

# Antelope Valley Commerce Center

NOISE AND VIBRATION ANALYSIS CITY OF PALMDALE

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# LIST OF ABBREVIATED TERMS

(1)	Reference
ADT	Average Daily Traffic
AI	Aerospace Industrial
AIA	Airport Influence Area
AICUZ	Air Installation Compatible Use Zone
ALUC	Airport Land Use Commission
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
FICON	Federal Interagency Committee on Noise
FTA	Federal Transit Administration
INCE	Institute of Noise Control Engineering
L <sub>eq</sub>	Equivalent continuous (average) sound level
L <sub>max</sub>	Maximum level measured over the time interval
L <sub>min</sub>	Minimum level measured over the time interval
mph	Miles per hour
OPR	Office of Planning and Research
PPV	Peak particle velocity
Project	Antelope Valley Commerce Center
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 potential noise impacts and the necessary noise mitigation measures, if any, for Antelope Valley Commerce Center ("Project"). The Project is proposed to consist of combination of commercial and industrial land use on 433 acres. This study has been prepared to satisfy applicable City of Palmdale standards and thresholds of significance based on guidance provided by Appendix G of the California Environmental Quality Act (CEQA) Guidelines. (1)

The results of this Antelope Valley Commerce Center Noise and Vibration Analysis are summarized below based on the significance criteria in Section 4 of this report. Table ES-1 shows the findings of significance for each potential noise and/or vibration impact under CEQA before and after any required mitigation measures.

Analusia	Report	Significance Findings			
Analysis	Section	Unmitigated	Mitigated		
Off-Site Traffic Noise	7	Less Than Significant	-		
Operational Noise	9	Less Than Significant -			
Construction Noise		Less Than Significant	-		
Concrete Pour Noise	10	Less Than Significant	-		
Construction Vibration		Less Than Significant	-		
On-Site Rail Noise	11	Less Than Significant	-		
On-Site Rail Vibration	11	Less Than Significant	-		

#### TABLE ES-1: SUMMARY OF CEQA SIGNIFICANCE FINDINGS

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# 1 INTRODUCTION

This noise analysis has been completed to determine the noise impacts associated with the development of the proposed Antelope Valley Commerce Center ("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 with nearby rail activity. 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 Project site is located near the southeast corner of Avenue M/Columbia Way and Sierra Highway in the City of Palmdale as shown on Exhibit 1-A. The Project site is vacant with nearby noise sensitive land uses located to the north across Avenue M. The Project site is located approximately 0.25 miles north of Runway 7 at Palmdale Airport/USAF Plant 42.

### **1.2 PROJECT DESCRIPTION**

The Project is proposed to consist of the following uses for each phase (see Exhibit 1-B):

- Phase 1:
  - Building 1 is 136,670 square feet
  - Building 2 is 144,306 square feet
  - Building 3 is 132,695 square feet
  - o Buildings 1 through 3 will assume 25% general light industrial and 75% general warehousing use
  - Building 4 is 680,469 square feet of high-cube fulfillment center (sort) warehouse use
  - Building 5 is 1,004,228 square feet with 25% high-cube cold storage warehouse use and high-cube fulfillment center (non-sort) warehouse use
  - o Building 6 is 274,858 square feet with 25% manufacturing and 75% general warehousing use
- Phase 2:
  - 1,630,362 square feet of high-cube parcel hub warehousing use
  - 549,790 square feet with 25% manufacturing and 75% general warehousing use
- Phase 3:
  - 1,156,576 square feet with 25% high-cube cold storage warehouse use and 75% high-cube fulfillment (non-sort) warehousing use
  - 2,500 square feet of fast-food restaurant without drive-through window use, 2,500 square feet of fast-food restaurant with drive-through window use, 2,000 square feet of coffee shop with drive-through window use, and 53,984 square feet of commercial retail use (for a total of 60,984 square feet)
- Phase 4:
  - 2,555,556 square feet with 25% high-cube cold storage warehouse use and 75% high-cube fulfillment (non-sort) warehousing use



The proposed Project is anticipated to have an opening year of 2025 for Phase 1 and 2032 for Project Buildout. At the time this noise analysis was prepared, the future tenants of the proposed Project were unknown, and therefore, this noise study includes a conservative analysis of the proposed Project uses.



#### EXHIBIT 1-A: LOCATION MAP





#### **EXHIBIT 1-B: PRELIMINARY 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.

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			
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			
QUIET URBAN DAYTIME	LARGE BUSINESS OFFICE	50	MODERATE	CLEED	
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		NO EFFECT	
LOWEST THRESHOLD OF HUMAN HEARING	LOWEST THRESHOLD OF HUMAN HEARING	0			

### EXHIBIT 2-A: TYPICAL NOISE LEVELS

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. (2) 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. (3) 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 A-weighted 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<sub>eq</sub> sound levels in the evening from 7:00 p.m. to 10:00 p.m., and the addition of 10 decibels to dBA L<sub>eq</sub> 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 Palmdale 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. (2)

# 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. (4)

# 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. (2)

# 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 high, 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. (5)

# 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. (6)

### 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. (7 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. (8) According to research originally published in the Noise Effects Handbook (7), 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. (4)







# 2.8 VIBRATION

Per the Federal Transit Administration (FTA) *Transit Noise and Vibration Impact Assessment Manual*, 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.

Additionally, in contrast to airborne noise, ground-borne vibration outdoors is not a common environmental problem and annoyance from ground-borne vibration is almost exclusively an indoor phenomenon (8). Therefore, the effects of vibrations should only be evaluated at a structure and the effects of the building structure on the vibration should be considered. Woodframe buildings, such as typical residential structures, are more easily excited by ground vibration than heavier buildings. In contrast, large masonry buildings with spread footings have a low response to ground vibration (8). In general, the heavier a building is, the lower the response will be to the incident vibration energy. However, all structurers reduce vibration levels due to the coupling of the building to the soil. 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 (8). 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 (8). However, the RMS amplitude and PPV are related mathematically, and the RMS amplitude of equipment is typically calculated from the PPV reference level. The RMS amplitude is approximately 70% of the PPV (9). Thus, either can be used in the description of vibration impacts.

While not universally accepted, vibration decibel notation (VdB) is another vibration notation developed and used by the FTA in their guidance manual to describe vibration levels and provide a background of common vibration levels and set vibration limits. (8) Decibel notation (VdB) serves to reduce the range of numbers used to describe vibration levels and is used in this report to describe vibration levels. As stated in the FTA guidance manual, 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.





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

\* RMS Vibration Velocity Level in VdB relative to 10<sup>-6</sup> 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) OPR identifies suggested land use noise compatibility levels as part of its General Plan Guidelines. These suggested guidelines provide planners with a tool to gauge the compatibility of land uses relative to existing and future noise levels. The guidelines identify normally acceptable, conditionally acceptable, normally unacceptable, and clearly unacceptable noise levels for various land uses. The land use compatibility guidelines are intended to be an advisory resource when considering changes in land use and policies, such as zoning modifications. In addition, the State through 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 PALMDALE GENERAL PLAN NOISE ELEMENT

The City of Palmdale General Plan Noise Element outlines the goals and policies related to the noise environment in the City and its sphere of influence. (11) The purpose of the Noise Element is to reduce and limit the exposure of the public to excessive noise levels. The Noise Element sets the goals and policy direction for implementation. To limit the exposure of City residents to excessive noise, the Noise Element contains the following goals:

- Goal N-1: Minimize resident exposure to excessive noise.
- Goal N-2: Maintain acceptable noise environments throughout the City.
- Goal N-3: Promote noise compatible land uses within the 65 dBA CNEL contour and the Frequent Overflight Area of Air Force Plant 42.
- Goal N-4: Minimize adverse noise impacts associated with transportation

The City of Palmdale General Plan Noise Element includes the *California Land Use and Noise Compatibility Guide* that outlines the noise levels allowable for new developments impacted by



transportation noise sources. The City's compatibility criteria, found on Figure 16.1, identify the criteria for industrial land uses such as the Project, as shown on Exhibit 3-A. When the unmitigated exterior noise levels approach 75 dBA CNEL industrial land use is considered *normally acceptable*. With exterior noise levels ranging from 70 to 80 dBA CNEL, industrial land uses are considered *conditionally acceptable*, and with exterior noise levels greater than 75 dBA CNEL, they are considered *normally unacceptable*. For *normally unacceptable* land use, *new construction or development should generally be discouraged*. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and required noise insulation features shall be included in the design.



#### EXHIBIT 3-A: LAND USE NOISE COMPATIBILITY CRITERIA

City of Palmdale General Plan Noise Element Figure 16.1



# **3.3 OPERATIONAL NOISE STANDARDS**

To analyze noise impacts originating from a designated fixed location or private property such as the Antelope Valley Commerce Center Project, stationary-source (operational) noise such as the expected loading dock activity, roof-top air conditioning units, trash enclosure activity, parking lot vehicle movements, truck movements and drive-through speakerphone are typically evaluated against standards established under a jurisdiction's municipal code. Section 9.18.010 of the City of Palmdale Municipal Code (PMC) included in Appendix 3.1 makes it unlawful for any person to willfully make or continue, or cause or permit to be made or continued, any loud, unnecessary, or unusual noise which unreasonably disturbs the peace and quiet of any neighborhood or which causes discomfort or annoyance to any reasonable person of normal sensitiveness residing in the area.

Additionally, Pursuant to PMC Section 8.28.30, except as otherwise provided in Section 8.28, no person shall perform any construction or repair work on any Sunday, or any other day after 8:00 p.m. or before 6:30 a.m., in any residential zone or within 500 feet of any residence, hotel, motel or recreational vehicle park. , the PMC does not identify specific exterior noise level standards for non-residential zones. (12) Therefore, the County of Los Angeles exterior noise level standards are used in this noise study to assess the potential impacts at adjacent sensitive receiver locations.

