.460			
	Left View:	-90.0 degree	s		Mediui	m Trucks	: 40	.241			
	Right View:	90.0 degree	es.		Heav	y Trucks	: 40	.262			
FHWA Noise Mode	el Calculations										
VehicleType	REMEL	Traffic Flow	Dis	tance	Finite		Fresi		Barrier Att		rm Atten
Autos:	68.46	-3.81		1.2		-1.20		-4.61		000	0.000
Medium Trucks:	79.45	-21.98		1.3		-1.20		-4.87		000	0.000
Heavy Trucks:	84.25	-23.78		1.3	31	-1.20		-5.50	0.0	000	0.000
Unmitigated Noise	Levels (witho	ut Topo and	barrie	er atter	nuation)						
VehicleType	Leq Peak Hour	Leq Day		Leq E	vening	Leq N	light		Ldn	С	NEL
Autos:	64.		63.6		62.4		58.		65.9		66.4
Medium Trucks:	57.	-	57.0		50.7		50.	-	58.	-	58.8
Heavy Trucks:	60.	-	59.7		56.1		54.		61.8	-	62.1
Vehicle Noise:	66.	7	65.7		63.6		60.	3	67.	9	68.3
Centerline Distanc	e to Noise Co	ntour (in feet)									
				70	dBA	65 a	IBA	-	60 dBA		dBA
			Ldn:		32		68		147		317
		CI	VEL:		34		73	3	157		338

Monday, July 3, 2023

	FHWA-RD	-77-108 HIGH	IWAY	NOISE	PREDIC	CTION N	IODEL	(9/12/2	(021)		
Road Nam	io: 2025 NP e: Singleton R nt: e/o Calimes						t Name: lumber:		alley North	SP	
SITE :	SPECIFIC IN	PUT DATA			Cita Cas				EL INPUT oft = 15)	S	
Average Daily Peak Hour Peak H	Traffic (Adt): Percentage: our Volume: hicle Speed:	9,512 vehicle 7.70% 732 vehicle 45 mph			Ме Не	edium Tr eavy Tru	ucks (2	Autos Axles)	: 15 : 15		
Near/Far La		36 feet		-	Vehicle	Mix icleType		Day	Evening	Nigh	Daily
Site Data							Autos:	70.69		15.8	_
Bar Barrier Type (0-W	rier Height: 'all, 1-Berm):	0.0 feet 0.0				edium T Heavy T		80.39 75.99			
Centerline Dis		44.0 feet		İ	Noise S	ource E	levatio	ns (in f	eet)		
Centerline Dist. Barrier Distance Observer Height (to Observer:	44.0 feet 0.0 feet 5.0 feet			Mediu	Auto m Truck	s: 0	.000			
	ad Elevation:	0.0 feet			Hea	vy Truck	:s: 8	.004	Grade A	ljustme	nt: 0.0
	ad Elevation:	0.0 feet			Lane Eq	uivalen	t Distar	nce (in	feet)		
1	Road Grade:	0.0%				Auto	s: 40	.460			
	Left View: Right View:	-90.0 degree				m Truck vy Truck).241).262			
FHWA Noise Mode	el Calculations	5									
VehicleType	REMEL	Traffic Flow	Dis	stance	Finite	Road	Fres	nel	Barrier At	ten E	erm Atten
Autos:	68.46	-3.30		1.2	-	-1.20		-4.61		000	0.000
Medium Trucks:	79.45	-21.47		1.3		-1.20		-4.87	-	000	0.000
Heavy Trucks:	84.25	-23.27		1.3		-1.20		-5.50	0.	000	0.000
Unmitigated Noise VehicleType	Levels (without Leg Peak Hou				vening	100	Night	1	Ldn	T	CNEL
Autos:	Ley reak nou		64.1	Ley E	62.9		Nigrit 58	0	66	_	66.9
Medium Trucks:	58	_	57.5		51.2		51	-	59		59.3
Heavy Trucks:	61		60.2		56.6		54		62		62.6
Vehicle Noise:	67.	•	66.2		64.1		60		68	-	68.8
Centerline Distance	e to Noise Co	ntour (in feet)								
				70	dBA	65	dBA		60 dBA		55 dBA
			Ldn:		34		7-		15	-	343
		C	NEL:		37		7	9	17)	366

	FHWA-RD	-77-108 HIGH	IWAY	NOISE	PREDIC	TION	MODEL	(9/12/20	021)		
Road Nam	io: 2025 S2 ne: Singleton Ro nt: e/o Calimes						t Name: lumber:		alley North	SP	
	SPECIFIC IN	PUT DATA			0:4- 0				L INPUT	s	
Highway Data					Site Cor	aitions	(Hara =				
Average Daily	. ,	9,738 vehicle	es					Autos:			
	Percentage:	7.70%					rucks (2	,			
	lour Volume:	750 vehicle	s		HE	avy iru	icks (3+	Axies):	15		
	hicle Speed:	45 mph		7	Vehicle	Иix					
Near/Far La	ne Distance:	36 feet		Г	Veh	icleType	9	Day	Evening	Night	Daily
Site Data							Autos:	70.6%	13.6%	15.8%	96.66%
Bai	rrier Height:	0.0 feet			М	edium 7	rucks:	80.3%	4.7%	14.9%	1.60%
Barrier Type (0-W		0.0				Heavy 7	rucks:	75.9%	8.2%	15.9%	1.74%
Centerline Di	st. to Barrier:	44.0 feet			Noise S	urco E	lovation	e (in fe	not)		
Centerline Dist.	to Observer:	44.0 feet		H'	10/3E 3	Auto		.000	ei)		
Barrier Distance	to Observer:	0.0 feet			Modiu	m Truck		.000			
Observer Height ((Above Pad):	5.0 feet				ııı Truck vv Truck		.004	Grade Ad	iustmant	- 0.0
Pa	ad Elevation:	0.0 feet			пеа	ry ITUC	15. 0	.004	Orauc Au	asancin	. 0.0
Roa	ad Elevation:	0.0 feet		1	Lane Eq	uivalen	t Distar	ice (in i	feet)		
1	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		Hea	y Truck	(s: 40	.262			
FHWA Noise Mode											
VehicleType	REMEL	Traffic Flow		stance		Road	Fres		Barrier Att		m Atten
Autos:	68.46	-3.24		1.2	-	-1.20		-4.61		000	0.00
Medium Trucks:	79.45	-21.05		1.3		-1.20		-4.87		000	0.00
Heavy Trucks:	84.25	-20.69		1.3		-1.20		-5.50	0.0	000	0.00
Unmitigated Noise										_	
VehicleType	Leq Peak Hou			Leq E			Night		Ldn		NEL
Autos:	65.		64.1		63.0		58.		66.5	-	67.
Medium Trucks:	58.		57.9		51.6		51.	-	59.5	-	59.
Heavy Trucks: Vehicle Noise:	63. 68.		62.8 67.1		59.2 64.7		57. 61.	-	64.9		65. 69.
Centerline Distance	ce to Noise Co	ntour (in feet	9								
	5 00		,	70 0	dBA	65	dBA	6	0 dBA	55	dBA
			Ldn:		39		84	4	182		392
		C	NEL:		42		90	0	193		416

	FHWA-RI	0-77-108 HIGH	WAY	NOISE	PREDIC	TION M	ODEL	(9/12/2	021)		
Road Nan	rio: 2025 S1 ne: Singleton R ent: e/o Calimes						Name: umber:		alley North	SP	
	SPECIFIC IN	PUT DATA							L INPUT	S	
Highway Data				S	ite Con	ditions	(Hard =	= 10, Sc	oft = 15)		
Average Daily	Traffic (Adt):	9,611 vehicle	es					Autos:			
Peak Hour	r Percentage:	7.70%			Me	edium Tru	ıcks (2	Axles):	15		
Peak H	Hour Volume:	740 vehicle	S		He	avy Truc	cks (3+	Axles):	15		
Ve	ehicle Speed:	45 mph		ν	ehicle	Mix					
Near/Far La	ane Distance:	36 feet			Veh	icleType		Day	Evening	Night	Daily
Site Data						A	Autos:	70.6%	13.6%	15.8%	97.269
Ва	rrier Height:	0.0 feet			М	edium Ti	rucks:	80.3%	4.7%	14.9%	1.499
Barrier Type (0-V	-	0.0				Heavy Ti	rucks:	75.9%	8.2%	15.9%	1.249
Centerline Di	ist. to Barrier:	44.0 feet		N	laisa Si	ource El	ovation	ne (in fa	not)		
Centerline Dist.	to Observer:	44.0 feet		- "	0/36 00	Auto:		.000			
Barrier Distance	to Observer:	0.0 feet			Mediu	m Truck:		.297			
Observer Height	(Above Pad):	5.0 feet				vy Truck		.004	Grade Ad	liustment	- 0.0
P	Pad Elevation:	0.0 feet				•				,	
Ro	ad Elevation:	0.0 feet		L	ane Eq	uivalent			feet)		
	Road Grade:	0.0%				Auto		.460			
	Left View:	-90.0 degree	es			m Truck		.241			
	Right View:	90.0 degree	es		Hear	y Truck	s: 40	.262			
FHWA Noise Mod	lel Calculation	s									
VehicleType	REMEL	Traffic Flow		tance		Road	Fres		Barrier Att		rm Atten
Autos:		-3.27		1.28		-1.20		-4.61		000	0.00
Medium Trucks:		-21.40		1.31		-1.20		-4.87		000	0.00
Heavy Trucks:	84.25	-22.20		1.31		-1.20		-5.50	0.	000	0.00
Unmitigated Nois	e Levels (with	out Topo and	barrie	er attenu	ıation)						
VehicleType	Leq Peak Hou		_	Leg Ev			Night		Ldn		NEL
Autos:			64.1		63.0		58.	-	66.		66.
Medium Trucks:			57.6		51.3		51.	-	59.	_	59.
Heavy Trucks: Vehicle Noise:			61.3		57.7 64.3		55. 61.		63. 68.		63. 69
					64.3		01.	. 1	68.	/	69.
Centerline Distan	ce to Noise Co	ntour (in feet)	70 di	RΔ	65	dBA	-	60 dBA	5.5	dBA
			Ldn:	7 U U	36	00	и <i>Б</i> А 71		167		360
		C	NEL:		38		8:		178		383
		0.			50		0.	-	110	•	300

Monday, July 3, 2023

	FHWA-RD-	77-108 HIGH	YAW	NOISE	PREDIC	TION MO	DDEL (9/12/2	021)		
Scenario:	2028 NP					Project I	Vame:	Oak V	alley North	SP	
Road Name:						Job Nu	mber:	13594			
Road Segment:	e/o Calimesa	Bl.									
	ECIFIC INP	UT DATA			211 0				L INPUT	S	
Highway Data					Site Con	ditions (
Average Daily Tra	. ()	1,370 vehicle	:S					Autos:			
Peak Hour Pe		7.70%				dium Tru					
Peak Hour		,645 vehicles	3		He	avy Truci	ks (3+)	Axles):	15		
Vehicl	e Speed:	45 mph		1	/ehicle I	Nix					
Near/Far Lane	Distance:	36 feet		F		cleType		Day	Evening	Night	Daily
Site Data						A	utos:	70.6%	13.6%	15.89	6 97.53%
Barrie	r Heiaht:	0.0 feet			Me	edium Tru	ıcks:	80.3%	4.7%	14.99	6 1.49%
Barrier Type (0-Wall,		0.0			F	leavy Tru	ıcks:	75.9%	8.2%	15.99	6 0.98%
Centerline Dist. t	,	44.0 feet		١,	Vaine Co	urce Ele	vetion	a (in f	n a #1		
Centerline Dist. to 0	Observer:	44.0 feet		<u>'</u>	¥0/36 30	Autos			ei)		
Barrier Distance to 0	Observer:	0.0 feet					. 0.	000 297			
Observer Height (Abo	ove Pad):	5.0 feet				n Trucks			Grade Ad	livatman	t: 0.0
Pad E	Elevation:	0.0 feet			Heav	y Trucks	. 8.	004	Grade At	justrier	ii. 0.0
Road E	Elevation:	0.0 feet		I	ane Equ	uivalent	Distan	ce (in	feet)		
Roa	d Grade:	0.0%				Autos	40.	460			
L	.eft View:	-90.0 degree	s		Mediur	n Trucks	40.	241			
Ri	ght View:	90.0 degree	es		Heav	y Trucks	40.	262			
FHWA Noise Model C	alculations										
,,, .		Traffic Flow	Dist	ance	Finite		Fresi		Barrier At		rm Atten
Autos:	68.46	0.22		1.2	-	-1.20		-4.61		000	0.000
Medium Trucks:	79.45	-17.95		1.3		-1.20		-4.87		000	0.000
Heavy Trucks:	84.25	-19.75		1.3	1	-1.20		-5.50	0.	000	0.000
Inmitigated Noise Le	evels (withou	ut Topo and	barriei	r atten	uation)						
VehicleType Le	q Peak Hour	Leq Day		Leg Ev	rening	Leq N	light		Ldn		CNEL
Autos:	68.8		67.6		66.5		62.3	-	69.	-	70.4
Medium Trucks:	61.6		61.0		54.7		54.9	-	62.	-	62.8
Heavy Trucks:	64.6		63.8		60.1		58.2		65.	-	66.1
Vehicle Noise:	70.7	,	69.7		67.6		64.3	3	71.	9	72.3
Centerline Distance t	o Noise Con	tour (in feet)	1								
·				70 c		65 d			60 dBA	5	5 dBA
			Ldn:		59		127		273	3	588
		CI	VEL:		63		135		291	ĺ	627

Monday, July 3, 2023

	FHWA-R	D-77-108 HIGH	WAY	NOISE	PREDIC	TION N	IODEL	(9/12/2	021)		
Road Nan	io: 2028 S1 ne: Singleton F nt: e/o Calime						t Name: lumber:		alley North	SP	
	SPECIFIC II	NPUT DATA			0:4- 0				L INPUT	s	
Highway Data					Site Con	aitions	(Hara :				
Average Daily	. ,	21,544 vehicle	es					Autos:			
Peak Hour	Percentage:	7.70%				dium Tr					
	lour Volume:	1,659 vehicle	5		He	avy Tru	cks (3+	Axles):	15		
Ve	hicle Speed:	45 mph		T I	Vehicle i	Mix					
Near/Far La	ne Distance:	36 feet				icleType	9	Dav	Evenina	Niaht	Daily
Site Data							Autos:	70.6%	13.6%	15.8%	97.42%
Ra	rrier Height:	0.0 feet			М	edium T	rucks:	80.3%	4.7%	14.9%	1.48%
Barrier Type (0-W		0.0				Heavy T	rucks:	75.9%	8.2%	15.9%	1.09%
Centerline Di		44.0 feet		-	Noise So	urce F	lovatio	ne (in fa	not)		
Centerline Dist.	to Observer:	44.0 feet		-	140/36 00	Auto		.000	,		
Barrier Distance	to Observer:	0.0 feet			Modiu	m Truck		.297			
Observer Height	(Above Pad):	5.0 feet				/y Truck		.004	Grade Ad	liustman	t: 0.0
P	ad Elevation:	0.0 feet		L	rical	ry IIUCK	.s. c	.004	Orace Au	justinen	i. 0.0
Ro	ad Elevation:	0.0 feet		L	Lane Eq	uivalen	t Distar	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 Calculation	ıs									
VehicleType	REMEL	Traffic Flow	Dis	stance	Finite	Road	Fres	nel	Barrier Att	en Be	rm Atten
Autos:	68.46			1.2	-	-1.20		-4.61	0.0	000	0.000
Medium Trucks:	79.45	-17.92		1.3	1	-1.20		-4.87	0.0	000	0.000
Heavy Trucks:	84.25	-19.25		1.3	1	-1.20		-5.50	0.0	000	0.000
Unmitigated Noise	e Levels (with	out Topo and	barrie	er atter	nuation)						
VehicleType	Leq Peak Ho	ur Leq Day	,	Leq E	vening	Leq	Night		Ldn	C	NEL
Autos:	68	3.8	67.6		66.5		62	4	70.	0	70.5
Medium Trucks:	61	1.6	61.0		54.8		55	-	62.	7	62.9
Heavy Trucks:			64.3		60.6		58		66.	-	66.6
Vehicle Noise:	70	0.9	69.9		67.7		64	4	72.	0	72.5
Centerline Distan	ce to Noise C	ontour (in feet)								
		-	T	70	dBA	65	dBA	6	60 dBA	55	5 dBA
			Ldn:		60		13) _	280)	602
		C	VEL:		64		13	3	298	3	642

	FHWA-RD	-77-108 HIGH	1 YAW	IOISE F	PREDIC	TION N	IODEL	(9/12/2	021)		
Scenario. Road Name. Road Segment.	: Singleton Ro							Oak V 13594	alley North	SP	
	PECIFIC IN	PUT DATA							L INPUT	s	
	ercentage:	32,963 vehicle 7.70% 2,538 vehicle: 45 mph			Ме Не	dium Tr avy Tru	ucks (2	Autos: Axles).	15		
Near/Far Lane		36 feet		V	ehicle	VIIX icleType		Dav	Evening	Night	Daily
Site Data Barri Barrier Type (0-Wai	ier Height:	0.0 feet			М		Autos: rucks:	70.6% 80.3% 75.9%	6 13.6% 6 4.7%	15.8% 14.9% 15.9%	97.53%
Centerline Dist. Centerline Dist. to Barrier Distance to	to Barrier: Observer:	44.0 feet 44.0 feet 0.0 feet		N		Auto	s: (ns (in f	eet)		
	bove Pad): I Elevation: I Elevation:	5.0 feet 0.0 feet 0.0 feet		L	Hea	m Truck /y Truck uivalen:	s: 8	3.004	Grade Ad	justmen	t: 0.0
	oad Grade: Left View: Right View:	0.0% -90.0 degree 90.0 degree				Auto m Truck ry Truck	s: 40).460).241).262			
FHWA Noise Model											
VehicleType Autos: Medium Trucks: Heavy Trucks:	68.46 79.45 84.25	2.10 -16.07 -17.87	Dist	1.28 1.31 1.31		-1.20 -1.20 -1.20	Fres	-4.61 -4.87 -5.50	0.0	en Be 000 000 000	0.00 0.00 0.00
Unmitigated Noise I	Lovole (witho	ut Topo and	harrio	attoni	ation)						
	eq Peak Hou			Leq Eve		Leq	Night		Ldn	С	NEL
Autos: Medium Trucks:	70. 63.	6	69.5 62.9		68.3 56.6		64 56		71.8 64.9	-	72. 64.
Heavy Trucks: Vehicle Noise:	66. 72.		65.6 71.6		62.0 69.5		60 66		67.7 73.8		68. 74.
Centerline Distance	to Noise Co	ntour (in feet)								
		, ,	Ldn:	70 di	BA 79	65	dBA 16		60 dBA 365		5 dBA 786
			VEL:		84		18	-	389		837

Scenario: 2028 S2 Road Name: Singleton Rd. Road Segment: e/o Calimesa Bl.	Project Name: Oak Valley North SP Job Number: 13594
	332 (14/125). 1000 (
SITE SPECIFIC INPUT DATA	NOISE MODEL INPUTS
Highway Data Si	Site Conditions (Hard = 10, Soft = 15)
Average Daily Traffic (Adt): 21,626 vehicles	Autos: 15
Peak Hour Percentage: 7.70%	Medium Trucks (2 Axles): 15
Peak Hour Volume: 1,665 vehicles	Heavy Trucks (3+ Axles): 15
Vehicle Speed: 45 mph	/ehicle Mix
Near/Far Lane Distance: 36 feet	VehicleType Day Evening Night Daily
Site Data	Autos: 70.6% 13.6% 15.8% 97.35
Barrier Height: 0.0 feet	Medium Trucks: 80.3% 4.7% 14.9% 1.50
Barrier Type (0-Wall, 1-Berm): 0.0	Heavy Trucks: 75.9% 8.2% 15.9% 1.15
Centerline Dist. to Barrier: 44.0 feet	loise Source Elevations (in feet)
Centerline Dist. to Observer: 44.0 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	Treaty Trucks. 8.004 Crade Adjustment. 8.0
Road Elevation: 0.0 feet La	ane Equivalent Distance (in feet)
Road Grade: 0.0%	Autos: 40.460
Left View: -90.0 degrees	Medium Trucks: 40.241
Right View: 90.0 degrees	Heavy Trucks: 40.262
FHWA Noise Model Calculations	
VehicleType REMEL Traffic Flow Distance	Finite Road Fresnel Barrier Atten Berm Atten
Autos: 68.46 0.26 1.28	3 -1.20 -4.61 0.000 0.00
Medium Trucks: 79.45 -17.86 1.31	-1.20 -4.87 0.000 0.00
Heavy Trucks: 84.25 -19.03 1.31	-1.20 -5.50 0.000 0.00
Unmitigated Noise Levels (without Topo and barrier attenu	iation)
VehicleType Leq Peak Hour Leq Day Leq Eve	
Autos: 68.8 67.6	66.5 62.4 70.0 70
Medium Trucks: 61.7 61.1	54.8 55.0 62.7 62
	60.8 58.9 66.5 66
Heavy Trucks: 65.3 64.5	
	67.8 64.5 72.1 72
Heavy Trucks: 65.3 64.5 Vehicle Noise: 71.0 69.9 Centerline Distance to Noise Contour (in feet)	
Heavy Trucks: 65.3 64.5	BA 65 dBA 60 dBA 55 dBA
Heavy Trucks: 65.3 64.5 Vehicle Noise: 71.0 69.9 Centerline Distance to Noise Contour (in feet)	

Monday, July 3, 2023

	FHWA-RI	D-77-108 HIGHV	VAY NOIS	E PREDIC	TION N	IODEL (9/12/2	(021)		
	io: HY S1 e: Singleton F nt: e/o Calime:					Name: lumber:		alley North	SP	
SITE	SPECIFIC IN	IPUT DATA			N	IOISE I	MODE	L INPUT	S	
Highway Data				Site Con	ditions	(Hard =	10, S	oft = 15)		
	Traffic (Adt): Percentage: our Volume:	33,137 vehicles 7.70% 2,552 vehicles	3			ucks (2) cks (3+)	,	: 15		
Ve	hicle Speed:	45 mph		Vehicle	Miv					
Near/Far La	ne Distance:	36 feet			icleType		Dav	Evening	Night	Dailv
Site Data				70		Autos:	70.69		15.89	
Por	rier Height:	0.0 feet		М	edium T		80.39		14.9	
Barrier Type (0-W		0.0			Heavy T	rucks:	75.99	6 8.2%	15.9	% 1.06%
Centerline Dis		44.0 feet		Noise S	ource El	evation	s (in f	eet)		
Centerline Dist.		44.0 feet			Auto	s: 0.	000			
Barrier Distance	to Observer:	0.0 feet		Mediu	m Truck		297			
Observer Height (Above Pad):	5.0 feet			/y Truck		004	Grade Ad	iustmei	nt: 0.0
Pa	ad Elevation:	0.0 feet			•					
Ros	ad Elevation:	0.0 feet		Lane Eq	uivalen	t Distan	ce (in	feet)		
1	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	Hear	y Truck	s: 40.	262			
FHWA Noise Mode	el Calculation	s								
VehicleType	REMEL	Traffic Flow	Distance	Finite	Road	Fresr	nel	Barrier Att	en B	erm Atten
Autos:	68.46	2.12	1	.28	-1.20		-4.61	0.0	000	0.000
Medium Trucks:	79.45	-16.05	1	.31	-1.20		-4.87	0.0	000	0.000
Heavy Trucks:	84.25	-17.54	1	.31	-1.20		-5.50	0.0	000	0.000
Unmitigated Noise										
VehicleType	Leq Peak Hou			Evening		Night		Ldn		CNEL
Autos:			9.5	68.4		64.2	_	71.8	-	72.3
Medium Trucks:			2.9	56.6		56.8	-	64.5	-	64.7
Heavy Trucks:			6.0	62.3		60.4		68.0	_	68.3
Vehicle Noise:			1.7	69.6		66.3	3	73.9	9	74.3
Centerline Distance	e to Noise Co	ontour (in feet)	7	0 dBA	65	dBA	1	60 dBA	l 5	5 dBA
		,	dn:	80 80	1 05	UDA 172		370	_	798
		CN		85		183		395		790 850
		011		50		.50		330		550

Monday, July 3, 2023

	FHWA-F	RD-77	-108 HIGH	WAY	NOISI	E PREDI	CTION N	IODEL	(9/12/20	021)				
Road Na	ario: HY S2 ame: Singleton nent: e/o Calim		I.					t Name: lumber:		alley North	SP			
SITI Highway Data	E SPECIFIC I	NPU	T DATA			Site Cor				L INPUT	S			
						Site Coi	iuitions	(naru -						
	ly Traffic (Adt):	,	219 vehicle	S					Autos:					
	ur Percentage:		70%				edium Tr							
	Hour Volume:	-,	58 vehicles	•		He	eavy Tru	cks (3+	Axles):	15				
	/ehicle Speed:		45 mph			Vehicle	Mix							
Near/Far I	Lane Distance:	;	36 feet			Vel	hicleType	9	Dav	Evening	Night	Daily		
Site Data								Autos:	70.6%	-	15.8%	97.42%		
	Barrier Height:		0.0 feet			N	1edium T	rucks:	80.3%	4.7%	14.9%	1.50%		
Barrier Type (0-			0.0 1661				Heavy T	rucks:	75.9%	8.2%	15.9%	1.09%		
	Dist. to Barrier:		4.0 feet											
	t to Observer:		4.0 feet			Noise S			_ •	eet)				
	e to Observer		0.0 feet				Auto		.000					
Observer Heigh			5.0 feet				ım Truck		.297					
-	Pad Flevation:		0.0 feet			Hea	vy Truck	s: 8	.004	Grade Adjustment: 0.0				
	Road Elevation:		0.0 feet			Lane Eq	uivalen	t Distar	nce (in i	feet)				
	Road Grade:		0%				Auto		.460	,				
	Left View:		0.0 degree	ıs		Mediu	ım Truck	s: 40	241					
	Right View:		0.0 degree			Hea	vy Truck	s: 40	.262					
FHWA Noise Mo	del Calculatio	ns												
VehicleType	REMEL	Tra	affic Flow	Di	stance		Road	Fres		Barrier Att	en Be	rm Atten		
Auto	s: 68.4	6	2.13			28	-1.20		-4.61	0.0	000	0.000		
Medium Truck		-	-16.01			31	-1.20		-4.87		000	0.000		
Heavy Truck	s: 84.2	5	-17.39		1.3	31	-1.20		-5.50	0.0	000	0.000		
Unmitigated No.			Topo and I	barri										
VehicleType	Leq Peak Ho	_	Leq Day	_	Leg E	vening	Leq	Night		Ldn		NEL		
Auto		0.7		69.5		68.4		64.	_	71.	-	72.3		
Medium Truck		3.6		62.9		56.7		56.		64.6	-	64.8		
Heavy Truck		7.0		66.1		62.5		60.		68.2		68.5		
Vehicle Nois		2.8		71.7		69.6	j .	66.	.3	73.9	9	74.3		
Centerline Dista	nce to Noise (Conto	ur (in feet)		70	dBA	65	dBA		SO dBA		dBA		
				Ldn:	70			0BA 17:				804		
				JEL:		80 86		173	-	373 397		804 856		
			01			00		10-	-	351		000		

	FHWA-RD-	77-108 HIGHWA	Y NOISE	PREDIC	CTION N	MODEL (9/	12/2021)	
Scenario: Road Name: Road Segment:	Singleton Rd.					t Name: Oa Number: 13	ak Valley North 594	SP
SITE SI	PECIFIC INP	UT DATA				NOISE MO	DEL INPUTS	3
Highway Data				ite Cor	ditions	(Hard = 1	0, Soft = 15)	
	ercentage: ur Volume: cle Speed:	7,811 vehicles 7.70% 601 vehicles 45 mph 36 feet	ı	He ehicle	eavy Tru Mix	rucks (2 Ax icks (3+ Ax	les): 15	
	. Distance.	30 1001		Veh	icleType		ay Evening	Night Daily
Barrier Type (0-Wal		0.0 feet 0.0			edium 1 Heavy 1	rucks: 8	0.6% 13.6% 0.3% 4.7% 5.9% 8.2%	15.8% 97.53% 14.9% 1.49% 15.9% 0.98%
Centerline Dist.		44.0 feet 44.0 feet	^	loise S	ource E	levations ((in feet)	
Barrier Distance to Observer Height (Au Pad Road Ro	Observer: bove Pad): Elevation: Elevation: pad Grade:	0.0 feet 5.0 feet 0.0 feet 0.0 feet 0.0% -90.0 degrees 90.0 degrees	L	Hea ane Eq Mediu	Auto m Truck vy Truck uivalen Auto m Truck vy Truck	ks: 2.29 ks: 8.00 t Distance ps: 40.46 ks: 40.24	Grade Adj (in feet)	ustment: 0.0
FHWA Noise Model	Calculations							
VehicleType	REMEL T	Traffic Flow [Distance	Finite	Road	Fresnei		
Autos:	68.46	-4.15	1.28		-1.20		1.61 0.0	
Medium Trucks: Heavy Trucks:	79.45 84.25	-22.33 -24.12	1.31 1.31		-1.20 -1.20		1.87 0.0 5.50 0.0	
Unmitigated Noise L	evels (withou	it Topo and bar	rier atten	uation)				
VehicleType L	eq Peak Hour	Leq Day	Leg Ev	ening	Leq	Night	Ldn	CNEL
Autos:	64.4		_	62.1		58.0	65.6	
Medium Trucks:	57.2			50.4		50.6	58.3	
Heavy Trucks:	60.2			55.7		53.8	61.4	
Vehicle Noise:	66.4	65.3	3	63.2		59.9	67.5	67.9
Centerline Distance	to Noise Con	tour (in feet)						
			70 a		65	dBA	60 dBA	55 dBA
		Ldn		30		65	140	301
		CNEL		32		69	149	321

Average Daily Traffic (Adt): 33,085 vehicles Autos: 15	ght Daily 5.8% 97.53
SITE SPECIFIC INPUT DATA Site Conditions (Hard = 10, Soft = 15)	
SITE SPECIFIC INPUT DATA NOISE MODEL INPUTS	
Highway Data Site Conditions (Hard = 10, Soft = 15)	
Average Daily Traffic (Adt): 33,085 vehicles Autos: 15	
Peak Hour Percentage: 7.70% Medium Trucks (2 Axles): 15 Heavy Trucks (3 + Axles): 15	
Peak Hour Volume: 2,548 vehicles Heavy Trucks (3+ Axles): 15	
Vehicle Speed: 45 mph Vehicle Mix VehicleType Day Evening Nig	
Near/Far Lane Distance: 36 feet Vernice Mix Vernic	
Site Data Autos: 7.05% 13.6% 13.6% 14.7% 14.0% 1	
Barrier Height: 0.0 feet Medium Trucks: 80.3% 4.7% 14	5.8% 97.539
Barrier regnt: 0.0 feet Heavy Trucks: 75.9% 8.2% 15	
Barrier Type (0-Wall, 1-Berm): 0.0 Heavy Trucks: 75.9% 8.2% 15	4.9% 1.489
Centerline Dist. to Observer: 44.0 feet Autos: 0.000	5.9% 0.99
Centerline Dist. to Observer: 44.0 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 Adjustr.	ment: 0.0
Pad Elevation: 0.0 feet	
Road Elevation: 0.0 feet Lane Equivalent Distance (in feet)	
Road Grade: 0.0% Autos: 40.460	
Left View: -90.0 degrees Medium Trucks: 40.241	
Right View: 90.0 degrees Heavy Trucks: 40.262	
FHWA Noise Model Calculations	
VehicleType REMEL Traffic Flow Distance Finite Road Fresnel Barrier Atten	Berm Atten
Autos: 68.46 2.12 1.28 -1.20 -4.61 0.000	0.00
Medium Trucks: 79.45 -16.07 1.31 -1.20 -4.87 0.000	0.00
Heavy Trucks: 84.25 -17.82 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
Autos: 70.7 69.5 68.4 64.2 71.8	72
Medium Trucks: 63.5 62.9 56.6 56.8 64.5	64
Heavy Trucks: 66.5 65.7 62.0 60.1 67.7	68
Vehicle Noise: 72.6 71.6 69.5 66.2 73.8	74
	55 dDA
70 dBA 65 dBA 60 dBA	55 dBA
Centerline Distance to Noise Contour (in feet) 70 dBA 65 dBA 60 dBA Ldn: 79 1181 CNEL: 84 181 390	55 dBA 78 84

Monday, July 3, 2023

	FHWA-RI	D-77-108 HIGHV	VAY NO	ISE	PREDIC	TION M	ODEL	(9/12/2	(021)		
Road Na	ario: 2025 NP ame: Singleton F nent: w/o Singlet							: Oak V : 13594	alley North	SP	
SITI Highway Data	E SPECIFIC IN	IPUT DATA		9	ite Con				L INPUT oft = 15)	s	
Average Dai Peak Hoi Peak	ly Traffic (Adt): ur Percentage: Hour Volume: /ehicle Speed: Lane Distance:	8,827 vehicles 7.70% 680 vehicles 45 mph 36 feet	\$		Me He 'ehicle l	dium Tru avy Truc Mix	ucks (2 cks (3+	Autos Axles) Axles)	: 15 : 15 : 15		
Site Data		00 1221		+	Veh	icleType	lutos:	70.69	Evening 13.6%	Night 15.8%	Daily 97.53%
	Barrier Height: Wall, 1-Berm):	0.0 feet 0.0				edium Ti Heavy Ti	ucks:	70.09 80.39 75.99	6 4.7%	14.9%	1.49%
	Dist. to Barrier:	44.0 feet		٨	loise So	ource El	evatio	ns (in f	eet)		
Barrier Distand Observer Heigh		44.0 feet 0.0 feet 5.0 feet 0.0 feet				Auto: m Truck: yy Truck:	s: 2	0.000 2.297 3.004	Grade Ad	ljustmen	t: 0.0
F	Road Elevation:	0.0 feet		L	ane Eq	uivalent	Dista	nce (in	feet)		
	Road Grade: Left View: Right View:	0.0% -90.0 degrees 90.0 degrees				Auto: m Truck: ry Truck:	s: 4	0.460 0.241 0.262			
FHWA Noise Mo	del Calculation	s									
VehicleType	REMEL	Traffic Flow	Distant	се	Finite	Road	Fre	snel	Barrier Att	ten Be	rm Atten
Auto	s: 68.46	-3.62		1.28		-1.20		-4.61	0.	000	0.000
Medium Truck				1.31 1.31		-1.20 -1.20		-4.87 -5.50		000	0.000
Unmitigated Noi	ise I evels (with	out Tono and h	arrier at	teni	iation)						
VehicleType	Leg Peak Hou		_		ening	Leg	Night		Ldn	С	NEL
Auto	s: 64	1.9 6	3.7		62.6		58	.5	66.	1	66.6
Medium Truck	s: 57	7.8 5	7.2		50.9		51	.1	58.	8	59.0
Heavy Truck	s:60).8 5	9.9		56.3		54	.4	62.	0	62.3
Vehicle Noise	e: 66	3.9 6	5.9		63.8		60	.4	68.	1	68.5
Centerline Dista	nce to Noise C	ontour (in feet)									
				70 d		65	dBA _		60 dBA		dBA
		CN	dn: ⊏ı ·		33 35			0 5	151 161		326 348
		CN	LL.		33		- /	J	101		340

Monday, July 3, 2023

	FHWA-RI	D-77-108 HIGH	WAY	NOISE	PREDIC	TION N	IODEL	(9/12/2	021)				
Road Nan	io: 2025 S1 ne: Singleton F nt: w/o Singlet						Name: lumber:		alley North	SP			
	SPECIFIC IN	IPUT DATA							L INPUT	s			
Highway Data					Site Cor	ditions	(Hard =	= 10, Sc	oft = 15)				
Average Daily	Traffic (Adt):	8,926 vehicle	es					Autos:					
Peak Hour	Percentage:	7.70%				dium Tr							
Peak F	lour Volume:	687 vehicle	S		He	avy Tru	cks (3+	Axles):	15				
Ve	hicle Speed:	45 mph		ŀ	Vehicle	Mix							
Near/Far La	ne Distance:	36 feet				icleType	,	Dav	Evenina	Niaht	Dailv		
Site Data							Autos:	70.6%	13.6%	15.8%	97.24%		
Ra	rrier Height:	0.0 feet			М	edium T	rucks:	80.3%	4.7%	14.9%	1.49%		
Barrier Type (0-W		0.0				Heavy T	rucks:	75.9%	8.2%	15.9%	1.26%		
Centerline Di		44.0 feet		-	Noise S	urco E	lovation	ne (in f	not)				
Centerline Dist.	to Observer:	44.0 feet		-	Worse St	Auto		.000	ei)				
Barrier Distance	to Observer:	0.0 feet			Modiu	m Truck		.297					
Observer Height	(Above Pad):	5.0 feet				/y Truck		.004	•				
P	ad Elevation:	0.0 feet		L	i ica	ry IIUCK	s. o	.004	Grade Adjustrient. 0.0				
Ro	ad Elevation:	0.0 feet		L	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		Hea	y Truck	s: 40	.262					
FHWA Noise Mod	el Calculation	s											
VehicleType	REMEL	Traffic Flow	Dis	stance	Finite	Road	Fres	nel	Barrier Att	en Be	rm Atten		
Autos:	68.46			1.2	-	-1.20		-4.61	0.0	000	0.000		
Medium Trucks:	79.45	-21.72		1.3	1	-1.20		-4.87	0.0	000	0.000		
Heavy Trucks:	84.25	-22.45		1.3	1	-1.20		-5.50	0.0	000	0.000		
Unmitigated Noise	e Levels (with	out Topo and	barrie	er atter	nuation)								
VehicleType	Leq Peak Hou	ır Leq Day	/	Leq E	vening	Leq	Night		Ldn	C	NEL		
Autos:	64	1.9	63.8		62.7		58.	.5	66.	1	66.6		
Medium Trucks:	57	7.8	57.2		51.0		51.	_	58.	-	59.1		
Heavy Trucks:	61	1.9	61.1		57.4		55.	.5	63.	1	63.4		
Vehicle Noise:	67	7.2	66.2		64.0		60.	.8	68.	4	68.8		
Centerline Distant	ce to Noise Co	ontour (in feet)										
				70	dBA	65	dBA		60 dBA	55	dBA		
			Ldn:		34		74	4	160)	344		
		C	NEL:		37		79	9	170)	366		

		IIAI NO	SE PREL	ICTION I	MODEL (9/	12/2021)		
Scenario: 2028 NP Road Name: Singleton Rd. Road Segment: w/o Singleton					t Name: O Number: 13	ak Valley North 3594	SP	
SITE SPECIFIC INP	UT DATA				NOISE M	ODEL INPUT	s	
Highway Data			Site C	onditions	(Hard = 1	0, Soft = 15)		
Peak Hour Percentage:	5,693 vehicle 7.70% ,208 vehicles 45 mph			Heavy Tro	Airucks (2 Ax ucks (3+ Ax	,		
Near/Far Lane Distance:	36 feet			e iviix ehicleTyp		ay Evening	Night	Daily
Site Data			V	епісіе і ур		0.6% 13.6%	15.8%	
Barrier Height:	0.0 feet			Medium '	Trucks: 8	0.3% 4.7%	14.9%	1.49%
Barrier Type (0-Wall, 1-Berm):	0.0			Heavy	Trucks: 7	5.9% 8.2%	15.9%	0.98%
Centerline Dist. to Barrier:	44.0 feet		Noise	Source F	levations	(in feet)		
Centerline Dist. to Observer:	44.0 feet		740700	Aut				
Barrier Distance to Observer:	0.0 feet		Mer	lium Truc				
Observer Height (Above Pad):	5.0 feet			avv Truc			diustmen	t: 0.0
Pad Elevation:	0.0 feet			. ,		-	,	
Road Elevation:	0.0 feet		Lane	quivaler	t Distance	(in feet)		
Road Grade:	0.0%			Aut		60		
Left View:	-90.0 degree			lium Truc				
Right View:	90.0 degree	S	He	avy Truc	ks: 40.26	62		
FHWA Noise Model Calculations								
	Traffic Flow	Distant		ite Road	Fresne			rm Atten
Autos: 68.46	-1.12		1.28	-1.20			000	0.000
Medium Trucks: 79.45	-19.30		1.31	-1.20			000	0.000
Heavy Trucks: 84.25	-21.09		1.31	-1.20		5.50 0.	000	0.000
VehicleType Leq Peak Hour					Night	Ldn	1 0	NEL
VehicleType Leq Peak Hour Autos: 67.4	Leq Day	36.2	g Evening 65		Nignt 61.0	Lan 68.		NEL 69.1
Medium Trucks: 60.3		59.7	53		53.6	61.	-	61.5
Heavy Trucks: 63.3		32.4	58		56.9	64.	-	64.8
Vehicle Noise: 69.4		38.4	66		62.9	70.		71.0
Centerline Distance to Noise Con	tour (in feet)							
			70 dBA		dBA	60 dBA		dBA
		.dn:		8	103	222		479
	CN	IEL:		1	110	237	7	511

	FHWA-R	D-77-108 HIGH	HWAY	NOISE	PREDIC	CTION M	ODEL (9/12/20	021)		
	rio: 2025 S2								alley North	SP	
	ne: Singleton F					Job N	umber:	13594			
Road Segme	nt: w/o Singlet	on Cyn. Rd.									
	SPECIFIC II	NPUT DATA							L INPUT	S	
Highway Data					Site Con	ditions	(Hard =	10, So	ft = 15)		
Average Daily	Traffic (Adt):	9,053 vehicl	les					Autos:	15		
Peak Hour	Percentage:	7.70%			Me	dium Tru	ıcks (2	Axles):	15		
Peak I	lour Volume:	697 vehicle	es		He	avy Truc	cks (3+ .	Axles):	15		
Ve	ehicle Speed:	45 mph		Ι,	Vehicle	Miv					
Near/Far La	ne Distance:	36 feet		ľ		icleType		Day	Evening	Night	Daily
Site Data							Autos:	70.6%	13.6%	15.8%	96.60%
Ra	rrier Height:	0.0 feet			М	edium Ti	rucks:	80.3%	4.7%	14.9%	1.619
Barrier Type (0-V	-	0.0				Heavy Ti	rucks:	75.9%	8.2%	15.9%	1.799
	ist. to Barrier:	44.0 feet		١.	Noise C	ource El	ovetion	a (in fa	net)		
Centerline Dist.	to Observer:	44.0 feet		- '	voise s	Auto:		000	el)		
Barrier Distance	to Observer:	0.0 feet			Modiu	Auto: m Truck:		297			
Observer Height	(Above Pad):	5.0 feet				vy Truck:		004	Grade Ad	iustment	0.0
P	ad Elevation:	0.0 feet			пеа	ry Truck	s. o.	004	Grade Adj	usuneni.	0.0
Ro	ad Elevation:	0.0 feet		I	Lane Eq	uivalent	Distan	ce (in f	eet)		
	Road Grade:	0.0%				Auto	s: 40	460			
	Left View:	-90.0 degre	es		Mediu	m Trucks	s: 40	.241			
	Right View:	90.0 degre	es		Hear	y Truck	s: 40	.262			
FHWA Noise Mod	el Calculation	ıs									
VehicleType	REMEL	Traffic Flow	Dis	stance	Finite	Road	Fresi	nel	Barrier Att	en Ber	m Atten
Autos:	68.46	-3.56	6	1.2	8	-1.20		-4.61	0.0	000	0.00
Medium Trucks:	79.45	-21.34	ļ	1.3	1	-1.20		-4.87	0.0	000	0.00
Heavy Trucks:	84.25	-20.87	7	1.3	1	-1.20		-5.50	0.0	000	0.00
Unmitigated Nois	e Levels (with	out Topo and	barri	er atten	uation)						
VehicleType	Leq Peak Ho		,	Leg E			Night		Ldn		VEL
Autos:	-	5.0	63.8		62.7		58.	-	66.2	-	66.
Medium Trucks:	-	3.2	57.6		51.3		51.	-	59.2	-	59.
Heavy Trucks:		3.5	62.6		59.0		57.		64.7		65.
Vehicle Noise:	67	7.8	66.8		64.4		61.	4	69.0)	69.
Centerline Distan	ce to Noise C	ontour (in fee	t)								
				70 c		65	dBA		i0 dBA		dBA
			Ldn:		38		81		175		376
		_	NEL:		40		86		186		400

Monday, July 3, 2023

	FHWA-RD	-77-108 HIGH\	WAY NO	ISE F	PREDIC	TION N	IODEL	(9/12/2	2021)		
	o: 2028 S1 e: Singleton Ro nt: w/o Singleto						Name: lumber:		/alley North	SP	
	SPECIFIC IN	PUT DATA							EL INPUT	S	
Average Daily	Traffic (Adt):	15,867 vehicle	s	S				Autos			
Peak He		7.70% 1,222 vehicles				dium Tr avy Tru		/			
Vel Near/Far Lar	hicle Speed: ne Distance:	45 mph 36 feet		ν	ehicle I Veh	Mix icleType	•	Day	Evening	Night	Daily
Site Data							Autos:	70.69	6 13.6%	15.8	% 97.38%
Barrier Type (0-Wa	rier Height: all, 1-Berm):	0.0 feet 0.0				edium T Heavy T		80.39 75.99		14.9 15.9	
Centerline Dis		44.0 feet		N	loise So	ource E	levation	s (in i	feet)		
Centerline Dist. t Barrier Distance t Observer Height (,	to Observer:	44.0 feet 0.0 feet 5.0 feet 0.0 feet			Mediu	Auto m Truck /y Truck	s: 0 s: 2	.000 .297 .004	Grade Adj	iustme	nt: 0.0
Roa	d Elevation:	0.0 feet		L	ane Eq	uivalen	t Distan	ce (in	feet)		
F	Road Grade:	0.0%				Auto	s: 40	.460			
	Left View: Right View:	-90.0 degree 90.0 degree				m Truck /y Truck	- 10	.241 .262			
FHWA Noise Mode	l Calculations	;									
VehicleType	REMEL	Traffic Flow	Distan	ce	Finite	Road	Fres	nel	Barrier Atte	en B	erm Atten
Autos:	68.46	-1.08		1.28		-1.20		-4.61		000	0.000
Medium Trucks: Heavy Trucks:	79.45 84.25	-19.25 -20.42		1.31		-1.20 -1.20		-4.87 -5.50		000	0.000
Unmitigated Noise	Levels (with	out Topo and b	parrier a	ttenu	iation)						
	Leq Peak Hou				ening	Leq	Night		Ldn		CNEL
Autos:	67.	5 6	6.3		65.2		61.	0	68.6	3	69.1
Medium Trucks:	60.	3 5	9.7		53.4		53.	6	61.3	3	61.5
Heavy Trucks:	63.	9 6	3.1		59.4		57.	5	65.1		65.4
Vehicle Noise:	69.	6 6	8.6		66.4		63.	2	70.8	3	71.2
Centerline Distanc	e to Noise Co	ntour (in feet)		70.	D.4		-/D 4		CO -ID 4		ID A
		,	dn:	70 di	<i>BA</i> 49	65	dBA 107	,	60 dBA 229		55 dBA 494
		_	.an: IEL:		53		113		244		527

Monday, July 3, 2023

	FHWA-R	D-77-108 HIGH	WAY	NOISE	PREDIC	TION N	IODEL	(9/12/2	021)				
Road Nar	rio: 2028 S2 ne: Singleton F ent: w/o Singlet						Name: lumber:		alley North	SP			
	SPECIFIC II	NPUT DATA			a:. a				L INPUT	s			
Highway Data					Site Cor	ditions	(Hard =	= 10, Sc	oft = 15)				
Average Daily	Traffic (Adt):	15,949 vehicle	es					Autos:	15				
Peak Hou	Percentage:	7.70%				dium Tr							
Peak I	Hour Volume:	1,228 vehicle	S		He	avy Tru	cks (3+	Axles):	15				
Ve	ehicle Speed:	45 mph		,	Vehicle	Mix							
Near/Far La	ane Distance:	36 feet		F		icleType	,	Dav	Evenina	Niaht	Dailv		
Site Data							Autos:	70.6%	13.6%	15.8%	97.29%		
Rs	rrier Height:	0.0 feet			М	edium T	rucks:	80.3%	4.7%	14.9%	1.51%		
Barrier Type (0-V		0.0				Heavy T	rucks:	75.9%	8.2%	15.9%	1.20%		
*, ,	ist. to Barrier:	44.0 feet			O			- //- £	41				
Centerline Dist.		44.0 feet		- 1	Noise S			_ •	eet)				
Barrier Distance	to Observer:	0.0 feet				Auto		.000					
Observer Height	(Above Pad):	5.0 feet				m Truck		.297					
	ad Elevation:	0.0 feet			Hea	y Truck	s: 8	.004	Grade Adjustment: 0.0				
Ro	ad Elevation:	0.0 feet		1	Lane Eq	uivalen	t Distan	ce (in	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	el Calculation	s											
VehicleType	REMEL	Traffic Flow	Dis	stance	Finite	Road	Fres	nel	Barrier Att	en Ber	m Atten		
Autos:	68.46	-1.06		1.2	8	-1.20		-4.61	0.0	000	0.00		
Medium Trucks:	79.45	-19.16		1.3	1	-1.20		-4.87	0.0	000	0.00		
Heavy Trucks:	84.25	-20.14		1.3	1	-1.20		-5.50	0.0	000	0.000		
Unmitigated Nois	e Levels (with	out Topo and	barrie	er atten	uation)								
VehicleType	Leq Peak Ho	ur Leq Day	/	Leq E	vening	Leq	Night		Ldn	C	VEL		
Autos:			66.3		65.2		61.	-	68.	6	69.1		
Medium Trucks:	60		59.8		53.5		53.	.7	61.	4	61.6		
Heavy Trucks:	64	1.2	63.4		59.7		57.	.8	65.	4	65.7		
Vehicle Noise:	69	9.7	68.7		66.5		63.	3	70.	9	71.		
Centerline Distan	ce to Noise C	ontour (in feet)										
				70 (dBA	65	dBA	(60 dBA	55	dBA		
			Ldn:		50		10	3	233	3	502		
		C	NEL:		53		115	5	248	3	534		

Barrier Height: 0.0 feet Medium Trucks: 80.3% 4.7%											
Autos: 15	s										
Average Daily Traffic (Adt):											
Peak Hour Percentage: 7.70% Medium Trucks (2 Axles): 15											
Peak Hour Volume: 1,898 vehicles Heavy Trucks (3+ Axles): 15											
Vehicle Speed: 45 mph Vehicle Mix Vehicle Type Day Evening Site Data Safe the Speed											
Near/Far Lane Distance: 36 feet Vehicle Mix Vehicle Type Day Evening											
Venicle type Day Evening											
Barrier Height: 0.0 feet Medium Trucks: 80.3% 4.7%	Night Daily										
Barrier Type (0-Wall, 1-Bern) 0.0 Heavy Trucks: 75.9% 8.2%	15.8% 97.43%										
Barrier Type (0-Wall, 1-Berm): 0.0 Heavy Trucks: 75.9% 8.2%	14.9% 1.489										
Centerline Dist. to Observer: 44.0 feet Barrier Distance to Observer: 0.0 feet Medium Trucks: 2.297	15.9% 1.08%										
Barrier Distance to Observer: 0.0 feet Medium Trucks: 0.000											
Medium Trucks: 2.297											
	justment: 0.0										
Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Lane Equivalent Distance (in feet)											
0.0 1001											
7,000 07000. 0.070											
Left View: -90.0 degrees Medium Trucks: 40.241 Right View: 90.0 degrees Heavy Trucks: 40.262											
FHWA Noise Model Calculations											
VehicleType REMEL Traffic Flow Distance Finite Road Fresnel Barrier Att	en Berm Atten										
Autos: 68.46 0.83 1.28 -1.20 -4.61 0.0	0.00										
Medium Trucks: 79.45 -17.34 1.31 -1.20 -4.87 0.0	0.00										
Heavy Trucks: 84.25 -18.72 1.31 -1.20 -5.50 0.0	0.00										
Unmitigated Noise Levels (without Topo and barrier attenuation)											
VehicleType Leq Peak Hour Leq Day Leq Evening Leq Night Ldn	CNEL										
Autos: 69.4 68.2 67.1 62.9 70.4											
Medium Trucks: 62.2 61.6 55.3 55.6 63.3											
Heavy Trucks: 65.6 64.8 61.1 59.2 66.0											
Vehicle Noise: 71.5 70.4 68.3 65.0 72.4	3 73.										
Centerline Distance to Noise Contour (in feet)											
70 dBA 65 dBA 60 dBA											
Ldn: 66 142 305 CNEL: 70 151 325	55 dBA										
CIVEL: 70 151 323	658										

								(9/12/20			
	io: HY NP								alley North	SP	
	e: Singleton F					Job N	umber:	13594			
Road Segme	nt: w/o Singlet	on Cyn. Rd.									
	SPECIFIC IN	IPUT DATA							L INPUT	S	
Highway Data					Site Con	aitions	(Hard =	= 10, Sc	itt = 15)		
Average Daily	Traffic (Adt):	24,477 vehicl	es					Autos:	15		
Peak Hour	Percentage:	7.70%				dium Tru		,	15		
Peak H	lour Volume:	1,885 vehicle	s		He	avy Truc	cks (3+	Axles):	15		
Ve	hicle Speed:	45 mph		1	Vehicle	Mix					
Near/Far La	ne Distance:	36 feet		F	Veh	icleType		Day	Evening	Night	Daily
Site Data						F	lutos:	70.6%	13.6%	15.8%	97.539
Ra	rrier Height:	0.0 feet			М	edium Tr	rucks:	80.3%	4.7%	14.9%	1.499
Barrier Type (0-W	-	0.0				Heavy Tr	rucks:	75.9%	8.2%	15.9%	0.989
Centerline Di	. ,	44.0 feet			M-: 0			(i f -	-41		
Centerline Dist.	to Observer:	44.0 feet			Noise S				et)		
Barrier Distance	to Observer:	0.0 feet				Autos m Trucks		.000			
Observer Height ((Above Pad):	5.0 feet					-	.297	Crada Ad	iuatmant	
	ad Elevation:	0.0 feet			Heat	y Trucks	s: 8	.004	Grade Ad	ustment.	0.0
Roa	ad Elevation:	0.0 feet		1	Lane Eq	uivalent	Distar	ice (in f	eet)		
	Road Grade:	0.0%				Autos	s: 40	.460			
	Left View:	-90.0 degre	es		Mediu	m Trucks	s: 40	.241			
	Right View:	90.0 degre	es		Heav	y Trucks	s: 40	.262			
FHWA Noise Mode	el Calculation	s									
VehicleType	REMEL	Traffic Flow	Di	stance	Finite	Road	Fres	nel	Barrier Att	en Ber	m Atten
Autos:	68.46	0.81		1.2	8	-1.20		-4.61	0.0	000	0.00
Medium Trucks:	79.45	-17.36		1.3	1	-1.20		-4.87	0.0	000	0.00
Heavy Trucks:	84.25	-19.16		1.3	1	-1.20		-5.50	0.0	000	0.00
Unmitigated Noise	e Levels (with	out Topo and	barri	er atten	uation)						
VehicleType	Leq Peak Hou			Leq E	vening		Night		Ldn	-	VEL
Autos:		9.3	68.2		67.0		62	-	70.5		71.
Medium Trucks:		2.2	61.6		55.3		55.	-	63.2	-	63.
Heavy Trucks:		5.2	64.3		60.7		58.	-	66.4		66.
Vehicle Noise:	71	1.3	70.3		68.2		64.	.9	72.5	5	72.
Centerline Distant	ce to Noise C	ontour (in feet	t)								
			l	70 0	dBA	65 (dBA		i0 dBA		dBA
			Ldn:		64		139	9	299		644
			NEL:		69		14	_	319		687

Monday, July 3, 2023

	FHWA-RD	-77-108 HIGH	WAY I	NOISE	PREDIC	TION MO	DDEL (9/12/2	021)		
Road Nam	o: HY S2 e: Singleton R nt: w/o Singleto					Project I Job Nu			alley North	SP	
	SPECIFIC IN					N/	NEE I	40DE	L INPUT	e	
Highway Data	SPECIFIC IN	FUIDAIA			Site Con	ditions (3	
Average Daily	Traffic (Adt):	24.733 vehicle	s					Autos:	15		
	Percentage:	7.70%			Ме	dium Tru	cks (2)	Axles):	15		
Peak H	our Volume:	1,904 vehicles			He	avy Truck	ks (3+)	Axles):	15		
Ve	hicle Speed:	45 mph		-	Vehicle I	Miss					
Near/Far Lai	ne Distance:	36 feet		H		icleType		Dav	Evening	Night	Dailv
Site Data					¥ C//		utos:	70.6%		15.8%	. ,
	rier Heiaht:	0.0 feet			Me	edium Tri.		80.3%		14.9%	
Barrier Type (0-W		0.0 reet 0.0			F	Heavy Tru	ıcks:	75.9%	8.2%	15.9%	
Centerline Dis	. ,	44.0 feet		L							
Centerline Dist.		44.0 feet		1	Noise Sc	ource Ele			eet)		
Barrier Distance		0.0 feet				Autos.	٠.	000			
Observer Height (Above Pad):	5.0 feet				m Trucks.		297	0	· · · · · · · · · · · · · · · · · · ·	
	d Elevation:	0.0 feet			Heav	y Trucks.	8.	004	Grade Ad	justment	: 0.0
Roa	d Elevation:	0.0 feet		I	Lane Eq	uivalent l	Distan	ce (in	feet)		
F	Road Grade:	0.0%				Autos.	40.	460			
	Left View:	-90.0 degree	s		Mediui	m Trucks.	40.	241			
	Right View:	90.0 degree	s		Heav	y Trucks.	40.	262			
FHWA Noise Mode	l Calculations	;									
VehicleType	REMEL	Traffic Flow	Dist	tance	Finite		Fresr		Barrier Att		rm Atten
Autos:	68.46	0.84		1.2	-	-1.20		-4.61		000	0.000
Medium Trucks:	79.45	-17.28		1.3		-1.20		-4.87		000	0.000
Heavy Trucks:	84.25	-18.53		1.3	1	-1.20		-5.50	0.0	000	0.000
Unmitigated Noise	Levels (witho	out Topo and	barrie	r atten	uation)						
	Leq Peak Hou			Leq E	vening	Leq N			Ldn		NEL
Autos:	69.		38.2		67.1		63.0		70.0		71.
Medium Trucks:	62.	-	31.7		55.4		55.0	-	63.	-	63.
Heavy Trucks:	65.		35.0		61.3		59.4		67.	_	67.3
Vehicle Noise:	71.		70.5		68.3		65.	1	72.	7	73.
Centerline Distanc	e to Noise Co	ntour (in feet)								,	
			L	70 0		65 d			60 dBA		dBA
			Ldn:		66		143		308		664
		CI	IEL:		71		152		328		707

Monday, July 3, 2023

	FHWA-RI	D-77-108 HIGH	WAY	NOISE	PREDIC	TION N	IODEL	(9/12/2	021)		
Road Nam	io: HY S3 ne: Singleton F nt: w/o Singlet						Name: lumber:		alley North	SP	
	SPECIFIC IN	IPUT DATA							L INPUT	S	
Highway Data					Site Con	ditions	(Hard =	= 10, Sc	oft = 15)		
Average Daily	Traffic (Adt):	24,566 vehicle	es					Autos:			
Peak Hour	Percentage:	7.70%				dium Tr					
Peak H	lour Volume:	1,892 vehicle	S		He	avy Tru	cks (3+	Axles):	15		
Ve	hicle Speed:	45 mph			Vehicle i	Mix					
Near/Far La	ne Distance:	36 feet		F		icleType		Dav	Evenina	Night	Dailv
Site Data							Autos:	70.6%	13.6%	15.89	6 97.52%
Ra	rrier Height:	0.0 feet			М	edium T	rucks:	80.3%	4.7%	14.99	6 1.48%
Barrier Type (0-W		0.0				Heavy T	rucks:	75.9%	8.2%	15.99	6 0.99%
Centerline Di		44.0 feet		-	Noise So	urce F	lovation	e (in f	not)		
Centerline Dist.	to Observer:	44.0 feet		F	110/36 00	Auto		.000	,		
Barrier Distance	to Observer:	0.0 feet			Modiu	m Truck		297			
Observer Height	(Above Pad):	5.0 feet				/y Truck		.004	Grade Ad	liuetmar	t- 0.0
P	ad Elevation:	0.0 feet								juoumon	0.0
Ro	ad Elevation:	0.0 feet		L	Lane Eq	uivalen	t Distan	ce (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		Heav	y Truck	s: 40	.262			
FHWA Noise Mode	el Calculation	s									
VehicleType	REMEL	Traffic Flow	Dis	tance		Road	Fres		Barrier Att		erm Atten
Autos:	68.46			1.2	-	-1.20		-4.61		000	0.000
Medium Trucks:	79.45			1.3		-1.20		-4.87		000	0.000
Heavy Trucks:	84.25	-19.10		1.3	1	-1.20		-5.50	0.0	000	0.000
Unmitigated Noise	e Levels (with	out Topo and	barrie	er atten	uation)						
VehicleType	Leq Peak Hou	ur Leq Day	/	Leq E	vening	Leq	Night		Ldn	(CNEL
Autos:		9.4	68.2		67.1		62.	-	70.		71.0
Medium Trucks:		2.2	61.6		55.3		55.	5	63.	2	63.4
Heavy Trucks:		5.3	64.4		60.8		58.	-	66.	-	66.8
Vehicle Noise:	71	.3	70.3		68.2		64.	9	72.	5	72.9
Centerline Distant	ce to Noise Co	ontour (in feet)								
·		-		70	dBA	65	dBA	6	60 dBA	5	5 dBA
			Ldn:		65		139	9	300)	647
		C	NEL:		69		149	9	320)	689

FHWA-F	D-77-108 HIGH	IWAY I	NOISE	PREDIC	TION N	MODEL (9/1	2/2021)		
Scenario: 2025 NP Road Name: Singleton Road Segment: e/o Single						t Name: Oa Number: 13	k Valley North 594	SP	
SITE SPECIFIC I	NPUT DATA						DEL INPUT	S	
Highway Data			S	ite Cor	ditions	(Hard = 10), Soft = 15)		
Average Daily Traffic (Adt): Peak Hour Percentage: Peak Hour Volume:	9,854 vehicl 7.70% 759 vehicle					Au rucks (2 Axl icks (3+ Axl	,		
Vehicle Speed:	45 mph		ν	'ehicle	Mix				
Near/Far Lane Distance:	36 feet		F		icleType	e Da	y Evening	Night	Daily
Site Data							0.6% 13.6%	15.8%	
Barrier Height:	0.0 feet			M	edium 7	rucks: 80	0.3% 4.7%	14.9%	1.49%
Barrier Type (0-Wall, 1-Berm):	0.0				Heavy 7	rucks: 75	5.9% 8.2%	15.9%	0.98%
Centerline Dist. to Barrier:	44.0 feet			laisa S	nurce F	levations (i	in foot)		
Centerline Dist. to Observer:	44.0 feet			0/36 0	Auto				
Barrier Distance to Observer:	0.0 feet			Modiu	m Truck	0.00			
Observer Height (Above Pad):	5.0 feet							iuctment	0.0
Pad Elevation:	0.0 feet			неа	vy Truck	(S: 8.004	4 Grade Au	Justinent	0.0
Road Elevation:	0.0 feet		L	ane Eq	uivalen	t Distance	(in feet)		
Road Grade:	0.0%				Auto	s: 40.46	0		
Left View:	-90.0 degre	es		Mediu	m Truck	ks: 40.24	1		
Right View:	90.0 degre	es		Hea	vy Truck	ks: 40.26	2		
FHWA Noise Model Calculation	ns								
VehicleType REMEL	Traffic Flow	Dist	tance	Finite	Road	Fresnel	Barrier Att	en Ber	m Atten
Autos: 68.4	3 -3.14		1.28		-1.20	-4.	.61 0.0	000	0.000
Medium Trucks: 79.4	5 -21.32		1.31		-1.20	-4.	.87 0.0	000	0.000
Heavy Trucks: 84.2	5 -23.12		1.31		-1.20	-5.	.50 0.0	000	0.000
Unmitigated Noise Levels (with	hout Topo and	barrie	r attenu	ıation)					
VehicleType Leq Peak Ho			Leq Ev		Leq	Night	Ldn	CI	VEL
Autos: 6	5.4	64.2		63.1		59.0	66.0	3	67.1
Medium Trucks: 5	8.2	57.6		51.4		51.6	59.3	3	59.5
Heavy Trucks: 6	1.2	60.4		56.7		54.9	62.4	4	62.7
Vehicle Noise: 6	7.4	66.4		64.2		60.9	68.	5	68.9
Centerline Distance to Noise C	Contour (in feet)							
			70 d	BA	65	dBA	60 dBA	55	dBA
		Ldn:		35		76	163		351
	С	NEL:		37		81	174		374

	FHWA-RD-	77-108 HIGH	WAY N	NOISE	PREDIC	TION M	ODEL (9/12/20	021)		
Scenar	io: E					Project	Name:	Oak Va	alley North	SP	
	ne: Singleton Ro					Job N	umber:	13594			
Road Segme	nt: e/o Singletor	Cyn. Rd.									
SITE Highway Data	SPECIFIC IN	PUT DATA			ito Con	N ditions			L INPUT	8	
				3	nte Con	uitions					
Average Daily	. ,	8,779 vehicle	:S					Autos:	15		
	Percentage:	7.70%				dium Tru			15		
	lour Volume:	676 vehicles	3		He	avy Truc	ks (3+ .	Axles):	15		
	hicle Speed:	45 mph		ν	ehicle l	Иіх					
Near/Far La	ne Distance:	36 feet			Veh	icleType		Day	Evening	Night	Daily
Site Data						A	lutos:	70.6%	13.6%	15.8%	97.539
Ba	rrier Height:	0.0 feet			Me	edium Tr	ucks:	80.3%	4.7%	14.9%	1.499
Barrier Type (0-W		0.0			F	Heavy Tr	ucks:	75.9%	8.2%	15.9%	0.989
Centerline Di	st. to Barrier:	44.0 feet		N	loise Sc	urce El	evation	s (in fe	et)		
Centerline Dist.	to Observer:	44.0 feet				Autos		000			
Barrier Distance	to Observer:	0.0 feet			Mediu	m Trucks		297			
Observer Height	(Above Pad):	5.0 feet				y Trucks		004	Grade Ad	ustment	0.0
P	ad Elevation:	0.0 feet			11000	y mache	s. o.	004	0/440 / (4)	00111101111	0.0
Ro	ad Elevation:	0.0 feet		L	ane Eq	uivalent	Distan	ce (in f	eet)		
	Road Grade:	0.0%				Autos	3. 40	.460			
	Left View:	-90.0 degree	s		Mediui	m Trucks	3: 40	.241			
	Right View:	90.0 degree	es		Heav	y Trucks	3: 40	.262			
FHWA Noise Mod											
VehicleType	REMEL	Traffic Flow	Dista	ance	Finite		Fresi		Barrier Att	en Ber	m Atten
Autos:	68.46	-3.65		1.28		-1.20		-4.61	0.0	100	0.00
Medium Trucks:	79.45	-21.82		1.31		-1.20		-4.87	0.0	100	0.00
Heavy Trucks:	84.25	-23.62		1.31		-1.20		-5.50	0.0	100	0.00
Unmitigated Noise							N 15 1-4		Ldn	-	VFL.
VehicleType Autos:	Leq Peak Hour		63.7	Leq Ev	ening 62.6	Leq	Night 58	5	Lan 66.1		VEL 66
Medium Trucks:	57.	-	57.1		50.9		51.	-	58.8		59
Heavy Trucks:			59.9		56.2		54.		61.9		62.
Vehicle Noise:			65.9		63.7		60.		68.0		68.
Centerline Distan	ce to Noise Cor	ntour (in feet)									
		, ,		70 di	BA	65 (dΒA	6	0 dBA	55	dBA
			Ldn:		33		70)	151	•	325

Monday, July 3, 2023

	FHWA-RD-	77-108 HIGH	WAY	NOISE	PREDIC	TION M	ODEL (9/12/20	021)		
Scenario: Road Name: Road Segment:	Singleton Rd						Name: umber:		alley North	SP	
	PECIFIC INF	UT DATA							L INPUT	S	
Highway Data					Site Con	ditions	(Hard =	10, Sc			
Average Daily Tr	affic (Adt):	9,953 vehicle	s					Autos:	15		
Peak Hour Pe		7.70%				dium Tru					
Peak Hou	ır Volume:	766 vehicles	3		He	avy Truc	ks (3+)	(xles	15		
Vehic	cle Speed:	45 mph			Vehicle I	Mix					
Near/Far Lane	Distance:	36 feet				icleType		Day	Evening	Night	Daily
Site Data							lutos:	70.6%	13.6%	15.8%	97.27%
Rarri	er Heiaht:	0.0 feet			Me	edium Tr	ucks:	80.3%	4.7%	14.9%	1.49%
Barrier Type (0-Wall		0.0			F	Heavy Tr	ucks:	75.9%	8.2%	15.9%	1.23%
Centerline Dist.	. ,	44.0 feet		-		· -					
Centerline Dist. to		44.0 feet			Noise Sc				eet)		
Barrier Distance to		0.0 feet				Autos	. 0.	000			
Observer Height (Al	ove Pad):	5.0 feet				m Trucks		297			
	Elevation:	0.0 feet			Heav	y Trucks	s: 8.	004	Grade Ad	ustment	: 0.0
	Elevation:	0.0 feet		İ	Lane Eq	uivalent	Distan	e (in i	feet)		
Ro	ad Grade:	0.0%		l		Autos	s: 40.	460			
	Left View:	-90.0 degree	es.		Mediui	m Trucks	s: 40.	241			
F	Right View:	90.0 degree			Heav	y Trucks	3: 40.	262			
FHWA Noise Model	Calculations										
VehicleType		Traffic Flow	Dis	stance	Finite		Fresr		Barrier Att		m Atten
Autos:	68.46	-3.11		1.2		-1.20		-4.61		000	0.000
Medium Trucks:	79.45	-21.25		1.3		-1.20		-4.87		000	0.000
Heavy Trucks:	84.25	-22.08		1.3	31	-1.20		-5.50	0.0	000	0.000
Unmitigated Noise L	evels (withou	ut Topo and	barrie	er attei	nuation)						
VehicleType Le	eq Peak Hour	Leq Day		Leq E	vening	Leq	Night		Ldn	С	NEL
Autos:	65.4		64.3		63.1		59.0		66.6		67.
Medium Trucks:	58.3		57.7		51.4		51.6		59.3		59.
Heavy Trucks:	62.3		61.4		57.8		55.9		63.5		63.8
Vehicle Noise:	67.7	,	66.7		64.5		61.2	2	68.8	3	69.2
Centerline Distance	to Noise Con	tour (in feet)									
·			T	70	dBA	65 (6	60 dBA	55	dBA
			Ldn:		37		79		171		368
		CI	VEL:		39		84		182		392