The Los Angeles County Code (LACC), Chapter 12.08 Noise Control, Section 12.08.390[A] establishes the noise level standards for stationary noise sources. Since the Project's industrial land use could potentially impact noise-sensitive uses in the Project study area, this noise study relies on the more conservative residential noise level standards to describe potential operational noise impacts. For residential properties, the exterior noise level must not exceed 50 dBA L<sub>eq</sub> during the daytime hours (7:00 a.m. to 10:00 p.m.) and 45 dBA L<sub>eq</sub> during the nighttime hours (10:00 p.m. to 7:00 a.m.). As such, Section 12.08.390[B] indicates that if the existing ambient noise level already exceeds any of the exterior noise level limit categories, then the standard must be adjusted to reflect the ambient conditions. Chapter 12.08 Noise Control from the Los Angeles County Code of Ordinances is included in Appendix 3.2.

### **3.4 CONSTRUCTION NOISE STANDARDS**

To control noise impacts associated with the construction of the proposed Project, the City of Palmdale has established limits to the hours of operation. PMC Section 8.28.030 addresses construction-related noise by prohibiting earth excavating and similar activities between 8:00 p.m. and 6:30 a.m. and on Sundays and holidays in any residential zone or within 500 feet of any residence, hotel, motel, or recreational vehicle park. However, neither the City of Palmdale General Plan Noise Element or Municipal Code establish numeric maximum acceptable construction source noise levels at potentially affected receivers, which would allow for a quantified determination of what CEQA constitutes a *substantial temporary or permanent increase in ambient noise levels*. Therefore, a numerical construction threshold based on Federal Transit Administration (FTA) *Transit Noise and Vibration Impact Assessment Manual* is used for analysis of daytime construction impacts, as discussed below.



According to the FTA, local noise ordinances are typically not very useful in evaluating construction noise. They usually relate to nuisance and hours of allowed activity, and sometimes specify limits in terms of maximum levels, but are generally not practical for assessing the impact of a construction project. Project construction noise criteria should account for the existing noise environment, the absolute noise levels during construction activities, the duration of the construction, and the adjacent land use. Due to the lack of standardized construction noise thresholds, the FTA provides guidelines that can be considered reasonable criteria for construction noise assessment. The FTA considers a daytime exterior construction noise level of 80 dBA L<sub>eq</sub> and a nighttime exterior construction noise level of 70 dBA L<sub>eq</sub> as a reasonable threshold for noise sensitive residential land use (8 p. 179).

### **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. 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. (8) To analyze vibration impacts originating from the operation and construction of the Antelope Valley Commerce Center, vibration-generating activities are appropriately evaluated against standards established under a City's Municipal Code, if such standards exist. However, the City of Palmdale and the County of Los Angeles do not identify specific vibration level limits. Therefore, for analysis purposes, the Caltrans *Transportation and Construction Vibration Guidance Manual*, (9 p. 38) Table 19, vibration damage are used in this noise study to assess potential temporary construction-related impacts at nearby building locations. A maximum acceptable continuous vibration threshold of 0.3 PPV (in/sec) is used to describe the potential vibration damage to the nearby building structures.

### 3.6 ON-SITE AIRCRAFT NOISE (PALMDALE AIRPORT/USAF PLANT 42)

The Project site is located approximately 0.25 miles (1,305 feet) north of Runway 7 at the Palmdale Airport/USAF Plant 42. This places the Project site within the Airport Influence Area (AIA) according to the Los Angeles County Airport Land Use Commission (ALUC) as shown on Exhibit 3-B. (13) The ALUC is a county-level agency required by the State to develop a plan for promoting compatibility between local airports and surrounding land uses. The ALUC is responsible for designating an AIA for every airport within its jurisdiction. An AIA is an airport planning area boundary that consists of all areas in which current or future airport-related noise, over flight, safety, and/or airspace protection factors may significantly affect land uses or necessitate restrictions on those areas. While the ALUC identifies the AIA planning area boundary, the noise level contours can be found on Figure 3-3 of the United States Air Force Plant 42 California Air Installation Compatible Use Zone (AICUZ) Study. (14) The AICUZ noise contours boundaries shown on Exhibit 3-B are used to describe the Project airport noise level impacts.





EXHIBIT 3-B: PALMDALE AIRPORT/USAF PLANT 42 NOISE CONTOURS



As shown on Exhibit 3-B, the commercial land use within the northern portion of the Project site is located well outside the 60-65 dBA CNEL noise level contour boundary. The southern half of the Project site consisting of industrial land uses is located within the 65-70 dBA CNEL aircraft noise level contour boundaries with a small portion of the southeastern portion Project site is located within 70-75 dBA dBA CNEL noise level contour boundary. Therefore, according to the City of Palmdale General Plan Noise Element Noise Land Use Compatibility Criteria (see Exhibit 3-A), the Project land uses is considered *normally acceptable*.

# 3.7 ON-SITE RAILROAD VIBRATION (UPRR)

The Federal Transit Administration (FTA) *Transit Noise and Vibration Impact Assessment Manual* identifies vibration criteria for specific land use types. While the industrial use of the Project does not represent a sensitive use, the interior Project commercial and office areas are analyzed in this noise study to determine if vibration levels due to railroad activity could affect people working within the Project site. Table 6-6 of the FTA *Transit Noise and Vibration Impact Assessment Manual* identifies an office use vibration level threshold of 84 VdB, and as such, the 84 VdB threshold is used in this study to assess potential impacts to the Project site from adjacent railroad activities. (8)



# 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*. (15) 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* noise level, the less acceptable the new noise level will typically be judged.

### 4.1.1 NOISE-SENSITIVE RECEIVERS

The Federal Interagency Committee on Noise (FICON) (16) 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<sub>eq</sub>).

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. (15) 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 (4 p. 9) and Caltrans (17 p. 2\_48).

### 4.1.2 NON-NOISE-SENSITIVE RECEIVERS

The City of Palmdale General Plan Noise Element, Figure 16.1, *Land Use Noise Compatibility Criteria* was used to establish the satisfactory noise levels of significance for the non-noisesensitive land uses in the Project study area. As previously shown on Exhibit 3-A, the *normally acceptable* exterior noise level for non-noise-sensitive general industrial land uses is 75 dBA CNEL. Noise levels greater than 75 dBA CNEL are considered *conditionally acceptable* per the *Land Use Noise Compatibility Criteria*. (11)

To determine if Project-related traffic noise level increases are significant at off-site non-noisesensitive general industrial land uses, a *barely perceptible* 3 dBA criteria is used. When the without Project noise levels are greater than the *normally acceptable* 75 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 Palmdale General Plan Noise Element, Figure 16.1, *Land Use Noise Compatibility Criteria normally acceptable* 75 dBA CNEL exterior noise level criteria for non-noise sensitive general industrial land uses.

# 4.2 VIBRATION (THRESHOLD B)

As described in Section 3.5, for the vibration impacts originating from the construction of Antelope Valley Commerce Center, vibration-generating activities are appropriately evaluated using the Caltrans vibration damage thresholds to assess potential temporary construction-related impacts at the nearest building locations. The nearest buildings can best be described as "older residential structures" with a maximum acceptable continuous vibration threshold of 0.3 PPV (in/sec).



# 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 closest airport which would require additional noise analysis under CEQA guideline C is the Palmdale Airport/USAF Plant 42 located approximately 0.25 miles north of Runway 7. As previously indicated in Section 3.6, the airport noise impacts are considered *less than significant,* and no further noise analysis is required under CEQA 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.

			Significance Criteria		
Analysis	Land Use	Condition(s)	Daytime	Nighttime	
		if ambient is < 60 dBA CNEL	≥ 5 dBA CNEL Project increase		
0.00	Noise- Sensitive <sup>1</sup>	if ambient is 60 - 65 dBA CNEL	≥ 3 dBA CNEL P	Project increase	
Uff-Site Traffic	Schaltwe	if ambient is > 65 dBA CNEL	≥ 1.5 dBA CNEL	Project increase	
Hume	Non-Noise Sensitive <sup>2</sup>	if ambient is > 75 dBA CNEL	≥ 3 dBA CNEL Project increase		
	Residential	Exterior Noise Level Limit <sup>3</sup>	50 dBA L <sub>eq</sub>	45 dBA L <sub>eq</sub>	
Operational	Noise-	if ambient is < 60 dBA L <sub>eq</sub>	$\geq$ 5 dBA L <sub>eq</sub> Project increase		
operational	Sensitive <sup>1</sup>	if ambient is 60 - 65 dBA L <sub>eq</sub>	≥ 3 dBA L <sub>eq</sub> Project increase		
		if ambient is > 65 dBA $L_{eq}$	≥ 1.5 dBA L <sub>eq</sub> Project increase		
Construction	Noise-	Noise Level Threshold <sup>4</sup>	80 dBA L <sub>eq</sub>	70 dBA L <sub>eq</sub>	
Construction	Sensitive	Vibration Level Threshold <sup>5</sup>	0.3 PPV in/sec	n/a	
Pail	Noise-	Noise Compatibility Threshold <sup>2</sup>	75 dB/	A CNEL	
Kall	Sensitive	Vibration Level Threshold <sup>2</sup>	84 Vdb		

### TABLE 4-1: SIGNIFICANCE CRITERIA SUMMARY

<sup>1</sup> FICON, 1992.

<sup>2</sup> The City of Palmdale General Plan Noise Element Figure 16.1 (Exhibit 3-A)

<sup>3</sup> Los Angeles County Code, Chapter 12.08 Noise Control, Section 12.08.390[A] (Appendix 3.2)

<sup>4</sup> Federal Transit Administration, Transit Noise and Vibration Impact Assessment Manual.

<sup>5</sup> Caltrans Transportation and Construction Vibration Guidance Manual, April 2020, Table 19.

"Daytime" = 7:00 a.m. to 10:00 p.m.; "Nighttime" = 10:00 p.m. to 7:00 a.m. "n/a" = construction activities are not planned during the nighttime hours; "PPV" = peak particle velocity.