Monday, July 3, 2023

	FHWA-RD)-77-108 HIGH	WAY	NOISE	PREDIC	CTION M	IODEL	(9/12/2	021)		
Road Na	nrio: 2025 S2 me: Singleton R ent: e/o Singleto							Oak V 13594	alley North	SP	
	SPECIFIC IN	PUT DATA							L INPUT	s	
Highway Data					Site Cor	ditions	(Hard :	= 10, S	oft = 15)		
Average Daily	/ Traffic (Adt):	10,080 vehicle	es					Autos	15		
Peak Hou	r Percentage:	7.70%			Me	edium Tri	ucks (2	Axles).	15		
Peak	Hour Volume:	776 vehicles	S		He	eavy Truc	cks (3+	Axles).	15		
V	ehicle Speed:	45 mph		t	Vehicle	Mix					
Near/Far L	ane Distance:	36 feet		İ		icleType		Day	Evening	Night	Daily
Site Data							Autos:	70.6%	13.6%	15.8%	96.69%
B	arrier Height:	0.0 feet			М	edium Ti	rucks:	80.3%	4.7%	14.9%	1.60%
Barrier Type (0-1		0.0				Heavy Ti	rucks:	75.9%	8.2%	15.9%	1.71%
Centerline D	ist. to Barrier:	44.0 feet			Noise S	ource El	evatio	ns (in f	eet)		
Centerline Dist	to Observer:	44.0 feet				Auto	s: 0	.000	,		
Barrier Distance	e to Observer:	0.0 feet			Mediu	m Truck		.297			
Observer Height	(Above Pad):	5.0 feet			Hear	vy Truck		.004	Grade Ad	iustmen	t: 0.0
F	Pad Elevation:	0.0 feet									
Re	oad Elevation:	0.0 feet			Lane Eq				feet)		
	Road Grade:	0.0%				Auto		.460			
	Left View:	-90.0 degree	es			m Truck).241			
	Right View:	90.0 degree	es		Hea	vy Truck	s: 40).262			
FHWA Noise Mod	del Calculations	S									
VehicleType	REMEL	Traffic Flow	Di	stance		Road	Fres		Barrier Att	en Be	rm Atten
Autos	: 68.46	-3.08		1.2	8	-1.20		-4.61	0.0	000	0.000
Medium Trucks	79.45	-20.91		1.3	1	-1.20		-4.87		000	0.000
Heavy Trucks	: 84.25	-20.61		1.3	1	-1.20		-5.50	0.0	000	0.000
Unmitigated Nois			barri	er atter	nuation)						
VehicleType	Leq Peak Hou		_	Leq E	vening	-	Night		Ldn		NEL
Autos			64.3		63.2		59	-	66.0	-	67.1
Medium Trucks			58.0		51.8		52		59.7		59.9
Heavy Trucks Vehicle Noise			62.9 67.2		59.3 64.9		57 61		64.9		65.2 69.8
					04.5	'	01	.0	05.	*	05.0
Centerline Distar	ice to Noise Co	intour (In reet,	1	70	dBA	65	dBA		60 dBA	55	dBA
			Ldn:		40		8	6	185	,	399
		CI	VEL:		42		9		197		424

	FHWA-R	D-77-108 HIGH	WAY	NOISE	PREDIC	CTION N	MODEL (9/12	2/2021)		
	o: 2028 S1 e: Singleton F nt: e/o Singlet						t Name: Oak Number: 135	v Valley North 194	SP	
SITE S	SPECIFIC II	NPUT DATA						DEL INPUT	s	
Highway Data				S	ite Cor	ditions	(Hard = 10,	Soft = 15)		
Peak H	Percentage: our Volume:	16,812 vehicl 7.70% 1,295 vehicle					Auto rucks (2 Axle icks (3+ Axle	es): 15		
	hicle Speed:	45 mph		ν	ehicle	Mix				
Near/Far Lar	ne Distance:	36 feet			Veh	icleType	e Da	y Evening	Night	Daily
Site Data								6% 13.6%	15.8%	
Bar	rier Height:	0.0 feet				edium 7		3% 4.7%	14.9%	
Barrier Type (0-W	all, 1-Berm):	0.0				Heavy 1	rucks: 75.	.9% 8.2%	15.9%	1.13%
Centerline Dis		44.0 feet		٨	loise S	ource E	levations (ii	n feet)		
Centerline Dist. t	to Observer:	44.0 feet				Auto				
Barrier Distance t	to Observer:	0.0 feet			Mediu	m Truck				
Observer Height (Above Pad):	5.0 feet				vy Truck			iustment	0.0
Pa	d Elevation:	0.0 feet								
Roa	d Elevation:	0.0 feet		L	ane Eq	uivalen	t Distance (
F	Road Grade:	0.0%				Auto				
	Left View:	-90.0 degre	es			m Truck				
	Right View:	90.0 degre	es		Hea	vy Truck	ks: 40.262	2		
FHWA Noise Mode	l Calculation	s								
VehicleType	REMEL	Traffic Flow	Dis	tance	Finite	Road	Fresnel	Barrier Att	en Bei	rm Atten
Autos:	68.46	-0.83		1.28		-1.20	-4.0	61 0.0	000	0.000
Medium Trucks:	79.45	-19.00		1.31		-1.20	-4.	87 0.0	000	0.000
Heavy Trucks:	84.25	-20.20		1.31		-1.20	-5.	50 0.0	000	0.000
Unmitigated Noise	Levels (with	out Topo and	barrie	r attenu	ıation)					
VehicleType	Leq Peak Ho			Leq Ev	ening	Leq	Night	Ldn	С	NEL
Autos:		7.7	66.5		65.4		61.3	68.9	-	69.4
Medium Trucks:		0.6	60.0		53.7		53.9	61.6	-	61.8
Heavy Trucks:		1.2	63.3		59.7		57.8	65.4		65.7
Vehicle Noise:	69	9.8	68.8		66.7		63.4	71.0)	71.4
Centerline Distance	e to Noise C	ontour (in feet)							
			L	70 d		65	dBA	60 dBA		dBA
			Ldn:		51		111	238		513
		С	NEL:		55		118	254		547

	FRWA-R	D-77-108 HIGI	TWAY	NOISE	PREDIC	HON M	ODEL	(9/12/2	021)		
	2028 NP Singleton F							Oak V 13594	alley North	SP	
		NPUT DATA					10105		L INPUT	_	
Highway Data	PECIFIC II	NPUI DAIA		s	ite Con	ditions				3	
Average Daily	raffic (Adt):	16.638 vehic	es					Autos:	15		
Peak Hour I	Percentage:	7.70%			Me	dium Tr	ucks (2	Axles):	15		
Peak He	our Volume:	1,281 vehicle	s		He	avy Truc	cks (3+	Axles):	15		
Vel	icle Speed:	45 mph		v	/ehicle l	Wix					
Near/Far Lar	e Distance:	36 feet		F		icleType		Day	Evening	Night	Daily
Site Data						-	Autos:	70.6%	13.6%	15.8%	97.53
Bar	rier Heiaht:	0.0 feet			M	edium T	rucks:	80.3%	4.7%	14.9%	1.49
Barrier Type (0-Wa	all, 1-Berm):	0.0			I	Heavy T	rucks:	75.9%	8.2%	15.9%	0.98
Centerline Dis	t. to Barrier:	44.0 feet		^	loise Sc	ource El	evatio	ns (in f	eet)		
Centerline Dist. t	o Observer:	44.0 feet		F	.0.00 00	Auto		0.000	001)		
Barrier Distance t	o Observer:	0.0 feet			Mediu	m Truck		2.297			
Observer Height (,	5.0 feet			Heav	v Truck	s: 8	3.004	Grade Ad	justment	: 0.0
	d Elevation:	0.0 feet		L.							
	d Elevation:	0.0 feet		L	ane Eq	uivalent			feet)		
F	Road Grade:	0.0%				Auto		0.460			
	Left View:	-90.0 degre				m Truck vy Truck		0.241			
	Right View:	90.0 degre	es		пеач	ry Truck	5. 40	J.202			
FHWA Noise Mode		-									
Vehicle Type	REMEL	Traffic Flow		tance		Road	Fres		Barrier Att		m Atten
Autos:	68.46			1.28		-1.20		-4.61		000	0.00
Medium Trucks:	79.45			1.31		-1.20		-4.87		000	0.00
Heavy Trucks:	84.25			1.31		-1.20		-5.50	0.0	000	0.00
Unmitigated Noise								1			
VehicleType Autos:	Leq Peak Ho	ur Leq Da 7.7	66.5	Leq Ev	ening 65.4		Night 61	^	Ldn 68.8		NEL 69
Medium Trucks:	-	0.5	59.9		53.6		53		61.	-	61
Heavy Trucks:		3.5	62.7		59.0		57		64.	-	65
Vehicle Noise:		9.6	68.6		66.5		63		70.		71
Centerline Distanc	e to Noise C	ontour (in fee	t)								
		(_	70 d	BA	65	dBA	- (60 dBA	55	dBA
			Ldn:		50		10	7	231		49

Monday, July 3, 2023

FHWA-F	D-77-108 HIGH	YAW	NOISE	PREDIC	TION M	ODEL	(9/12/2	(021)		
Scenario: 2028 S2 Road Name: Singleton Road Segment: e/o Single					Project of Job No			alley North	SP	
SITE SPECIFIC I	NPUT DATA			Site Con				L INPUT	s	
lighway Data				Site Con	aitions (Hara :				
Average Daily Traffic (Adt):	16,894 vehicl	es					Autos			
Peak Hour Percentage:	7.70%				dium Tru					
Peak Hour Volume: Vehicle Speed:	1,301 vehicle	s		пе	avy Truc	KS (3+	Axies)	. 15		
Near/Far Lane Distance:	45 mph 36 feet			Vehicle I	Viix					
Near/Far Larie Distance.	36 1661			Veh	icleType		Day	Evening	Night	Daily
Site Data						utos:	70.69		15.8%	
Barrier Height:	0.0 feet				edium Tr		80.39		14.9%	
Barrier Type (0-Wall, 1-Berm):	0.0			F	Heavy Tr	ucks:	75.99	6 8.2%	15.9%	1.19%
Centerline Dist. to Barrier:	44.0 feet		f	Noise Sc	ource Ele	evatio	ns (in t	eet)		
Centerline Dist. to Observer:	44.0 feet		-		Autos		.000	,		
Barrier Distance to Observer:	0.0 feet			Mediu	m Trucks		297			
Observer Height (Above Pad):	5.0 feet				y Trucks		.004	Grade Ad	iustmen	: 0.0
Pad Elevation:	0.0 feet		ļ							
Road Elevation:	0.0 feet			Lane Eq				feet)		
Road Grade:	0.0%				Autos		0.460			
Left View:	-90.0 degre				m Trucks).241			
Right View:	90.0 degre	es		Heav	y Trucks	:: 40).262			
HWA Noise Model Calculation	าร									
VehicleType REMEL	Traffic Flow		stance	Finite		Fres		Barrier Att		rm Atten
Autos: 68.4			1.2		-1.20		-4.61		000	0.000
Medium Trucks: 79.4			1.3		-1.20		-4.87		000	0.000
Heavy Trucks: 84.2			1.3		-1.20		-5.50	0.0	000	0.000
Inmitigated Noise Levels (with VehicleType Leg Peak Ho				vening	Leg I	Viaht	_	Ldn		NFL.
	7.7	66.6	LUYL	65.4	Legi	4igrit 61	3	68.9		69.4
	0.6	60.0		53.8		54		61.		61.9
	4.4	63.6		59.9		58		65.0		65.9
	9.9	68.9		66.7		63		71.		71.5
Centerline Distance to Noise C	ontour (in feet	t)								
		Į	70	dBA	65 c			60 dBA		dBA
		Ldn:		52		11	_	242		521
		NFL:		52 55		11	_	257		554

Monday, July 3, 2023

	FHWA-RI	D-77-108 HIGH	WAY	NOISE	PREDIC	TION N	IODEL	(9/12/2	021)		
Road Nan	rio: HY NP ne: Singleton F nt: e/o Singleto							Oak V: 13594	alley North	SP	
SITE Highway Data	SPECIFIC IN	IPUT DATA			Site Con				L INPUT	S	
					Site Con	uitions	(паги				
Average Daily	. ,	22,731 vehicle	es					Autos:	15		
	Percentage:	7.70%				dium Tr					
Peak F	lour Volume:	1,750 vehicle	S		He	avy Tru	cks (3+	Axles):	15		
Ve	ehicle Speed:	45 mph		H	Vehicle I	Mix					
Near/Far La	ne Distance:	36 feet		ŀ		icleType		Dav	Evening	Niaht	Dailv
Site Data							Autos:	70.6%		15.8%	97.53%
	rrier Height:	0.0 feet			М	edium T	rucks:	80.3%		14.9%	
Barrier Type (0-V		0.0 1001			1	Heavy T	rucks:	75.9%	8.2%	15.9%	
Centerline Di		44.0 feet							,. <u>_</u>	,	
Centerline Dist.		44.0 feet			Noise Sc				eet)		
Barrier Distance		0.0 feet				Auto	s: (.000			
		5.0 feet			Mediu	m Truck	s: 2	.297			
Observer Height	. ,				Heav	y Truck	s: 8	.004	Grade Ad	justmen	: 0.0
	ad Elevation:	0.0 feet			Lane Eq	uis co lo m	Diete	oo (in	foot)		
	ad Elevation: Road Grade:	0.0 feet 0.0%		F	Lane Ly	Auto		.460	ieei)		
					A de elle	m Truck		.241			
	Left View:	-90.0 degree						1.241			
	Right View:	90.0 degree	es		Heav	ry Truck	S: 40	1.202			
FHWA Noise Mod											
VehicleType	REMEL	Traffic Flow	Dis	stance	Finite		Fres		Barrier Att		rm Atten
Autos:		0.49		1.2		-1.20		-4.61		000	0.000
Medium Trucks:				1.3		-1.20		-4.87		000	0.000
Heavy Trucks:	84.25	-19.49		1.3	31	-1.20		-5.50	0.0	000	0.000
Unmitigated Nois			barri	er atter	nuation)						
VehicleType	Leq Peak Hou	ır Leq Day	/	Leq E	vening	Leq	Night		Ldn		NEL
Autos:			67.9		66.7		62		70.	_	70.7
Medium Trucks:	61	.9	61.3		55.0		55	_	62.	9	63.1
Heavy Trucks:	64	.9	64.0		60.4		58	.5	66.	1	66.4
Vehicle Noise:	71	.0	70.0		67.9		64	.6	72.	2	72.6
Centerline Distant	ce to Noise Co	ontour (in feet)								
				70	dBA	65	dBA	6	60 dBA	55	dBA
			Ldn:		61		13	2	285	5	613
		C	NEL:		65		14	1	303	3	654

	FHWA-RD	-77-108 HIGH	IWAY	NOISE	PREDIC	TION N	/IODEL	(9/12/2	021)		
Scenario: H Road Name: Si Road Segment: el	ingleton R						t Name: lumber:		alley North	SP	
	CIFIC IN	PUT DATA							L INPUT	s	
Highway Data					Site Cor	ditions	(Hard	= 10, Sc			
Average Daily Traff		22,987 vehicle	es					Autos:			
Peak Hour Perc	-	7.70%				dium Ti		,			
Peak Hour \		1,770 vehicle	S		He	avy Tru	icks (3+	Axles):	15		
Vehicle		45 mph		١	/ehicle	Mix					
Near/Far Lane D	istance:	36 feet			Veh	icleType	е	Day	Evening	Night	Daily
Site Data							Autos:	70.6%	13.6%	15.8%	97.36%
Barrier	Heiaht:	0.0 feet			М	edium 7	rucks:	80.3%	4.7%	14.9%	1.50%
Barrier Type (0-Wall, 1		0.0				Heavy 7	rucks:	75.9%	8.2%	15.9%	1.14%
Centerline Dist. to	Barrier:	44.0 feet		,	Voise S	ource E	levatio	ns (in fe	eet)		
Centerline Dist. to Ol	server:	44.0 feet				Auto		0.000	,		
Barrier Distance to Ol		0.0 feet			Mediu	m Truck		2.297			
Observer Height (Abov	,	5.0 feet			Hear	/y Truck	(s: 8	3.004	Grade Ad	iustment	0.0
	evation:	0.0 feet		L.		•					
Road El		0.0 feet		- 4	Lane Eq				reet)		
	Grade:	0.0%			A 4 17:-	Auto		0.460			
	ft View: ht View:	-90.0 degre				m Truck vy Truck		0.241			
Rigi	it view.	90.0 degre	es		i ica	ry Trucr	13. 40	J.202			
FHWA Noise Model Ca											
	EMEL	Traffic Flow		stance		Road	Fres		Barrier Att		m Atten
Autos:	68.46	0.53		1.28		-1.20		-4.61		000	0.00
Medium Trucks:	79.45 84.25	-17.59 -18.81		1.3		-1.20 -1.20		-4.87 -5.50		000	0.00
Heavy Trucks:						-1.20		-5.50	0.0)00	0.00
Unmitigated Noise Lev VehicleType Lea	els (witho Peak Hou			er atten Leg Ev		100	Night	-	Ldn		NEL
Autos:	69 Feak		67.9	Ley E	66.8		rvigrit 62	6	70.2		70.
Medium Trucks:	62		61.4		55.1		55		63.0		63.3
Heavy Trucks:	65		64.7		61.1		59		66.7		67.
Vehicle Noise:	71.		70.2		68.0		64		72.4		72.
Centerline Distance to	Noise Co	ntour (in feet)								
	00	,		70 c	iBA	65	dBA	6	60 dBA	55	dBA
			Ldn:								
			Lan:		63		13	6	294		634

		-77-108 HIGHV									
Scenario: H									alley North	SP	
Road Name: Si	9					Job Nur	nper:	13594			
Road Segment: e/d											
SITE SPEC	CIFIC IN	PUT DATA			Sita Con	NO ditions (H			t = 15)	S	
	- (4-14).	000000000000000000000000000000000000000	_		one con	unions (i		Autos:	15		
Average Daily Traffic	, ,	22,905 vehicles	5			di T			15		
Peak Hour Perce	-	7.70%				dium Truc					
Peak Hour V		1,764 vehicles			не	avy Truck	s (3+)	4xies):	15		
Vehicle -		45 mph		1	Vehicle I	Иiх					
Near/Far Lane Dis	stance:	36 feet			Veh	icleType		Day	Evening	Night	Daily
Site Data						Au	tos:	70.6%	13.6%	15.8%	97.439
Barrier I	leiaht.	0.0 feet			Me	edium Tru	cks:	80.3%	4.7%	14.9%	1.489
Barrier Type (0-Wall, 1-		0.0			F	leavy Tru	cks:	75.9%	8.2%	15.9%	1.099
Centerline Dist. to	,	44.0 feet		L							
Centerline Dist. to Ob		44.0 feet		1	Noise Sc	ource Elev			et)		
Barrier Distance to Ob		0.0 feet				Autos:		000			
Observer Height (Above		5.0 feet				m Trucks:		297			
Pad Ele	,	0.0 feet			Heav	y Trucks:	8.	004	Grade Ad	iustment	0.0
Road Fle		0.0 feet		1	Lane Eq	uivalent D	istan	ce (in t	eet)		
Road	Grade:	0.0%				Autos:	40.	460	,		
	ft View:	-90.0 degrees	s		Mediui	m Trucks:	40.	241			
Righ	t View:	90.0 degrees			Heav	y Trucks:	40.	262			
THWA Noise Model Call VehicleType RE		Traffic Flow	Die	stance	Finite	Pond	Fresi	201	Barrier Att	on Por	m Atten
Autos:	68.46	0.51	Dis	1.2		-1.20	1 1631	-4.61		000	0.00
Medium Trucks:	79.45	-17.66		1.3	-	-1.20		-4.87		000	0.00
Heavy Trucks:	84.25	-19.01		1.3		-1.20		-5.50		000	0.00
Inmitigated Noise Leve						-1.20		-0.00	0.0	,,,,	0.00
-	Peak Hour		arri		vening	Leg Ni	iaht	Τ	Ldn	C	NEL
Autos:	69.		7.9		66.8		62.0	6	70.2	_	70
Medium Trucks:	61.9	9 6	1.3		55.0		55.2	2	62.9	9	63
Heavy Trucks:	65.4	4 6	4.5		60.9		59.0)	66.5	5	66
Vehicle Noise:	71.	1 7	0.1		68.0		64.	7	72.3	3	72
Centerline Distance to	Noise Cor	ntour (in feet)									
				70 0	dBA	65 dE	3A	6	0 dBA	55	dBA
		L	.dn:		63		135	i	291		62

Monday, July 3, 2023

FHWA-R	D-77-108 HIGH\	WAY NOI	SE PREDIC	TION M	ODEL (9/1	2/2021)	
Scenario: HY S3 Road Name: Singleton I Road Segment: e/o Singlet					Name: Oa umber: 135	k Valley North 594	SP
SITE SPECIFIC II	NPUT DATA					DEL INPUT	S
Highway Data			Site Con	ditions	(Hard = 10	, Soft = 15)	
Average Daily Traffic (Adt):	22,799 vehicle	S				tos: 15	
Peak Hour Percentage:	7.70%				ucks (2 Axl	,	
Peak Hour Volume:	1,756 vehicles		He	avy Tru	cks (3+ Axl	es): 15	
Vehicle Speed:	45 mph		Vehicle	Mix			
Near/Far Lane Distance:	36 feet		Veh	icleType	Da	y Evening	Night Daily
Site Data				,	Autos: 70	.6% 13.6%	15.8% 97.52%
Barrier Height:	0.0 feet		М	edium T	rucks: 80	.3% 4.7%	14.9% 1.48%
Barrier Type (0-Wall, 1-Berm):	0.0		1	Heavy T	rucks: 75	.9% 8.2%	15.9% 1.00%
Centerline Dist. to Barrier:	44.0 feet		Noise So	ource El	evations (i	in feet)	
Centerline Dist. to Observer:	44.0 feet			Auto			
Barrier Distance to Observer:	0.0 feet		Mediu	m Truck			
Observer Height (Above Pad):	5.0 feet		Heav	y Truck	s: 8.004	Grade Ad	justment: 0.0
Pad Elevation:	0.0 feet			•			
Road Elevation:	0.0 feet		Lane Eq		Distance	, ,	
Road Grade:	0.0%			Auto		-	
Left View:	-90.0 degree			m Truck		-	
Right View:	90.0 degree	S	неач	y Truck	s: 40.26	2	
FHWA Noise Model Calculation							
VehicleType REMEL	Traffic Flow	Distance		Road	Fresnel	Barrier Att	
Autos: 68.46			1.28	-1.20	-4.		0.000
Medium Trucks: 79.45			1.31	-1.20			0.000
Heavy Trucks: 84.25			1.31	-1.20	-5.	50 0.0	0.000
Unmitigated Noise Levels (with VehicleType Leq Peak Ho			enuation) Evening	100	Night	Ldn	CNEL
		57.9	66.7	,	62.6	70.2	
		31.3	55.0		55.2	62.9	
		34.1	60.4		58.6	66.1	
		70.0	67.9		64.6	72.2	
	ontour (in feet)						
Centerline Distance to Noise C							
Centerline Distance to Noise C	, ,	7	0 dBA	65	dBA	60 dBA	55 dBA
Centerline Distance to Noise C	, ,	7 _dn:	0 dBA 62	65	dBA 133	60 dBA 286	

Monday, July 3, 2023

	FHWA-R	D-77-108 HIGH	WAY	NOISE	PREDIC	TION N	IODEL	(9/12/2	021)		
	rio: E ne: Cherry Val ent: w/o Robert						Name: lumber:		alley North	SP	
	SPECIFIC II	IPUT DATA			0:4- 0				L INPUT	s	
Highway Data					Site Cor	aitions	(Hara =				
Average Daily	. ,	13,701 vehicle	es					Autos:			
	Percentage:	7.70%				dium Tr					
	Hour Volume:	1,055 vehicle	S		He	avy Tru	cks (3+	Axles):	15		
Ve	ehicle Speed:	35 mph			Vehicle	Mix					
Near/Far La	ane Distance:	20 feet				icleType	,	Dav	Evenina	Niaht	Dailv
Site Data							Autos:	70.6%	13.6%	15.8%	97.53%
Rs	rrier Height:	0.0 feet			М	edium T	rucks:	80.3%	4.7%	14.9%	1.49%
Barrier Type (0-V		0.0				Heavy T	rucks:	75.9%	8.2%	15.9%	0.98%
*, ,	ist. to Barrier:	26.0 feet			O			- //- £	41		
Centerline Dist.	to Observer:	26.0 feet		Ľ	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			Hea	y Truck	s: 8	.004	Grade Ad	justment	: 0.0
	ad Elevation:	0.0 feet		-	Lane Eq	uivalen	t Distar	ce (in	feet)		
	Road Grade:	0.0%				Auto	s: 24	.515			
	Left View:	-90.0 degree	es		Mediu	m Truck	s: 24	.152			
	Right View:	90.0 degree			Hea	y Truck	s: 24	.187			
FHWA Noise Mod	lel Calculation	s									
VehicleType	REMEL	Traffic Flow	Dis	tance	Finite	Road	Fres	nel	Barrier Att	en Bei	m Atten
Autos:	64.30	-0.62		4.5	4	-1.20		-4.43	0.0	000	0.000
Medium Trucks:	75.75	-18.79		4.6	4	-1.20		-4.85	0.0	000	0.000
Heavy Trucks:	81.57	-20.59		4.6	3	-1.20		-5.90	0.0	000	0.000
Unmitigated Nois	e Levels (with	out Topo and	barrie	er atten	uation)						
VehicleType	Leq Peak Ho	ır Leq Day	/	Leq E	vening	Leq	Night		Ldn	С	NEL
Autos:	67	7.0	65.9		64.7		60.	.6	68.	2	68.7
Medium Trucks:	60).4	59.8		53.5		53.	.7	61.	4	61.6
Heavy Trucks:	64	1.4	63.5		59.9		58.	.0	65.	6	65.9
Vehicle Noise:	69).5	68.5		66.2		63.	.0	70.	6	71.
Centerline Distan	ce to Noise C	ontour (in feet)								
				70 (dΒA	65	dBA	(60 dBA	55	dBA
			Ldn:		29		62	2	133	3	287
		C	NEL:		31		66	6	142	2	305

	FHWA-RI	D-77-108 HIGH	IWAY N	OISE F	PREDIC	TION	MODEL (9	/12/2	021)		
Road Nam	io: 2025 S1 ne: Cherry Vall nt: w/o Robert						t Name: (lumber: 1		alley North	SP	
SITE	SPECIFIC IN	NPUT DATA					NOISE N	IODE	L INPUTS	3	
Highway Data				S	ite Con	ditions	(Hard =	10, Sc	oft = 15)		
Peak H	Traffic (Adt): Percentage: lour Volume: hicle Speed:	18,837 vehicl 7.70% 1,450 vehicle 35 mph		V		avy Tru	rucks (2 A licks (3+ A	,	15		
Near/Far La	ne Distance:	20 feet				icleType		Dav	Evening	Night	Daily
Site Data						-	Autos:	70.6%	13.6%	15.8%	97.39%
Ba	rrier Height:	0.0 feet				edium 7		80.3%		14.9%	
Barrier Type (0-W	/all, 1-Berm):	0.0			-	Heavy 1	rucks:	75.9%	8.2%	15.9%	1.11%
Centerline Di	st. to Barrier:	26.0 feet		N	oise So	ource E	levations	(in f	eet)		
Ro	to Observer:	26.0 feet 0.0 feet 5.0 feet 0.0 feet 0.0 feet 0.0 feet 0.0% -90.0 degre 90.0 degre		L	Heav ane Eq Mediu	Auto m Truck ry Truck uivalen Auto m Truck ry Truck	(s: 2.2 (s: 8.0 t Distance (s: 24.1	515 152	Grade Adj	ustmen	± 0.0
FHWA Noise Mod											
VehicleType	REMEL	Traffic Flow	Dista			Road	Fresn		Barrier Atte		m Atten
Autos:	64.30			4.54		-1.20		-4.43	0.0		0.000
Medium Trucks: Heavy Trucks:	75.75 81.57			4.64 4.63		-1.20 -1.20		-4.85 -5.90	0.0		0.000
Unmitigated Noise	e Levels (with	out Topo and	barrier a	attenu	(ation						
VehicleType	Leg Peak Hou			eq Ev	_	Leg	Night		Ldn	С	NEL
Autos:	68	3.4	67.2		66.1	,	62.0		69.6		70.
Medium Trucks:	61	1.8	61.2		54.9		55.1		62.8		63.0
Heavy Trucks:	66	3.3	65.5		61.8		59.9		67.5		67.8
Vehicle Noise:	71	1.0	70.1		67.7		64.6		72.2		72.0
Centerline Distant	ce to Noise Co	ontour (in feet)	70 "	0.4		-ID 4		CO -/D 4		-104
			I do:	70 di		65	dBA		50 dBA	55	dBA
		_	Ldn: NFL:		36 39		79 84		169 180		365 388
		C	IVEL:		39		84		180		388

Average Daily Traffic (Adt): 18,738 vehicles		FHWA-RD-	77-108 HIGH	WAY	NOISE I	PKEDIC	TION	IODEL	(9/12/20	JZ1)		
Site Spreament: w/o Roberts Rd. Site Spreament: w/o Roberts Rd.										alley North	SP	
SITE SPECIFIC INPUT DATA NOISE MODEL INPUTS							Job N	lumber:	13594			
Average Daily Traffic (Adf):	Road Segme	nt: w/o Roberts I	≺d.									
Average Daily Traffic (Adt): 18,738 vehicles		SPECIFIC INP	UT DATA								S	
Peak Hour Percentage: 7.70% Redium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15	Highway Data				S	ite Con	ditions	(Hard =	= 10, So	ft = 15)		
Peak Hour Volume: Vehicle Speed: Vehicle Speed: 20 feet Vehicle Mix	Average Daily	Traffic (Adt): 1	8,738 vehicle	S					Autos:	15		
Vehicle Speed: Near/Far Lane Distance: 20 feet Vehicle Mix Vehicle Type Day Evening Night Daily	Peak Hour	Percentage:	7.70%			Me	dium Tr	ucks (2	Axles):	15		
Near/Far Lane Distance: 20 feet VehicleType Day Evening Night Daily VehicleType Day Evening Night Daily Daily Night Daily Night Daily Night Daily Night Night Daily Night Nigh	Peak H	lour Volume: 1	,443 vehicles			He	avy Tru	cks (3+	Axles):	15		
Near/Far Lane Distance: 20 feet VehicleType Day Evening Night Daily Autos: 70.6% 13.6% 15.8% 97.53 Night Daily Barrier Height: 0.0 feet Barrier Type (0-Wail, 1-Barm): 0.0 Centerline Dist. to Observer: 26.0 feet Centerline Dist. to Observer: 26.0 feet Centerline Dist. to Observer: 26.0 feet Autos: 0.000 Centerline Dist. to Observer: 0.0 feet Autos: 0.000 Centerline Dist. to Observer: 0.0 feet Autos: 0.000 Centerline Distance to Observer: 0.0 feet Autos: 0.000 Centerline Distance to Observer: 0.0 feet Autos: 0.000 Centerline Distance to Observer: 0.0 feet Autos: 0.000 Centerline Distance to Observer: 0.0 feet Autos: 2.297 Centerline Distance (in feet) Autos: 24.515 Centerline D	Ve	hicle Speed:	35 mph		ν	ehicle	Mix					
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 26.0 feet Centerline Dist. to Observer: 26.0 feet Centerline Dist. to Observer: 26.0 feet Centerline Dist. to Observer: 26.0 feet Centerline Dist. to Observer: 26.0 feet Centerline Dist. to Observer: 26.0 feet Centerline Dist. to Observer: 26.0 feet Centerline Dist. to Observer: 26.0 feet Centerline Dist. to Observer: 26.0 feet Centerline Dist. to Observer: 26.0 feet Centerline Dist. to Observer: 26.0 feet Centerline Dist. to Observer: 26.0 feet Centerline Dist. to Observer: 26.0 feet Centerline Dist. to Observer: 26.0 feet Centerline Distance Centerline	Near/Far La	ne Distance:	20 feet		Ė				Day	Evening	Night	Daily
Barrier Type (0-Weil, 1-Berm): 0.0 Centerline Dist. to Diserver: 26.0 feet Centerline Dist. to Observer: 26.0 feet Centerline Distance to Observer: 26.0 feet Centerline Distance to Observer: 26.0 feet Centerline Distance to Observer: 26.0 feet Centerline Distance to Observer: 26.0 feet Centerline Distance to Observer: 26.0 feet Centerline Distance to Observer: 26.0 feet Centerline Distance to Observer: 26.0 feet Centerline Distance to Observer: 26.0 feet Centerline Distance Cen	Site Data							Autos:	70.6%	13.6%	15.8%	97.539
Barrier Type (0-Wall, 1-Berm):	Rai	rrier Height:	0.0 feet			М	edium T	rucks:	80.3%	4.7%	14.9%	1.499
Noise Source Elevations (in feet) Noise Source Elevations (in feet)		-					Heavy T	rucks:	75.9%	8.2%	15.9%	0.989
Autos: 0.000 Autos: 0.000 Barrier Alten	Centerline Di	st. to Barrier:	26.0 feet		A	laica S	ourco El	lovation	ac (in fo	not)		
Barrier Distance to Observer: 0.0 feet Medium Trucks: 2.297 Heavy Trucks: 8.004 Grade Adjustment: 0.0	Centerline Dist.	to Observer:	26.0 feet		/4	10/36 30			- ,	ei)		
Diserver Height (Above Pad):	Barrier Distance	to Observer:	0.0 feet			Modiu						
Pad Elevation:	Observer Height ((Above Pad):	5.0 feet							Grade Ad	iustmant	- 0.0
Road Grade: 0.0%	Pa	ad Elevation:	0.0 feet			rica	ry IIUCK	3. 0	.004	Orade Adj	ustriciit	. 0.0
Left View:	Roa	ad Elevation:	0.0 feet		L	ane Eq	uivalen	t Distar	ice (in t	eet)		
Right View: 90.0 degrees Heavy Trucks: 24.187		Road Grade:	0.0%				Auto	s: 24	.515			
		Left View:	-90.0 degree	S					.152			
Vehicle Type		Right View:	90.0 degree	S		Heav	y Truck	s: 24	.187			
Autos: 64.30 0.74 4.54 -1.20 -4.43 0.000 0.00	FHWA Noise Mode	el Calculations										
Medium Trucks: 75.75	VehicleType	REMEL	Traffic Flow	Dist	ance	Finite	Road	Fres	nel	Barrier Att	en Bei	rm Atten
Heavy Trucks: 81.57 -19.23 4.63 -1.20 -5.90 0.000 0.000	Autos:	64.30	0.74		4.54				-4.43	0.0	000	0.00
Unmitigated Noise Levels (without Topo and barrier attenuation) Vehicle Type Leq Peak Hour Leq Day Leq Evening Leq Night Ldn CNEL	Medium Trucks:	75.75	-17.43		4.64				-4.85	0.0	000	0.00
VehicleType Leq Peak Hour Leq Day Leq Evening Leq Night Ldn CNEL Autos: 68.4 67.2 66.1 62.0 69.6 70 Medium Trucks: 61.8 61.1 54.9 55.1 62.8 63 Heavy Trucks: 65.8 64.9 61.3 59.4 67.0 67 Vehicle Noise: 70.8 69.8 67.6 64.4 72.0 72 Centerline Distance to Noise Contour (in feet) 70 dBA 65 dBA 60 dBA 55 dBA Ldn: 35 76 164 35	Heavy Trucks:	81.57	-19.23		4.63		-1.20		-5.90	0.0	000	0.00
Autos: 68.4 67.2 66.1 62.0 69.6 70 Medium Trucks: 61.8 61.1 54.9 55.1 62.8 63 Heavy Trucks: 65.8 64.9 61.3 59.4 67.0 67 Vehicle Noise: 70.8 69.8 67.6 64.4 72.0 72 Centerline Distance to Noise Contour (in feet) 70 dBA 65 dBA 60 dBA 55 dBA Ldn: 35 76 164 35	Unmitigated Noise	e Levels (withou	ıt Topo and i	oarrie	r attenu	ıation)						
Medium Trucks: 61.8 61.1 54.9 55.1 62.8 63 Heavy Trucks: 65.8 64.9 61.3 59.4 67.0 67 Vehicle Noise: 70.8 69.8 67.6 64.4 72.0 72 Centerline Distance to Noise Contour (in feet) 70 dBA 65 dBA 60 dBA 55 dBA Ldn: 35 76 164 35				_	Leq Ev							
Heavy Trucks: 65.8 64.9 61.3 59.4 67.0 67									-		-	70.
Vehicle Noise: 70.8 69.8 67.6 64.4 72.0 72 Centerline Distance to Noise Contour (in feet)											-	63.
Centerline Distance to Noise Contour (in feet) 70 dBA 65 dBA 60 dBA 55 dBA Ldn: 35 76 164 35												67.
70 dBA 65 dBA 60 dBA 55 dBA Ldn: 35 76 164 35	Vehicle Noise:	70.8		39.8		67.6		64.	.4	72.0)	72.
Ldn: 35 76 164 35	Centerline Distanc	ce to Noise Con	tour (in feet)		70.	D.4		-ID 4		-0 -ID4		-104
22 00 70 101 00					/U di		65					
CIVEL: 38 81 175 37			-						-			
			Cr	IEL:		38		8	1	1/5		3/6

Monday, July 3, 2023

	FHWA-RD	-77-108 HIGH	WAY N	IOISE I	PREDIC	TION MO	DDEL (9/12/2	021)		
Scenari	o: 2025 S2					Project I	Vame:	Oak Va	alley North	SP	
	e: Cherry Valle					Job Nu	mber:	13594			
Road Segmen	nt: w/o Roberts	Rd.									
	SPECIFIC IN	PUT DATA							L INPUT	s	
Highway Data				S	ite Con	ditions (Hard =	10, Sc			
Average Daily	Traffic (Adt):	18,964 vehicle	s					Autos:	15		
Peak Hour	Percentage:	7.70%				dium Tru					
		1,460 vehicles			He	avy Truci	ks (3+ .	4xles):	15		
Ve	hicle Speed:	35 mph		ν	ehicle l	Wix					
Near/Far La	ne Distance:	20 feet		Ė		icleType		Day	Evening	Night	Daily
Site Data						A	utos:	70.6%	13.6%	15.8%	97.09%
Rai	rier Heiaht:	0.0 feet			Me	edium Tru	ıcks:	80.3%	4.7%	14.9%	1.54%
Barrier Type (0-W		0.0			F	Heavy Tru	ıcks:	75.9%	8.2%	15.9%	1.37%
Centerline Dis	. ,	26.0 feet			-: 0-	ource Ele		- // #-	41		
Centerline Dist.	to Observer:	26.0 feet		N	oise sc	Autos			et)		
Barrier Distance	to Observer:	0.0 feet						000			
Observer Height (Above Pad):	5.0 feet				m Trucks		297	Grade Ad	iuotmoni	
Pa	nd Elevation:	0.0 feet			Heav	y Trucks	. 8.	004	Grade Adj	usunem	. 0.0
Roa	ad Elevation:	0.0 feet		L	ane Eq	uivalent	Distan	ce (in i	feet)		
1	Road Grade:	0.0%				Autos	: 24	515			
	Left View:	-90.0 degree	s		Mediui	m Trucks	24	152			
	Right View:	90.0 degree	s		Heav	y Trucks	24	187			
FHWA Noise Mode	el Calculations	:									
VehicleType	REMEL	Traffic Flow	Dista		Finite		Fresi		Barrier Att		rm Atten
Autos:	64.30	0.77		4.54		-1.20		-4.43		000	0.000
Medium Trucks:	75.75	-17.21		4.64		-1.20		-4.85		000	0.000
Heavy Trucks:	81.57	-17.74		4.63		-1.20		-5.90	0.0	000	0.000
Unmitigated Noise	Levels (witho	out Topo and I	barrier	attenu	ıation)						
VehicleType	Leq Peak Hou			Leq Ev		Leq N	-		Ldn		NEL
Autos:	68.		37.2		66.1		62.		69.6		70.1
Medium Trucks:	62.	-	31.4		55.1		55.	-	63.0	-	63.2
Heavy Trucks:	67.		36.4		62.8		60.	-	68.4		68.8
Vehicle Noise:	71.	4	70.4		68.0		65.)	72.6	3	73.0
Centerline Distand	e to Noise Co	ntour (in feet)									
				70 d		65 d			0 dBA		dBA
		-	Ldn:		39		83		179		386
		CN	IEL:		41		88		190		410

Monday, July 3, 2023

	FHWA-RI	D-77-108 HIGH	WAY N	OISE	PREDIC	TION M	ODEL	(9/12/2	021)		
Road Na	ario: 2028 NP me: Cherry Vall ent: w/o Robert							Oak V 13594	alley North	SP	
	SPECIFIC IN	IPUT DATA			i4- O				L INPUT	S	
Highway Data				3	ne con	ditions	(Hara -				
	y Traffic (Adt):	23,725 vehicle	:S					Autos:			
	ır Percentage:	7.70%				dium Tru		,			
	Hour Volume:	1,827 vehicles	3		He	avy Truc	cks (3+	Axles):	15		
	ehicle Speed:	35 mph		ν	ehicle l	Mix					
Near/Far L	ane Distance:	20 feet			Veh	icleType		Day	Evening	Night	Daily
Site Data							Autos:	70.6%	13.6%	15.8%	97.53%
R	arrier Height:	0.0 feet			М	edium Tı	rucks:	80.3%	4.7%	14.9%	1.49%
Barrier Type (0-		0.0			-	Heavy Ti	rucks:	75.9%	8.2%	15.9%	0.98%
Centerline L	Dist. to Barrier:	26.0 feet		۸	loise So	ource El	evatio	ns (in f	eet)		
Centerline Dis	t. to Observer:	26.0 feet		- 1		Auto		0.000	,		
Barrier Distanc	e to Observer:	0.0 feet			Mediu	m Truck:		297			
Observer Height	t (Above Pad):	5.0 feet				y Trucks		3.004	Grade Adj	iustmen	t: 0.0
	Pad Elevation:	0.0 feet									
R	oad Elevation:	0.0 feet		L	ane Eq	uivalent	Distar	nce (in	feet)		
	Road Grade:	0.0%				Autos	s: 24	1.515			
	Left View:	-90.0 degree	:S		Mediu	m Trucks	s: 24	1.152			
	Right View:	90.0 degree	es.		Heav	y Trucks	s: 24	1.187			
FHWA Noise Mo	del Calculation	s									
VehicleType	REMEL	Traffic Flow	Dista	nce	Finite	Road	Fres	inel	Barrier Atte	en Be	rm Atten
Autos	64.30	1.76		4.54		-1.20		-4.43	0.0	000	0.000
Medium Trucks	3: 75.75	-16.41		4.64		-1.20		-4.85	0.0	000	0.000
Heavy Trucks	81.57	-18.21		4.63		-1.20		-5.90	0.0	000	0.000
Unmitigated Nois										_	
VehicleType	Leq Peak Hou		_	Leq Ev		_	Night		Ldn		NEL
Autos			68.2		67.1		63		70.6		71.1
Medium Trucks			62.2		55.9		56		63.8	-	64.0
Heavy Trucks		-	65.9		62.3		60		68.0		68.3
Vehicle Noise	e: 71	.9	70.9		68.6		65	.4	73.0)	73.4
Centerline Distar	nce to Noise Co	ontour (in feet)		70 d	D.4	0.5	dBA		60 dBA		i dBA
			Ldn:	70 a		65 (
			Lan: JEL:		41 44		9		192 204		414 441
		Cr	VLL.		44		9	o .	204		441

Scenario: 2028 S2	INPUTS	
Highway Data Site Conditions (Hard = 10, Soft Average Daily Traffic (Adt): 23,951 vehicles Peak Hour Percentage: 7.70% Medium Trucks (2 Axles):	= 15) 15 15	
Average Daily Traffic (Adt): 23,951 vehicles Autos: Peak Hour Percentage: 7.70% Medium Trucks (2 Axles):	15 15	
Peak Hour Percentage: 7.70% Medium Trucks (2 Axles):	15	
Peak Hour Volume: 1,844 vehicles Heavy Trucks (3+ Axles): Vehicle Speed: 35 mph Vehicle Mix		
Near/Ear Lane Distance: 30 foot	vening N	ight Daily
Site Data Autos: 70.6% Barrier Height: 0.0 feet Medium Trucks: 80.3%	13.6% 1	5.8% 97.37% 4.9% 1.50%
Barrier Type (0-Wall, 1-Berm): 0.0 Heavy Trucks: 75.9%	8.2% 1	5.9% 1.13%
Centerline Dist. to Barrier: 26.0 feet Noise Source Elevations (in feet	e).	
Centerline Dist. to Observer: 26.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pag): 5.0 feet Pad Elevation: 0.0 feet Road Glevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Medium Trucks: 2.297 Heavy Trucks: 8.004 G Lane Equivalent Distance (in feet Autos: 2.494 Medium Trucks: 2.494 Lane Equivalent Distance (in feet Autos: 2.494 Medium Trucks: 2.494 Medium Trucks: 2.494 Medium Trucks: 2.494 Medium Trucks: 2.494 Medium Trucks: 2.494 Medium Trucks: 2.494 Medium Trucks: 2.494 Medium Trucks: 2.494 Medium Trucks: 2.494 Medium Trucks: 2.494 Medium Trucks: 2.494 Medium Trucks: 2.494 Medium Trucks: 2.494 Medium Trucks: 2.494 Medium Trucks: 2.494 Medium Trucks: 2.494 Medium Trucks: 2.494 Medium Trucks: 2.497 Medi	rade Adjust	ment: 0.0
Right View: 90.0 degrees Heavy Trucks: 24.187 FHWA Noise Model Calculations		
	arrier Atten	Berm Atten
Autos: 64.30 1.80 4.54 -1.20 -4.43	0.000	
Medium Trucks: 75.75 -16.32 4.64 -1.20 -4.85	0.000	0.000
Heavy Trucks: 81.57 -17.55 4.63 -1.20 -5.90	0.000	0.000
Unmitigated Noise Levels (without Topo and barrier attenuation)		
VehicleType Leq Peak Hour Leq Day Leq Evening Leq Night L	.dn	CNEL
Autos: 69.4 68.3 67.1 63.0	70.6	71.1
Medium Trucks: 62.9 62.3 56.0 56.2	63.9	64.1
Heavy Trucks: 67.4 66.6 62.9 61.0	68.6	68.9
Vehicle Noise: 72.1 71.1 68.8 65.7	73.3	73.7
Centerline Distance to Noise Contour (in feet)		
	dBA	55 dBA
Ldn: 43 93	200	430
CNEL: 46 98	212	457

				Project N	lame: 0)ak Va	llev North	SP	
llev Bl.								0.	
NPUT DATA			ita Can					s	
		3	ne com	uitions (F					
-,	S								
					- 1	/			
,			He	avy Truck	s (3+ A	xles):	15		
		V	ehicle N	/lix					
20 feet			Vehi	cleType		Day	Evening	Night	Daily
				Au	tos:	70.6%	13.6%	15.8%	97.43
0.0 feet			Ме	edium Tru	cks:	80.3%	4.7%	14.9%	1.49
0.0			F	leavy Tru	cks:	75.9%	8.2%	15.9%	1.09
26.0 feet		N	nise Sn	urce Flev	/ations	(in fe	et)		
26.0 feet		- 1	0.00 00			•	0.,		
0.0 feet			Mediur						
5.0 feet							Grade Ad	iustment	. 0 0
0.0 feet			ricav	y Trucks.	0.0	70-7	0,440,714,	dolinon	. 0.0
0.0 feet		Li	ane Equ	ıivalent D	Distanc	e (in f	eet)		
0.0%				Autos:	24.5	515			
-90.0 degree	s		Mediur	n Trucks:	24.1	152			
90.0 degree	S		Heav	y Trucks:	24.1	187			
ıs									
Traffic Flow	Distar								m Atter
				-1.20					0.0
									0.00
-17.75		4.63		-1.20		-5.90	0.0	000	0.0
		eq Eve		Leq Ni	-				NEL
								-	71
								-	64
									68
	1.0		68.7		65.6		73.2		73
ontour (in feet)				05 15	24	6	0 dBA		dBA
	dn:	70 dl	BA 42	65 dE	91	U	197		42 42
	7.70% 1,838 vehicles 35 mph 20 feet 0.0 feet 0.0 26.0 feet 26.0 feet 0.0 feet 0.0 feet 0.0 feet 0.0 feet 0.0 feet 0.1 feet 0.0	23,869 vehicles 7.70% 1,838 vehicles 35 mph 20 feet 0.0 feet 0.0 feet 0.0 feet 0.0 feet 0.0 feet 0.0 feet 0.0 feet 0.0 feet 0.1 feet 0.0 feet 0.1 feet 0.0 f	18 Rd. NPUT DATA 23,869 vehicles 7.70% 1,838 vehicles 35 mph 20 feet 0.0 feet 0.0 feet 0.0 feet 0.0 feet 0.0 feet 0.0 feet 1,0 feet 0.0 feet 1,0 feet 0.0 feet 1,0	18 Rd. NPUT DATA 23,869 vehicles 7,70%	Iley BI. Job Nur Is Rd. NPUT DATA NC				Noise Nois

Monday, July 3, 2023

	FHWA-RD	-77-108 HIGH	WAY NO	ISE PREDIC	TION MC	DEL (9	/12/20	21)		
	o: HY NP e: Cherry Valle	ev Bl			Project N			lley North S	SP	
	nt: w/o Roberts				000 770					
SITE	SPECIFIC IN	PUT DATA			NC	ISE N	ODEL	INPUTS	i	
Highway Data				Site Con	ditions (F	lard =	10, Soi	ft = 15)		
Average Daily	Traffic (Adt):	26,605 vehicle	s			A	lutos:	15		
Peak Hour	Percentage:	7.70%		Me	dium Truc	ks (2 A	xles):	15		
Peak H	our Volume:	2,049 vehicles		He	avy Truck	s (3+ A	xles):	15		
Ve	hicle Speed:	35 mph		Vehicle	Miv					
Near/Far La	ne Distance:	20 feet			icleType		Dav	Evening	Night	Daily
Site Data						itos:	70.6%	13.6%	15.8%	
Rai	rier Heiaht:	0.0 feet		М	edium Tru	cks:	30.3%	4.7%	14.9%	1.499
Barrier Type (0-W		0.0		1	Heavy Tru	cks:	75.9%	8.2%	15.9%	0.989
Centerline Dis	. ,	26.0 feet			ource Ele		(in f-	n#l		
Centerline Dist.	to Observer:	26.0 feet		Noise S			•	et)		
Barrier Distance	to Observer:	0.0 feet			Autos:	0.0				
Observer Height (Above Pad):	5.0 feet			m Trucks:			Crada Adii	otmont	0.0
Pa	ad Elevation:	0.0 feet		Hear	y Trucks:	8.0	04	Grade Adju	istrierit.	0.0
Roa	ad Elevation:	0.0 feet		Lane Eq	uivalent L	Distanc	e (in fe	eet)		
1	Road Grade:	0.0%			Autos:	24.5	15			
	Left View:	-90.0 degree	S	Mediu	m Trucks:	24.1	52			
	Right View:	90.0 degree	s	Hear	y Trucks:	24.1	87			
FHWA Noise Mode	el Calculations	i								
VehicleType	REMEL	Traffic Flow	Distanc		Road	Fresn		Barrier Atte		m Atten
Autos:	64.30	2.26		4.54	-1.20		4.43	0.00		0.00
Medium Trucks:	75.75	-15.91		4.64	-1.20		4.85	0.00		0.00
Heavy Trucks:	81.57	-17.71		4.63	-1.20		5.90	0.00	00	0.00
Unmitigated Noise	Levels (witho	out Topo and I	barrier at	tenuation)						
VehicleType	Leq Peak Hou			q Evening	Leq N	~		Ldn	CI	VEL
Autos:	69.	-	58.7	67.6		63.5		71.1		71.
Medium Trucks:	63.		32.7	56.4		56.6		64.3		64.
Heavy Trucks:	67.	-	66.4	62.8		60.9		68.5		68.
Vehicle Noise:	72.	4	71.4	69.1		65.9		73.5		73.
Centerline Distanc	e to Noise Co	ntour (in feet)								
				70 dBA	65 dl		60	0 dBA	55	dBA
		-	Ldn:	45		96		207		447
		CN	IEL:	48		102		221		475

Monday, July 3, 2023

	FHWA-RI	D-77-108 HIGH	WAY	NOISE	PREDIC	TION N	IODEL	(9/12/2	021)		
Road Nan	io: HY S1 ne: Cherry Vall nt: w/o Robert						Name: lumber:		alley North	SP	
SITE Highway Data	SPECIFIC IN	IPUT DATA			Site Con				L INPUT	s	
					site Con	uitions	(naru -				
Average Daily	. ,	26,749 vehicle	es					Autos:			
	Percentage:	7.70%				dium Tr					
	lour Volume:	2,060 vehicle	S		He	avy Tru	cks (3+	Axles):	15		
	hicle Speed:	35 mph		1	/ehicle l	Mix					
Near/Far La	ne Distance:	20 feet			Veh	icleType		Day	Evening	Night	Daily
Site Data							Autos:	70.6%	13.6%	15.8	% 97.44%
Ra	rrier Height:	0.0 feet			М	edium T	rucks:	80.3%	4.7%	14.9	% 1.49%
Barrier Type (0-V		0.0			1	Heavy T	rucks:	75.9%	8.2%	15.9	% 1.07%
Centerline Di	st. to Barrier:	26.0 feet		7	Voise So	ource El	levation	s (in fe	eet)		
Centerline Dist.	to Observer:	26.0 feet		F		Auto		.000	,		
Barrier Distance	to Observer:	0.0 feet			Mediu	m Truck		297			
Observer Height	(Above Pad):	5.0 feet				/y Truck		.004	Grade Ad	liustme	nt: 0 0
P	ad Elevation:	0.0 feet		L						juouno	n. 0.0
Ro	ad Elevation:	0.0 feet		1	Lane Eq	uivalent	t Distan	ce (in	feet)		
	Road Grade:	0.0%				Auto	s: 24	.515			
	Left View:	-90.0 degre	es		Mediu	m Truck	s: 24	.152			
	Right View:	90.0 degre	es		Heav	y Truck	s: 24	.187			
FHWA Noise Mod	el Calculation	s									
VehicleType	REMEL	Traffic Flow	Dis	tance		Road	Fres		Barrier At		erm Atten
Autos:	64.30			4.5		-1.20		-4.43		000	0.000
Medium Trucks:	75.75			4.6		-1.20		-4.85		000	0.000
Heavy Trucks:	81.57			4.6		-1.20		-5.90	0.	000	0.000
Unmitigated Nois											
VehicleType	Leq Peak Hou			Leq E		_	Night		Ldn		CNEL
Autos:		9.9	68.8		67.6		63.	-	71.		71.6
Medium Trucks:		3.3	62.7		56.4		56.	-	64.	-	64.5
Heavy Trucks:		7.7	66.8		63.2		61.	-	68.	-	69.2
Vehicle Noise:	72	2.5	71.5		69.2		66.	1	73.	7	74.1
Centerline Distant	ce to Noise Co	ontour (in feet)								-
				70 c	iBA	65	dBA	6	60 dBA	5	5 dBA
			Ldn:		46		98	3	212	2	457
		C	NEL:		49		105	5	226	3	486

	o: HY S3 e: Cherry Vall et: w/o Robert						t Name: lumber:		alley North	SP	
	SPECIFIC IN	IPUT DATA			··- 0				L INPUT	s	
Highway Data				3	ite Cor	ditions	(Hara :	-			
Average Daily	. ,	26,781 vehic	cles					Autos:	15		
Peak Hour I		7.70%				edium Ti		,			
	our Volume:	2,062 vehicl	es		He	eavy Tru	icks (3+	Axles):	15		
	nicle Speed:	35 mph		ν	ehicle	Mix					
Near/Far Lar	ne Distance:	20 feet			Veh	icleType	9	Day	Evening	Night	Daily
Site Data							Autos:	70.6%	13.6%	15.8%	97.53%
Rar	rier Heiaht:	0.0 feet			М	edium 7	rucks:	80.3%	4.7%	14.9%	1.48%
Barrier Type (0-Wa	all, 1-Berm):	0.0				Heavy 7	rucks:	75.9%	8.2%	15.9%	0.99%
Centerline Dis		26.0 feet		Ν	loise S	ource E	levatio	ns (in fe	eet)		
Centerline Dist. t		26.0 feet				Auto	s: O	.000	,		
Barrier Distance t		0.0 feet			Mediu	m Truck		.297			
Observer Height (/	,	5.0 feet			Hear	vy Truck	rs: 8	.004	Grade Ad	iustment	0.0
	d Elevation:	0.0 feet									
	d Elevation:	0.0 feet		L	ane Eq	uivalen			feet)		
F	Road Grade:	0.0%				Auto		.515			
	Left View:	-90.0 degr	ees			m Truck		.152			
	Right View:	90.0 degr	ees		Hea	vy Truck	(s: 24	.187			
FHWA Noise Mode	l Calculation	s									
VehicleType	REMEL	Traffic Flow	Di	stance	Finite	Road	Fres	nel	Barrier Att	en Ber	m Atten
Autos:	64.30	2.2	-	4.54		-1.20		-4.43		000	0.000
Medium Trucks:	75.75			4.64		-1.20		-4.85		000	0.000
Heavy Trucks:	81.57			4.63		-1.20		-5.90	0.0	000	0.000
Unmitigated Noise											
	Leq Peak Hou		,	Leg Ev			Night		Ldn		NEL
Autos:		0.9	68.8		67.6		63		71.		71.6
Medium Trucks:		3.3	62.7		56.4		56		64.		64.
Heavy Trucks:		7.3	66.5		62.8		61	-	68.		68.8
Vehicle Noise:		2.4	71.4		69.1		66	.0	73.0	j .	74.0
Centerline Distanc	e to Noise Co	ontour (in fee	et)	70 d	RA	65	dBA	-	i0 dBA	55	dBA
				/ O U	- , .	1	02/1	, ,	0 00/1	1 00	
			Ldn:		45		9	7	209		449

Scenario: HY S2 Road Name: Cherry Valley BI Road Segment: w/o Roberts Rd SITE SPECIFIC INPU:				Project N Job Nu			illey North	SP	
Road Segment: w/o Roberts Rd. SITE SPECIFIC INPU				Job Nu	mber: 1	3594			
SITE SPECIFIC INPU									
SITE SPECIFIC INPU									
	IDATA		014- 0				LINPUT	5	
• •			Site Con	ditions (l					
	331 vehicles					Autos:	15		
	70%			dium Truc			15		
	66 vehicles		He	avy Truck	(S (3+ A	xles):	15		
'	35 mph		Vehicle	Mix					
Near/Far Lane Distance:	20 feet		Veh	icleType		Day	Evening	Night	Daily
Site Data				Au	ıtos:	70.6%	13.6%	15.8%	97.38%
Barrier Height:	0.0 feet		М	edium Tru	icks:	80.3%	4.7%	14.9%	1.50%
•	0.0		1	Heavy Tru	icks:	75.9%	8.2%	15.9%	1.119
** '	6.0 feet		Maine C	ource Ele	rations	/in fo	n#l		
Centerline Dist. to Observer: 2	6.0 feet		Noise 3	Autos:		•	ei)		
Barrier Distance to Observer:	0.0 feet		A decadio	Autos: m Trucks:		000 297			
Observer Height (Above Pad):	5.0 feet						Grade Ad	i votmont	0.0
Pad Elevation:	0.0 feet		Heav	y Trucks:	8.0	JU4	Grade Adj	usimeni.	0.0
Road Elevation:	0.0 feet		Lane Eq	uivalent l	Distanc	e (in f	eet)		
Road Grade: 0.0	0%			Autos:	24.5	515			
Left View: -9	0.0 degrees		Mediu	m Trucks:	24.1	152			
Right View: 9	0.0 degrees		Hear	y Trucks:	24.1	187			
FHWA Noise Model Calculations									
VehicleType REMEL Tra	affic Flow D	Distance	Finite	Road	Fresn	el l	Barrier Atte	en Ber	m Atten
Autos: 64.30	2.29	4.	.54	-1.20		-4.43	0.0	000	0.00
Medium Trucks: 75.75	-15.83	4.	.64	-1.20		-4.85	0.0	000	0.00
Heavy Trucks: 81.57	-17.12	4.	.63	-1.20		-5.90	0.0	000	0.00
Unmitigated Noise Levels (without	Topo and bar	rier atte	enuation)						
VehicleType Leq Peak Hour	Leq Day	Leg	Evening	Leq N	light		Ldn	CI	VEL
Autos: 69.9	68.8	-	67.6		63.5		71.1		71.
	62.7		56.5		56.7		64.4		64.
Medium Trucks: 63.4			63.4		61.5		69.1	l	69.
Heavy Trucks: 67.9	67.0	-							
	67.0 71.6	-	69.3		66.1		73.7	7	74.
Heavy Trucks:67.9Vehicle Noise:72.6	71.6	6	69.3		66.1				
Heavy Trucks:67.9Vehicle Noise:72.6	71.6 ur (in feet)	70	69.3 O dBA		66.1 BA		0 dBA	55	dBA
Heavy Trucks: 67.9	71.6	70	69.3		66.1			55	74. dBA 462 491

Monday, July 3, 2023

	FHWA-RI	D-77-108 HIGH\	WAY N	OISE	PREDIC	TION M	ODEL	(9/12/2	021)		
Road Na	ario: E ame: Cherry Vall aent: e/o Roberts							Oak V	alley North	SP	
SITI Highway Data	E SPECIFIC IN	IPUT DATA			ite Con	N ditions (L INPUT	S	
Average Dail Peak Hol Peak	ly Traffic (Adt): ur Percentage: Hour Volume: /ehicle Speed: Lane Distance:	19,854 vehicle: 7.70% 1,529 vehicles 35 mph 20 feet			Me He 'ehicle l	dium Tru avy Truc Mix	icks (2	Autos Axles) Axles)	15 15 15		
Site Data	zario Biotarioo.	20 1001			Veh	icleType	utos:	70.69	Evening 13.6%	Night 15.8%	Daily 97.53%
	Barrier Height: Wall, 1-Berm):	0.0 feet 0.0				edium Tr Heavy Tr	ucks:	70.69 80.39 75.99	6 4.7%	15.8% 14.9% 15.9%	
Centerline I	Dist. to Barrier:	26.0 feet		٨	loise So	ource Ele	evatio	ns (in f	eet)		
Barrier Distance Observer Heigh		26.0 feet 0.0 feet 5.0 feet 0.0 feet			Mediu	Autos m Trucks vy Trucks	i: (0.000 2.297 3.004	Grade Ad	ljustment	: 0.0
R	Road Elevation:	0.0 feet		L	ane Eq	uivalent	Dista	nce (in	feet)		
	Road Grade: Left View: Right View:	0.0% -90.0 degree 90.0 degree				Autos m Trucks y Trucks	: 24	1.515 1.152 1.187			
FHWA Noise Mo	del Calculation	s									
VehicleType	REMEL	Traffic Flow	Dista	nce	Finite	Road	Fres	snel	Barrier Att	en Bei	m Atten
Autos	s: 64.30	0.99		4.54		-1.20		-4.43	0.	000	0.000
Medium Trucks Heavy Trucks				4.64		-1.20 -1.20		-4.85 -5.90		000 000	0.000
Unmitigated Noi			. arriar			1.20		0.00			0.000
VehicleType	Leg Peak Ho			.eq Ev		Leq I	Viaht	T	Ldn	С	NEL
Autos			37.5	,	66.3		62	.2	69.		70.3
Medium Trucks	s: 62	2.0 6	31.4		55.1		55	.3	63.	0	63.2
Heavy Trucks	s: 66	S.O 6	5.2		61.5		59	.6	67.	2	67.5
Vehicle Noise	e: 71	1.1 7	0.1		67.8		64	.7	72.	3	72.7
Centerline Dista	nce to Noise C	ontour (in feet)								,	
				70 d		65 (60 dBA		dBA
		_	.dn: IFL:		37 39		7	-	171 182		368 391
		CN	EL.		39		8	4	182	-	391

Monday, July 3, 2023

	FHWA-R	D-77-108 HIGH	WAY	NOISE	PREDIC	TION N	IODEL	(9/12/2	021)		
Road Nar	rio: 2025 NP ne: Cherry Val ent: e/o Robert						Name: lumber:		alley North	SP	
SITE Highway Data	SPECIFIC II	IPUT DATA			Site Con				L INPUT	S	
				- 1	Site Con	aitions	(Hara -				
Average Daily	. ,	26,739 vehicle	es					Autos:			
	Percentage:	7.70%				dium Tr					
	Hour Volume:	2,059 vehicle	S		He	avy Tru	cks (3+	Axles):	15		
	ehicle Speed:	35 mph		1	Vehicle	Mix					
Near/Far La	ane Distance:	20 feet			Veh	icleType		Day	Evening	Night	Daily
Site Data							Autos:	70.6%	13.6%	15.8%	97.53%
Rs	rrier Height:	0.0 feet			М	edium T	rucks:	80.3%	4.7%	14.9%	1.49%
Barrier Type (0-V		0.0				Heavy T	rucks:	75.9%	8.2%	15.9%	0.98%
*, ,	ist. to Barrier:	26.0 feet			Noise S	urco E	lovatio	ne (in f	not)		
Centerline Dist.	to Observer:	26.0 feet		Ľ	10/3E 3	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	livetment	
F	ad Elevation:	0.0 feet			пеа	ry Truck	S. C	.004	Grade Ad	jusuneni	. 0.0
Ro	ad Elevation:	0.0 feet		1	Lane Eq	uivalen	t Distar	ice (in	feet)		
	Road Grade:	0.0%				Auto	s: 24	.515			
	Left View:	-90.0 degree	es		Mediu	m Truck	s: 24	.152			
	Right View:	90.0 degree	es		Hea	y Truck	s: 24	.187			
FHWA Noise Mod	lel Calculation	s									
VehicleType	REMEL	Traffic Flow	Dis	stance	Finite	Road	Fres	nel	Barrier Att	en Ber	m Atten
Autos:				4.5		-1.20		-4.43		000	0.00
Medium Trucks:				4.6		-1.20		-4.85		000	0.00
Heavy Trucks:	81.57	-17.69		4.6	3	-1.20		-5.90	0.0	000	0.00
Unmitigated Nois			barrie	er atten	uation)						
VehicleType	Leq Peak Ho	ur Leq Day	/	Leq E	vening	Leq	Night		Ldn	C	NEL
Autos:			68.8		67.6		63	-	71.		71.0
Medium Trucks:			62.7		56.4		56	-	64.	-	64.5
Heavy Trucks:			66.5		62.8		60	-	68.	-	68.8
Vehicle Noise:	72	2.4	71.4		69.1		65	.9	73.	6	74.
Centerline Distan	ce to Noise C	ontour (in feet)								
			L	70 (dBA	65	dBA		60 dBA		dBA
			Ldn:		45		9	7	208	3	449
		C	NEL:		48		10	3	221		477

	FHWA-RI	D-77-108 HIGI	HWAY	NOISE	PREDIC	TION N	IODEL	(9/12/2	021)		
	o: 2025 S2 e: Cherry Vall nt: e/o Roberts						Name: lumber:		alley North	SP	
SITE S	SPECIFIC IN	IPUT DATA				-	NOISE	MODE	L INPUT	S	
Highway Data				S	Site Cor	ditions	(Hard	= 10, Sc	oft = 15)		
Average Daily	Traffic (Adt):	26,965 vehic	les					Autos:	15		
Peak Hour	Percentage:	7.70%			Me	dium Tr	ucks (2	Axles):	15		
Peak H	our Volume:	2,076 vehicle	es		He	avy Tru	cks (3+	Axles):	15		
Vel	hicle Speed:	35 mph		V	/ehicle	Mix					
Near/Far Lar	ne Distance:	20 feet		F.		icleType		Day	Evening	Night	Daily
Site Data							Autos:	70.6%	-	15.8%	
Rar	rier Height:	0.0 feet			М	edium T	rucks:	80.3%	4.7%	14.9%	1.53%
Barrier Type (0-W		0.0				Heavy T	rucks:	75.9%	8.2%	15.9%	1.25%
Centerline Dis		26.0 feet		٨	loise S	ource E	levatio	ns (in fe	eet)		
Centerline Dist. t		26.0 feet				Auto	s: (0.000			
Barrier Distance t		0.0 feet			Mediu	m Truck	s: 2	.297			
Observer Height (,	5.0 feet			Hear	y Truck	s: 8	3.004	Grade Ad	iustment	0.0
	d Elevation:	0.0 feet				•					
	d Elevation:	0.0 feet		L	ane Eq			_ •	reet)		
F	Road Grade:	0.0%				Auto		1.515			
	Left View:	-90.0 degre				m Truck		1.152			
	Right View:	90.0 degre	ees		пеа	ry Truck	:S: 24	1.187			
FHWA Noise Mode											
VehicleType	REMEL	Traffic Flow		stance		Road	Fres		Barrier Att		m Atten
Autos:	64.30	2.30		4.54		-1.20		-4.43		000	0.00
Medium Trucks:	75.75	-15.73		4.64		-1.20		-4.85		000	0.00
Heavy Trucks:	81.57	-16.59		4.63		-1.20		-5.90	0.0	000	0.00
Unmitigated Noise						100	Alicelat	_	Ldn		NEL
VehicleType Autos:	Leq Peak Hou		68.8	Leq Ev	ening 67.6		Night 63	_	71.		VEL 71.
Medium Trucks:	63		62.8		56.6		56		64.		64.
Heavy Trucks:	68		67.6		63.9		62		69.6	-	69.
Vehicle Noise:	72		71.8		69.4		66		74.0		74.
Centerline Distanc	e to Noise Co	ontour (in fee	t)								
				70 d	IBA .	65	dBA	6	0 dBA	55	dBA
			Ldn:		48		10	3	221		477
		_	NEL:		51		10	0	235		507

	FHWA-RI	D-77-108 HIGH	IVVAT	NUISE	PREDIC	, I IUN M	ODEL	9112120	J21)		
	o: 2025 S1								alley North	SP	
	e: Cherry Vall					Job N	umber:	13594			
Road Segmen	t: e/o Roberts	s Rd.									
	SPECIFIC IN	IPUT DATA							L INPUT	S	
Highway Data					Site Con	ditions	(Hard =	: 10, Sc	oft = 15)		
Average Daily	Traffic (Adt):	26,838 vehicl	es					Autos:	15		
Peak Hour	Percentage:	7.70%			Me	dium Tru	icks (2	Axles):	15		
Peak H	our Volume:	2,067 vehicle	s		He	avy Truc	cks (3+	Axles):	15		
Vel	hicle Speed:	35 mph		-	Vehicle	Miv					
Near/Far Lar	ne Distance:	20 feet		F		icleType		Dav	Evenina	Night	Dailv
Site Data							lutos:	70.6%	13.6%	15.8%	97.44
Rar	rier Height:	0.0 feet			М	edium Ti	rucks:	80.3%	4.7%	14.9%	1.499
Barrier Type (0-W	-	0.0				Heavy Ti	ucks:	75.9%	8.2%	15.9%	1.089
Centerline Dis	. ,	26.0 feet			M-: 0			- /:- #	41		
Centerline Dist.		26.0 feet		ļ.	Noise S				eet)		
Barrier Distance t	o Observer:	0.0 feet				Auto: m Truck:		.000			
Observer Height (Above Pad):	5.0 feet						.297	Grade Ad	· 4 4	
Pa	d Elevation:	0.0 feet			Heav	y Truck	5. 8	.004	Grade Ad	justriient	0.0
Roa	d Elevation:	0.0 feet		1	Lane Eq	uivalent	Distan	ce (in i	feet)		
F	Road Grade:	0.0%				Auto	s: 24	.515			
	Left View:	-90.0 degre	es		Mediu	m Trucks	s: 24	.152			
	Right View:	90.0 degre	es		Heav	y Truck	s: 24	.187			
FHWA Noise Mode	l Calculation	s									
VehicleType	REMEL	Traffic Flow	Dis	stance	Finite	Road	Fresi	nel	Barrier Att	en Ber	m Atten
Autos:	64.30	2.29)	4.5	4	-1.20		-4.43	0.0	000	0.00
Medium Trucks:	75.75	-15.86	i	4.6	4	-1.20		-4.85	0.0	000	0.00
Heavy Trucks:	81.57	-17.28	3	4.6	3	-1.20		-5.90	0.0	000	0.00
Unmitigated Noise	Levels (with	out Topo and	barri	er atten	uation)						
VehicleType	Leq Peak Ho	ur Leq Da	y	Leq E	vening	Leq	Night		Ldn	C	NEL
Autos:	69	9.9	68.8		67.6		63.	5	71.	1	71
Medium Trucks:	63	3.3	62.7		56.4		56.	7	64.4	4	64
Heavy Trucks:	67	7.7	66.9		63.2		61.	3	68.9	9	69
Vehicle Noise:	72	2.5	71.5		69.2		66.	1	73.	7	74
Centerline Distanc	e to Noise C	ontour (in feet	t)								
			Ĺ	70 (dBA	65	dBA		60 dBA		dBA
			Ldn:		46		99		213		45
	CNEL:						49 105 226			48	