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# 5 EXISTING NOISE LEVEL MEASUREMENTS

To assess the existing noise level environment, 24-hour noise level measurements were taken at six 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 Thursday, October 27, 2022. 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. 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. (18)

# 5.2 NOISE MEASUREMENT LOCATIONS

The long-term noise level measurements were positioned as close to the nearest 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. (2) 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. (8)* 

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. (8) 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 receiver locations allows for a comparison of the before and after Project noise levels and is

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

### 5.3 NOISE MEASUREMENT RESULTS

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

Location <sup>1</sup>	Description	Energy Average Noise Level (dBA L <sub>eq</sub> ) <sup>2</sup>		
		Daytime	Nighttime	
L1	Located north of the project site near vacant commercial retail site at 42020 4th St E.	68.4	65.8	
L2	Located north of the project site near single-family residence at 42057 5th St E.	56.9	56.5	
L3	Located north of the project site near single-family residence at 42104 6th St E.	51.8	51.8	
L4	Located north of the project site near silo at 461 E Columbia Way.	71.8	70.1	
L5	Located northwest of the project site near the gas station at 42011 Sierra Hwy.	69.2	67.3	
L6	Located west of the project site near commercial retail land use within the Sierra Highway Plaza at 190 Sierra Ct	66.4	63.6	

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

<sup>1</sup> See Exhibit 5-A for the noise level measurement locations.

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

"Daytime" = 7:00 a.m. to 10:00 p.m.; "Nighttime" = 10:00 p.m. to 7:00 a.m.

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





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

LEGEND: N Site Boundary A Measurement Locations



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# 6 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 Palmdale *Land Use Compatibility Criteria* (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. (19) 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. (20) 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. (21)

### 6.1.1 OFF-SITE TRAFFIC NOISE PREDICTION MODEL TRAFFIC INPUTS

Table 6-1 presents the roadway parameters used to assess the Project's off-site transportation noise impacts. Table 6-1 identifies the 19 off-site study area roadway segments, the distance from the centerline to adjacent land use based on the functional roadway classifications per the City of Palmdale General Plans and Circulation Element, and the vehicle speeds. The ADT volumes used in this study area presented on Table 6-2 are based on *Antelope Valley Commerce Center Traffic Analysis*, prepared by Urban Crossroads, Inc. for the following traffic scenarios. (22)

- Existing (E) 2022 Without Project Conditions
- Existing (E) 2022 With Project Conditions
- Existing Plus Cumulative (EC) 2025 Without Project Conditions
- Existing Plus Cumulative (EC) 2025 With Project Conditions
- Existing Plus Cumulative (EC) 2032 Without Project Conditions
- Existing Plus Cumulative (EC) 2032 With Project Conditions



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 6.63%. This analysis relies on a comparative evaluation of the off-site traffic noise impacts at the boundary of the right-of-way of the receiving adjacent land use, without and with project ADT traffic volumes from the Project traffic study.

ID	Roadway	Segment	Receiving Land Use <sup>1</sup>	Classification <sup>2</sup>	Distance from Centerline to Receiving Land Use (Feet) <sup>3</sup>	Vehicle Speed (mph)
1	10th St. W	n/o Avenue M	Non-Sensitive	Regional	68'	55
2	10th St. W	s/o Avenue M	Non-Sensitive	Regional	68'	55
3	Sierra Hwy.	n/o Avenue L	Non-Sensitive	Regional	68'	55
4	Sierra Hwy.	s/o Avenue L	Non-Sensitive	Regional	68'	55
5	Sierra Hwy.	s/o Avenue M	Non-Sensitive	Regional	68'	55
6	Sierra Hwy.	s/o Avenue N	Non-Sensitive	Regional	68'	55
7	Challenger Wy.	n/o Avenue L	Sensitive	Crosstown	52'	55
8	Challenger Wy.	s/o Avenue L	Sensitive	Crosstown	52'	55
9	20th St.	n/o Avenue M	Sensitive	Crosstown	52'	55
10	Avenue M	w/o SR-14 SB Ramps	Non-Sensitive	Regional	68'	50
11	Avenue M	e/o SR-14 NB Ramps	Non-Sensitive	Regional	68'	50
12	Avenue M	w/o Sierra Hwy.	Non-Sensitive	Regional	68'	55
13	Avenue M	e/o Sierra Hwy.	Non-Sensitive	Regional	68'	55
14	Avenue M	e/o 4th St.	Non-Sensitive	Regional	68'	55
15	Avenue M	e/o Challenger Wy.	Non-Sensitive	Regional	68'	60
16	Avenue M	e/o Site 2 Rd.	Non-Sensitive	Regional	68'	60
17	Avenue N	w/o SR-14 SB Ramps	Sensitive	Crosstown	52'	50
18	Avenue N	w/o SR-14 NB Ramps	Non-Sensitive	Crosstown	52'	50
19	Avenue N	e/o 10th St. W	Non-Sensitive	Crosstown	52'	55

TABLE 6-1: OFF-SITE ROADWAY PARAMETERS

<sup>1</sup> Based on a review of existing aerial imagery. Noise sensitive uses limited to adjacent residential land uses.

<sup>2</sup> City of Palmdale Circulation Element Circulation Plan.

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

#### 6.1.2 OFF-SITE TRAFFIC NOISE PREDICTION MODEL VEHICLE MIX

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



Table 6-3 provides the time of day (daytime, evening, and nighttime) vehicle splits. The daily Project truck trip-ends were assigned to the individual off-site study area roadway segments based on the Project truck trip distribution percentages documented in the *Antelope Valley Commerce Center 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 Tables 6-5 to 6-7 show the vehicle mixes used for the with Project traffic scenarios.

			Average Daily Traffic Volumes <sup>1</sup>					
10	Poodwov	Sogmont	Existing (2022)		EC (2025)		EC (2032)	
U	Koadway	Segment	Without Project	With Project	Without Project	With Project	Without Project	With Project
1	10th St. W	n/o Avenue M	25,005	25,483	25,959	26,102	26,595	27,073
2	10th St. W	s/o Avenue M	20,948	21,426	33,158	33,301	41,298	41,776
3	Sierra Hwy.	n/o Avenue L	23,859	25,790	31,234	31,793	36,151	38,082
4	Sierra Hwy.	s/o Avenue L	28,142	30,460	35,718	36,348	40,769	43,087
5	Sierra Hwy.	s/o Avenue M	31,279	36,120	38,490	40,048	43,297	48,138
6	Sierra Hwy.	s/o Avenue N	39,732	41,390	47,046	47,533	51,922	53,580
7	Challenger Wy.	n/o Avenue L	17,253	18,254	17,361	17,647	17,433	18,434
8	Challenger Wy.	s/o Avenue L	9,501	10,935	9,636	9,993	9,725	11,159
9	20th St.	n/o Avenue M	6,199	6,722	6,199	6,341	6,199	6,722
10	Avenue M	w/o SR-14 SB Ramps	18,626	19,149	19,259	19,402	19,682	20,205
11	Avenue M	e/o SR-14 NB Ramps	31,234	46,057	40,650	45,327	46,928	61,751
12	Avenue M	w/o Sierra Hwy.	23,829	39,607	26,882	31,844	28,917	44,695
13	Avenue M	e/o Sierra Hwy.	29,575	52,444	30,332	37,482	30,837	53,706
14	Avenue M	e/o 4th St.	30,721	42,614	31,424	35,349	31,893	43,786
15	Avenue M	e/o Challenger Wy.	26,272	27,523	26,841	27,198	27,220	28,471
16	Avenue M	e/o Site 2 Rd.	23,587	24,315	24,156	24,370	24,535	25,263
17	Avenue N	w/o SR-14 SB Ramps	22,322	22,436	22,322	22,322	22,322	22,436
18	Avenue N	w/o SR-14 NB Ramps	19,348	22,531	22,697	23,767	24,930	28,113
19	Avenue N	e/o 10th St. W	8,451	11,634	9,360	10,431	9,967	13,150

#### TABLE 6-2: AVERAGE DAILY TRAFFIC VOLUMES

<sup>1</sup> Antelope Valley Commerce Center Traffic Analysis, Urban Crossroads, Inc.



Vehicle Type		Total of Time of		
	Daytime	Evening	Nighttime	Day Splits
Autos	75.23%	10.74%	14.03%	100.00%
Medium Trucks	81.88%	6.79%	11.32%	100.00%
Heavy Trucks	85.29%	1.96%	12.75%	100.00%

#### **TABLE 6-3: TIME OF DAY VEHICLE SPLITS**

<sup>1</sup> Based on the May 18, 2022, directional vehicle classification count collected on Sierra Highway south of Avenue M (Antelope Valley Commerce Center Traffic Analysis, Urban Crossroads, Inc.)

#### "Daytime" = 7:00 a.m. to 7:00 p.m.; "Evening" = 7:00 p.m. to 10:00 p.m.; "Nighttime" = 10:00 p.m. to 7:00 a.m.

#### **TABLE 6-4: WITHOUT PROJECT VEHICLE MIX**

Classification		Total		
	Autos	Medium Trucks	Heavy Trucks	TOLAI
All Segments	97.39%	1.93%	0.69%	100.00%

<sup>1</sup>Based on the May 18, 2022, directional vehicle classification count collected on Sierra Highway south of Avenue M (Antelope Valley Commerce Center Traffic Analysis, Urban Crossroads, Inc.)

Due to the added Project truck trips, the increase in Project traffic volumes and the distributions of trucks on the study area road segments, the percentage of autos, medium trucks and heavy trucks will vary for each of the traffic scenarios. This explains why the existing and future traffic volumes and vehicle mixes vary between seemingly identical study area roadway segments.