Monday, July 3, 2023

	FHWA-RD	-77-108 HIGH	WAY I	NOISE	PREDIC	TION MO	DDEL	(9/12/2	021)		
	: 2028 NP : Cherry Valle t: e/o Roberts					Project I Job Nu			alley North	SP	
	PECIFIC IN	PUT DATA							L INPUT	S	
Highway Data					Site Con	ditions (i	Hard =	= 10, Sc	oft = 15)		
Average Daily T	raffic (Adt):	32,162 vehicle	es					Autos:	15		
Peak Hour P	Percentage:	7.70%			Me	dium Tru	cks (2	Axles):	15		
Peak Ho	ur Volume:	2,476 vehicles	3		He	avy Truck	ks (3+	Axles):	15		
Veh	icle Speed:	35 mph		١	/ehicle I	Mix					
Near/Far Lan	e Distance:	20 feet		F.		cleType		Dav	Evening	Night	Daily
Site Data							utos:	70.6%	-	15.8%	
Parr	ier Height:	0.0 feet			Me	edium Tru	ıcks:	80.3%	4.7%	14.9%	1.49%
Barrier Type (0-Wa		0.0			F	leavy Tru	ıcks:	75.9%	8.2%	15.9%	0.98%
Centerline Dist	. ,	26.0 feet		L.							
Centerline Dist. to		26.0 feet		,	Voise So	urce Ele			eet)		
Barrier Distance to		0.0 feet				Autos.		.000			
Observer Height (A		5.0 feet				n Trucks.		.297			
	d Flevation:	0.0 feet			Heav	y Trucks.	: 8	.004	Grade Adj	ustmen	t: 0.0
Road	d Elevation:	0.0 feet		L	ane Equ	uivalent l	Distan	ce (in	feet)		
R	oad Grade:	0.0%				Autos.	: 24	.515			
	Left View:	-90.0 degree	es		Mediur	n Trucks.	: 24	.152			
	Right View:	90.0 degree			Heav	y Trucks.	24	.187			
FHWA Noise Model	Calculations										
VehicleType	REMEL	Traffic Flow	Dist	tance	Finite	Road	Fres	nel	Barrier Atte	en Be	rm Atten
Autos:	64.30	3.08		4.54	1	-1.20		-4.43	0.0	000	0.000
Medium Trucks:	75.75	-15.09		4.64		-1.20		-4.85		000	0.000
Heavy Trucks:	81.57	-16.89		4.63	3	-1.20		-5.90	0.0	000	0.000
Unmitigated Noise	Levels (witho	ut Topo and	barrie	r atten	uation)						
VehicleType L	eq Peak Hou	Leq Day	,	Leg Ev	rening	Leq N	light		Ldn	С	NEL
Autos:	70.	7	69.6		68.4		64.	3	71.9	9	72.4
Medium Trucks:	64.	1	63.5		57.2		57.	4	65.1	1	65.3
Heavy Trucks:	68.	1	67.3		63.6		61.	7	69.3	3	69.6
Vehicle Noise:	73.	2	72.2		69.9		66.	7	74.4	1	74.8
Centerline Distance	to Noise Co	ntour (in feet,)								
				70 a	IBA .	65 d	BA	6	60 dBA	55	dBA
			Ldn:		51		109	9	235		507
		CI	VEL:		54		116	3	250	1	540

Monday, July 3, 2023

	FHWA-R	D-77-108 HIGH	WAY	NOISE	PREDIC	TION N	IODEL	(9/12/2	021)		
Road Nan	rio: 2028 S1 ne: Cherry Val nt: e/o Robert						Name: lumber:		alley North	SP	
	SPECIFIC II	NPUT DATA							L INPUT	s	
Highway Data					Site Con	aitions	(Hara =				
Average Daily	. ,	32,336 vehicle	es					Autos:			
Peak Hour	Percentage:	7.70%				dium Tr					
Peak F	lour Volume:	2,490 vehicle	S		He	avy Tru	cks (3+	Axles):	15		
Vé	ehicle Speed:	35 mph			/ehicle	Mix					
Near/Far La	ne Distance:	20 feet				icleType		Day	Evening	Night	Daily
Site Data							Autos:	70.6%	13.6%	15.8%	97.46%
Ra	rrier Height:	0.0 feet			М	edium T	rucks:	80.3%	4.7%	14.9%	1.48%
Barrier Type (0-V		0.0				Heavy T	rucks:	75.9%	8.2%	15.9%	1.06%
*, ,	ist. to Barrier:	26.0 feet		- 1	Voise So	FI	lovetion	o (in f	2041		
Centerline Dist.	to Observer:	26.0 feet		F.	voise so	Auto		.000	ei)		
Barrier Distance	to Observer:	0.0 feet			Madiu	m Truck		297			
Observer Height	(Above Pad):	5.0 feet				n Truck vy Truck		.004	Grade Ad	liuctment	. 0.0
P	ad Elevation:	0.0 feet			пеан	ry ITUCK	S. 0	.004	Grade Ad	jusuneni	. 0.0
Ro	ad Elevation:	0.0 feet		1	Lane Eq	uivalent	t Distan	ce (in	feet)		
	Road Grade:	0.0%				Auto	s: 24	.515			
	Left View:	-90.0 degree	es		Mediu	m Truck	s: 24	.152			
	Right View:	90.0 degree	es		Heav	y Truck	s: 24	.187			
FHWA Noise Mod	el Calculation	s									
VehicleType	REMEL	Traffic Flow	Dis	tance	Finite	Road	Fres	nel	Barrier Att	en Bei	m Atten
Autos:				4.5		-1.20		-4.43		000	0.000
Medium Trucks:	75.75	-15.07		4.6	4	-1.20		-4.85	0.0	000	0.000
Heavy Trucks:	81.57	-16.54		4.6	3	-1.20		-5.90	0.0	000	0.000
Unmitigated Nois	e Levels (with	out Topo and	barrie	er atten	uation)						
VehicleType	Leq Peak Ho	ur Leq Day	/	Leq E	/ening	Leq	Night		Ldn	C	NEL
Autos:			69.6		68.4		64.	3	71.	9	72.4
Medium Trucks:	64	1.1	63.5		57.2		57.		65.	1	65.3
Heavy Trucks:			67.6		64.0		62.		69.	-	69.9
Vehicle Noise:	73	3.3	72.3		70.0		66.	9	74.	5	74.9
Centerline Distan	ce to Noise C	ontour (in feet,)								
				70 (65	dBA	6	60 dBA	55	dBA
			Ldn:		52		11	1	240)	517
		C	NEL:		55		118	3	255	5	550

Scanari	o: HY NP					Project	Nama	Oak V	alley North	SD.	
	e: Cherry Valle	v BI					umber:			OF-	
	nt: e/o Roberts					00014	umber.	10004			
	SPECIFIC INI					N	NISE	MODE	L INPUT	s	
Highway Data	or Lon to int	OI DAIA		Si	ite Con				oft = 15)		
Average Daily	Traffic (Adt):	34.566 vehicle	s					Autos	: 15		
	Percentage:	7.70%			Me	dium Tru	ıcks (2	Axles)	: 15		
Peak H	our Volume:	2,662 vehicles			He	avy Truc	ks (3+	Axles)	: 15		
Ve	hicle Speed:	35 mph		1/4	ehicle I	Miv					
Near/Far Lai	ne Distance:	20 feet		V		icleType		Day	Evening	Night	Daily
Site Data					VCIII		lutos:	70.69	-	15.8%	
	uni a un Edia de de de	0.0 feet			Me	edium Tr		80.39		14.9%	
Barrier Type (0-W	rier Height:	0.0 reet 0.0				leavy Tr		75.99	6 8.2%	15.9%	
Centerline Dis	. ,	26.0 feet		L							
Centerline Dist.		26.0 feet		N	oise So	urce El			eet)		
Barrier Distance		0.0 feet				Auto		.000			
Observer Height (5.0 feet				n Trucks		.297	0	·	4.00
Pa	d Elevation:	0.0 feet			Heav	y Trucks	s: 8	.004	Grade Ad	justmen	t: U.U
Roa	d Elevation:	0.0 feet		Lá	ane Equ	uivalent	Distar	ice (in	feet)		
F	Road Grade:	0.0%				Autos	s: 24	.515			
	Left View:	-90.0 degree	s		Mediui	n Trucks	s: 24	.152			
	Right View:	90.0 degree	s		Heav	y Trucks	s: 24	.187			
FHWA Noise Mode	l Calculations										
VehicleType	REMEL	Traffic Flow	Distar	псе	Finite	Road	Fres	nel	Barrier Att	en Be	rm Atten
Autos:	64.30	3.40		4.54		-1.20		-4.43	0.0	000	0.00
Medium Trucks:	75.75	-14.77		4.64		-1.20		-4.85		000	0.000
Heavy Trucks:	81.57	-16.57		4.63		-1.20		-5.90	0.0	000	0.000
Unmitigated Noise										,	
• • • • • • • • • • • • • • • • • • • •	Leq Peak Hour			eq Eve		Leq	Night		Ldn		NEL
Autos:	71.0	-	39.9		68.7		64		72.	_	72.7
Medium Trucks:	64.4		33.8		57.5		57		65.4		65.6
Heavy Trucks:	68.4		37.6		63.9		62		69.6		69.9 75.1
Vehicle Noise:	73.		72.5		70.2		67	.1	74.	/	/5.
	e to Noise Cor	ntour (in feet)					10.4	_			
Centerline Distanc	0 10 110,00 00,										
Centerline Distanc	0 10 110.00 00.		dn:	70 dE	53 53	65 (11.		60 dBA 247		5 dBA 532

	FHWA-RD-	77-108 HIGH\	I YAW	NOISE	PREDIC	CTION M	ODEL (9/12/20	021)		
	io: 2028 S2								alley North	SP	
	e: Cherry Valley					Job N	umber:	13594			
Road Segmei	nt: e/o Roberts F	₹d.									
SITE : Highway Data	SPECIFIC INF	UT DATA			Site Con				L INPUT	S	
					Site Con	uitions					
Average Daily	. , .	2,418 vehicle	S				-	Autos:	15		
	Percentage:	7.70%				edium Tru			15		
		2,496 vehicles	•		He	avy Truc	ks (3+ A	(xies	15		
	hicle Speed:	35 mph			Vehicle I	Mix					
Near/Far La	ne Distance:	20 feet		Ī	Veh	icleType		Day	Evening	Night	Daily
Site Data						F	lutos:	70.6%	13.6%	15.8%	97.419
Bai	rrier Height:	0.0 feet			M	edium Tr	ucks:	80.3%	4.7%	14.9%	1.50%
Barrier Type (0-W		0.0			1	Heavy Tr	ucks:	75.9%	8.2%	15.9%	1.09%
Centerline Dis	st. to Barrier:	26.0 feet		H	Noise So	ourco El	ovation	r (in fo	not)		
Centerline Dist.	to Observer:	26.0 feet		H	NOISE SC	Autos		000	ei)		
Barrier Distance	to Observer:	0.0 feet			Modiu	m Trucks		297			
Observer Height (Above Pad):	5.0 feet						004	Grade Ad	iuatmani	
Pá	ad Elevation:	0.0 feet			пеач	y Trucks	s. 0.1	JU4	Grade Adj	usunem	. 0.0
Roa	ad Elevation:	0.0 feet			Lane Eq	uivalent	Distanc	e (in t	eet)		
ı	Road Grade:	0.0%				Autos	24.	515			
	Left View:	-90.0 degree	s		Mediu	m Trucks	3: 24.	152			
	Right View:	90.0 degree	S		Heav	y Trucks	3: 24.	187			
FHWA Noise Mode	el Calculations										
VehicleType		Traffic Flow	Dist	ance		Road	Fresn	_	Barrier Att		rm Atten
Autos:	64.30	3.11		4.5		-1.20		-4.43		000	0.00
Medium Trucks:	75.75	-15.02		4.6		-1.20		-4.85		000	0.00
Heavy Trucks:	81.57	-16.40		4.6	13	-1.20		-5.90	0.0	000	0.00
Unmitigated Noise								,			
VehicleType	Leq Peak Hour	Leq Day		Leq E	vening		Night		Ldn		NEL
Autos:	70.8		69.6		68.5		64.3		71.9	-	72.
Medium Trucks:	64.2		33.6		57.3		57.5		65.2	_	65.4
Heavy Trucks: Vehicle Noise:	68.6 73.4		37.7 72.4		64.1 70.1		62.2	_	69.8 74.5		70.
			2.4		70.1		00.8	,	74.0	,	14.
Centerline Distance	ce to Noise Con	tour (in feet)	_	70	dBA	65 (dBA	6	i0 dBA	55	dBA
		1	dn:		52		112		242		522
	CNEL:					55 119 257			555		

Monday, July 3, 2023

	FHWA-RD	-77-108 HIGH	WAY	NOISE	PREDIC	TION MO	DDEL (9/12/2	021)		
	o: HY S1								alley North	SP	
	e: Cherry Valle					Job Nu	ımber:	13594			
Road Segmen	t: e/o Roberts	Rd.									
	SPECIFIC IN	PUT DATA							L INPUT	S	
Highway Data					Site Con	ditions (Hard =	10, Sc	oft = 15)		
Average Daily	Traffic (Adt):	34,740 vehicle	es					Autos:	15		
Peak Hour	Percentage:	7.70%			Me	dium Tru	cks (2 .	Axles):	15		
Peak H	our Volume:	2,675 vehicles	3		He	avy Truci	ks (3+ .	4xles):	15		
Vel	hicle Speed:	35 mph		-	Vehicle I	Miv					
Near/Far Lar	ne Distance:	20 feet		-		icleType		Dav	Evening	Night	Dailv
Site Data						A	utos:	70.6%	13.6%	15.8%	97.46%
Par	rier Heiaht:	0.0 feet			Me	edium Tru	ucks:	80.3%	4.7%	14.9%	1.49%
Barrier Type (0-W		0.0			F	leavy Tru	ucks:	75.9%	8.2%	15.9%	1.05%
Centerline Dis	. ,	26.0 feet		_	M-: 0-			- /: #	41		
Centerline Dist.	to Observer:	26.0 feet		Ŀ	Noise Sc				eet)		
Barrier Distance t	o Observer:	0.0 feet				Autos	. 0.	000			
Observer Height (Above Pad):	5.0 feet				m Trucks		297	0	·	
	d Elevation:	0.0 feet			Heav	y Trucks	: 8.	004	Grade Ad	justment	: 0.0
Roa	d Elevation:	0.0 feet		Ī	Lane Eq	uivalent	Distan	ce (in	feet)		
F	Road Grade:	0.0%				Autos	: 24	515			
	Left View:	-90.0 degree	es		Mediui	m Trucks	: 24	152			
	Right View:	90.0 degree	es		Heav	y Trucks	: 24	187			
FHWA Noise Mode	l Calculations	;									
VehicleType	REMEL	Traffic Flow	Dis	tance	Finite		Fresi		Barrier Att		rm Atten
Autos:	64.30	3.42		4.5		-1.20		-4.43		000	0.00
Medium Trucks:	75.75	-14.76		4.6		-1.20		-4.85		000	0.00
Heavy Trucks:	81.57	-16.25		4.6	3	-1.20		-5.90	0.0	000	0.000
Unmitigated Noise	Levels (with	out Topo and	barrie	er atter	uation)						
VehicleType	Leq Peak Hou	r Leq Day		Leq E	vening	Leq N	light		Ldn		NEL
Autos:	71		69.9		68.8		64.	3	72.2	_	72.
Medium Trucks:	64		63.8		57.6		57.	-	65.5	5	65.
Heavy Trucks:	68		67.9		64.2		62.	-	69.9	-	70.2
Vehicle Noise:	73	.6	72.6		70.3		67.	2	74.8	В	75.
Centerline Distanc	e to Noise Co	ntour (in feet,)								
			П	70	dBA	65 d			60 dBA	55	dBA
			Ldn:		54		117		251		542
		CI	VEL:		58		124		267		576

Monday, July 3, 2023 Monday, July 3, 2023

	FHWA-R	D-77-108 HIGH	WAY	NOISE	PREDIC	CTION M	ODEL	(9/12/20	021)		
Road Na	ario: HY S2 me: Cherry Val ent: e/o Robert						Name: umber:		alley North	SP	
SITE Highway Data	SPECIFIC II	NPUT DATA			ita Car	N			L INPUT	S	
				3	ille Coi	iuitions	(naru -				
	y Traffic (Adt):	34,822 vehicle	es					Autos:	15		
	r Percentage:	7.70%				dium Tru		,	15 15		
	Hour Volume:	2,681 vehicle	S		HE	eavy Truc	CKS (3+	Axies):	15		
	ehicle Speed:	35 mph		ν	ehicle!	Mix					
Near/Far L	ane Distance:	20 feet			Veh	icleType		Day	Evening	Night	Daily
Site Data						A	Autos:	70.6%	13.6%	15.89	97.42%
В	arrier Height:	0.0 feet			М	edium Tı	rucks:	80.3%	4.7%	14.99	1.50%
Barrier Type (0-		0.0				Heavy Ti	rucks:	75.9%	8.2%	15.9%	1.08%
	Dist. to Barrier:	26.0 feet		٨	loise S	ource El	evation	ıs (in fe	eet)		
Centerline Dist		26.0 feet				Autos	s: 0	.000			
Barrier Distance	e to Observer:	0.0 feet			Mediu	m Trucks	s: 2	.297			
Observer Height	. ,	5.0 feet			Hear	vy Trucks	s: 8	.004	Grade Ad	justmen	t: 0.0
	Pad Elevation:	0.0 feet		-							
R	oad Elevation:	0.0 feet		L	ane Eq	uivalent		_ •	feet)		
	Road Grade:	0.0%				Autos		.515			
	Left View:	-90.0 degree				m Trucks		.152			
	Right View:	90.0 degree	es		Hea	vy Trucks	s: 24	.187			
FHWA Noise Mod											
VehicleType	REMEL	Traffic Flow	Dis	stance		Road	Fres		Barrier Att		rm Atten
Autos				4.54		-1.20		-4.43		000	0.000
Medium Trucks				4.64		-1.20		-4.85		000	0.000
Heavy Trucks				4.63		-1.20		-5.90	0.	000	0.000
Unmitigated Nois								-		1	
VehicleType	Leq Peak Ho			Leq Ev			Night		Ldn	_	NEL
Autos			69.9		68.8		64.	-	72.	_	72.7
Medium Trucks			63.9		57.6		57.	-	65.		65.7
Heavy Trucks Vehicle Noise			68.0 72.7		64.4 70.4		62. 67.	-	70. 74.		70.4 75.2
Centerline Distar	nce to Noise C	ontour (in feet)								
			1	70 d	BA	65 (dBA	6	0 dBA	5	5 dBA
			Ldn:		55		118	3	254	ļ	546
		C	NEL:		58		12	5	270)	581

	FHWA-RD-	77-108 HIGH	WAY	NOISE	PREDIC	TION N	/IODEL	(9/12/20	021)		
	io: E le: Cherry Valle nt: e/o I-10 WB						t Name: lumber:		alley North	SP	
SITE :	SPECIFIC IN	OT DATA			2:4- 0		NOISE (Hard =		L INPUT	s	
Average Daily Peak Hour Peak H	Traffic (Adt): Percentage: lour Volume: hicle Speed:	9,772 vehicle 7.70% 752 vehicles 55 mph			Ме	dium Tr avy Tru	rucks (2 licks (3+	Autos: Axles):	15 15		
Near/Far La	ne Distance:	20 feet			Veh	icleType	9	Day	Evening	Night	Daily
Site Data Barrier Type (0-W	rrier Height:	0.0 feet 0.0				edium T Heavy T		70.6% 80.3% 75.9%	4.7%	15.8% 14.9% 15.9%	1.49%
Centerline Dis Centerline Dist. Barrier Distance Observer Height (st. to Barrier: to Observer: to Observer:	^	Noise Source Elevations (in feet) Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.004 Grade Adjustment: 0.0								
	ad Elevation: Road Grade: Left View: Right View:	0.0 feet 0.0% -90.0 degree 90.0 degree		<u> </u>	Lane Equivalent Distance (in feet) Autos: 24.515 Medium Trucks: 24.152 Heavy Trucks: 24.187						
FHWA Noise Mode	el Calculations			•							
VehicleType Autos: Medium Trucks: Heavy Trucks:	71.78 82.40 86.40	-4.05 -22.22 -24.02	Dis	4.54 4.64 4.63	1	-1.20 -1.20 -1.20	Fres	-4.43 -4.85 -5.90	0.0	en Ber 000 000 000	0.000 0.000 0.000
Unmitigated Noise	l evels (witho	ut Tono and	harri	or atton	uation)						
VehicleType	Leg Peak Hour			Leg Ev		Leg	Night	1	Ldn	C	NEL
Autos: Medium Trucks:	71.	1	69.9 63.0	-,	68.8 56.7		64. 56.		72.2 64.6	2	72. 64.
Heavy Trucks: Vehicle Noise:	65.8 72.8		64.9 71.7		61.3 69.7		59. 66.		67.0 73.9		67. 74.
Centerline Distance	e to Noise Cor	ntour (in feet))								
				70 a		65	dBA		i0 dBA		dBA
			Ldn: VEL:		47 51		102 109	_	220 235		475 507

	10400			_	_	n : 4		0 1 11		0.0	_
	p: HY S3								alley North	SP	
	e: Cherry Vall					Job N	lumber:	13594			
Road Segmen										_	
SITE S Highway Data	SPECIFIC IN	IPUT DATA			Site Con				L INPUT	S	
	T (5 (4 III)			- '	site con	uitions	(riaru -				
Average Daily	. ,	34,796 vehicl	es					Autos:	15		
Peak Hour I	-	7.70%				dium Tr		,	15		
	our Volume:	2,679 vehicle	s		He	avy Tru	CKS (3+	Axies):	15		
	nicle Speed:	35 mph		1	Vehicle I	Mix					
Near/Far Lar	ne Distance:	20 feet			Veh	icleType		Day	Evening	Night	Daily
Site Data						,	Autos:	70.6%	13.6%	15.8%	97.54%
Ran	rier Height:	0.0 feet			М	edium T	rucks:	80.3%	4.7%	14.9%	1.489
Barrier Type (0-Wa	-	0.0				Heavy T	rucks:	75.9%	8.2%	15.9%	0.999
Centerline Dis	t. to Barrier:	26.0 feet		,	Noise S	ource Fl	evation	ns (in fe	et)		
Centerline Dist. t	o Observer:	26.0 feet		Ė	10,00 0	Auto		.000	,		
Barrier Distance t	o Observer:	0.0 feet			Mediu	m Truck		297			
Observer Height (Above Pad):	5.0 feet				/y Truck		.004	Grade Ad	iustment	0.0
Pa	d Elevation:	0.0 feet			rica	ry IIIUCK	3. 0	.004	Orauc Au	ustriciit.	0.0
Roa	d Elevation:	0.0 feet		I	Lane Eq	uivalen	t Distar	ice (in t	eet)		
F	Road Grade:	0.0%				Auto	s: 24	.515			
	Left View:	-90.0 degre	es		Mediu	m Truck	s: 24	.152			
	Right View:	90.0 degre	es		Hear	y Truck	s: 24	.187			
FHWA Noise Mode	I Calculation	s									
VehicleType	REMEL	Traffic Flow	Dis	stance	Finite	Road	Fres	nel	Barrier Att	en Ber	m Atten
Autos:	64.30	3.43	,	4.5	4	-1.20		-4.43	0.0	000	0.00
Medium Trucks:	75.75	-14.77		4.6	4	-1.20		-4.85	0.0	000	0.00
Heavy Trucks:	81.57	-16.53		4.6	3	-1.20		-5.90	0.0	000	0.00
Unmitigated Noise	Levels (with	out Topo and	barri	er atten	uation)						
	Leq Peak Ho			Leq E	vening	Leq	Night		Ldn		VEL
Autos:		1.1	69.9		68.8		64.		72.2	_	72.
Medium Trucks:		1.4	63.8		57.5		57.		65.4		65.
Heavy Trucks:		3.5	67.6		64.0		62.	.1	69.7	7	70.
Vehicle Noise:	73	3.5	72.5		70.3		67.	.1	74.7	7	75.
Centerline Distanc	e to Noise C	ontour (in fee	t)	70							
			L	70 c		65	dBA		i0 dBA		dBA
Ldn:					53 57		118	-	248 264		535 569
	CNEL:						12:				

Monday, July 3, 2023

	FHWA-RD	-77-108 HIGH	WAY	NOISE	PREDIC	TION M	ODEL (9/12/2	021)		
Scenario:	2025 NP					Project	Name:	Oak V	alley North	SP	
Road Name:	Cherry Valle	y BI.				Job No	ımber:	13594			
Road Segment:	e/o I-10 WB	Ramps									
	ECIFIC IN	PUT DATA			0				L INPUT	S	
Highway Data					Site Con	aitions (Hard =				
Average Daily Tra		21,100 vehicle	es					Autos:			
Peak Hour Pe		7.70%				dium Tru					
Peak Hou	ır Volume:	1,625 vehicles	S		He	avy Truc	ks (3+	Axles):	15		
Vehic	le Speed:	55 mph		ŀ	Vehicle I	Wix					
Near/Far Lane	Distance:	20 feet		1		icleType		Day	Evening	Night	Daily
Site Data						A	utos:	70.6%	13.6%	15.8%	97.53%
Rarrio	er Heiaht:	0.0 feet			Me	edium Tr	ucks:	80.3%	4.7%	14.9%	1.49%
Barrier Type (0-Wall		0.0			F	Heavy Tr	ucks:	75.9%	8.2%	15.9%	0.98%
Centerline Dist.	. ,	26.0 feet		-	Noise Sc			- (:- 5	41		
Centerline Dist. to	Observer:	26.0 feet		ŀ	Noise 30	Autos			eu)		
Barrier Distance to	Observer:	0.0 feet						000			
Observer Height (Ab	ove Pad):	5.0 feet				m Trucks		297	0	···	4. 0.0
	Elevation:	0.0 feet			Heav	y Trucks	: 8	004	Grade Ad	yustmen	r: U.U
Road	Elevation:	0.0 feet			Lane Eq	uivalent	Distan	ce (in	feet)		
Ro	ad Grade:	0.0%				Autos	: 24	.515			
	Left View:	-90.0 degree	es		Mediui	m Trucks	: 24	152			
R	ght View:	90.0 degree	es		Heav	y Trucks	: 24	.187			
HWA Noise Model (Calculations										
, , ,	REMEL	Traffic Flow	Dis	tance	Finite		Fresi		Barrier Att		rm Atten
Autos:	71.78	-0.71		4.5		-1.20		-4.43		000	0.000
Medium Trucks:	82.40	-18.88		4.6		-1.20		-4.85		000	0.000
Heavy Trucks:	86.40	-20.68		4.6	33	-1.20		-5.90	0.0	000	0.000
Inmitigated Noise L	evels (witho	ut Topo and	barrie	er atter	nuation)						
	eq Peak Hour			Leq E	vening	Leq I	-		Ldn		NEL
Autos:	74.	-	73.2		72.1		68.		75.0		76.1
Medium Trucks:	67.	-	66.4		60.1		60.	-	68.0	-	68.2
Heavy Trucks:	69.		68.3		64.6		62.		70.3	-	70.€
Vehicle Noise:	76.	1	75.1		73.1		69.	7	77.	3	77.7
Centerline Distance	to Noise Co	ntour (in feet))								
				70	dBA	65 c			60 dBA	55	dBA
			Ldn:		79		171		368		793
		CI	NEL:		85		182		393	3	846

Monday, July 3, 2023

	FHWA-RD	-77-108 HIGH	WAY	NOISE	PREDIC	CTION N	IODEL	(9/12/2	021)		
Road Nam	o: 2025 S1 e: Cherry Valle nt: e/o I-10 WB	,					t Name: lumber:		alley North	SP	
SITE :	SPECIFIC IN	PUT DATA			Sito Cor				L INPUT	s	
Average Daily Peak Hour Peak H	Percentage:	21,957 vehicle 7.70% 1,691 vehicle 55 mph			Me	edium Tr eavy Tru	ucks (2	Autos: Axles).	15		
Near/Far Lai	ne Distance:	20 feet		F	Ver	icleType		Day	Evening	Night	Daily
Site Data Barrier Type (0-W	rier Height:	0.0 feet 0.0				ledium T Heavy T		70.6% 80.3% 75.9%	6 4.7%		6 1.57%
Centerline Dis	st. to Barrier:	26.0 feet		H	Noise S	ourco E	lovatio	ne (in f	oot)		
Centerline Dist. Barrier Distance of Observer Height (to Observer:	26.0 feet 0.0 feet 5.0 feet 0.0 feet			Mediu	Auto m Truck vy Truck	s: 0	0.000 2.297 3.004	Grade Ad	ljustmer	nt: 0.0
	id Elevation:	0.0 feet		h	Lane Eq	uivalen	t Distar	nce (in	feet)		
F	Road Grade: Left View: Right View:	0.0% -90.0 degree 90.0 degree				Auto m Truck vy Truck	s: 24	1.515 1.152 1.187	-		
FHWA Noise Mode	l Calculations										
VehicleType	REMEL	Traffic Flow	Dis	stance	Finite	Road	Fres	inel	Barrier At	ten Be	erm Atten
Autos:	71.78 82.40	-0.61 -18.46		4.5		-1.20 -1.20		-4.43 -4.85		000	0.000
Medium Trucks: Heavy Trucks:	86.40	-18.46 -16.27		4.6		-1.20		-4.85 -5.90		000	0.000
Unmitigated Noise	Levels (witho	ut Topo and	barri	er atten	uation)						
	Leq Peak Hou				vening	Leq	Night		Ldn	(CNEL
Autos:	74.	5	73.3		72.2		68	.1	75.	7	76.2
Medium Trucks:	67.	4	66.8		60.5	,	60	.7	68.	4	68.6
Heavy Trucks:	73.	-	72.7		69.1		67		74.		75.0
Vehicle Noise:	77.	5	76.5		74.1		71	.1	78.	7	79.1
Centerline Distance	e to Noise Co	ntour (in feet)								
			I	70	dBA	65	dBA		60 dBA		5 dBA
			Ldn:		98		21	-	45		985
		C	NEL:		105		22	5	48	5	1,046

	FHWA-RD	-77-108 HIGH	WAY	NOISE	PREDIC	CTION N	MODEL	(9/12/2	021)		
	: 2028 NP : Cherry Valle : e/o I-10 WB						t Name: lumber:		alley North	SP	
SITE S Highway Data	PECIFIC IN	PUT DATA			ita Car	I nditions			L INPUT	S	
Average Daily T Peak Hour F Peak Ho	Percentage: our Volume: icle Speed:	29,943 vehicle 7.70% 2,306 vehicle 55 mph 20 feet			Me He /ehicle :	edium Ti eavy Tru Mix	rucks (2 icks (3+	Autos: Axles): Axles):	15 15 15		
Site Data					ven	icleType	Autos:	70.6%	Evening 13.6%	Night 15.8%	Daily 97.53%
	ier Height: ill, 1-Berm):	0.0 feet 0.0				ledium 1 Heavy 1	rucks:	70.6% 80.3% 75.9%	4.7%	14.9% 15.9%	1.49%
Centerline Dist Centerline Dist. to Barrier Distance to Observer Height (A Pad	Observer: Observer:	26.0 feet 26.0 feet 0.0 feet 5.0 feet 0.0 feet			Mediu Hea	Auto Auto Im Truck Vy Truck	os: ((s: 2 (s: 8	0.000 2.297 3.004	Grade Ad	iustment	± 0.0
R	d Elevation: oad Grade: Left View: Right View:	0.0 feet 0.0% -90.0 degree 90.0 degree			Mediu	Auto Auto Im Truck Vy Truck	s: 24	1.515 1.152 1.187			
VehicleType	REMEL	Traffic Flow	Die	tance	Einite	Road	Fres	no!	Barrier Att	on Bo	m Atten
Autos: Medium Trucks: Heavy Trucks:	71.78 82.40 86.40	0.81 -17.36 -19.16	Dis	4.54 4.64 4.63	1	-1.20 -1.20 -1.20	1163	-4.43 -4.85 -5.90	0.0	000	0.000 0.000 0.000
Unmitigated Noise	Levels (witho	ut Topo and	barrie	er atten	uation)						
VehicleType L	eq Peak Hou	r Leq Day	′	Leq Ev	ening	Leq	Night		Ldn		NEL
Autos: Medium Trucks: Heavy Trucks:	75. 68. 70.	5	74.8 67.9 69.8		73.6 61.6 66.2	;	69 61 64	.8	77.1 69.5 71.9	5	77.6 69.7 72.2
Vehicle Noise:	77.		76.6		74.6		71		78.8		79.2
Centerline Distance	to Noise Co	ntour (in feet)								
		,	Ldn:	70 a	100	65	dBA 21	6	60 dBA 465		dBA 1,001
		C	NEL:		107		23	0	496		1,069

Scenario: 2025 S2					Project N	ame: O	ak Va	lley North	SP	-
Road Name: Cherry Vall	ey Bl.				Job Nui			,		
Road Segment: e/o I-10 WE	Ramps									
SITE SPECIFIC IN	IPUT DATA							LINPUTS	3	
Highway Data			S	ite Con	ditions (F					
Average Daily Traffic (Adt):	22,567 vehicle	8					utos:	15		
Peak Hour Percentage:	7.70%				dium Truc		,	15		
Peak Hour Volume:	1,738 vehicles			He	avy Truck	s (3+ A)	(les):	15		
Vehicle Speed:	55 mph		ν	ehicle N	/lix					
Near/Far Lane Distance:	20 feet			Vehi	cleType	E	ay	Evening	Night	Daily
Site Data					Au	tos: 7	0.6%	13.6%	15.8%	95.10
Barrier Height:	0.0 feet			Ме	edium Tru	cks: 8	0.3%	4.7%	14.9%	1.80
Barrier Type (0-Wall, 1-Berm):	0.0			F	łeavy Tru	cks: 7	5.9%	8.2%	15.9%	3.10
Centerline Dist. to Barrier:	26.0 feet		٨	oise So	urce Elev	ations	(in fe	et)		
Centerline Dist. to Observer:	26.0 feet				Autos:	0.0	00			
Barrier Distance to Observer:	0.0 feet			Mediur	n Trucks:	2.2	97			
Observer Height (Above Pad):	5.0 feet			Heav	y Trucks:	8.0	04	Grade Adj	ustment	0.0
Pad Elevation:	0.0 feet		-							
Road Elevation:	0.0 feet		L	ane Equ	ıivalent E		•	eet)		
Road Grade:	0.0%				Autos:					
Left View:	-90.0 degree				n Trucks:	24.1				
Right View:	90.0 degree	8		Heav	y Trucks:	24.1	87			
FHWA Noise Model Calculation										
VehicleType REMEL	Traffic Flow	Dista		Finite		Fresne		Barrier Atte	_	rm Atter
Autos: 71.78	-0.53		4.54		-1.20		4.43	0.0		0.0
Medium Trucks: 82.40	-17.75		4.64		-1.20		4.85	0.0		0.0
Heavy Trucks: 86.40	-15.40		4.63		-1.20	-	5.90	0.0	00	0.0
Unmitigated Noise Levels (with VehicleType Leg Peak Hou		_	attenu Leg Ev		Leg N	iosht		Ldn	_	NEL
Autos: 74		3.4	Ley Ev	72.3	Leq IV	68.2		75.8		76
Medium Trucks: 68		7.5		61.2		61.4		69.1		69
		3.6		69.9		68.0		75.6		75
Vehicle Noise: 78		7.0		74.5		71.6		79.2		79
Centerline Distance to Noise Co	ontour (in feet)									
			70 d	BA	65 dE	3A	6	0 dBA	55	dBA
	L	.dn:		106		228		492		1,06