TABLE 6-5: EXISTING (2022) WITH PROJECT VEHICLE MIX

		Segment	With Project <sup>1</sup>			
ID	Roadway		Autos	Medium Trucks	Heavy Trucks	Total <sup>2</sup>
1	10th St. W	n/o Avenue M	97.44%	1.89%	0.67%	100.00%
2	10th St. W	s/o Avenue M	97.45%	1.89%	0.67%	100.00%
3	Sierra Hwy.	n/o Avenue L	95.56%	2.11%	2.33%	100.00%
4	Sierra Hwy.	s/o Avenue L	95.88%	2.05%	2.07%	100.00%
5	Sierra Hwy.	s/o Avenue M	96.30%	1.90%	1.80%	100.00%
6	Sierra Hwy.	s/o Avenue N	96.23%	2.05%	1.71%	100.00%
7	Challenger Wy.	n/o Avenue L	97.53%	1.82%	0.65%	100.00%
8	Challenger Wy.	s/o Avenue L	97.73%	1.68%	0.60%	100.00%
9	20th St.	n/o Avenue M	97.59%	1.78%	0.63%	100.00%
10	Avenue M	w/o SR-14 SB Ramps	97.46%	1.88%	0.67%	100.00%
11	Avenue M	e/o SR-14 NB Ramps	92.95%	2.15%	4.90%	100.00%
12	Avenue M	w/o Sierra Hwy.	92.29%	2.14%	5.57%	100.00%
13	Avenue M	e/o Sierra Hwy.	91.91%	2.15%	5.95%	100.00%
14	Avenue M	e/o 4th St.	98.12%	1.39%	0.49%	100.00%


			With Project <sup>1</sup>					
ID	Roadway	Roadway Segment		Medium Trucks	Heavy Trucks	Total <sup>2</sup>		
15	Avenue M	e/o Challenger Wy.	97.51%	1.84%	0.65%	100.00%		
16	Avenue M	e/o Site 2 Rd.	97.47%	1.87%	0.66%	100.00%		
17	Avenue N	w/o SR-14 SB Ramps	97.40%	1.92%	0.68%	100.00%		
18	Avenue N	w/o SR-14 NB Ramps	97.76%	1.66%	0.59%	100.00%		
19	Avenue N	e/o 10th St. W	98.10%	1.40%	0.50%	100.00%		

<sup>1</sup>Antelope Valley Commerce Center Traffic Analysis, Urban Crossroads, Inc.

<sup>2</sup> Total of vehicle mix percentage values rounded to the nearest one-hundredth.

#### TABLE 6-6: EXISTING PLUS CUMULATIVE (EC) 2025 WITH PROJECT VEHICLE MIX

				With P	roject <sup>1</sup>	
ID	Roadway	Segment	Autos	Medium Trucks	Heavy Trucks	Total <sup>2</sup>
1	10th St. W	n/o Avenue M	97.40%	1.92%	0.68%	100.00%
2	10th St. W	s/o Avenue M	97.40%	1.92%	0.68%	100.00%
3	Sierra Hwy.	n/o Avenue L	97.02%	1.96%	1.02%	100.00%
4	Sierra Hwy.	s/o Avenue L	97.07%	1.95%	0.97%	100.00%
5	Sierra Hwy.	s/o Avenue M	97.16%	1.91%	0.93%	100.00%
6	Sierra Hwy.	s/o Avenue N	97.14%	1.95%	0.91%	100.00%
7	Challenger Wy.	n/o Avenue L	97.43%	1.90%	0.67%	100.00%
8	Challenger Wy.	s/o Avenue L	97.48%	1.86%	0.66%	100.00%
9	20th St.	n/o Avenue M	97.45%	1.88%	0.67%	100.00%
10	Avenue M	w/o SR-14 SB Ramps	97.41%	1.91%	0.68%	100.00%
11	Avenue M	e/o SR-14 NB Ramps	96.31%	1.94%	1.74%	100.00%
12	Avenue M	w/o Sierra Hwy.	95.88%	1.93%	2.18%	100.00%
13	Avenue M	e/o Sierra Hwy.	95.56%	1.93%	2.50%	100.00%
14	Avenue M	e/o 4th St.	97.68%	1.71%	0.61%	100.00%
15	Avenue M	e/o Challenger Wy.	97.42%	1.90%	0.68%	100.00%
16	Avenue M	e/o Site 2 Rd.	97.41%	1.91%	0.68%	100.00%
17	Avenue N	w/o SR-14 SB Ramps	97.39%	1.93%	0.69%	100.00%
18	Avenue N	w/o SR-14 NB Ramps	97.50%	1.84%	0.65%	100.00%
19	Avenue N	e/o 10th St. W	97.66%	1.73%	0.61%	100.00%

<sup>1</sup>Antelope Valley Commerce Center Traffic Analysis, Urban Crossroads, Inc.

<sup>2</sup> Total of vehicle mix percentage values rounded to the nearest one-hundredth.



				With P	roject <sup>1</sup>	
ID	Roadway	Segment	Autos	Medium Trucks	Heavy Trucks	Total <sup>2</sup>
1	10th St. W	n/o Avenue M	97.43%	1.89%	0.67%	100.00%
2	10th St. W	s/o Avenue M	97.42%	1.91%	0.68%	100.00%
3	Sierra Hwy.	n/o Avenue L	96.15%	2.05%	1.80%	100.00%
4	Sierra Hwy.	s/o Avenue L	96.32%	2.02%	1.66%	100.00%
5	Sierra Hwy.	s/o Avenue M	96.57%	1.91%	1.52%	100.00%
6	Sierra Hwy.	s/o Avenue N	96.50%	2.02%	1.48%	100.00%
7	Challenger Wy.	n/o Avenue L	97.53%	1.82%	0.65%	100.00%
8	Challenger Wy.	s/o Avenue L	97.72%	1.68%	0.60%	100.00%
9	20th St.	n/o Avenue M	97.59%	1.78%	0.63%	100.00%
10	Avenue M	w/o SR-14 SB Ramps	97.45%	1.88%	0.67%	100.00%
11	Avenue M	e/o SR-14 NB Ramps	94.08%	2.09%	3.83%	100.00%
12	Avenue M	w/o Sierra Hwy.	92.87%	2.12%	5.01%	100.00%
13	Avenue M	e/o Sierra Hwy.	92.03%	2.14%	5.82%	100.00%
14	Avenue M	e/o 4th St.	98.10%	1.40%	0.50%	100.00%
15	Avenue M	e/o Challenger Wy.	97.50%	1.84%	0.65%	100.00%
16	Avenue M	e/o Site 2 Rd.	97.46%	1.87%	0.67%	100.00%
17	Avenue N	w/o SR-14 SB Ramps	97.40%	1.92%	0.68%	100.00%
18	Avenue N	w/o SR-14 NB Ramps	97.68%	1.71%	0.61%	100.00%
19	Avenue N	e/o 10th St. W	98.02%	1.46%	0.52%	100.00%

TABLE 6-7: EXISTING PLUS CUMULATIVE (EC) 2032 WITH PROJECT VEHICLE MIX

<sup>1</sup>Antelope Valley Commerce Center Traffic Analysis, Urban Crossroads, Inc.

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

## 6.2 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.



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.



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# 7 OFF-SITE TRAFFIC NOISE ANALYSIS

To assess the off-site transportation CNEL noise level impacts associated with development of the proposed Project, noise contours were developed based on the *Antelope Valley Commerce Center Traffic Analysis* prepared by Urban Crossroads, Inc. (22) 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 impacts at receiving land uses adjacent to roadways conveying Project traffic. The noise contours represent the distance to noise levels of a constant value and are measured from the center of the roadway for the 70, 65, and 60 dBA 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. Tables 7-1 through 7-6 present a summary of the exterior traffic noise levels without barrier attenuation for each traffic condition. Appendix 7.1 includes the traffic noise level contours worksheets for each traffic condition.

10	Poad	Comment	Receiving	CNEL at Nearest	Distance to Contour from Centerline (Feet)			
U	коао	Segment	Land Use <sup>1</sup>	Land Use (dBA) <sup>2</sup>	70 dBA CNEL	65 dBA CNEL	60 dBA CNEL	
1	10th St. W	n/o Avenue M	Non-Sensitive	72.9	106	228	491	
2	10th St. W	s/o Avenue M	Non-Sensitive	72.1	94	203	436	
3	Sierra Hwy.	n/o Avenue L	Non-Sensitive	72.7	103	221	476	
4	Sierra Hwy.	s/o Avenue L	Non-Sensitive 73.4		114	247	531	
5	Sierra Hwy.	s/o Avenue M	Non-Sensitive 73.9		123	265	570	
6	Sierra Hwy.	s/o Avenue N	Non-Sensitive	74.9	144	310	669	
7	Challenger Wy.	n/o Avenue L	Sensitive	73.2	86	184	397	
8	Challenger Wy.	s/o Avenue L	Sensitive	70.7	57	124	267	
9	20th St.	n/o Avenue M	Sensitive	68.8	RW	93	201	
10	Avenue M	w/o SR-14 SB Ramps	Non-Sensitive	70.5	74	159	343	
11	Avenue M	e/o SR-14 NB Ramps	Non-Sensitive	72.8	104	225	484	
12	Avenue M	w/o Sierra Hwy.	Non-Sensitive	72.7	102	221	475	
13	Avenue M	e/o Sierra Hwy.	Non-Sensitive	73.6	118	255	549	
14	Avenue M	e/o 4th St.	Non-Sensitive	73.8	121	261	563	
15	Avenue M	e/o Challenger Wy.	Non-Sensitive	74.1	127	274	589	
16	Avenue M	e/o Site 2 Rd.	Non-Sensitive	73.6	118	255	549	

TABLE 7-1: EXISTING WITHOUT PROJECT CONTOURS



п	Road	Road Segment		CNEL at Nearest	Distance to Contour from Centerline (Feet)			
ם		Segment	Land Use <sup>1</sup>	Land Use (dBA) <sup>2</sup>	70 dBA CNEL	65 dBA CNEL	60 dBA CNEL	
17	Avenue N	w/o SR-14 SB Ramps	Sensitive	73.3	86	186	401	
18	Avenue N	w/o SR-14 NB Ramps	Non-Sensitive	72.7	78	169	364	
19	Avenue N	e/o 10th St. W	Non-Sensitive	70.1	RW	115	247	

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

"RW" = Location of the respective noise contour falls within the right-of-way of the road.