Monday, July 3, 2023

FH	WA-RD-	77-108 HIGH	WAY NO	DISE F	PREDIC	TION MO	DDEL	(9/12/2	021)		
Scenario: 2020 Road Name: Che Road Segment: e/o l	rry Valley					Project I Job Nu			alley North	SP	
SITE SPECI	FIC INP	UT DATA							L INPUT	s	
Highway Data				S	ite Con	ditions (l	Hard =	= 10, Sc	oft = 15)		
Average Daily Traffic ('Adt): 3	1,326 vehicle	s					Autos:	15		
Peak Hour Percen	tage:	7.70%			Med	dium Tru	cks (2	Axles):	15		
Peak Hour Vol	ume: 2	,412 vehicles			He	avy Truck	ks (3+	Axles):	15		
Vehicle Sp	peed:	55 mph		1/	ehicle N	Aire					
Near/Far Lane Dista	ance:	20 feet				cleType		Dav	Evening	Night	Daily
Site Data				_	verii		utos:	70.6%	-	15.8%	,
				-	140	edium Tri.		80.3%		14.9%	
Barrier He		0.0 feet				leavy Tru				15.9%	
Barrier Type (0-Wall, 1-B	,	0.0			-	leavy III	ICKS.	13.9%	0.270	15.9%	2.10%
Centerline Dist. to Ba		26.0 feet		N	oise So	urce Ele	vatio	ıs (in fe	eet)		
Centerline Dist. to Obse		26.0 feet				Autos.	: 0	.000			
Barrier Distance to Obse		0.0 feet			Mediur	n Trucks.	: 2	.297			
Observer Height (Above	,	5.0 feet			Heav	y Trucks.	: 8	.004	Grade Ad	justmen	t: 0.0
Pad Elevi		0.0 feet		-			. .	,,			
Road Elevi		0.0 feet		Li	ane Equ	ivalent l			reet)		
Road G		0.0%				Autos.		.515			
		-90.0 degree				n Trucks.		.152			
Right 1	View:	90.0 degree	s		Heav	y Trucks.	: 24	.187			
HWA Noise Model Calcu											
VehicleType REN		raffic Flow	Distan		Finite		Fres		Barrier Att		rm Atten
Autos:	71.78	0.95		4.54		-1.20		-4.43		000	0.000
Medium Trucks:	82.40	-17.06		4.64		-1.20		-4.85		000	0.000
Heavy Trucks:	86.40	-15.66		4.63		-1.20		-5.90	0.	000	0.000
Inmitigated Noise Level	•							_			
	ak Hour	Leq Day		eq Eve	-	Leq N	-		Ldn		NEL
Autos:	76.1		74.9		73.8		69.		77.	_	77.
Medium Trucks:	68.8		38.2		61.9		62		69.	-	70.0
Heavy Trucks:	74.2		73.3		69.7		67.		75.		75.
Vehicle Noise:	78.7		77.7		75.4		72.	.3	79.	9	80.3
Centerline Distance to No	oise Con	tour (in feet)							-		
				70 dl		65 d			60 dBA		dBA
			Ldn:		118		25	5	549	,	1,182
		CN	IEL:		126		27	1	584		1,257

	FHWA-RI	D-77-108 HIGH	IWAY	NOISE	PREDIC	CTION N	IODEL	(9/12/2	021)		
Road Nam	io: 2028 S2 ne: Cherry Vall nt: e/o I-10 WI						t Name: lumber:		alley North	SP	
SITE :	SPECIFIC IN	NPUT DATA			Site Cor				L INPUT	S	
Average Daily Peak Hour Peak H	Percentage: lour Volume:	31,981 vehicle 7.70% 2,463 vehicle			Ме	edium Tr	ucks (2	Autos: Axles):	15 15		
	hicle Speed:	55 mph		1	Vehicle	Mix					-
Near/Far La	ne Distance:	20 feet			Veh	icleType	9	Day	Evening	Night	Daily
Site Data							Autos:	70.6%	13.6%	15.8%	95.72%
Bai	rrier Height:	0.0 feet				edium T		80.3%	4.7%	14.9%	1.71%
Barrier Type (0-W	all, 1-Berm):	0.0				Heavy T	rucks:	75.9%	8.2%	15.9%	2.57%
Centerline Di	st. to Barrier:	26.0 feet		7	Noise S	ource E	levatio	ns (in f	eet)		
Centerline Dist.	to Observer:	26.0 feet		F		Auto		.000	,		
Barrier Distance	to Observer:	0.0 feet			Mediu	m Truck		297			
Observer Height (,	5.0 feet				vv Truck		.004	Grade Ad	ljustmen	t: 0.0
	ad Elevation:	0.0 feet		l.							
	ad Elevation:	0.0 feet		1	Lane Eq			_ •	feet)		
	Road Grade:	0.0%				Auto		.515			
	Left View:	-90.0 degre				m Truck		.152			
	Right View:	90.0 degre	es		Hea	vy Truck	:s: 24	.187			
FHWA Noise Mode	el Calculation	s									
VehicleType	REMEL	Traffic Flow	Dis	stance		Road	Fres		Barrier At		rm Atten
Autos:	71.78			4.5		-1.20		-4.43		000	0.000
Medium Trucks:	82.40			4.6		-1.20		-4.85		000	0.000
Heavy Trucks:	86.40	-14.69		4.6	3	-1.20		-5.90	0.	000	0.000
Unmitigated Noise											
VehicleType	Leq Peak Hou			Leg E			Night		Ldn	_	NEL
Autos:		3.1	75.0		73.8		69		77.	-	77.8
Medium Trucks:		9.4	68.8		62.5		62		70.		70.6
Heavy Trucks: Vehicle Noise:		5.1	74.3 78.2		70.6		68 72		76. 80.	-	76.6 80.7
					/5./		72	. /	80.	3	80.7
Centerline Distance	e to Noise Co	ontour (in feet)	70 0	HRA	65	dBA	1 .	60 dBA	55	i dBA
			Ldn:	,,,,	127	1 33	27	_	589		1.268
		С	NEL:		135		29	-	62	-	1,200
			_		.00			-	02.	-	.,010

	FHWA-RD)-77-108 HIGH	IWAY	NOISE	PREDIC	TION	IODEL	(9/12/20	021)		
Road Nam	io: HY S1 le: Cherry Valle nt: e/o I-10 WE						! Name: lumber:		alley North	SP	
SITE S	SPECIFIC IN	PUT DATA			Site Con				L INPUT	s	
Average Daily Peak Hour Peak H	Percentage: lour Volume: hicle Speed:	37,996 vehicle 7.70% 2,926 vehicle 55 mph 20 feet			Me He /ehicle :	dium Tr avy Tru	ucks (2 cks (3+	Autos: Axles): Axles): Day	15 15 15 15	Night	Daily
Site Data				-	VEI		Autos:	70.6%		15.8%	
	rrier Height: 'all, 1-Berm):	0.0 feet 0.0				edium T Heavy T	rucks:	80.3% 75.9%	4.7%	14.9% 15.9%	1.52%
Centerline Dist. Centerline Dist. Barrier Distance Observer Height (to Observer: to Observer:	26.0 feet 26.0 feet 0.0 feet 5.0 feet		^		Auto Truck Yy Truck	s: 0	0.000 0.297 0.004	et) Grade Ad	justment	: 0.0
	ad Elevation: Road Grade: Left View: Right View:	0.0 feet 0.0% -90.0 degre 90.0 degre		L		Auto Marto m Truck yy Truck	s: 24	i.515 1.515 1.152 1.187	eet)		
FHWA Noise Mode	el Calculation:	s									
VehicleType	REMEL	Traffic Flow		stance		Road	Fres		Barrier Att		m Atten
Autos: Medium Trucks: Heavy Trucks:	71.78 82.40 86.40	1.80 -16.24 -15.25		4.54 4.64 4.63	1	-1.20 -1.20 -1.20		-4.43 -4.85 -5.90	0.0	000 000	0.00 0.00 0.00
Unmitigated Noise	Levels (with	out Topo and	barri	er atteni	uation)						
	Leq Peak Hou			Leq Ev		Leq	Night		Ldn	CI	VEL
Autos: Medium Trucks:	76 69		75.8 69.0		74.6 62.7		70 62		78. ⁴ 70.6		78.0 70.8
Heavy Trucks: Vehicle Noise:	74 79		73.7 78.4		70.1 76.1		68 73		75.8 80.6		76. 81.
Centerline Distance	e to Noise Co	ntour (in feet	9								
		(700		70 d		65	dBA		0 dBA		dBA
		С	Ldn: NEL:		132 140		28 30	-	611 650		1,315 1,400

				_	5			021)	0.0	
Scenario: HY NP								alley North	SP	
Road Name: Cherry Val					Job Nur	nber: 1	3594			
Road Segment: e/o I-10 W	B Kamps									
SITE SPECIFIC II	NPUT DATA							L INPUT	S	
Highway Data			S	ite Con	ditions (H	lard =	10, Sc	oft = 15)		
Average Daily Traffic (Adt):	36,613 vehicle	:S				,	Autos:	15		
Peak Hour Percentage:	7.70%			Me	dium Truc	ks (2 A	xles):	15		
Peak Hour Volume:	2,819 vehicles	6		He	avy Truck	s (3+ A	xles):	15		
Vehicle Speed:	55 mph			ehicle I	Niv					
Near/Far Lane Distance:	20 feet		-		cleType		Dav	Evening	Night	Daily
Site Data				*****			70.6%		15.8%	
	0.0 feet			Ме	edium Tru		80.3%		14.9%	
Barrier Height:	0.0 reet 0.0				leavy Tru		75.9%		15.9%	
Barrier Type (0-Wall, 1-Berm): Centerline Dist. to Barrier:	0.0 26.0 feet				,				10.07	0.00
Centerline Dist. to Observer:	26.0 feet		٨	loise So	urce Elev	rations	(in fe	eet)		
Barrier Distance to Observer:	0.0 feet				Autos:	0.0	000			
Observer Height (Above Pad):	5.0 feet			Mediur	n Trucks:	2.2	297			
Pad Elevation:	0.0 feet			Heav	y Trucks:	8.0	004	Grade Ad	ljustmen	t: 0.0
Road Elevation:	0.0 feet		1	ane Fai	uivalent D	istanc	e (in t	feet)		
Road Grade:	0.0%		F	ano Eq	Autos:			000		
Left View:	-90.0 degree	e e		Mediu	n Trucks:					
Right View:	90.0 degree				y Trucks:	24.				
rught view.	50.0 dog.00				,					
FHWA Noise Model Calculation	s									
VehicleType REMEL	Traffic Flow	Dist	ance	Finite	Road	Fresn	el	Barrier Att	en Be	rm Atter
Autos: 71.78	1.68		4.54		-1.20		-4.43	0.	000	0.00
Medium Trucks: 82.40			4.64		-1.20		-4.85		000	0.00
Heavy Trucks: 86.40	-18.29		4.63	1	-1.20		-5.90	0.	000	0.00
Unmitigated Noise Levels (with	out Topo and	barrie	r attenu	uation)						
VehicleType Leq Peak Ho	ur Leq Day		Leq Ev	ening	Leq Ni	ght		Ldn	С	NEL
Autos: 70	6.8	75.6		74.5		70.4		78.	0	78
Medium Trucks: 69	9.4	68.7		62.5		62.7		70.	4	70
Heavy Trucks: 7	1.5	70.7		67.0		65.1		72.	7	73
Vehicle Noise: 78	3.5	77.5		75.4		72.1		79.	7	80
Centerline Distance to Noise C	ontour (in feet)									
	, , , ,		70 d	BA	65 dE	BA .	6	0 dBA	55	dBA
		Ldn:		115		247		532	2	1,14

Monday, July 3, 2023

	FHWA-RI	D-77-108 HIGH	WAY NOIS	E PREDIC	CTION M	ODEL (9/	12/2021)		
Road Nan	io: HY S2 ne: Cherry Vall nt: e/o I-10 WE	,				Name: Oa ımber: 13		North SF	•
SITE	SPECIFIC IN	IPUT DATA			N	OISE MO	DEL II	NPUTS	
Highway Data				Site Con	ditions (Hard = 10), Soft =	15)	
	Traffic (Adt): Percentage: Hour Volume:	38,651 vehicle 7.70% 2.976 vehicles				Aı cks (2 Ax ks (3+ Ax	les):	15 15 15	
	hicle Speed:	55 mph	-		-		/		
	ne Distance:	20 feet		Vehicle			1-		
Site Data				ven	icleType A		_	-	ight Daily 5.8% 96.03%
Ra	rrier Height:	0.0 feet		М	edium Tr	ucks: 80	0.3%	4.7% 1	4.9% 1.67%
Barrier Type (0-W		0.0			Heavy Tri	ucks: 7	5.9%	8.2% 1	5.9% 2.30%
Centerline Di	st. to Barrier:	26.0 feet		Noise So	ource Ele	vations (in feet)		
Centerline Dist.	to Observer:	26.0 feet			Autos				
Barrier Distance	to Observer:	0.0 feet		Mediu	m Trucks				
Observer Height	(Above Pad):	5.0 feet			vy Trucks			ade Adius	tment: 0.0
P	ad Elevation:	0.0 feet			•				
Ro	ad Elevation:	0.0 feet		Lane Eq	uivalent	Distance	(in feet))	
	Road Grade:	0.0%			Autos	: 24.51	5		
	Left View:	-90.0 degree	es	Mediu	m Trucks	24.15	2		
	Right View:	90.0 degree	es	Heav	vy Trucks	24.18	17		
FHWA Noise Mod	el Calculation	s		1					
VehicleType	REMEL	Traffic Flow	Distance		Road	Fresnel		rier Atten	Berm Atten
Autos:				.54	-1.20		1.43	0.000	
Medium Trucks:				.64	-1.20		.85	0.000	
Heavy Trucks:				.63	-1.20	-5	5.90	0.000	0.000
Unmitigated Noise				,					
VehicleType	Leq Peak Hou			Evening	Leq N		Ldı		CNEL
Autos:			75.8	74.7		70.5		78.1	78.6
Medium Trucks:			69.5	63.2		63.4		71.1	71.3
Heavy Trucks: Vehicle Noise:			74.6 78.8	71.0 76.4		69.1 73.4		76.7 81.0	77.0 81.3
Centerline Distant									
Contonine Distant	00 10 110/36 01	omour (m reet)) dBA	65 a	IBA	60 di	BA	55 dBA
			Ldn:	140		301		648	1,397
		CI	VEL:	148		320		689	1,484

Monday, July 3, 2023

	FHWA-RI	D-77-108 HIGH	WAY	NOISE	PREDIC	TION N	IODEL	(9/12/2	021)		
Road Nan	io: HY S3 ne: Cherry Vall nt: e/o I-10 WI						Name: lumber:		alley North	SP	
SITE Highway Data	SPECIFIC IN	IPUT DATA			Site Con				L INPUT	s	
				-	site Con	aitions	(Hara =				
Average Daily	. ,	37,165 vehicle	es					Autos:			
	Percentage:	7.70%				dium Tr					
Peak F	lour Volume:	2,862 vehicle	S		He	avy Tru	cks (3+	Axles):	15		
Ve	hicle Speed:	55 mph		١	/ehicle	Mix					
Near/Far La	ne Distance:	20 feet		F		icleType		Dav	Evenina	Niaht	Daily
Site Data							Autos:	70.6%	13.6%	15.8%	97.42%
Ra	rrier Height:	0.0 feet			М	edium T	rucks:	80.3%	4.7%	14.9%	1.48%
Barrier Type (0-W		0.0			1	Heavy T	rucks:	75.9%	8.2%	15.9%	5 1.10%
Centerline Di	st. to Barrier:	26.0 feet		,	Voise So	urce Fl	ovation	ne (in f	not)		
Centerline Dist.	to Observer:	26.0 feet			10/36 00	Auto		.000	,		
Barrier Distance	to Observer:	0.0 feet			Modiu	m Truck		.297			
Observer Height	(Above Pad):	5.0 feet				y Truck		.004	Grade Ad	liuctman	t 0.0
P	ad Elevation:	0.0 feet			rical	y IIUCK	3. 0	.004	Orace Au	justinen	ι. υ.υ
Ro	ad Elevation:	0.0 feet		L	ane Eq	uivalent	Distar	ce (in	feet)		
	Road Grade:	0.0%				Auto	s: 24	.515			
	Left View:	-90.0 degree	es		Mediu	m Truck	s: 24	.152			
	Right View:	90.0 degree	es		Heav	y Truck	s: 24	.187			
FHWA Noise Mod	el Calculation	s									
VehicleType	REMEL	Traffic Flow	Dis	tance	Finite	Road	Fres	nel	Barrier Att	en Be	rm Atten
Autos:	71.78	1.74		4.5	1	-1.20		-4.43	0.0	000	0.000
Medium Trucks:	82.40	-16.45		4.6	4	-1.20		-4.85	0.0	000	0.000
Heavy Trucks:	86.40	-17.71		4.63	3	-1.20		-5.90	0.0	000	0.000
Unmitigated Noise	e Levels (with	out Topo and	barrie	er atten	uation)						
VehicleType	Leq Peak Hou	ır Leq Day	/	Leg Ev	ening	Leq	Night		Ldn	C	NEL
Autos:	76	6.9	75.7		74.6		70.	4	78.	0	78.5
Medium Trucks:	69	0.4	68.8		62.5		62.	.7	70.	4	70.6
Heavy Trucks:	72	2.1	71.3		67.6		65.	.7	73.	3	73.6
Vehicle Noise:	78	3.7	77.6		75.6		72.	2	79.	8	80.2
Centerline Distan	ce to Noise Co	ontour (in feet)								
				70 c	IBA	65	dBA	(60 dBA	55	5 dBA
			Ldn:		117		25	3	545	5	1,175
		C	NEL:		125		270)	582	2	1,253

	FHWA-RD	-77-108 HIGH	WAY	NOISE	PREDIC	TION	IODEL	(9/12/20)21)		
	o: 2025 NP e: Cherry Valle at: e/o Calimes						t Name: lumber:		alley North	SP	
SITE S Highway Data	SPECIFIC IN	PUT DATA				ditions			L INPUT	S	
Average Daily 1 Peak Hour I Peak Ho	Percentage: our Volume: nicle Speed:	20,797 vehicle 7.70% 1,601 vehicle 35 mph 20 feet			Me He 'ehicle i	dium Tr avy Tru	ucks (2 cks (3+	Autos: Axles):	15 15 15 15	Night	Daily
Site Data					VCII		Autos:	70.6%	13.6%	15.8%	
	rier Height: all, 1-Berm):	0.0 feet 0.0				edium T Heavy T	rucks:	80.3% 75.9%	4.7%	14.9% 15.9%	1.49%
Centerline Dist. t Centerline Dist. t Barrier Distance t Observer Height (A	to Observer:	26.0 feet 26.0 feet 0.0 feet 5.0 feet 0.0 feet		^	Mediu	Auto m Truck y Truck	s: 0	0.000 0.297 0.004	et) Grade Adj	iustment	: 0.0
R	d Elevation: Road Grade: Left View: Right View:	0.0 feet 0.0% -90.0 degree 90.0 degree		L	Mediu	Auto M Truck ry Truck	s: 24	ice (in 1 1.515 1.152 1.187	eet)		
FHWA Noise Mode	l Calculations	5									
VehicleType Autos:	REMEL 64.30	Traffic Flow		stance 4.54		Road -1.20	Fres	nel -4.43	Barrier Att	en Ber	m Atten 0.00
Medium Trucks: Heavy Trucks:	75.75 81.57	-16.98 -18.78		4.64 4.63	ı	-1.20 -1.20		-4.85 -5.90	0.0	000	0.00
Unmitigated Noise	Levels (with	out Topo and	barrie	er attenu	uation)						
	Leq Peak Hou		_	Leq Ev		Leq	Night		Ldn	CI	VEL
Autos:	68		67.7		66.5		62.		70.0		70.
Medium Trucks:	62 66	_	61.6 65.4		55.3 61.7		55. 59.		63.2	-	63.
Heavy Trucks: Vehicle Noise:	71.		70.3		68.0		64.	-	67.4 72.5		67. 72.
Centerline Distance	e to Noise Co	ntour (in feet	<u>)</u>								
				70 d	BA	65	dBA		0 dBA	55	dBA
			Ldn:		38		82		176		379

Scenario						Drainet *	lama: 1	Sale V	llov North	en.	
	: E : Cherry Valle	w DI				Job Nur			alley North	SP	
Road Segment						JOD IVUI	IIDEI. I	3334			
	PECIFIC IN					NO	ISE N	IODE	L INPUT	s	
Highway Data				s	ite Con	ditions (H					
Average Daily T	raffic (Adt):	9.863 vehicles	3				A	Autos:	15		
Peak Hour F	Percentage:	7.70%			Med	dium Truc	ks (2 A	xles):	15		
Peak Ho	ur Volume:	759 vehicles			Hei	avy Truck	s (3+ A	xles):	15		
Veh	icle Speed:	35 mph		V	ehicle N	Niv					
Near/Far Lan	e Distance:	20 feet				cleType		Dav	Evening	Night	Daily
Site Data								70.6%	-	15.8%	,
Rarr	ier Height:	0.0 feet			Me	edium Tru	cks:	80.3%	4.7%	14.9%	1.49
Barrier Type (0-Wa	-	0.0			F	leavy Tru	cks:	75.9%	8.2%	15.9%	0.98
Centerline Dist	to Barrier:	26.0 feet		N	oise So	urce Elev	ations	(in fe	et)		
Centerline Dist. to	Observer:	26.0 feet		Ë		Autos:		•			
Barrier Distance to	Observer:	0.0 feet			Mediur	n Trucks:	2.2				
Observer Height (A	bove Pad):	5.0 feet				y Trucks:	8.0		Grade Ad	iustment	0.0
Pad	d Elevation:	0.0 feet		L							
Road	d Elevation:	0.0 feet		L	ane Equ	ıivalent D			eet)		
R	oad Grade:	0.0%				Autos:	24.5				
	Left View:	-90.0 degrees	3			n Trucks:					
	Right View:	90.0 degrees	5		Heav	y Trucks:	24.1	187			
FHWA Noise Model	Calculations	3									
VehicleType	REMEL	Traffic Flow	Distar		Finite		Fresn	_	Barrier Att		m Atter
Autos:	64.30	-2.05		4.54		-1.20		-4.43		000	0.0
Medium Trucks:	75.75	-20.22		4.64		-1.20		-4.85		000	0.0
Heavy Trucks:	81.57	-22.02		4.63		-1.20		-5.90	0.0	000	0.0
Unmitigated Noise											
VehicleType L Autos:	eq Peak Hou. 65		14.4	eq Ev		Leq Ni	ght 59.2		Ldn 66.8		NEL 67
Medium Trucks:	59		8.4		63.3 52.1		52.3		60.0		60
Heavy Trucks:	63		2.1		58.5		56.6		64.2	-	64
Vehicle Noise:	68		7.1		64.8		61.6		69.2		69
Centerline Distance	to Noise Co	ntour (in feet)									
Centernine Distance	to Noise Co	intour (in reet)		70 di	BA	65 dE	3A	6	i0 dBA	55	dBA
		L	.dn:		23		50		107		23

Monday, July 3, 2023

Site Data Autos: 70.6% 13.6% Barrier Height: 0.0 feet Medium Trucks: 80.3% 4.7%	Night Daily 15.8% 97.41% 14.9% 1.49% 15.9% 1.10%
Site Specific INPUT DATA Site Conditions (Hard = 10, Soft = 15)	Night Daily 15.8% 97.41% 14.9% 1.49% 15.9% 1.10%
SITE SPECIFIC INPUT DATA NOISE MODEL INPUTS	Night Daily 15.8% 97.41% 14.9% 1.49% 15.9% 1.10%
Highway Data	Night Daily 15.8% 97.41% 14.9% 1.49% 15.9% 1.10%
Average Daily Traffic (Adt): 20,896 vehicles Peak Hour Percentage: 7,70% Medium Trucks (2 Axles): 15 Heavy Trucks (2 Axles): 15 Heavy Trucks (2 Axles): 15 Heavy Trucks (2 Axles): 15 Heavy Trucks (3 + Axl	15.8% 97.41% 14.9% 1.49% 15.9% 1.10%
Peak Hour Percentage: 1.70% Medium Trucks (2 Axles): 15	15.8% 97.41% 14.9% 1.49% 15.9% 1.10%
Peak Hour Volume: 1,609 vehicles Vehicle Speed: 35 mph Vehicle Mix Vehicle Mix Vehicle Mix Vehicle Mix Vehicle Mix Vehicle Mix Vehicle Mix Vehicle Type Day Evening National Na	15.8% 97.41% 14.9% 1.49% 15.9% 1.10%
Vehicle Speed: 35 mph Vehicle Mix Near/Far Lane Distance: 20 feet Vehicle Mix Vehicle Type Day Evening N Autos: 70.6% 13.6% 1 Medium Trucks: 80.3% 4.7% 1 Medium Trucks: 80.3% 4.7% 1 Heavy Trucks: 75.9% 8.2% 1 Noise Source Elevations: 16.0 feet Noise Source Elevations (in feet) Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.004 Grade Adjus Heavy Trucks: 8.004 Grade Adjus Left View: -90.0 degrees Medium Trucks: 24.152	15.8% 97.41% 14.9% 1.49% 15.9% 1.10%
Near/Far Lane Distance: 20 feet VehicleType Day Evening Near/Far Lane Distance: 30 feet Autos: 70.6% 13.6% 13.6% 13.6% 13.6% 14.6% 13.6% 13.6% 14.6% 13.6% 14.6% 13.6% 14.6% 13.6% 14.6% 13.6% 14.6% 13.6% 14.6% 13.6% 14.6% 13.6% 14.6% 13.6% 14.6% 13.6% 14.6% 13.6% 14.6% 13.6% 13.6% 14.6% 13.	15.8% 97.41% 14.9% 1.49% 15.9% 1.10%
Autos: 70.6% 13.6%	15.8% 97.41% 14.9% 1.49% 15.9% 1.10%
Barrier Height: 0.0 feet Medium Trucks: 80.3% 4.7% feet	14.9% 1.49% 15.9% 1.10%
Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 26.0 feet 2	15.9% 1.10%
Centefine Dist. to Barrier: Centerline Dist. to Dasrier: Centerline Dist. to Dasrier: 26.0 feet Barrier Distance to Observer: 26.0 feet Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.004 Grade Adjus Lane Equivalent Distance (in feet) Lane Equivalent Distance (in feet) Autos: 2.497 Heavy Trucks: 8.004 Grade Adjus Lane Equivalent Distance (in feet) Autos: 2.497 Heavy Trucks: 8.004 Grade Adjus Autos: 2.497 Heavy Trucks: 8.004 Grade Adjus Autos: 2.497 Heavy Trucks: 8.004 Grade Adjus Autos: 2.497 Heavy Trucks: 8.004 Grade Adjus Autos: 2.497 Heavy Trucks: 8.004 Heavy Truck	
Centerline Dist. to Observer: 26.0 feet Autos: 0.000	stment: 0.0
Barrier Distance to Observer: 0.0 feet Autos: 0.000	stment: 0.0
Observer Height (Above Pad): 5.0 feet Medium Trucks: 2.297 Heavy Trucks: 8.004 Grade Adjus	stment: 0.0
Pad Elevation: 0.0 feet Heavy Trucks: 8,004 Grade Augus Road Grade: 0.0 feet Lane Equivalent Distance (in feet) Road Grade: 0.0% Autos: 24,515 Left View: -90.0 degrees Medium Trucks: 24,152	stment: 0.0
Road Elevation: 0.0 feet Lane Equivalent Distance (in feet) Road Grade: 0.0% Autos: 24.515 Left View: -90.0 degrees Medium Trucks: 24.152	
Road Grade: 0.0% Autos: 24.515 Left View: -90.0 degrees Medium Trucks: 24.152	
Left View: -90.0 degrees Medium Trucks: 24.152	
201 VIOW50.0 degrees	
Right View: 90.0 degrees Heavy Trucks: 24.187	
FHWA Noise Model Calculations	
VehicleType REMEL Traffic Flow Distance Finite Road Fresnel Barrier Atten	
Autos: 64.30 1.21 4.54 -1.20 -4.43 0.000	
Medium Trucks: 75.75 -16.95 4.64 -1.20 -4.85 0.000	
Heavy Trucks: 81.57 -18.26 4.63 -1.20 -5.90 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: 68.8 67.7 66.5 62.4 70.0	70.5
Medium Trucks: 62.2 61.6 55.4 55.6 63.3	63.5
Heavy Trucks: 66.7 65.9 62.2 60.3 67.9	68.2
Vehicle Noise: 71.5 70.5 68.2 65.0 72.6	73.0
Centerline Distance to Noise Contour (in feet)	
70 dBA 65 dBA 60 dBA	
Ldn: 39 84 181	55 dBA
CNEL: 41 89 192	55 dBA 390 415

Monday, July 3, 2023

	FHWA-R	D-77-108 HIGH	IWAY	NOISE	PREDIC	CTION M	ODEL	(9/12/20	021)				
Road Na	ario: 2025 S2 me: Cherry Val ent: e/o Calime						Name: umber:		alley North	SP			
SITE Highway Data	SPECIFIC II	NPUT DATA			Cita Car	N			L INPUT	S			
	y Traffic (Adt):	21.023 vehicle			site Con	iuitions	(naru -	Autos:	15				
	ır Percentage:	7.70%	es		Medium Trucks (2 Axles): 15								
	Hour Volume:	1.619 vehicle	e			eavy Truc		,	15				
	ehicle Speed:	35 mph	3	_			ono (o :	713100).					
	ane Distance:	20 feet		١	/ehicle								
	ano Diotanos.	20 1001			Veh	icleType		Day	Evening	Night	Daily		
Site Data							Autos:	70.6%			97.13%		
В	arrier Height:	0.0 feet			Medium Trucks: 80.3% 4.7% 14.9% 1.54° Heavy Trucks: 75.9% 8.2% 15.9% 1.33°								
Barrier Type (0-	. ,	0.0 26.0 feet				neavy II	ucks:	75.9%	8.2%	15.9%	1.33%		
	Dist. to Barrier:		Voise S	ource El	evation	ıs (in fe	eet)						
	t. to Observer:	26.0 feet				Autos	s: 0	.000					
Barrier Distanc		0.0 feet			Mediu	m Trucks	s: 2	.297					
Observer Heigh	. ,	5.0 feet			Hear	vy Trucks	s: 8	.004	Grade Ad	justmen	t: 0.0		
1	Pad Elevation:	0.0 feet		,	ana Fa	uivalent	Dieter	oo (in i	Fo.o.el)				
R	oad Elevation: Road Grade:	0.0 feet 0.0%		-	ane Ly	Auto:		.515	eeij				
	Left View:	-90.0 degre			Modiu	m Trucks		.152					
	Right View:	90.0 degre				vy Trucks		.187					
			C3		1100	ry much	J. 27	.101					
FHWA Noise Mo		,											
VehicleType	REMEL	Traffic Flow		stance									
Autos Medium Trucks				4.54	-	-1.20 -1.20		-4.43 -4.85		000	0.000		
Heavy Trucks				4.63	-	-1.20		-4.85		000	0.000		
Unmitigated Noi						-1.20		-0.90	0.0	000	0.000		
VehicleType	Leq Peak Ho		_	Leg Ev		Lea	Night		Ldn		NEL		
Autos		8.9	67.7	LUG LV	66.6		62	4	70.	_	70.5		
	Medium Trucks: 62.4 61.8						55		63.	-	63.6		
Heavy Trucks		7.6	66.7		63.1		61.	2	68.	8	69.1		
Vehicle Noise		1.8	70.8		68.4		65.	4	73.	0	73.4		
Centerline Distar	nce to Noise C	ontour (in feet)										
			L	70 a		65 (dBA		0 dBA		dBA		
			Ldn: NEL:	41 88 190			410						
			44 94 202 4					436					

	FHWA-R	D-77-108 HIGH	IWAY	NOISE	PREDIC	CTION	MODEL (9/	12/2021)		
	o: 2028 S1 e: Cherry Val nt: e/o Calime						t Name: Oa Number: 13		North SP	
SITE S	SPECIFIC II	NPUT DATA					NOISE M			
Highway Data				S	ite Cor	ditions	(Hard = 1	0, Soft = 1	15)	
Peak H	Percentage: our Volume:	26,426 vehicle 7.70% 2,035 vehicle					Ai rucks (2 Ax icks (3+ Ax	/	5	
	nicle Speed:	35 mph		ν	ehicle	Mix				
Near/Far Lar	ne Distance:	20 feet			Veh	icleType	e D	ay Eve	ning Ni	ight Daily
Site Data							Autos: 7	0.6% 13	3.6% 1	5.8% 97.44%
Bar	rier Height:	0.0 feet			М	edium 7	rucks: 8	0.3% 4	.7% 1	4.9% 1.48%
Barrier Type (0-W		0.0				Heavy 7	rucks: 7	5.9% 8	3.2% 1	5.9% 1.07%
Centerline Dis	t. to Barrier:	26.0 feet			Inisa Si	ource F	levations	(in foot)		
Centerline Dist. t	o Observer:	26.0 feet			ioise si	Auto				
Barrier Distance t	o Observer:	0.0 feet			Modiu	m Truck	0.00			
Observer Height (Above Pad):	5.0 feet				vy Truck			la Adiust	ment: 0.0
Pa	d Elevation:	0.0 feet		rica	vy IIucr	13. 0.00	,4 0,40	10 7 10,000		
Roa	d Elevation:	0.0 feet		L	ane Eq	uivalen	t Distance	(in feet)		
F	Road Grade:	0.0%				Auto	os: 24.51	15		
	Left View:	-90.0 degre	90.0 degrees			m Truck	ks: 24.15	52		
	Right View:	90.0 degre	es		Hea	vy Truck	ks: 24.18	37		
FHWA Noise Mode	l Calculation	ıs								
VehicleType	REMEL	Traffic Flow	Dis	tance	Finite	Road	Fresne	Barrie	er Atten	Berm Atten
Autos:	64.30	2.23		4.54	ĺ	-1.20	-4	1.43	0.000	0.000
Medium Trucks:	75.75	-15.94		4.64	ļ	-1.20	-4	1.85	0.000	0.000
Heavy Trucks:	81.57	-17.35	,	4.63	3	-1.20	-6	5.90	0.000	0.000
Unmitigated Noise	Levels (with	out Topo and	barrie	er attenu	uation)					
VehicleType	Leq Peak Ho	ur Leq Da		Leq Ev	ening	Leq	Night	Ldn		CNEL
Autos:	Autos: 69.9 68.7						63.4		71.0	71.5
Medium Trucks:	Medium Trucks: 63.2 62.6						56.6		64.3	64.5
Heavy Trucks:						63.1 61.3 68.8			69.1	
Vehicle Noise:	72	2.5	71.5		69.1		66.0		73.6	74.0
Centerline Distance	e to Noise C	ontour (in fee	t)							
			L	70 d		65	dBA	60 dB		55 dBA
			Ldn:	45 98 210			453			
		С	NEL:		48 104 224					482