	Road	Cognest	Receiving	CNEL at Nearest	Distance to Contour from Centerline (Feet)		
U	KOAO	Segment	Land Use <sup>1</sup>	Land Use (dBA) <sup>2</sup>	70 dBA CNEL	65 dBA CNEL	60 dBA CNEL
1	10th St. W	n/o Avenue M	Non-Sensitive	72.9	107	230	496
2	10th St. W	s/o Avenue M	Non-Sensitive	72.2	95	205	441
3	Sierra Hwy.	n/o Avenue L	Non-Sensitive	74.2	129	279	601
4	Sierra Hwy.	s/o Avenue L	Non-Sensitive	74.7	141	303	654
5	Sierra Hwy.	s/o Avenue M	Non-Sensitive 75.3		153	329	709
6	Sierra Hwy.	s/o Avenue N	Non-Sensitive	75.8	167	359	774
7	Challenger Wy.	n/o Avenue L	Sensitive	ensitive 73.4		190	409
8	Challenger Wy.	s/o Avenue L	Sensitive	71.1	62	133	286
9	20th St.	n/o Avenue M	Sensitive	69.1	RW	97	209
10	Avenue M	w/o SR-14 SB Ramps	Non-Sensitive	70.6	75	161	347
11	Avenue M	e/o SR-14 NB Ramps	Non-Sensitive	77.2	205	442	953
12	Avenue M	w/o Sierra Hwy.	Non-Sensitive	77.7	221	476	1025
13	Avenue M	e/o Sierra Hwy.	Non-Sensitive	79.1	273	588	1267
14	Avenue M	e/o 4th St.	Non-Sensitive	74.9	144	310	667
15	Avenue M	e/o Challenger Wy.	Non-Sensitive	74.2	130	280	604
16	Avenue M	e/o Site 2 Rd.	Non-Sensitive	73.7	120	259	557
17	Avenue N	w/o SR-14 SB Ramps	Sensitive	73.3	87	186	402
18	Avenue N	w/o SR-14 NB Ramps	Non-Sensitive	73.2	85	182	393
19	Avenue N	e/o 10th St. W	Non-Sensitive	71.2	RW	135	291

#### TABLE 7-2: EXISTING WITH PROJECT CONTOURS

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

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



	Road	Segment	Receiving	CNEL at Nearest	Distance to Contour from Centerline (Feet)			
U		Segment	Land Use <sup>1</sup>	Land Use (dBA) <sup>2</sup>	70 dBA CNEL	65 dBA CNEL	60 dBA CNEL	
1	10th St. W	n/o Avenue M	Non-Sensitive	73.0	108	234	503	
2	10th St. W	s/o Avenue M	Non-Sensitive	74.1	128	275	593	
3	Sierra Hwy.	n/o Avenue L	Non-Sensitive	73.8	123	264	569	
4	Sierra Hwy.	s/o Avenue L	Non-Sensitive	74.4	134	289	623	
5	Sierra Hwy.	s/o Avenue M	Non-Sensitive	74.8	141	304	655	
6	Sierra Hwy.	s/o Avenue N	Non-Sensitive	75.6	161	347	748	
7	Challenger Wy.	n/o Avenue L	Sensitive	73.3		185	399	
8	Challenger Wy.	s/o Avenue L	Sensitive	70.7	58	125	269	
9	20th St.	n/o Avenue M	Sensitive	68.8	RW	93	201	
10	Avenue M	w/o SR-14 SB Ramps	Non-Sensitive	70.7	76	163	351	
11	Avenue M	e/o SR-14 NB Ramps	Non-Sensitive	73.9	124	268	577	
12	Avenue M	w/o Sierra Hwy.	Non-Sensitive	73.2	111	239	515	
13	Avenue M	e/o Sierra Hwy.	Non-Sensitive	73.7	120	259	558	
14	Avenue M	e/o 4th St.	Non-Sensitive	73.9	123	265	572	
15	Avenue M	e/o Challenger Wy.	Non-Sensitive	74.2	129	278	598	
16	Avenue M	e/o Site 2 Rd.	Non-Sensitive	73.7	120	259	557	
17	Avenue N	w/o SR-14 SB Ramps	Sensitive	73.3	86	186	401	
18	Avenue N	w/o SR-14 NB Ramps	Non-Sensitive	ensitive 73.4 87		188	405	
19	Avenue N	e/o 10th St. W	Non-Sensitive	70.6	RW	123	264	

TABLE 7-3: EC (2025) WITHOUT PROJECT CONTOURS

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



	Road	Segment	Receiving	CNEL at Nearest	Distance to Contour from Centerline (Feet)			
U	KOAQ	Segment	Land Use <sup>1</sup>	Land Use (dBA) <sup>2</sup>	70 dBA CNEL	65 dBA CNEL	60 dBA CNEL	
1	10th St. W	n/o Avenue M	Non-Sensitive	73.1	109	234	505	
2	10th St. W	s/o Avenue M	Non-Sensitive	74.1	128	276	594	
3	Sierra Hwy.	n/o Avenue L	Non-Sensitive	74.2	129	279	600	
4	Sierra Hwy.	s/o Avenue L	Non-Sensitive	74.7	141	303	653	
5	Sierra Hwy.	s/o Avenue M	Non-Sensitive	75.1	149	321	692	
6	Sierra Hwy.	s/o Avenue N	Non-Sensitive	75.8	167	360	775	
7	Challenger Wy.	n/o Avenue L	Sensitive	73.3		187	402	
8	Challenger Wy.	s/o Avenue L	Sensitive	70.8	59	127	274	
9	20th St.	n/o Avenue M	Sensitive	68.9	RW	94	203	
10	Avenue M	w/o SR-14 SB Ramps	Non-Sensitive	70.7	76	163	352	
11	Avenue M	e/o SR-14 NB Ramps	Non-Sensitive	75.3	152	328	707	
12	Avenue M	w/o Sierra Hwy.	Non-Sensitive	75.0	146	315	678	
13	Avenue M	e/o Sierra Hwy.	Non-Sensitive	75.9	168	361	779	
14	Avenue M	e/o 4th St.	Non-Sensitive	74.3	131	282	607	
15	Avenue M	e/o Challenger Wy.	Non-Sensitive	74.2	130	279	602	
16	Avenue M	e/o Site 2 Rd.	Non-Sensitive	73.7	121	260	560	
17	Avenue N	w/o SR-14 SB Ramps	Sensitive	73.3	86	186	401	
18	Avenue N	w/o SR-14 NB Ramps	Non-Sensitive	Sensitive 73.5 89		192	414	
19	Avenue N	e/o 10th St. W	Non-Sensitive	70.9	RW	130	279	

TABLE 7-4: EC (2025) WITH PROJECT CONTOURS

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



	Poad	Comment	Receiving	CNEL at Nearest	Distance to Contour from Centerline (Feet)			
U	коао	Segment	Land Use <sup>1</sup>	Land Use (dBA) <sup>2</sup>	70 dBA CNEL	65 dBA CNEL	60 dBA CNEL	
1	10th St. W	n/o Avenue M	Non-Sensitive	73.1	110	237	512	
2	10th St. W	s/o Avenue M	Non-Sensitive	75.1	148	318	686	
3	Sierra Hwy.	n/o Avenue L	Non-Sensitive	74.5	135	291	628	
4	Sierra Hwy.	s/o Avenue L	Non-Sensitive 75.0		147	316	680	
5	Sierra Hwy.	s/o Avenue M	Non-Sensitive	75.3	153	329	708	
6	Sierra Hwy.	s/o Avenue N	Non-Sensitive	ive 76.1		371	799	
7	Challenger Wy.	n/o Avenue L	Sensitive 73.3		86	186	400	
8	Challenger Wy.	s/o Avenue L	Sensitive	70.8	58	126	271	
9	20th St.	n/o Avenue M	Sensitive	68.8	RW	93	201	
10	Avenue M	w/o SR-14 SB Ramps	Non-Sensitive	70.8	77	165	356	
11	Avenue M	e/o SR-14 NB Ramps	Non-Sensitive	74.6	137	295	635	
12	Avenue M	w/o Sierra Hwy.	Non-Sensitive	73.5	117	251	541	
13	Avenue M	e/o Sierra Hwy.	Non-Sensitive	73.8	122	262	565	
14	Avenue M	e/o 4th St.	Non-Sensitive	73.9	124	268	577	
15	Avenue M	e/o Challenger Wy.	Non-Sensitive	74.2	130	280	604	
16	Avenue M	e/o Site 2 Rd.	Non-Sensitive	73.8	121	261	563	
17	Avenue N	w/o SR-14 SB Ramps	Sensitive	73.3	86	186	401	
18	Avenue N	w/o SR-14 NB Ramps	Non-Sensitive	73.8	93	200	431	
19	Avenue N	e/o 10th St. W	Non-Sensitive	70.9	RW	128	276	

TABLE 7-5: EC (2032) WITHOUT PROJECT CONTOURS

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



	Road	Segment	Receiving	CNEL at Nearest	Distance to Contour from Centerline (Feet)			
U	коао	Segment	Land Use <sup>1</sup>	Land Use (dBA) <sup>2</sup>	70 dBA CNEL	65 dBA CNEL	60 dBA CNEL	
1	10th St. W	n/o Avenue M	Non-Sensitive	73.2	111	240	516	
2	10th St. W	s/o Avenue M	Non-Sensitive	75.1	149	320	690	
3	Sierra Hwy.	n/o Avenue L	Non-Sensitive	75.5	159	343	739	
4	Sierra Hwy.	s/o Avenue L	Non-Sensitive	-Sensitive 76.0		367	790	
5	Sierra Hwy.	s/o Avenue M	Non-Sensitive	76.3	180	388	835	
6	Sierra Hwy.	s/o Avenue N	Non-Sensitive	itive 76.8		416	897	
7	Challenger Wy.	n/o Avenue L	Sensitive	ensitive 73.5		191	411	
8	Challenger Wy.	s/o Avenue L	Sensitive	71.2	63	135	291	
9	20th St.	n/o Avenue M	Sensitive	69.1	RW	97	209	
10	Avenue M	w/o SR-14 SB Ramps	Non-Sensitive	70.9	78	167	360	
11	Avenue M	e/o SR-14 NB Ramps	Non-Sensitive	77.9	229	494	1065	
12	Avenue M	w/o Sierra Hwy.	Non-Sensitive	78.0	231	497	1071	
13	Avenue M	e/o Sierra Hwy.	Non-Sensitive	79.1	275	593	1277	
14	Avenue M	e/o 4th St.	Non-Sensitive	75.0	146	316	680	
15	Avenue M	e/o Challenger Wy.	Non-Sensitive	74.4	133	287	618	
16	Avenue M	e/o Site 2 Rd.	Non-Sensitive	73.9	123	265	572	
17	Avenue N	w/o SR-14 SB Ramps	Sensitive	73.3	87	186	402	
18	Avenue N	w/o SR-14 NB Ramps	Non-Sensitive	Non-Sensitive 74.2 9		212	458	
19	Avenue N	e/o 10th St. W	Non-Sensitive	71.8	68	147	318	

TABLE 7-6: EC (2032) WITH PROJECT CONTOURS

<sup>2</sup> The CNEL is calculated at the boundary of the right-of-way of each roadway and the property line of the nearest receiving land use. "RW" = Location of the respective noise contour falls within the right-of-way of the road.

### 7.2 EXISTING PROJECT TRAFFIC NOISE LEVEL INCREASES

An analysis of existing traffic noise levels plus traffic noise generated by the proposed Project has been included in this report for informational purposes and to fully analyze all the existing traffic scenarios identified in the Traffic Analysis prepared by Urban Crossroads, Inc. However, the analysis of 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 2032 conditions. Table 7-1 shows the Existing without Project buildout conditions CNEL noise levels. The Existing without Project exterior noise levels range from 68.8 to 74.9 dBA CNEL, without accounting for any noise attenuation features such as noise barriers or topography. Table 7-2 shows the Existing with Project conditions ranging from 69.1 to 79.1 dBA CNEL. Table 7-7 shows that the Project off-site traffic noise level increases range from 0.0 to 5.5 dBA CNEL on the study area roadway segments. Based on the significance criteria for off-site traffic noise presented in Table 4-1, land uses adjacent to the study area roadway segments would experience *less than significant* noise level increases on receiving land uses due to the Project-related traffic.



ID	Road	Segment	Receiving	CNEL at Receiving Land Use (dBA) <sup>2</sup>			Incremental Noise Level Increase Threshold <sup>3</sup>	
			Land Use <sup>1</sup>	No Project	With Project	Project Increment	Limit	Exceeded?
1	10th St. W	n/o Avenue M	Non-Sensitive	72.9	72.9	0.0	n/a	No
2	10th St. W	s/o Avenue M	Non-Sensitive	72.1	72.2	0.1	n/a	No
3	Sierra Hwy.	n/o Avenue L	Non-Sensitive	72.7	74.2	1.5	n/a	No
4	Sierra Hwy.	s/o Avenue L	Non-Sensitive	73.4	74.7	1.3	n/a	No
5	Sierra Hwy.	s/o Avenue M	Non-Sensitive	73.9	75.3	1.4	n/a	No
6	Sierra Hwy.	s/o Avenue N	Non-Sensitive	74.9	75.8	0.9	n/a	No
7	Challenger Wy.	n/o Avenue L	Sensitive	73.2	73.4	0.2	1.5	No
8	Challenger Wy.	s/o Avenue L	Sensitive	70.7	71.1	0.4	1.5	No
9	20th St.	n/o Avenue M	Sensitive	68.8	69.1	0.3	1.5	No
10	Avenue M	w/o SR-14 SB Ramps	Non-Sensitive	70.5	70.6	0.1	n/a	No
11	Avenue M	e/o SR-14 NB Ramps	Non-Sensitive	72.8	77.2	4.4	n/a	No
12	Avenue M	w/o Sierra Hwy.	Non-Sensitive	72.7	77.7	5.0	n/a	No
13	Avenue M	e/o Sierra Hwy.	Non-Sensitive	73.6	79.1	5.5	n/a	No
14	Avenue M	e/o 4th St.	Non-Sensitive	73.8	74.9	1.1	n/a	No
15	Avenue M	e/o Challenger Wy.	Non-Sensitive	74.1	74.2	0.1	n/a	No
16	Avenue M	e/o Site 2 Rd.	Non-Sensitive	73.6	73.7	0.1	n/a	No
17	Avenue N	w/o SR-14 SB Ramps	Sensitive	73.3	73.3	0.0	1.5	No
18	Avenue N	w/o SR-14 NB Ramps	Non-Sensitive	72.7	73.2	0.5	n/a	No
19	Avenue N	e/o 10th St. W	Non-Sensitive	70.1	71.2	1.1	n/a	No

 TABLE 7-7: EXISTING WITH PROJECT TRAFFIC NOISE INCREASES

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

<sup>3</sup> Does the Project create an incremental noise level increase exceeding the significance criteria (Table 4-1)?

"n/a" Per the City of Palmdale General Plan Noise Element Figure 16-1, 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 normally acceptable 75 dBA CNEL land use compatibility criteria.

## 7.3 EC (2025) TRAFFIC NOISE LEVEL INCREASES

Table 7-3 presents the Existing plus Cumulative (EC) (2025) without Project conditions CNEL noise levels. The EC (2025) without Project exterior noise levels range from 68.8 to 75.6 dBA CNEL, without accounting for any noise attenuation features such as noise barriers or topography. Table 7-4 shows that the EC (2025) with Project conditions will range from 68.9 to 75.9 dBA CNEL. Table 7-8 shows that the Project off-site traffic noise level increases range from 0.0 to 2.2 dBA CNEL. Based on the significance criteria for off-site traffic noise presented in Table 4-1, land uses adjacent to the study area roadway segments would experience *less than significant* noise level increases on receiving land uses due to the Project-related traffic under EC (2025) traffic conditions.



ID	Road	Segment	Receiving	CNEL at Receiving Land Use (dBA) <sup>2</sup>			Incremental Noise Level Increase Threshold <sup>3</sup>		
			Land Use <sup>1</sup>	No Project	With Project	Project Increment	Limit	Exceeded?	
1	10th St. W	n/o Avenue M	Non-Sensitive	73.0	73.1	0.1	n/a	No	
2	10th St. W	s/o Avenue M	Non-Sensitive	74.1	74.1	0.0	n/a	No	
3	Sierra Hwy.	n/o Avenue L	Non-Sensitive	73.8	74.2	0.4	n/a	No	
4	Sierra Hwy.	s/o Avenue L	Non-Sensitive	74.4	74.7	0.3	n/a	No	
5	Sierra Hwy.	s/o Avenue M	Non-Sensitive	74.8	75.1	0.3	n/a	No	
6	Sierra Hwy.	s/o Avenue N	Non-Sensitive	75.6	75.8	0.2	3.0	No	
7	Challenger Wy.	n/o Avenue L	Sensitive	73.3	73.3	0.0	1.5	No	
8	Challenger Wy.	s/o Avenue L	Sensitive	70.7	70.8	0.1	1.5	No	
9	20th St.	n/o Avenue M	Sensitive	68.8	68.9	0.1	1.5	No	
10	Avenue M	w/o SR-14 SB Ramps	Non-Sensitive	70.7	70.7	0.0	n/a	No	
11	Avenue M	e/o SR-14 NB Ramps	Non-Sensitive	73.9	75.3	1.4	n/a	No	
12	Avenue M	w/o Sierra Hwy.	Non-Sensitive	73.2	75.0	1.8	n/a	No	
13	Avenue M	e/o Sierra Hwy.	Non-Sensitive	73.7	75.9	2.2	n/a	No	
14	Avenue M	e/o 4th St.	Non-Sensitive	73.9	74.3	0.4	n/a	No	
15	Avenue M	e/o Challenger Wy.	Non-Sensitive	74.2	74.2	0.0	n/a	No	
16	Avenue M	e/o Site 2 Rd.	Non-Sensitive	73.7	73.7	0.0	n/a	No	
17	Avenue N	w/o SR-14 SB Ramps	Sensitive	73.3	73.3	0.0	1.5	No	
18	Avenue N	w/o SR-14 NB Ramps	Non-Sensitive	73.4	73.5	0.1	n/a	No	
19	Avenue N	e/o 10th St. W	Non-Sensitive	70.6	70.9	0.3	n/a	No	

 TABLE 7-8: EC (2025) WITH PROJECT TRAFFIC NOISE INCREASES

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

<sup>3</sup> Does the Project create an incremental noise level increase exceeding the significance criteria (Table 4-1)?

"n/a" Per the City of Palmdale General Plan Noise Element Figure 16-1, 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 normally acceptable 75 dBA CNEL land use compatibility criteria.

## 7.4 EC (2032) TRAFFIC NOISE LEVEL INCREASES

Table 7-5 presents the Existing plus Cumulative (EC) (2032) without Project conditions CNEL noise levels. The EC (2032) without Project exterior noise levels range from 68.8 to 76.1 dBA CNEL, without accounting for any noise attenuation features such as noise barriers or topography. Table 7-6 shows that the EC (2032) with Project conditions will range from 69.1 to 79.1 dBA CNEL. Table 7-9 shows that the Project off-site traffic noise level increases range from 0.0 to 5.3 dBA CNEL. Based on the significance criteria for off-site traffic noise presented in Table 4-1, land uses adjacent to the study area roadway segments would experience *less than significant* noise level increases on receiving land uses due to the Project-related traffic under EC (2032) traffic conditions.