	FHWA-R	D-77-108 HIGH	WAY	NOISE	PREDIC	TION M	IODEL (9/12/2	021)		
	o: 2028 NP e: Cherry Val t: e/o Calime						Name: umber:		alley North	SP	
	PECIFIC II	NPUT DATA							L INPUT	S	
Highway Data					Site Con	ditions	(Hard =	10, Sc	oft = 15)		
Average Daily 1	raffic (Adt):	26,252 vehicl	es					Autos:	15		
Peak Hour I	Percentage:	7.70%			Ме	dium Tr	ucks (2	Axles):	15		
Peak Ho	our Volume:	2,021 vehicle	s		He	avy Tru	cks (3+	Axles):	15		
	icle Speed:	35 mph			Vehicle	Mix					
Near/Far Lar	e Distance:	20 feet		F	Veh	icleType		Day	Evening	Night	Daily
Site Data						-	Autos:	70.6%	13.6%	15.8%	97.539
Ban	rier Heiaht:	0.0 feet			М	edium T	rucks:	80.3%	4.7%	14.9%	1.499
Barrier Type (0-Wa		0.0				Heavy T	rucks:	75.9%	8.2%	15.9%	0.989
Centerline Dis	t. to Barrier:	26.0 feet			Noise S	urce El	ovation	e (in f	not)		
Centerline Dist. t	o Observer:	26.0 feet		ľ	140/36 00	Auto.		.000			
Barrier Distance t	o Observer:	0.0 feet			Mediu	m Truck		297			
Observer Height (A	Above Pad):	5.0 feet			Heavy Trucks: 8,004 Grade Adjustment: 0.0						0.0
Pa	d Elevation:	0.0 feet		L	77001	, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	J. 0	.001			
Roa	d Elevation:	0.0 feet			Lane Eq				feet)		
F	Road Grade:	0.0%				Auto.		.515			
	Left View:	-90.0 degre				m Truck		.152			
	Right View:	90.0 degre	es		Heav	y Truck	s: 24	.187			
FHWA Noise Mode	l Calculation	ıs									
VehicleType	REMEL	Traffic Flow	Dis	tance	Finite	Road	Fresi	nel	Barrier Att	en Ber	m Atten
Autos:	64.30			4.5		-1.20		-4.43		000	0.00
Medium Trucks:	75.75			4.6		-1.20		-4.85		000	0.00
Heavy Trucks:	81.57	-17.77		4.6	3	-1.20		-5.90	0.0	000	0.00
Unmitigated Noise	Levels (with	out Topo and	barrie	er atten	uation)						
-,-	Leq Peak Ho			Leq E	vening	_	Night		Ldn		NEL
Autos:		9.8	68.7		67.5		63.		71.0		71
Medium Trucks:		3.2	62.6		56.3 62.7		56.	-	64.2	-	64.
Heavy Trucks:	· · · · · · · · · · · · · · · · · · ·						60.	-	68.4		68
Vehicle Noise:	72	2.3	71.3		69.0		65.	9	73.5	5	73
Centerline Distance	e to Noise C	ontour (in feet	!)								
			L	70 (dBA	65	dBA		60 dBA		dBA
		_	Ldn: NFL:		44		95		206		44
		47 102 219				47					

Monday, July 3, 2023

	FHWA-RI	D-77-108 HI	GHWAY	' NOISE	E PREDIC	TION M	DDEL (9/12/2	021)		
Road Nam	io: 2028 S2 e: Cherry Vall nt: e/o Calime					Project of Job No			alley North	SP	
	SPECIFIC IN	IPUT DAT	A						L INPUTS	;	
Highway Data					Site Con	ditions (Hard =	10, Sc	oft = 15)		
Average Daily	Traffic (Adt):	26,508 veh	icles					Autos:	15		
Peak Hour	Percentage:	7.70%			Me	dium Tru	cks (2	Axles):	15		
Peak H	our Volume:	2,041 vehi	cles		He	avy Truc	ks (3+	Axles):	15		
Ve	hicle Speed:	35 mph		ł	Vehicle I	Miv					
Near/Far La	ne Distance:	20 feet		ŀ		icleType		Dav	Evening	Night	Daily
Site Data					****		utos:	70.6%	-	15.8%	
		0.0 fee			Me	edium Tr		80.3%		14.9%	1.50%
Barrier Type (0-W	rier Height:	0.0 ree	τ			Heavy Tr	icks:	75.9%	8.2%	15.9%	1.12%
Centerline Di:	. ,	26.0 fee									
Centerline Dist		26.0 fee	-		Noise Sc			s (in fe	eet)		
Barrier Distance		0.0 fee	-			Autos	-	000			
Observer Height (5.0 fee	-		Mediui	m Trucks	: 2	297			
	ad Elevation:	0.0 fee			Heav	y Trucks	: 8	004	Grade Adju	ustment:	0.0
	ad Elevation:	0.0 fee	-	1	Lane Eq	uivalent	Distan	ce (in i	feet)		
	Road Grade:	0.0 iee	L	t	zano zq	Autos		515			
,	Left View:	-90.0 ded			Mediu	m Trucks		152			
	Right View:	90.0 de(,			y Trucks		187			
	ragin view.	30.0 de(lices		77007	, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	. 24	. 107			
FHWA Noise Mode	el Calculation	s		·							
VehicleType	REMEL	Traffic Flo		stance	Finite		Fresi	_	Barrier Atte	_	n Atten
Autos:	64.30	_	24	4.5		-1.20		-4.43	0.0		0.000
Medium Trucks:	75.75	-15		4.6		-1.20		-4.85	0.0		0.000
Heavy Trucks:	81.57	-17	17	4.6	33	-1.20		-5.90	0.0	00	0.000
Unmitigated Noise	Levels (with	out Topo a	nd barri	er atte	nuation)						
VehicleType	Leq Peak Hou	ır Leq l	Day	Leq E	vening	Leq I	light		Ldn	CI	IEL
Autos:	69		68.7		67.6		63.	-	71.1		71.6
Medium Trucks:	63	.3	62.7		56.4		56.	6	64.3		64.5
Heavy Trucks:	67		67.0		63.3		61.		69.0		69.3
Vehicle Noise:	72	5	71.5		69.2		66.	1	73.7		74.
Centerline Distanc	e to Noise Co	ontour (in f	eet)								
				70	dBA	65 c	ΙΒΑ	6	0 dBA	55	dBA
			Ldn:		46		99)	213		458
			CNEL:		49		105	5	226		487

Monday, July 3, 2023

	FHWA-R	D-77-108 HIGH	WAY	NOISE	PREDIC	CTION M	ODEL	(9/12/2	021)		
Road Na	ario: HY NP me: Cherry Val ent: e/o Calime							Oak V 13594	alley North	SP	
	SPECIFIC II	NPUT DATA			i4- O	N ditions (L INPUT	S	
Highway Data				3	ne con	iaitions (Hara -				
-	y Traffic (Adt):	30,742 vehicle	es					Autos			
	ır Percentage: Hour Volume:	7.70%				edium Tru eavy Truc		,			
	rour volume: /ehicle Speed:	2,367 vehicle: 35 mph	5		пе	avy IIuc	XS (3+	Axies).	. 13		
	ane Distance:	20 feet		ν	ehicle !	Mix					
INEAI/FAI L	ane Distance.	20 leet			Veh	icleType		Day	Evening	Night	
Site Data							utos:	70.6%	13.6%	15.89	% 97.53%
В	arrier Height:	0.0 feet				edium Tr		80.3%		14.9	
Barrier Type (0-	Wall, 1-Berm):	0.0				Heavy Tr	ucks:	75.9%	8.2%	15.9	% 0.98%
Centerline L	Dist. to Barrier:	^	loise Si	ource Ele	vatio	ns (in f	eet)				
Centerline Dis	t. to Observer:	<u> </u>	Autos: 0.000								
Barrier Distanc	e to Observer:			Medium Trucks: 2.297							
Observer Heigh	t (Above Pad):	5.0 feet				vy Trucks		.004	Grade Ad	liustme	nt: 0.0
	Pad Elevation:	0.0 feet								,	
R	oad Elevation:	0.0 feet		L	ane Eq	uivalent			feet)		
	Road Grade:	0.0%				Autos		.515			
	Left View:	-90.0 degree				m Trucks		.152			
	Right View:	90.0 degree	es		Hea	vy Trucks	: 24	.187			
FHWA Noise Mo	del Calculation	ıs									
VehicleType	REMEL	Traffic Flow	Dis	tance		Road	Fres		Barrier Att	_	erm Atten
Autos				4.54		-1.20		-4.43		000	0.000
Medium Trucks				4.64		-1.20		-4.85		000	0.000
Heavy Trucks				4.63		-1.20		-5.90	0.0	000	0.000
Unmitigated Noi											
VehicleType	Leq Peak Ho			Leq Ev		Leq I	_		Ldn	_	CNEL
Autos: 70.5 69.4					68.2		64		71.		72.2
Medium Trucks						57.0 57.2 64.9					65.1
Heavy Trucks Vehicle Noise			67.1 72.0		63.4		61	-	69. 74.		69.4 74.6
Centerline Dista	nce to Noise C	ontour (in feet)								
Distu	10			70 d	BA	65 d	iBA		60 dBA	5	i5 dBA
	Ldn:					49 106 228			492		
	CNEL:						52 113 243 5				

	FHWA-RD-	77-108 HIGH	MAY 1	NOISE I	PREDIC	TION N	IODEL	(9/12/2	021)		
Scenario: Road Name: Road Segment:	Cherry Valley							Oak V 13594	alley North	SP	
	PECIFIC INP	UT DATA							L INPUT	s	
	ercentage: ur Volume: 2 cle Speed:	0,998 vehicle 7.70% ,387 vehicles 35 mph 20 feet			Me He ehicle	edium Tr eavy Tru Mix	ucks (2 cks (3+	Autos: Axles): Axles):	15 15		
	Biotarioo.	20 1001		_	Veh	icleType		Day	Evening	Night	Daily
Site Data Barrie Barrier Type (0-Wall	er Height: I, 1-Berm):	0.0 feet 0.0				edium T Heavy T		70.6% 80.3% 75.9%	4.7%	15.8% 14.9% 15.9%	1.50%
Centerline Dist. Centerline Dist. to Barrier Distance to Observer Height (Al Pad		Noise Source Elevations (in feet) Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.004 Grade Adjustment: 0.0									
Ro	Left View: Right View:	0.0 feet 0.0% -90.0 degree 90.0 degree		L	Autos: 24.515 Medium Trucks: 24.152 Heavy Trucks: 24.187						
FHWA Noise Model			D: /						D : 40		***
VehicleType Autos: Medium Trucks: Heavy Trucks:	64.30 75.75 81.57	2.92 -15.22 -16.57	Disti	4.54 4.64 4.63		-1.20 -1.20 -1.20	Fres	-4.43 -4.85 -5.90	0.0	000 000 000	0.000 0.000 0.000
Unmitigated Noise L	evels (withou	t Topo and	barriei	r attenu	ation)						
VehicleType Le	eq Peak Hour	Leq Day		Leq Ev	ening	Leq	Night		Ldn		NEL
Autos: Medium Trucks: Heavy Trucks:	69.4 63.4 67.6		68.3 64.1 71.7 57.1 57.3 65.0 63.9 62.0 69.6)	72.2 65.2 69.9				
Vehicle Noise:	68.4 73.2		72.2		69.9	1	66	.7	74.	3	74.7
Centerline Distance	to Noise Con	tour (in feet)									
			Ldn:	70 di	BA 51	65	<i>dBA</i> 10		50 dBA 235		dBA 507
		CI	VEL:		54 116 250 53					539	

Scenario: HY S1						Project A	lame: I	Tak W	alley North	SP	
Road Name: Cherry		RI				Job Nu			alley North	OF.	
Road Segment: e/o Ca						000 144	noci.	10004			
SITE SPECIFI						NC	DISE N	IODE	L INPUT	s	
Highway Data				S	ite Con	ditions (F	lard =	10, Sc	ft = 15)		
Average Daily Traffic (A	dt): 30	0,916 vehicle	S					Autos:	15		
Peak Hour Percenta	ge:	7.70%			Med	dium Truc	ks (2 A	(xles):	15		
Peak Hour Volun	ne: 2	,381 vehicles			He	avy Truck	s (3+ A	xles):	15		
Vehicle Spe	ed:	35 mph		1/	ehicle N	Niv					
Near/Far Lane Distan	ce:	20 feet				cleType		Day	Evening	Night	Daily
Site Data						Αι	itos:	70.6%	13.6%	15.8%	97.45
Barrier Heig	ht.	0.0 feet			Ме	edium Tru	cks:	80.3%	4.7%	14.9%	1.48
Barrier Type (0-Wall, 1-Ber		0.0			F	leavy Tru	cks:	75.9%	8.2%	15.9%	1.06
Centerline Dist. to Barr	ier:	26.0 feet		N	nise Sn	urce Ele	vation	(in fe	et)		
Centerline Dist. to Observ	er:	26.0 feet		-	0.00 00	Autos:		000	,		
Barrier Distance to Observ	er:	0.0 feet			Mediur	n Trucks:		297			
Observer Height (Above Pa	id):	5.0 feet				v Trucks:		004	Grade Ad	iustment	0.0
Pad Elevati	on:	0.0 feet				,				,	
Road Elevati	on:	0.0 feet		Li	ane Equ	ıivalent L			eet)		
Road Gra	de:	0.0%				Autos:					
Left Vie	ew:	-90.0 degree	3			n Trucks:					
Right Vie	ew:	90.0 degree	3		Heav	y Trucks:	24.	187			
HWA Noise Model Calcula	tions										
VehicleType REME		raffic Flow	Distar		Finite		Fresn	_	Barrier Att		m Atter
	4.30	2.91		4.54		-1.20		-4.43		000	0.0
	5.75	-15.26		4.64		-1.20		-4.85		000	0.00
Heavy Trucks: 8	1.57	-16.72		4.63		-1.20		-5.90	0.0	000	0.00
Inmitigated Noise Levels (_	•									
VehicleType Leq Peal		Leq Day	_	eq Eve	-	Leq N	•		Ldn		NEL
Autos:	70.6	-	9.4		68.3		64.1		71.		72
Medium Trucks:	63.9	-	3.3		57.1		57.3		65.0	-	65
Heavy Trucks:	68.3		7.4		63.8		61.9		69.		69
Vehicle Noise:	73.1		2.1		69.8		66.7		74.	3	74
	e Con	tour (in feet)									
Centerline Distance to Nois	,, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	,		70 4	24	65 4	DΛ		O ADA	FF	
Centerline Distance to Nois	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	, ,	dn:	70 dl	BA 50	65 dl	3 <i>A</i> 108	6	0 dBA 233		dBA 50

Monday, July 3, 2023

	FHWA-R	D-77-108 HIGH	łWAY	NOISE	PREDIC	TION M	ODEL	(9/12/2	(021)		
Road Na	ario: HY S3 me: Cherry Val ent: e/o Calime							Oak V	alley North	SP	
SITE Highway Data	SPECIFIC II	NPUT DATA			Site Con				L INPUT	s	
Average Dail Peak Hou Peak	y Traffic (Adt): ır Percentage: Hour Volume:	30,864 vehicl 7.70% 2,377 vehicle			Ме	dium Tru	ucks (2	Autos Axles)	: 15 : 15		
	ehicle Speed: ane Distance:	35 mph		Ì	Vehicle I	Wix					
	ane Distance:	20 feet			Veh	icleType		Day	Evening	Night	Daily
Site Data B Barrier Type (0-	arrier Height: Wall, 1-Berm):	0.0 feet 0.0				edium Ti Heavy Ti		70.69 80.39 75.99	6 4.7%	15.8% 14.9% 15.9%	6 1.48%
Centerline L	Dist. to Barrier:	26.0 feet		-	Noise So	urce Fl	ovatio	ne (in f	oot)		
Centerline Dis Barrier Distanc Observer Heigh	e to Observer:	26.0 feet 0.0 feet 5.0 feet			Mediu	Auto: m Truck:	s: (s: 2	0.000		. ,	
	Pad Flevation:	0.0 feet			Heavy Trucks: 8.004 Grade Adjustme						t: 0.0
R	oad Elevation:	0.0 feet		l	Lane Eq	uivalent	Dista	nce (in	feet)		-
	Road Grade:	0.0%				Auto	s: 24	1.515			
	Left View: Right View:	-90.0 degre 90.0 degre				m Truck: vy Truck:	-	1.152 1.187			
FHWA Noise Mo	del Calculation	ıs									
VehicleType	REMEL	Traffic Flow	Dis	stance	Finite	Road	Fres	snel	Barrier Att	en Be	rm Atten
Autos				4.5		-1.20		-4.43		000	0.000
Medium Trucks				4.6		-1.20		-4.85		000	0.000
Heavy Trucks	s: 81.57	-17.03		4.6	33	-1.20		-5.90	0.0	000	0.000
Unmitigated Noi											
VehicleType	Leq Peak Ho	ur Leq Da		Leq E	vening		Night		Ldn		NEL
Autos	69.4		68.2		64		71.		72.2		
Medium Trucks: 63.9 63.3 Heavy Trucks: 68.0 67.1					57.0		57		64.	-	65.1
Heavy Trucks Vehicle Noise		3.0	72.0		63.5 69.7		61 66		69.: 74.:		69.5 74.6
Centerline Dista	nce to Noise C	ontour (in feet	f)								
Contonine Dista		ontour (m ree	,	70	dBA	65	dBA		60 dBA	55	5 dBA
			Ldn:		49 106 229			494			
		С	NEL:		53 113 244 52				526		

Monday, July 3, 2023

	FHWA-RI	D-77-108 HIGH	WAY	NOISE	PREDIC	CTION M	ODEL	(9/12/2	021)				
	rio: E ne: I-10 Fwy. ent: n/o Cherry	Valley Bl.					Name: umber:		alley North	SP			
	SPECIFIC IN	IPUT DATA			0				L INPUT	S			
Highway Data					Site Cor	aitions	(Hara :						
Average Daily	Traffic (Adt):	103,000 vehicle	es		Autos: 15								
Peak Hou	r Percentage:	7.70%			Medium Trucks (2 Axles): 15								
Peak I	Hour Volume:	7,931 vehicle	S		Heavy Trucks (3+ Axles): 15								
V	ehicle Speed:	70 mph		l l	Vehicle	Mix							
Near/Far La	ane Distance:	98 feet		ŀ	Veh	icleType		Day	Evening	Night	Daily		
Site Data					Autos: 70.6% 13.6% 15.8% 97.5								
Rs	arrier Height:	0.0 feet			Medium Trucks: 80.3% 4.7% 14.9% 1.49								
Barrier Type (0-V	Vall, 1-Berm):	0.0				Heavy Tr	rucks:	75.9%	8.2%	15.99	6 0.98%		
	ist. to Barrier:	125.0 feet	İ	Noise S	ource El	evatio	ns (in fe	eet)					
Centerline Dist		125.0 feet	İ	Autos: 0.000									
Barrier Distance		0.0 feet			Mediu	m Trucks	s: 2	.297					
Observer Height	. ,	5.0 feet			Heavy Trucks: 8.004 Grade Adjustment: 0.0						t: 0.0		
	Pad Elevation:	0.0 feet											
Ro	ad Elevation:	0.0 feet		-	Lane Eq				feet)				
	Road Grade:	0.0%				Autos		5.104					
	Left View:	-90.0 degree				m Trucks							
	Right View:	90.0 degree	es		Heavy Trucks: 115.035								
FHWA Noise Mod													
VehicleType	REMEL	Traffic Flow	Di	stance		Road	Fres		Barrier Att		erm Atten		
Autos.				-5.5		-1.20		-4.79		000	0.000		
Medium Trucks.				-5.5	-	-1.20		-4.88		000	0.000		
Heavy Trucks.				-5.5		-1.20		-5.11	0.0	000	0.000		
Unmitigated Nois										1			
VehicleType	Leq Peak Hou		_	Leq E	vening 71.9		Night		Ldn		CNEL		
	Autos: 74.2 73.0						67		75.3	-	75.8 67.4		
Medium Trucks.							59.3 59.5 67.2						
Heavy Trucks. Vehicle Noise.			66.5 74.5		62.9 72.6		61 69		68.0 76.1		68.9 77.1		
Centerline Distan)										
		(111 100)		70	70 dBA 65 dBA 60 dBA 55			5 dBA					
			Ldn:		349 752 1,620			3,491					
			373 804 1,732 3,73					3,732					

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APPENDIX 10.1:

CADNAA OPERATIONAL NOISE MODEL INPUTS



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13594 - Oak Valley North

CadnaA Noise Prediction Model: 13594-05.cna

Date: 14.07.23 Analyst: B. Lawson

Calculation Configuration

Configurat	ion
Parameter	Value
General	
Max. Error (dB)	0.00
Max. Search Radius (#(Unit,LEN))	2000.01
Min. Dist Src to Rcvr	0.00
Partition	
Raster Factor	0.50
Max. Length of Section (#(Unit,LEN))	999.99
Min. Length of Section (#(Unit,LEN))	1.01
Min. Length of Section (%)	0.00
Proj. Line Sources	On
Proj. Area Sources	On
Ref. Time	
Daytime Penalty (dB)	0.00
Recr. Time Penalty (dB)	5.00
Night-time Penalty (dB)	10.00
DTM	
Standard Height (m)	701.04
Model of Terrain	Triangulation
Reflection	
max. Order of Reflection	2
Search Radius Src	100.00
Search Radius Rcvr	100.00
Max. Distance Source - Rcvr	1000.00 1000.00
Min. Distance Rvcr - Reflector	1.00 1.00
Min. Distance Source - Reflector	0.10
Industrial (ISO 9613)	
Lateral Diffraction	some Obj
Obst. within Area Src do not shield	On
Screening	Incl. Ground Att. over Barrier
	Dz with limit (20/25)
Barrier Coefficients C1,2,3	3.0 20.0 0.0
Temperature (#(Unit,TEMP))	10
rel. Humidity (%)	70
Ground Absorption G	0.50
Wind Speed for Dir. (#(Unit,SPEED))	3.0
Roads (TNM)	
Railways (FTA/FRA)	
Aircraft (???)	
Strictly acc. to AzB	

Receiver Noise Levels

Name	М.	ID		Level Lr		Lir	nit. Valı	ue		Land	Use	Height		Co	oordinates	
			Day	Night	CNEL	Day	Night	CNEL	Туре	Auto	Noise Type			Х	Υ	Z
			(dBA)	(dBA)	(dBA)	(dBA)	(dBA)	(dBA)				(ft)		(ft)	(ft)	(ft)
RECEIVERS		R1	44.5	44.4	51.1	55.0	45.0	0.0				5.00	r	6320518.06	2301011.48	2329.46
RECEIVERS		R2	46.6	46.6	53.2	55.0	45.0	0.0				5.00	r	6321083.36	2300935.32	2341.00
RECEIVERS		R3	45.2	45.2	51.8	55.0	45.0	0.0				5.00	r	6322056.74	2300511.88	2332.34
RECEIVERS		R4	43.2	43.1	49.7	55.0	45.0	0.0				5.00	r	6322788.29	2300423.31	2371.45
RECEIVERS		R5	42.0	41.7	48.4	55.0	45.0	0.0				5.00	r	6323205.66	2299441.36	2377.00
RECEIVERS		R6	47.3	47.0	53.7	55.0	45.0	0.0				5.00	r	6322774.41	2299228.35	2348.49
RECEIVERS		R7	46.2	44.2	50.9	55.0	45.0	0.0				5.00	r	6322486.81	2298565.66	2315.00
RECEIVERS		R8	38.1	37.5	44.2	55.0	45.0	0.0				5.00	r	6320975.05	2297609.49	2311.00
RECEIVERSFUT		FUT1	42.0	41.8	48.5	55.0	45.0	0.0				5.00	r	6323131.44	2300172.97	2372.32
RECEIVERSFUT		FUT2	40.6	40.5	47.2	55.0	45.0	0.0				5.00	r	6323444.46	2299795.66	2384.75
RECEIVERSFUT		FUT3	39.4	39.1	45.8	55.0	45.0	0.0				5.00	r	6323883.20	2299682.44	2429.99
RECEIVERON		ON1	44.8	43.6	50.3	55.0	45.0	0.0				5.00	r	6322011.71	2298740.47	2316.19
RECEIVERON		ON2	50.3	50.0	56.6	55.0	45.0	0.0				5.00	r	6322135.70	2299030.50	2318.32
RECEIVERON		ON3	48.0	47.4	54.0	55.0	45.0	0.0				5.00	r	6322432.91	2299175.17	2321.59

Point Source(s)

Name	M.	ID	R	esult. PW	/L		Lw / L	i	Ope	erating Ti	ime	Heigh	t	Co	oordinates	
			Day	Evening	Night	Туре	Value	norm.	Day	Special	Night			Х	Υ	Z
			(dBA)	(dBA)	(dBA)			dB(A)	(min)	(min)	(min)	(ft)		(ft)	(ft)	(ft)
POINTSOURCE		AC01	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	5.00	g	6320065.09	2300045.54	2353.00
POINTSOURCE		AC02	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	5.00	g	6320051.35	2300010.79	2353.00
POINTSOURCE		AC03	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	5.00	g	6320667.19	2299738.42	2353.94
POINTSOURCE		AC04	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	5.00	g	6320682.55	2299768.33	2353.94
POINTSOURCE		AC05	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	5.00	g	6320938.74	2299606.69	2353.94
POINTSOURCE		AC06	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	5.00	g	6320953.29	2299642.25	2353.94

Name	M.	ID	R	esult. PW	'L		Lw/L	i	Оре	erating Ti	ime	Heigh	t	Co	oordinates	
			Day	Evening	Night	Туре	Value	norm.	Day	Special	Night			Х	Υ	Z
			(dBA)	(dBA)	(dBA)			dB(A)	(min)	(min)	(min)	(ft)		(ft)	(ft)	(ft)
POINTSOURCE		AC07	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	5.00	g	6321388.91	2299755.40	2357.40
POINTSOURCE		AC08	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	5.00	g	6321404.26	2299782.87	2357.40
POINTSOURCE		AC09	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	5.00	g	6322095.27	2299429.69	2357.40
POINTSOURCE		AC10	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	5.00	g	6322106.58	2299457.17	2357.40
POINTSOURCE		AC11	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	5.00	g	6321113.74	2299221.15	2350.57
POINTSOURCE		AC12	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	5.00	g	6321153.67	2299203.79	2350.57
POINTSOURCE		AC13	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	5.00	g	6321185.78	2299186.43	2350.57
POINTSOURCE		AC14	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	5.00	g	6321782.14	2298915.60	2350.57
POINTSOURCE		AC15	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	5.00	g	6321813.39	2298899.97	2350.57
POINTSOURCE		AC16	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	5.00	g	6321851.58	2298881.74	2350.57
POINTSOURCE		AC17	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	5.00	g	6322591.93	2299027.13	2323.00
POINTSOURCE		AC18	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	5.00	g	6322499.73	2298784.05	2320.99
POINTSOURCE		AC19	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	5.00	g	6322389.72	2298590.21	2319.27
POINTSOURCE		AC20	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	5.00	g	6322245.13	2298439.33	2317.48
POINTSOURCE		OUT01	81.1	81.1	81.1	Lw	81.1		900.00	0.00	0.00	5.00	r	6322243.76	2298468.28	2317.56
POINTSOURCE		OUT02	81.1	81.1	81.1	Lw	81.1		900.00	0.00	0.00	5.00	r	6322389.28	2298621.09	2319.46
POINTSOURCE		OUT03	81.1	81.1	81.1	Lw	81.1		900.00	0.00	0.00	5.00	r	6322499.08	2298811.23	2321.22
POINTSOURCE		OUT04	81.1	81.1	81.1	Lw	81.1		900.00	0.00	0.00	5.00	r	6322591.28	2299049.40	2323.00
POINTSOURCE		TRASH01	89.0	89.0	89.0	Lw	89		900.00	0.00	270.00	5.00	r	6321315.12	2299603.97	2307.89
POINTSOURCE		TRASH02	89.0	89.0	89.0	Lw	89		900.00	0.00	270.00	5.00	r	6322019.12	2299282.79	2311.85
POINTSOURCE		TRASH03	89.0	89.0	89.0	Lw	89		900.00	0.00	270.00	5.00	r	6321987.87	2299323.58	2313.74
POINTSOURCE		TRASH04	89.0	89.0	89.0	Lw	89		900.00	0.00	270.00	5.00	r	6322268.22	2299790.96	2314.16
POINTSOURCE		TRASH05	89.0	89.0	89.0	Lw	89		900.00	0.00	270.00	5.00	r	6321382.44	2299607.50	2310.08
POINTSOURCE		TRASH06	89.0	89.0	89.0	Lw	89		900.00	0.00	270.00	5.00	r	6321566.71	2300118.27	2310.00
POINTSOURCE		TRASH07	89.0	89.0	89.0	Lw	89		900.00	0.00	270.00	5.00	r	6321104.42	2299601.84	2302.89
POINTSOURCE		TRASH08	89.0	89.0	89.0	Lw	89		900.00	0.00	270.00	5.00	r	6321343.65	2300121.51	2305.48
POINTSOURCE		TRASH09	89.0	89.0	89.0	Lw	89		900.00	0.00	270.00	5.00	r	6320794.08	2300379.32	2305.24
POINTSOURCE		TRASH10	89.0	89.0	89.0	Lw	89		900.00	0.00	270.00	5.00	r	6320553.24	2299851.57	2302.17
POINTSOURCE		TRASH11	89.0	89.0	89.0	Lw	89		900.00	0.00	270.00	5.00	r	6320712.45	2300255.67	2304.03
POINTSOURCE		TRASH12	89.0	89.0	89.0	Lw	89		900.00	0.00	270.00	5.00	r	6320466.76	2299725.49	2301.00

Line Source(s)

LIIIC 300		C(3)																		
Name	M.	ID	R	esult. PW	'L	R	esult. PW	L'		Lw/L	i	Op	erating T	me		Moving	Pt. Src		Heigl	ht
			Day	Evening	Night	Day	Evening	Night	Туре	Value	norm.	Day	Special	Night		Number		Speed		
			(dBA)	(dBA)	(dBA)	(dBA)	(dBA)	(dBA)			dB(A)	(min)	(min)	(min)	Day	Evening	Night	(mph)	(ft)	
LINESOURCE		TRUCK01	93.2	93.2	93.2	77.0	77.0	77.0	Lw	93.2									8	r
LINESOURCE		TRUCK02	93.2	93.2	93.2	65.6	65.6	65.6	Lw	93.2									8	r
LINESOURCE		TRUCK03	93.2	93.2	93.2	62.6	62.6	62.6	Lw	93.2									8	r
LINESOURCE		TRUCK04	93.2	93.2	93.2	66.8	66.8	66.8	Lw	93.2									8	r
LINESOURCE		TRUCK05	93.2	93.2	93.2	74.7	74.7	74.7	Lw	93.2									8	r
LINESOURCE		TRUCK06	93.2	93.2	93.2	69.1	69.1	69.1	Lw	93.2									8	r
LINESOURCE		TRUCK07	93.2	93.2	93.2	68.4	68.4	68.4	Lw	93.2									8	r
LINESOURCE		TRUCK08	93.2	93.2	93.2	68.3	68.3	68.3	Lw	93.2									8	r

Name	ID	ŀ	lei	ght		Coordinat	es	
		Begin		End	x	у	z	Ground
		(ft)		(ft)	(ft)	(ft)	(ft)	(ft)
LINESOURCE	TRUCK01	8.00	r		6320385.82	2299521.79	2295.61	2287.61
					6320442.09	2299644.81	2300.55	2292.55
LINESOURCE	TRUCK02	8.00	r		6319917.08	2299980.54	2300.91	2292.91
			П		6319976.77	2300013.43	2305.41	2297.41
					6320154.44	2300398.98	2310.47	2302.47
			П		6320537.56	2300447.32	2310.33	2302.33
			П		6320722.48	2300367.55	2306.63	2298.62
					6320411.87	2299681.07	2302.17	2294.17
			П		6320442.09	2299644.81	2300.55	2292.55
LINESOURCE	TRUCK03	8.00	r		6320439.67	2299649.64	2300.69	2292.69
			П		6320535.15	2299739.08	2303.00	2295.00
			П		6320845.76	2300425.57	2309.28	2301.28
					6322317.83	2299746.33	2319.28	2311.28
			П		6322116.00	2299297.94	2319.07	2311.07
					6322128.08	2299250.81	2318.88	2310.88
					6321910.53	2298779.45	2306.97	2298.97
			П		6321882.74	2298692.43	2303.14	2295.14
			П		6321829.72	2298626.42	2299.17	2291.17
LINESOURCE	TRUCK04	8.00	r		6320804.49	2299253.24	2291.13	2283.13
			П		6320850.59	2299334.20	2290.83	2282.83
					6320912.23	2299393.42	2294.25	2286.25
					6321053.64	2299470.77	2301.43	2293.43
			П		6321124.94	2299525.16	2305.01	2297.01
					6321166.04	2299600.09	2307.45	2299.45
					6321458.52	2300243.07	2314.44	2306.44
					6321546.75	2300431.61	2322.44	2314.44
LINESOURCE	TRUCK05	8.00	r		6321439.40	2300479.73	2323.25	2315.25
					6321650.26	2300387.09	2322.94	2314.94
LINESOURCE	TRUCK06	8.00	r		6321340.36	2300197.35	2310.37	2302.37

Urban Crossroads, Inc.

Name	ID	H	lei	ght			Coordinat	es	
		Begin		End		х	у	z	Ground
		(ft)		(ft)		(ft)	(ft)	(ft)	(ft)
						6320991.61	2299436.84	2298.28	2290.28
LINESOURCE	TRUCK07	8.00	r			6322116.95	2299300.05	2319.11	2311.11
						6321218.97	2299716.45	2308.00	2300.00
LINESOURCE	TRUCK08	8.00	r			6322087.62	2299163.13	2316.99	2308.99
						6321161.55	2299591.91	2307.29	2299.29

Area Source(s)

Name	M.	ID	R	esult. PW	/L	Re	esult. PW	L"		Lw / L	i	Op	erating Ti	ime	Heigh	١t
			Day	Evening	Night	Day	Evening	Night	Туре	Value	norm.	Day	Special	Night	(ft)	
			(dBA)	(dBA)	(dBA)	(dBA)	(dBA)	(dBA)			dB(A)	(min)	(min)	(min)		
AREASOURCE		CAR01	84.3	84.3	84.3	47.7	47.7	47.7	Lw	84.3					5	
AREASOURCE		CAR02	84.3	84.3	84.3	52.7	52.7	52.7	Lw	84.3					5	
AREASOURCE		CAR03	84.3	84.3	84.3	46.8	46.8	46.8	Lw	84.3					5	
AREASOURCE		CAR04	84.3	84.3	84.3	49.4	49.4	49.4	Lw	84.3					5	
AREASOURCE		CAR05	84.3	84.3	84.3	52.3	52.3	52.3	Lw	84.3					5	
AREASOURCE		CAR06	84.3	84.3	84.3	48.3	48.3	48.3	Lw	84.3					5	
AREASOURCE		CAR07	84.3	84.3	84.3	56.3	56.3	56.3	Lw	84.3					5	
AREASOURCE		CAR08	84.3	84.3	84.3	57.2	57.2	57.2	Lw	84.3					5	
AREASOURCE		CAR09	84.3	84.3	84.3	49.5	49.5	49.5	Lw	84.3					5	
AREASOURCE		CAR10	84.3	84.3	84.3	61.0	61.0	61.0	Lw	84.3					5	
AREASOURCE		CAR11	84.3	84.3	84.3	61.0	61.0	61.0	Lw	84.3					5	
AREASOURCE		DOCK01	103.4	103.4	103.4	67.7	67.7	67.7	Lw	103.4					8	
AREASOURCE		DOCK02	103.4	103.4	103.4	68.0	68.0	68.0	Lw	103.4					8	
AREASOURCE		DOCK03	103.4	103.4	103.4	68.1	68.1	68.1	Lw	103.4					8	
AREASOURCE		DOCK04	103.4	103.4	103.4	67.5	67.5	67.5	Lw	103.4					8	
AREASOURCE		DOCK05	103.4	103.4	103.4	66.9	66.9	66.9	Lw	103.4					8	
AREASOURCE		DOCK06	103.4	103.4	103.4	66.9	66.9	66.9	Lw	103.4					8	
AREASOURCE		TRAILER01	103.4	103.4	103.4	58.7	58.7	58.7	Lw	103.4					8	
AREASOURCE		TRAILER02	103.4	103.4	103.4	55.0	55.0	55.0	Lw	103.4					8	
AREASOURCE		TRAILER03	103.4	103.4	103.4	66.3	66.3	66.3	Lw	103.4					8	
AREASOURCE		TRAILER04	103.4	103.4	103.4	67.3	67.3	67.3	Lw	103.4					8	

Name	ID	H	lei	ght		Coordinat	es	
		Begin		End	х	у	Z	Ground
		(ft)		(ft)	(ft)	(ft)	(ft)	(ft)
AREASOURCE	CAR01	5.00	r		6320103.39	2300474.05	2308.73	2303.73
					6320189.33	2300434.12	2308.64	2303.64
					6320141.58	2300337.77	2307.64	2302.64
					6320156.34	2300328.22	2307.76	2302.76
					6320028.74	2300050.44	2303.92	2298.92
					6319917.63	2300106.87	2304.06	2299.06
					6320078.22	2300461.03	2308.61	2303.61
					6320095.58	2300451.48	2308.13	2303.13
AREASOURCE	CAR02	5.00	r		6320155.47	2299788.29	2303.86	2298.86
					6320162.42	2299805.65	2304.68	2299.68
					6320386.38	2299701.48	2299.88	2294.88
					6320357.73	2299645.06	2298.04	2293.04
					6320138.98	2299747.49	2302.93	2297.93
AREASOURCE	CAR03	5.00	r		6320573.88	2299748.36	2301.26	2296.26
					6320990.54	2299556.52	2297.87	2292.87
					6320981.86	2299536.55	2296.78	2291.78
					6321000.96	2299526.14	2297.17	2292.17
					6320975.78	2299476.66	2296.05	2291.05
					6320961.90	2299459.30	2295.18	2290.18
					6320934.12	2299442.80	2295.00	2290.00
					6320924.57	2299459.30	2294.75	2289.75
					6320883.77	2299487.08	2295.46	2290.46
					6320875.96	2299470.58	2295.08	2290.08
					6320511.38	2299638.98	2299.00	2294.00
					6320546.10	2299711.90	2299.88	2294.88
AREASOURCE	CAR04	5.00	r		6321439.33	2300094.71	2311.10	2306.10
					6321496.62	2300069.54	2312.00	2307.00
					6321334.29	2299717.11	2307.00	2302.00
					6321316.93	2299723.19	2306.54	2301.54
					6321324.74	2299711.03	2306.99	2301.99
					6321385.51	2299683.26	2310.51	2305.51
					6321352.52	2299612.08	2309.93	2304.93
					6321258.77	2299655.48	2305.45	2300.45
					6321286.55	2299720.58	2305.86	2300.86
					6321269.19	2299727.53	2305.47	2300.47
AREASOURCE	CAR05	5.00	r		6321178.91	2299530.48	2304.15	2299.15
					6321199.74	2299520.06	2304.81	2299.81
					6321196.27	2299513.98	2304.60	2299.60
					6321213.63	2299505.30	2304.97	2299.97
					6321090.37	2299241.42	2307.29	2302.29
					6321076.48	2299247.49	2306.80	2301.80

Urban Crossroads, Inc.