ID	Road	Segment	CNEL at Receiving Receiving Land Use (dBA) <sup>2</sup>			Increme Level Thre	ental Noise Increase eshold <sup>3</sup>	
			Land Use <sup>1</sup>	No Project	With Project	Project Increment	Limit	Exceeded?
1	10th St. W	n/o Avenue M	Non-Sensitive	73.1	73.2	0.1	n/a	No
2	10th St. W	s/o Avenue M	Non-Sensitive	75.1	75.1	0.0	3.0	No
3	Sierra Hwy.	n/o Avenue L	Non-Sensitive	74.5	75.5	1.0	n/a	No
4	Sierra Hwy.	s/o Avenue L	Non-Sensitive	75.0	76.0	1.0	n/a	No
5	Sierra Hwy.	s/o Avenue M	Non-Sensitive	75.3	76.3	1.0	3.0	No
6	Sierra Hwy.	s/o Avenue N	Non-Sensitive	76.1	76.8	0.7	3.0	No
7	Challenger Wy.	n/o Avenue L	Sensitive	73.3	73.5	0.2	1.5	No
8	Challenger Wy.	s/o Avenue L	Sensitive	70.8	71.2	0.4	1.5	No
9	20th St.	n/o Avenue M	Sensitive	68.8	69.1	0.3	1.5	No
10	Avenue M	w/o SR-14 SB Ramps	Non-Sensitive	70.8	70.9	0.1	n/a	No
11	Avenue M	e/o SR-14 NB Ramps	Non-Sensitive	74.6	77.9	3.3	n/a	No
12	Avenue M	w/o Sierra Hwy.	Non-Sensitive	73.5	78.0	4.5	n/a	No
13	Avenue M	e/o Sierra Hwy.	Non-Sensitive	73.8	79.1	5.3	n/a	No
14	Avenue M	e/o 4th St.	Non-Sensitive	73.9	75.0	1.1	n/a	No
15	Avenue M	e/o Challenger Wy.	Non-Sensitive	74.2	74.4	0.2	n/a	No
16	Avenue M	e/o Site 2 Rd.	Non-Sensitive	73.8	73.9	0.1	n/a	No
17	Avenue N	w/o SR-14 SB Ramps	Sensitive	73.3	73.3	0.0	1.5	No
18	Avenue N	w/o SR-14 NB Ramps	Non-Sensitive	73.8	74.2	0.4	n/a	No
19	Avenue N	e/o 10th St. W	Non-Sensitive	70.9	71.8	0.9	n/a	No

TABLE 7-9: EC (2032) WITH PROJECT TRAFFIC NOISE INCREASES

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

<sup>3</sup> Does the Project create an incremental noise level increase exceeding the significance criteria (Table 4-1)?

"n/a" Per the City of Palmdale General Plan Noise Element Figure 16-1, 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 normally acceptable 75 dBA CNEL land use compatibility criteria.



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## 8 **RECEIVER LOCATIONS**

To assess the potential for long-term operational and short-term construction noise impacts, the following sensitive receiver locations, as shown on Exhibit 8-A, were identified as representative locations for analysis. Sensitive receivers are generally defined as locations where people reside or where the presence of unwanted sound could otherwise adversely affect the use of the land. Noise-sensitive land uses are generally considered to include schools, hospitals, single-family dwellings, mobile home parks, churches, libraries, and recreation areas. Moderately noise-sensitive land uses typically include multi-family dwellings, hotels, motels, dormitories, outpatient 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, five receiver locations in the vicinity of the Project site were identified. 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. Due to the additional attenuation from distance and the shielding of intervening structures, 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 vacant commercial retail site at 42020 4th St E., approximately 127 feet north the Project site and north of Columbia Way/Avenue M. 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 at 42057 5th St E., approximately 607 feet north of the Project site. R2 is placed in the private outdoor living areas (backyard) facing the Project site. 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 42104 6th St E., approximately 746 feet north of the Project site. R3 is placed in the private outdoor living areas (backyard) facing the Project site. A 24-hour noise measurement was taken near this location, L3, to describe the existing ambient noise environment.
- R4: Location R4 represents the gas station at 42011 Sierra Highway, approximately 612 feet northwest 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, L5, to describe the existing ambient noise environment.
- R5: Location R5 represents the commercial retail land use within the Sierra Highway Plaza at 190 Sierra Court, approximately 379 feet west of the Project site. Since there are no

private outdoor living areas (backyards) facing the Project site, receiver R5 is placed at the building façade. A 24-hour noise measurement was taken near this location, L6, to describe the existing ambient noise environment.







## 9 OPERATIONAL NOISE ANALYSIS

This section analyzes the potential stationary-source operational noise impacts at the nearest receiver locations, identified in Section 8, resulting from the operation of the proposed Antelope Valley Commerce Center Project. Exhibit 9-A of the Noise Study includes over 158 individual noise sources to fully describe the potential reasonable worst-case noise environment.

### 9.1 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: loading dock activity, roof-top air conditioning units, trash enclosure activity, parking lot vehicle movements, truck movements and drive-through speakerphone activities.

### 9.2 **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 9-1 used to estimate the Project operational noise impacts. It is important to note that the following projected noise levels assume the reasonable worst-case noise environment with the typical noise sources operating at the same time. These sources of noise activity will likely vary throughout the day.

#### 9.2.1 MEASUREMENT PROCEDURES

The reference noise level measurements presented in this section were collected 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. (18)





**EXHIBIT 9-A: OPERATIONAL NOISE SOURCE LOCATIONS** 



Nation Courses	Noise Source	Mir Hou	n./ ur²	Reference Noise Level	Sound Power
Noise Source-	Height (Feet)	t Day Nigh		(dBA L <sub>eq</sub> ) @ 50 Feet	Level (dBA) <sup>3</sup>
Loading Dock Activity	8'	60	60	65.7	111.5
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 Movements	5'	60	60	52.6	81.1
Truck Movements	8'	60	60	59.8	93.2
Drive-Through Speakerphone Activity	3'	60	60	50.0	84.0

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

<sup>1</sup> As measured by Urban Crossroads, Inc.

<sup>2</sup> Anticipated duration (minutes within the hour) of noise activity during typical hourly conditions expected at the Project site. "Daytime" = 7:00 a.m. - 10:00 p.m.; "Nighttime" = 10:00 p.m. - 7:00 a.m.

<sup>3</sup> 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.

#### 9.2.2 LOADING DOCK ACTIVITY

The reference loading dock activities are intended to describe the typical outdoor operational noise activities associated with the Project. This includes truck idling, reefer activity (refrigerator truck/cold storage), deliveries, backup alarms, trailer docking including a combination of tractor trailer semi-trucks, two-axle delivery trucks, and background operation activities. Since the noise levels generated by cold storage loading dock activity can be slightly higher due to the use of refrigerated trucks or reefers this analysis conservatively assumes that all loading dock activity is associated with cold storage facilities. The reference noise level measurement was taken in the center of the loading dock activity area and represents multiple concurrent noise sources resulting in a combined noise level of 65.7 dBA  $L_{eq}$  at a uniform distance of 50 feet. Specifically, the reference noise level measurement represents one truck located approximately 30 feet from the noise level meter with another truck passing by to park roughly 20 feet away, both with their engines idling. Throughout the reference noise level measurement, a separate docked and running reefer truck was located approximately 50 feet east of the measurement location. Additional background noise sources included truck pass-by noise, truck drivers talking to each other next to docked trucks, and air brake release noise when trucks parked.

#### **ROOF-TOP AIR CONDITIONING UNITS** 9.2.3

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 Leg. 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.

#### 9.2.4 TRASH ENCLOSURE ACTIVITY

To describe the noise levels associated with a trash enclosure activity, Urban Crossroads, Inc. 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.

#### 9.2.5 PARKING LOT VEHICLE MOVEMENTS

To describe the on-site parking lot activity, a long-term 29-hour reference noise level measurement was collected in the center of activity within the staff parking lot of a warehouse distribution center. At 50 feet from the center of activity, the parking lot produced a reference noise level of 52.6 dBA L<sub>eq</sub>. 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 to cars pulling in and out of parking spaces in combination with car doors opening and closing.

#### 9.2.6 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.

#### 9.2.7 DRIVE-THROUGH SPEAKERPHONE ACTIVITY

To describe the potential noise level impacts associated with the planned drive-thru speakerphones, this analysis relies on the drive-through intercom system manufactured by HME. This type of system is commonly used by the quick service restaurant (QSR) industry for drive-thru communications. The HME SPP2 speaker post intercom system produces a maximum noise level of 50.0 dBA L<sub>eq</sub> at 50 feet. The system may also be equipped with an automatic volume control that can automatically reduce the sound levels as the ambient noise level decreases. The reference speakerphone noise level describes continuous drive-through operations and does not include any periods of inactivity.



### 9.4 PROJECT OPERATIONAL NOISE LEVELS

Using the reference noise levels to represent the proposed Project operations that include loading dock activity, roof-top air conditioning units, trash enclosure activity, parking lot vehicle movements, truck movements and drive-through speakerphone 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 receiver locations. Table 9-2 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 off-site receiver locations are expected to range from 48.8 to 55.1 dBA Leq.

Noise Source1	Operational Noise Levels by Receiver Location (dBA Leq)						
Noise Source-	R1	R2	R3	R4	R5		
Loading Dock Activity	50.5	50.5	49.9	48.7	55.1		
Roof-Top Air Conditioning Units	44.6	36.2	33.5	29.8	28.3		
Trash Enclosure Activity	39.7	33.2	28.8	27.1	25.9		
Parking Lot Vehicle Movements	35.5	28.9	27.6	23.8	18.3		
Truck Movements	29.3	29.0	26.9	26.8	33.1		
Drive-Through Speakerphone Activity	37.5	26.5	21.7	14.9	6.4		
Total (All Noise Sources)	51.9	50.8	50.1	48.8	55.1		

#### TABLE 9-2: DAYTIME PROJECT OPERATIONAL NOISE LEVELS

<sup>1</sup> See Exhibit 9-A for the noise source locations. CadnaA noise model calculations are included in Appendix 9.1.