Name	ID	Height Fnd				Coordinat	es	
		Begin		End	X	у (6)	Z	Ground
		(ft)		(ft)	(ft)	(ft)	(ft)	(ft)
			Н		_	2299231.87 2299249.23		
					6321104.26			2297.22
					6321122.49			2297.90
					6321141.58	2299451.48	2302.38	2297.38
					6321123.35	2299460.17	2302.44	2297.44
						2299498.36	2303.00	2298.00
						2299491.42	2303.13	2298.13
AREASOURCE	CAR06	5.00	r			2299169.37		
			Н			2298859.47 2298842.11	2306.95 2306.00	2301.95 2301.00
					6321863.81			2300.00
			Н			2298785.69		
					6321860.33	2298770.93	2303.81	2298.81
					6321358.60	2299004.44	2308.77	2303.77
					6321366.41	2299021.80	2309.71	2304.71
					6321133.77	2299130.30		2306.07
AREASOURCE	CAR07	5.00	r		6322005.30		2313.68	2308.68
					6322023.53	2299152.87 2298841.24	2313.38 2305.95	2308.38
						2298850.79		2302.07
AREASOURCE	CAR08	5.00	r			2299377.70		2309.92
			П		6322108.60		2316.11	2311.11
					6322073.01	2299278.74	2315.48	2310.48
					6322008.77	2299308.26	2314.00	2309.00
AREASOURCE	CAR09	5.00	r			2299372.49	2316.00	2311.00
						2299719.71	2316.00	2311.00
						2299684.99		2312.94
			H		6322163.28 6322111.20		2317.41 2316.19	2312.41
			Н			2299339.51	2316.19	2311.19
AREASOURCE	CAR10	5.00	r		6321426.66			2313.85
					6321474.41	2300386.35	2317.91	2312.91
					6321457.48	2300347.29	2316.92	2311.92
					6321408.43	2300368.56	2318.00	2313.00
AREASOURCE	CAR11	5.00	r		6321558.61			2312.06
						2300324.29		
					6321588.56			
AREASOURCE	DOCK01	8.00	r		6321539.95 6320598.66			2311.21
ANLAGOUNCE	DOCKOI	8.00	Ė		6320656.34			2299.74
			П		6320407.21	2299743.89	2304.88	2296.88
					6320349.76	2299770.25	2307.33	2299.33
AREASOURCE	DOCK02	8.00	r		6320910.03	2300340.62	2312.02	2304.02
						2299792.01		
						2299818.54		
AREASOURCE	DOCKOS	8.00	L			2300366.28		
AKEASOURCE	DUCKUS	8.00	r		USETEET.SS	2300165.72	2010.00	2505.00
			Н			2299614.55		
						2299641.06		
AREASOURCE	DOCK04	8.00	r			2299719.57		
					6322056.98	2299433.51	2322.00	2314.00
					6322030.68	2299376.37	2317.67	2309.67
ADE 400:	DOC::0=	0	Ц			2299669.44		
AREASOURCE	DOCK05	8.00	r			2300016.17		
			Н			2300070.28 2299736.94		2306.00
			Н			2299736.94		
AREASOURCE	роско6	8.00	r			2299454.76		
			П			2299510.38		
						2299177.46		
					6321956.46	2299123.59	2315.95	2307.95
AREASOURCE	TRAILER01	8.00	r			2300536.88		
			Ц			2300773.10		
			H			2300573.88		
			Н			2300241.85		
			Н			2300506.17 2300428.05		
			Н			2300428.03		
			Н			2300512.68		
AREASOURCE	TRAILER02	8.00	r			2300148.10		
						2300485.34		2316.10
			ΙĪ		6322306.08	2300202.79	2328.06	2320.06
			Н					
					6322639.41	2300021.80		
					6322639.41	2299963.20	2329.07	2321.07

Name	ID	ŀ	lei	ght			Coordinat	es	
		Begin	Begin End		х	у	Z	Ground	
		(ft)	(ft)		(ft)	(ft)	(ft)	(ft)	
						6323050.87	2299644.19	2334.00	2326.00
						6322681.08	2299355.13	2329.09	2321.09
						6322600.35	2299185.86	2330.00	2322.00
						6322213.63	2299362.94	2328.00	2320.00
			Г			6322392.02	2299754.87	2328.00	2320.00
AREASOURCE	TRAILER03	8.00	r			6320395.25	2300418.46	2312.00	2304.00
						6320390.16	2300452.21	2323.17	2315.17
			Г			6320658.69	2300491.89	2325.59	2317.59
						6320799.40	2300427.18	2306.53	2298.53
						6320725.09	2300262.60	2307.00	2299.00
AREASOURCE	TRAILER04	8.00	r			6321311.96	2299619.96	2311.23	2303.23
						6322033.08	2299289.16	2315.52	2307.52
						6322009.64	2299238.81	2314.40	2306.40
						6321289.17	2299568.53	2310.00	2302.00

Barrier(s)

Barrier(s)															
Name	Sel.	M.	ID	Abso	rption	Z-Ext.	Cant	ilever	Н	ei	ght		Coordinat	es	
				left	right		horz.	vert.	Begin		End	х	У	z	Ground
						(ft)	(ft)	(ft)	(ft)		(ft)	(ft)	(ft)	(ft)	(ft)
BARRIERPLANNED			0						12.00	r		6320348.49	2299766.23	2310.30	2298.30
												6320413.77	2299737.41	2308.72	2296.72
BARRIERPLANNED			0						12.00	r		6320448.84	2299720.75	2308.06	2296.06
												6320473.49	2299710.68	2307.71	2295.71
												6320536.34	2299847.83	2309.00	2297.00
												6320559.25	2299837.07	2309.35	2297.35
BARRIERPLANNED			0						12.00	r		6320595.02	2299820.75	2310.00	2298.00
												6320659.95	2299790.54	2314.32	2302.32
BARRIERPLANNED			0						12.00	r		6320985.29	2299640.19	2310.96	2298.95
												6321048.49	2299609.98	2310.00	2298.00
BARRIERPLANNED			0						12.00	r		6321084.25	2299593.66	2309.59	2297.59
												6321107.86	2299583.25	2309.69	2297.69
BARRIERPLANNED			0						12.00	r		6321232.08	2299455.65	2318.06	2306.06
												6321262.12	2299520.93	2314.27	2302.27
BARRIERPLANNED			0						12.00	r		6321281.14	2299556.81	2314.00	2302.00
										П		6321311.96	2299624.30	2315.20	2303.20
										П		6321358.62	2299601.73	2315.80	2303.80
										П		6321369.03		2317.09	2305.09
BARRIERPLANNED			0						12.00	r		6321385.96	2299661.85	2317.76	2305.76
										H		6321413.30	2299720.87	2318.32	2306.32
BARRIERPLANNED			0						12.00	r		6321958.47		2319.97	2307.97
			-									6321987.37	2299185.05	2318.95	2306.95
BARRIERPLANNED			0						12.00	r		6322004.12			2306.58
			Ť							Ì			2299289.83		2307.65
													2299306.32	2318.96	2306.96
			\vdash							Н		6322010.50		2321.00	2309.00
BARRIERPLANNED			0						12.00	r			2299365.09		2309.57
												6322058.44		2326.00	2314.00
BARRIERPLANNED			0						12.00	r			2299346.95		
			-							Н		+	2299111.87	2337.93	2325.93
BARRIERPLANNED			0						8.00	r		6322715.66		2333.93	2325.93
			Ť							Ť			2299335.94	2348.08	2340.08
										H		6322899.15		2370.72	2362.72
			\vdash							Н			2299416.56		2365.40
													2299457.37	2376.61	2368.61
												+	2299506.10	2386.17	2378.17
			\vdash							Н			2299568.28		2384.84
			\vdash							П		6323838.38		2412.42	2404.42
												6323555.35	2299728.66	2391.36	2383.36
			\vdash							Н			2299712.92	2390.24	2382.24
										H		6323545.26	2299696.76	2389.65	2381.65
										H		6323527.03		2389.24	2381.24
			\vdash							H		6323498.39		2388.60	2380.60
			\vdash							H		6323476.58		2388.30	2380.30
										H		 	2299732.24	2387.02	2379.02
			\vdash							H		6322936.30		2366.44	2358.44
										H		6322104.71		2336.55	2328.55
		\vdash	\vdash							H		6321052.62	2300829.10	2340.94	2332.94
										H		6320068.94	2300498.89	2317.82	2309.82
			\vdash							H		6320226.65	2300428.05	2312.99	2304.99
	1		_	<u> </u>		L			L	Ш		3320220.03	2300-720.03	2312.33	2304.33

Building(s)

Name	Sel.	M.	ID	RB	Residents	Absorption	Height			Coordinat	es	
							Begin		х	у	Z	Ground
							(ft)		(ft)	(ft)	(ft)	(ft)
BUILDING			BUILDING00001	х	0		45.00	r	6320187.99	2300382.00	2348.00	2303.00

167

Name	Sel.	М.	ID	RB	Residents	Absorption	Height			Coordinat	es	
							Begin		х	у	Z	Ground
							(ft)	Г	(ft)	(ft)	(ft)	(ft)
									6320395.25	2300418.46	2348.00	2304.00
								Г	6320598.66	2300316.76	2348.00	2304.00
								Г	6320333.84	2299735.29	2348.00	2300.62
									6320134.26	2299831.24	2348.00	2301.03
								Г	6320019.11	2300013.55	2348.00	2300.38
BUILDING			BUILDING00002	х	0		45.00	r	6320921.06	2300364.73	2348.94	2303.94
									6321243.46	2300215.05	2348.94	2304.00
								Г	6320961.36	2299585.60	2348.94	2301.45
								Г	6320631.29	2299731.45	2348.94	2302.00
BUILDING			BUILDING00003	х	0		45.00	r	6321481.42	2300026.98	2352.40	2307.40
								Г	6322235.60	2299675.80	2352.40	2312.51
								Г	6322120.46	2299405.21	2352.40	2311.00
								Г	6321358.60	2299744.88	2352.40	2305.70
BUILDING			BUILDING00004	х	0		45.00	r	6321203.16	2299468.54	2345.57	2300.57
									6321978.45	2299113.52	2345.57	2310.57
									6321855.63	2298841.02	2345.57	2307.48
								Г	6321086.10	2299207.55	2345.57	2307.00

APPENDIX 11.1:

CADNAA CONSTRUCTION NOISE MODEL INPUTS



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13594 - Oak Valley North

CadnaA Noise Prediction Model: 13594-04_Construciton.cna

Date: 05.07.23 Analyst: B. Lawson

Calculation Configuration

Configurat	ion
Parameter	Value
General	
Max. Error (dB)	0.00
Max. Search Radius (#(Unit,LEN))	2000.01
Min. Dist Src to Rcvr	0.00
Partition	
Raster Factor	0.50
Max. Length of Section (#(Unit,LEN))	999.99
Min. Length of Section (#(Unit,LEN))	1.01
Min. Length of Section (%)	0.00
Proj. Line Sources	On
Proj. Area Sources	On
Ref. Time	
Daytime Penalty (dB)	0.00
Recr. Time Penalty (dB)	5.00
Night-time Penalty (dB)	10.00
DTM	
Standard Height (m)	701.04
Model of Terrain	Triangulation
Reflection	
max. Order of Reflection	2
Search Radius Src	100.00
Search Radius Rcvr	100.00
Max. Distance Source - Rcvr	1000.00 1000.00
Min. Distance Rvcr - Reflector	1.00 1.00
Min. Distance Source - Reflector	0.10
Industrial (ISO 9613)	
Lateral Diffraction	some Obj
Obst. within Area Src do not shield	On
Screening	Incl. Ground Att. over Barrier
	Dz with limit (20/25)
Barrier Coefficients C1,2,3	3.0 20.0 0.0
Temperature (#(Unit,TEMP))	10
rel. Humidity (%)	70
Ground Absorption G	0.50
Wind Speed for Dir. (#(Unit,SPEED))	3.0
Roads (TNM)	
Railways (FTA/FRA)	
Aircraft (???)	
Strictly acc. to AzB	

Receiver Noise Levels

Name	М.	ID		Level Lr		Lir	nit. Valı	ue		Land	Use	Height	Т	Co	oordinates	
			Day	Night	CNEL	Day	Night	CNEL	Туре	Auto	Noise Type			Х	Υ	Z
			(dBA)	(dBA)	(dBA)	(dBA)	(dBA)	(dBA)				(ft)		(ft)	(ft)	(ft)
RECEIVERS		R1	67.8	-39.2	64.8	55.0	45.0	0.0				5.00	r	6320518.06	2301011.48	2329.46
RECEIVERS		R2	68.0	-39.0	64.9	55.0	45.0	0.0				5.00	r	6321083.36	2300935.32	2341.00
RECEIVERS		R3	65.6	-41.4	62.6	55.0	45.0	0.0				5.00	r	6322056.74	2300511.88	2332.34
RECEIVERS		R4	60.4	-46.6	57.4	55.0	45.0	0.0				5.00	r	6322788.29	2300423.31	2371.45
RECEIVERS		R5	62.6	-44.4	59.6	55.0	45.0	0.0				5.00	r	6323205.66	2299441.36	2377.00
RECEIVERS		R6	63.7	-43.3	60.7	55.0	45.0	0.0				5.00	r	6322774.41	2299228.35	2348.49
RECEIVERS		R7	61.5	-45.5	58.5	55.0	45.0	0.0				5.00	r	6322486.81	2298565.66	2315.00
RECEIVERS		R8	54.9	-52.1	51.9	55.0	45.0	0.0				5.00	r	6320975.05	2297609.49	2311.00
RECEIVERSFUT		FUT1	61.5	-45.5	58.4	55.0	45.0	0.0				5.00	r	6323131.44	2300172.97	2372.32
RECEIVERSFUT		FUT2	76.7	-30.3	73.7	55.0	45.0	0.0				5.00	r	6323444.46	2299795.66	2384.75
RECEIVERSFUT		FUT3	53.7	-53.2	50.7	55.0	45.0	0.0				5.00	r	6323883.20	2299682.44	2429.99
RECEIVERON		ON1	70.3	-36.7	67.3	55.0	45.0	0.0				5.00	r	6322011.71	2298740.47	2316.19
RECEIVERON		ON2	70.4	-36.6	67.4	55.0	45.0	0.0				5.00	r	6322135.70	2299030.50	2318.32
RECEIVERON		ON3	70.2	-36.8	67.2	55.0	45.0	0.0				5.00	r	6322432.91	2299175.17	2321.59

Area Source(s)

Name	M.	ID	R	esult. PW	L	Re	esult. PW	L"		Lw / Li		Ope	erating Ti	me	Height	
			Day	Evening	Night	Day	Evening	Night	Type	Value	norm.	Day	Special	Night	(ft)	П
			(dBA)	(dBA)	(dBA)	(dBA)	(dBA)	(dBA)			dB(A)	(min)	(min)	(min)		
CONS_U		1	122.0	15.0	15.0	65.5	-41.4	-41.4	PWL-Pt	115					8	r
CONS_U		0	122.0	15.0	15.0	73.6	-33.4	-33.4	PWL-Pt	115					8	r

171

Name	ID			ght		Coordinat		
		Begin		End	X (6)	У (С.)	Z	Ground
		(ft)		(ft)	(ft)	(ft)	(ft)	(ft)
CONS_U	1	8.00	Г		6323574.10 6323838.38			2404.42
			H		6323630.05	2299568.28	2392.84	
					6323338.53	2299506.10	2386.17	
			Н		6323140.46	2299457.37	2376.61	2368.61
			Н		6322954.19	2299405.77		2364.00
					6322899.16	2299393.00		2362.72
			Г		6322797.83	2299353.78		2349.04
			Г		6322757.04	2299335.94	2348.08	2340.08
					6322704.40	2299051.41	2337.81	2329.81
			Г		6322568.07	2298921.99	2336.89	2328.89
					6322602.98	2298781.44	2327.99	2319.99
					6322528.96	2298694.78	2324.53	2316.53
					6322488.92	2298622.02	2321.93	2313.93
					6322334.51	2298426.88	2313.12	2305.12
					6322213.29	2298321.71	2306.43	2298.43
					6322191.25	2298309.63	2306.00	2298.00
					6321908.04	2298560.53	2298.16	2290.16
					6321850.32	2298609.49	2299.98	
					6321737.00	2298700.30	2297.89	
	_		L		6321599.87	2298800.53	2296.00	
	4		H		6321457.09	2298894.59	2297.80	
			L		6321314.62	2298979.23	2290.89	
	4		H		6320826.57	2299240.49	2291.33	
	_		H		6320674.19	2299328.42	2292.39	
	-		H		6320524.33			
	-		H		6320378.21 6320239.38	2299527.19 2299634.67	2295.15 2296.83	
			H		6320239.38	2299634.67	2298.00	
	\dashv		H		6320029.44	2299823.30	2298.00	
			Н		6319972.86	2299890.45	2298.92	
					6319943.12	2299933.06	2300.00	
			Н		6319910.87	2299991.86	2301.11	
			Н		6319885.97	2300054.58	2302.10	
					6319868.98	2300118.00	2302.88	
			Г		6319857.53	2300193.45	2303.90	
			Г		6319859.27	2300207.09	2303.98	
					6319858.39	2300250.51	2304.61	2296.61
			Г		6319865.13	2300316.87	2305.80	2297.80
					6319879.66	2300381.69	2307.06	2299.06
					6319901.58	2300443.69	2310.91	2302.91
					6321112.94	2300848.14	2343.26	2335.26
					6321172.09	2300805.12	2342.65	2334.65
					6321216.05	2300780.55	2342.40	2334.40
					6323387.18	2299780.54	2384.27	2376.2
					6323407.89	2299767.94	2385.21	2377.2
					6323424.37	2299752.95	2386.00	2378.00
					6323476.58	2299689.81		
					6323498.39	2299678.85	2388.60	
					6323527.03			
			L		6323545.26		2389.65	
	_		H		6323553.73		2390.24	
corre :		0	H		6323555.35	2299728.66	2391.36	
CONS_U	0	8.00	r		6323574.10	2299719.99	2389.97	
	\dashv		H		6323555.35	2299728.66	2391.36	
			H	-	6323553.73	2299712.92	2390.24	
	\dashv		Н	\vdash	6323545.26	2299696.76 2299681.35	2389.65	
	\dashv		H		6323527.03		2389.24 2388.60	
	\dashv		H		6323498.39 6323476.58	2299678.85 2299689.81	2388.80	
	\dashv		Н	\vdash	6323424.37	2299089.81	2386.00	
			H		6323407.89	2299767.94	2385.21	
			H		6323387.18		2384.27	
			Н		6321216.05	2300780.55	2342.40	
	\exists		Г		6321172.09		2342.65	
	\exists		Г		6321112.94	2300848.14	2343.26	
	7		Г		6321058.16		2341.14	
	T		Г		6320712.83	2300987.63	2340.00	
			Г		6320687.03	2301002.56	2338.48	
			Г		6320662.46	2301019.44	2336.12	
					6320639.26	2301038.16	2336.29	
					6320617.58	2301058.62	2336.00	2328.00
			Ĺ		6320587.83	2301093.19	2335.99	2327.99
			Ĺ		6320555.19	2301098.05	2335.07	2327.07
			Ĺ		6320502.52	2301067.87	2333.69	2325.69
			L		6320448.79	2301039.62	2331.20	2323.20
	-1		1		6320394.08	2301013.33	2329.29	2321.29

Urban Crossroads, Inc.

172

Name	ID		lei	ght		Coordinat		
		Begin		End	(fa)	У (ба)	Z (64)	Ground
		(ft)		(ft)	(ft) 6320337.24	(ft) 2300988.01	(ft) 2327.45	(ft) 2319.45
			H		6320279.58	2300964.62	2325.14	
			Н		6320221.16	2300943.19	2324.10	2316.10
					6320145.72	2300919.17	2324.00	2316.00
					6320069.54	2300897.63	2322.00	2314.00
					6319992.69	2300878.60	2319.20	
			L		6319976.02	2300853.60	2317.75	2309.75
					6319980.16	2300786.63 2300719.58	2316.19 2315.27	2308.19
			H		6319970.14	2300715.58	2314.22	2306.22
			Н		6319960.41	2300631.97	2313.20	2305.20
					6319948.24	2300589.02	2312.49	2304.49
					6319927.57	2300538.80	2311.07	2303.07
					6319881.58	2300440.41	2309.49	2301.49
			H		6320298.98	2300576.53	2322.99	2314.99
			H		6319901.58 6319879.66	2300443.69 2300381.69	2310.91 2307.06	2302.91 2299.06
					6319865.13	2300301.03	2305.80	2297.80
			Г		6319858.39	2300250.51	2304.61	2296.61
					6319859.27	2300207.09	2303.98	2295.98
			L		6319857.53	2300193.45	2303.90	2295.90
	-		L		6319868.98	2300118.00	2302.88	2294.88
			H		6319885.97 6319910.87	2300054.58 2299991.86	2302.10 2301.11	2294.10 2293.11
	\vdash		H		6319910.87	2299991.86	2301.11	2293.11
			H		6319972.86	2299890.45	2298.92	2290.92
					6320029.44	2299823.30	2298.00	2290.00
					6320101.82	2299751.51	2298.00	2290.00
			L		6320239.38	2299634.67	2296.83	2288.83
			L		6320378.21	2299527.19	2295.15	2287.15
					6320524.33 6320674.19	2299424.21 2299328.42	2294.26	2286.26 2284.39
			H		6320826.57	2299240.49	2291.33	2283.33
			H		6321314.62	2298979.23	2290.89	2282.89
					6321457.09	2298894.59	2297.80	2289.80
					6321599.87	2298800.53	2296.00	2288.00
			L		6321737.00	2298700.30	2297.89	2289.89
			L		6321816.31	2298637.43 2298560.53	2298.65 2298.16	2290.65 2290.16
					6322189.28	2298311.37	2306.00	2298.00
			Н		6322135.57	2298265.84	2306.99	2298.99
			Г		6322048.33	2298343.97	2304.70	2296.70
					6321833.15	2298526.43	2300.98	2292.98
					6321773.47	2298575.09	2299.08	2291.08
					6321712.64	2298622.31	2298.21	2290.20 2288.00
			H		6321587.66 6321523.59	2298712.28 2298754.99	2296.00 2295.26	2288.00
					6321440.76	2298807.45	2294.00	
			Г		6321356.86			
					6321271.93	2298907.16	2290.54	2282.54
			L		6321186.00		2289.27	2281.27
			L		6320803.97			
	\vdash		H		6320710.07			2279.59 2281.38
			H		6320617.42 6320526.07	2299237.92	2291.40	
			Г		6320436.06			
					6320347.45	2299432.19	2295.08	
			L		6320260.29			2288.00
			_		6320130.78		2297.97	
			\vdash		6320088.29 6320047.23			
			\vdash		6320047.23	2299661.86 2299699.56	2298.29 2298.39	
	T		T		6319969.67	2299738.83	2298.23	
					6319933.29			2290.29
			Ĺ		6319898.59	2299821.83	2298.48	2290.48
			L		6319639.36			
					6319597.97			2288.51
			\vdash		6319579.80 6319548.76			
			H		6319744.08			2290.89
			H		6319755.36			
					6319768.70	2300468.86	2306.86	
					6319784.06	2300503.88	2308.00	2300.00
			L		6319815.90	2300566.89	2308.88	
	-		L		6319828.60			
			\vdash		6319839.40 6319848.28	2300627.16 2300658.28		
	_		_		0313040.28	2300030.28	2310.81	2302.01

Name	ID	Н	eight		Coordinat	es	
		Begin	End	х	У	Z	Ground
	П	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)
				6319860.88	2300723.01	2312.21	2304.21
	П			6319864.66	2300756.41	2313.11	2305.11
				6319866.47	2300823.57	2314.50	2306.50
				6319848.94	2300839.02	2314.67	2306.67
	П			6319701.72	2300818.19	2314.00	2306.00
	П			6319678.11	2300811.94	2316.69	2308.69
				6319524.63	2300824.44	2323.54	2315.54
				6319504.49	2300823.74	2324.00	2316.00
				6319470.47	2300818.19	2324.51	2316.51
				6319451.72	2300920.27	2323.61	2315.61
				6319533.17	2300932.46	2321.55	2313.55
				6319614.91	2300942.49	2320.07	2312.07
				6319841.30	2300975.83	2310.87	2302.87
				6319844.69	2300978.70	2311.36	2303.36
	Ш			6319844.29	2300983.12	2312.15	2304.15
	Ш			6319894.88	2300989.91	2314.54	2306.54
				6319945.13	2300998.84	2316.07	2308.07
	Ш			6319994.97	2301009.89	2317.70	2309.70
	Ш			6320102.54	2301040.71	2320.85	2312.85
				6320217.90	2301079.65	2326.00	2318.00
	Ш			6320280.82	2301105.10	2326.61	2318.61
	Ш			6320342.71	2301132.94	2329.47	2321.47
	Ш			6320403.50	2301163.14	2331.47	2323.47
	Ш			6320463.08	2301195.65	2331.82	2323.82
				6320521.36	2301230.42	2333.21	2325.21
	Ш			6320578.28	2301267.39	2335.62	2327.62
	Ш			6320656.53	2301160.41	2348.00	2340.00
	Ш			6320647.42	2301130.46	2347.55	2339.55
	Ш			6320665.58	2301109.96	2345.88	2337.88
	Ш			6320685.34	2301091.00	2346.00	2338.00
	Ш			6320706.58	2301073.70	2346.00	2338.00
	Ш			6320729.14	2301058.17	2344.00	2336.00
	Ш			6320752.89	2301044.53	2344.00	2336.00
	Ш			6321259.40	2300819.26	2343.38	2335.38
	Ш			6321248.98	2300807.55	2342.82	2334.82
	Ш			6323140.91	2299957.29	2370.98	2362.98
	Ш			6323540.65	2299776.30	2395.27	2387.27
	Ш			6323550.37	2299769.32	2396.12	2388.12
	Ш			6323558.74	2299760.76	2396.57	2388.57
	\sqcup			6323565.50	2299750.88	2396.46	2388.46
	Ш			6323570.45	2299739.98	2395.73	2387.73
				6323573.44	2299728.39	2394.66	2386.65

APPENDIX 11.2:

NIGHTTIME CONCRETE POUR NOISE MODEL INPUTS



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13594 - Oak Valley North

CadnaA Noise Prediction Model: 13594-04_Concrete.cna

Date: 05.07.23 Analyst: B. Lawson

Calculation Configuration

Configurat	ion
Parameter	Value
General	
Max. Error (dB)	0.00
Max. Search Radius (#(Unit,LEN))	2000.01
Min. Dist Src to Rcvr	0.00
Partition	
Raster Factor	0.50
Max. Length of Section (#(Unit,LEN))	999.99
Min. Length of Section (#(Unit,LEN))	1.01
Min. Length of Section (%)	0.00
Proj. Line Sources	On
Proj. Area Sources	On
Ref. Time	
Daytime Penalty (dB)	0.00
Recr. Time Penalty (dB)	5.00
Night-time Penalty (dB)	10.00
DTM	
Standard Height (m)	701.04
Model of Terrain	Triangulation
Reflection	
max. Order of Reflection	2
Search Radius Src	100.00
Search Radius Rcvr	100.00
Max. Distance Source - Rcvr	1000.00 1000.00
Min. Distance Rvcr - Reflector	1.00 1.00
Min. Distance Source - Reflector	0.10
Industrial (ISO 9613)	
Lateral Diffraction	some Obj
Obst. within Area Src do not shield	On
Screening	Incl. Ground Att. over Barrier
	Dz with limit (20/25)
Barrier Coefficients C1,2,3	3.0 20.0 0.0
Temperature (#(Unit,TEMP))	10
rel. Humidity (%)	70
Ground Absorption G	0.50
Wind Speed for Dir. (#(Unit,SPEED))	3.0
Roads (TNM)	
Railways (FTA/FRA)	
Aircraft (???)	
Strictly acc. to AzB	

Receiver Noise Levels

Name	М.	ID		Level Lr		Lir	nit. Valı	ue		Land	Use	Height	Т	Co	oordinates	
			Day	Night	CNEL	Day	Night	CNEL	Туре	Auto	Noise Type			Х	Υ	Z
			(dBA)	(dBA)	(dBA)	(dBA)	(dBA)	(dBA)				(ft)	T	(ft)	(ft)	(ft)
RECEIVERS		R1	37.9	37.9	44.6	55.0	45.0	0.0				5.00	r	6320518.06	2301011.48	2329.46
RECEIVERS		R2	39.8	39.8	46.5	55.0	45.0	0.0				5.00	r	6321083.36	2300935.32	2341.00
RECEIVERS		R3	38.6	38.6	45.3	55.0	45.0	0.0				5.00	r	6322056.74	2300511.88	2332.34
RECEIVERS		R4	39.6	39.6	46.3	55.0	45.0	0.0				5.00	r	6322788.29	2300423.31	2371.45
RECEIVERS		R5	37.4	37.4	44.1	55.0	45.0	0.0				5.00	r	6323205.66	2299441.36	2377.00
RECEIVERS		R6	41.6	41.6	48.3	55.0	45.0	0.0				5.00	r	6322774.41	2299228.35	2348.49
RECEIVERS		R7	36.4	36.4	43.1	55.0	45.0	0.0				5.00	r	6322486.81	2298565.66	2315.00
RECEIVERS		R8	37.3	37.3	44.0	55.0	45.0	0.0				5.00	r	6320975.05	2297609.49	2311.00
RECEIVERSFUT		FUT1	38.2	38.2	44.9	55.0	45.0	0.0				5.00	r	6323131.44	2300172.97	2372.32
RECEIVERSFUT		FUT2	37.3	37.3	43.9	55.0	45.0	0.0				5.00	r	6323444.46	2299795.66	2384.75
RECEIVERSFUT		FUT3	31.8	31.8	38.4	55.0	45.0	0.0				5.00	r	6323883.20	2299682.44	2429.99
RECEIVERON		ON1	45.0	45.0	51.7	55.0	45.0	0.0				5.00	r	6322011.71	2298740.47	2316.19
RECEIVERON		ON2	46.7	46.7	53.4	55.0	45.0	0.0				5.00	r	6322135.70	2299030.50	2318.32
RECEIVERON		ON3	42.6	42.6	49.2	55.0	45.0	0.0				5.00	r	6322432.91	2299175.17	2321.59

Area Source(s)

		-,														
Name	M.	ID	Result. PWL			Result. PWL"			Lw / Li			Op	Height	:		
			Day	Evening	Night	Day	Evening	Night	Туре	Value	norm.	Day	Special	Night	(ft)	П
			(dBA)	(dBA)	(dBA)	(dBA)	(dBA)	(dBA)			dB(A)	(min)	(min)	(min)		П
CONCRETEPOUR		cons01	100.3	100.3	100.3	56.2	56.2	56.2	Lw	100.3					8	r
CONCRETEPOUR		cons02	100.3	100.3	100.3	55.5	55.5	55.5	Lw	100.3					8	r
CONCRETEPOUR		cons03	100.3	100.3	100.3	55.2	55.2	55.2	Lw	100.3					8	r
CONCRETEPOUR		cons04	100.3	100.3	100.3	56.0	56.0	56.0	Lw	100.3					8	r

177

Name	ID	H	lei	ght		Coordinates						
		Begin		End	x	у	z	Ground				
		(ft)		(ft)	(ft)	(ft)	(ft)	(ft)				
CONCRETEPOUR	cons01	8.00	r		6320190.14	2300380.64	2311.04	2303.04				
					6320397.48	2300411.90	2312.00	2304.00				
					6320657.47	2300291.78	2307.71	2299.71				
					6320404.06	2299742.17	2304.92	2296.92				
					6320349.76	2299766.86	2305.99	2297.99				
					6320336.59	2299737.24	2308.00	2300.00				
					6320129.26	2299831.03	2309.01	2301.01				
					6320019.01	2300008.75	2308.90	2300.90				
CONCRETEPOUR	cons02	8.00	r		6320851.65	2300369.12	2309.36	2301.36				
					6320910.89	2300337.85	2313.00	2305.00				
					6320919.11	2300360.89	2312.71	2304.71				
					6321248.22	2300211.15	2311.93	2303.93				
					6321235.06	2300188.11	2313.00	2305.00				
					6321294.29	2300161.78	2309.36	2301.36				
					6321040.88	2299615.47	2306.00	2298.00				
					6320986.58	2299643.44	2306.97	2298.96				
					6320961.90	2299585.85	2309.39	2301.39				
					6320641.02	2299735.59	2310.00	2302.00				
					6320668.99	2299809.64	2310.69	2302.69				
					6320611.40	2299837.61	2306.13	2298.13				
CONCRETEPOUR	cons03	8.00	r		6321483.53	2300023.56	2314.99	2306.99				
					6321523.02	2300003.81	2317.66	2309.66				
					6321549.35	2300061.41	2314.00	2306.00				
					6322253.64	2299733.94	2318.00	2310.00				
					6322225.67	2299681.29	2319.75	2311.75				
					6322237.18	2299674.71	2319.00	2311.00				
					6322112.12	2299399.90	2319.00	2311.00				
					6322059.47	2299421.29	2318.13	2310.13				
					6322033.14	2299373.57	2317.72	2309.71				
					6321388.09	2299671.41	2313.87	2305.87				
					6321417.71	2299732.30	2318.40	2310.40				
					6321360.12	2299760.27	2313.46	2305.46				
CONCRETEPOUR	cons04	8.00	r		6321207.08	2299470.66	2308.94	2300.94				
					6321259.74	2299444.33	2311.29	2303.29				
					6321282.78	2299498.63	2310.91	2302.91				
			П		6321960.73	2299189.27	2314.58	2306.58				
					6321927.82	2299136.62	2315.60	2307.60				
					6321978.84	2299115.22	2318.79	2310.79				
					6321855.42	2298851.94	2319.00	2311.00				
					6321085.31	2299205.73	2315.00	2307.00				