Table 9-3 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 off-site receiver locations are expected to range from 48.8 to 55.1 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 9-1 and Appendix 9.1.

Noise Coursel	Operat	Operational Noise Levels by Receiver Location (dBA Leq)							
Noise Source-	R1 R2 R3		R3	R4	R5				
Loading Dock Activity	50.5	50.5	49.9	48.7	55.1				
Roof-Top Air Conditioning Units	42.2	33.8	31.1	27.4	25.9				
Trash Enclosure Activity	35.7	29.2	24.8	23.1	21.9				
Parking Lot Vehicle Movements	35.5	28.9	27.6	23.8	18.3				
Truck Movements	29.3	29.0	26.9	26.8	33.1				
Drive-Through Speakerphone Activity	37.5	26.5	21.7	14.9	6.4				
Total (All Noise Sources)	51.4	50.7	50.0	48.8	55.1				

#### TABLE 9-3: NIGHTTIME PROJECT OPERATIONAL NOISE LEVELS

<sup>1</sup> See Exhibit 9-A for the noise source locations. CadnaA noise model calculations are included in Appendix 9.1.



### 9.5 PROJECT OPERATIONAL NOISE LEVEL COMPLIANCE

To demonstrate compliance with local noise regulations, the Project-only operational noise levels are evaluated against the exterior noise level thresholds adjusted to reflect the ambient noise levels at the nearest receiver locations. Table 9-4 shows the operational noise levels associated with the Project will not exceed the daytime and nighttime exterior noise level standards. Therefore, the operational noise impacts are considered *less than significant* at the nearby noise-receiver locations.

Receiver	Project Operational Noise Levels (dBA Leq) <sup>2</sup>		Noise Level Standards (dBA Leq) <sup>3</sup>		Noise Level Standards Exceeded? <sup>4</sup>	
Location	Daytime	Nighttime	Daytime	Nighttime	Daytime	Nighttime
R1	51.9	51.4	68.4	65.8	No	No
R2	50.8	50.7	56.9	56.5	No	No
R3	50.1	50.0	51.8	51.8	No	No
R4	48.8	48.8	69.2	67.3	No	No
R5	55.1	55.1	66.4	63.6	No	No

TABLE 9-4: OPERATIONAL NOISE LEVEL COMPLIANCE

<sup>1</sup> See Exhibit 8-A for the receiver locations.

<sup>2</sup> Proposed Project operational noise level calculations are included in Appendix 9-1.

<sup>3</sup> Exterior noise level standards adjusted to reflect the ambient noise levels (see Table 5-1) per the County of Los Angeles County Code, Chapter 12.08 Noise Control, Section 12.08.390[B] (Appendix 3.2)

<sup>4</sup> Do the estimated Project operational noise source activities exceed the noise level standards?

"Daytime" = 7:00 a.m. to 10:00 p.m.; "Nighttime" = 10:00 p.m. to 7:00 a.m.

#### 9.6 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 receiver locations that may be 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. (2) Instead, they must be logarithmically added using the following base equation:

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

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 9-5 and 9-6, respectively. As indicated on Table 9-5, the Project will generate a daytime operational noise level increase ranging from 0.0 to 2.2 dBA L<sub>eq</sub> at the nearest receiver locations. Table 9-6 shows that the Project will generate a nighttime operational noise level increase ranging from 0.1 to 2.2 dBA L<sub>eq</sub> at the nearest receiver locational noise level increase range at the nearest receiver locations.



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

Receiver Location <sup>1</sup>	Total Project Operational Noise Level <sup>2</sup>	Measurement Location <sup>3</sup>	Reference Ambient Noise Levels <sup>4</sup>	Combined Project and Ambient <sup>5</sup>	Project Increase <sup>6</sup>	Increase Criteria <sup>7</sup>	Increase Criteria Exceeded?
R1	51.9	L1	68.4	68.5	0.1	1.5	No
R2	50.8	L2	56.9	57.9	1.0	5.0	No
R3	50.1	L3	51.8	54.0	2.2	5.0	No
R4	48.8	L5	69.2	69.2	0.0	1.5	No
R5	55.1	L6	66.4	66.7	0.3	1.5	No

TABLE 9-5: DAYTIME PROJECT OPERATIONAL NOISE LEVEL INCREASES

<sup>1</sup> See Exhibit 8-A for the receiver locations.

<sup>2</sup> Total Project daytime operational noise levels as shown on Table 9-2.

<sup>3</sup> Reference noise level measurement locations as shown on Exhibit 5-A.

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

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

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

<sup>7</sup> Significance increase criteria as shown on Table 4-1.

#### TABLE 9-6: NIGHTTIME OPERATIONAL NOISE LEVEL INCREASES

Receiver Location <sup>1</sup>	Total Project Operational Noise Level <sup>2</sup>	Measurement Location <sup>3</sup>	Reference Ambient Noise Levels <sup>4</sup>	Combined Project and Ambient <sup>5</sup>	Project Increase <sup>6</sup>	Increase Criteria <sup>7</sup>	Increase Criteria Exceeded?
R1	51.4	L1	65.8	66.0	0.2	1.5	No
R2	50.7	L2	56.5	57.5	1.0	5.0	No
R3	50.0	L3	51.8	54.0	2.2	5.0	No
R4	48.8	L5	67.3	67.4	0.1	1.5	No
R5	55.1	L6	63.6	64.2	0.6	5.0	No

<sup>1</sup> See Exhibit 8-A for the receiver locations.

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

<sup>3</sup> Reference noise level measurement locations as shown on Exhibit 5-A.

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

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

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

<sup>7</sup> Significance increase criteria as shown on Table 4-1.



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## **10 CONSTRUCTION ANALYSIS**

This section analyzes potential impacts resulting from the short-term construction activities associated with the development of the Project. Exhibit 10-A shows the on-site construction noise source activity including the off-site roadway and utility improvements in relation to the nearest receiver locations previously described in Section 8. PMC Section 8.28.030 addresses construction-related noise by prohibiting earth excavating and similar activities between 8:00 p.m. and 6:30 a.m. and on Sundays in any residential zone or within 500 feet of any residence, hotel, motel, or recreational vehicle park. The nearest residence at 42057 5th St E. represented by receiver location R2 is located 607 feet north of the Project site.

In addition, since neither the City of Palmdale General Plan or Municipal Code establish numeric maximum acceptable construction source noise levels at potentially affected receivers for CEQA analysis purposes, a numerical construction threshold based on Federal Transit Administration (FTA) Transit Noise and Vibration Impact Assessment Manual is used for analysis of daytime construction impacts. The FTA considers a daytime exterior construction noise level of 80 dBA  $L_{eq}$  as a reasonable threshold for noise sensitive residential land use with a nighttime exterior construction noise level of 70 dBA  $L_{eq}$ . (8 p. 179)

## **10.1** 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

## **10.2** 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. (23) 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.





EXHIBIT 10-A: CONSTRUCTION NOISE SOURCE AND RECEIVER LOCATIONS

Construction Activity

Receiver Locations

Limits of Off-Site Construction — Distance from receiver to Project site boundary (in feet)



#### **10.3** 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 receiver locations were completed. Consistent with FTA guidance for detailed construction noise assessment, Table 10-1 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 10-2, the construction noise levels are expected to range from 43.4 to 57.8 dBA  $L_{eq}$  at the nearby receiver locations. Appendix 10.1 includes the detailed CadnaA construction noise model inputs.

Construction Stage	Reference Construction Equipmnet <sup>1</sup>	Reference Noise Level @ 50 Feet (dBA L <sub>eq</sub> )	Composite Reference Noise Level (dBA L <sub>eq</sub> ) <sup>2</sup>	Reference Power Level (dBA L <sub>w</sub> ) <sup>3</sup>	
<b>C</b> ''	Tractor	80			
Site	Backhoe	74	84.0	115.6	
ricparation	Grader	81			
	Scraper	80			
Grading	Excavator	77	83.3	114.9	
	Dozer	78			
	Crane	73		112.2	
Building	Generator	78	80.6		
construction	Front End Loader	75			
	Paver	74			
Paving	Dump Truck	72	77.8	109.5	
	Roller	73			
	Man Lift	68			
Architectural	Compressor (air)	74	76.2	107.8	
coating	Generator (<25kVA)	70			

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

<sup>1</sup> FHWA Road Construction Noise Model.

<sup>2</sup> 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.

<sup>3</sup> Sound power level represents the total amount of acoustical energy (noise level) produced by a sound source independent of distance or surroundings.



	Construction Noise Levels (dBA Leq)								
Receiver Location <sup>1</sup>	Site Preparation	Grading	Building Construction	Paving	Architectural Coating	Highest Levels <sup>2</sup>			
R1	57.8	57.1	54.4	51.7	50.0	57.8			
R2	54.0	53.3	50.6	47.9	46.2	54.0			
R3	53.5	52.8	50.1	47.4	45.7	53.5			
R4	51.2	50.5	47.8	45.1	43.4	51.2			
R5	54.9	54.2	51.5	48.8	47.1	54.9			

TABLE 10-2: CONSTRUCTION EQUIPMENT NOISE LEVEL SUMMARY

<sup>1</sup> Construction noise source and receiver locations are shown on Exhibit 10-A.

<sup>2</sup> Construction noise level calculations based on distance from the construction activity, which is measured from the Project site boundary to the nearest receiver locations. CadnaA construction noise model inputs are included in Appendix 10.1.

#### **10.4** CONSTRUCTION NOISE LEVEL COMPLIANCE

To evaluate whether the Project will generate potentially significant short-term noise levels at the nearest receiver locations, a construction-related daytime noise level threshold of 80 dBA  $L_{eq}$  is used as a reasonable threshold to assess the daytime construction noise level impacts. The construction noise analysis shows that the nearest receiver locations will not exceed the reasonable daytime 80 dBA  $L_{eq}$  significance threshold during Project construction activities as shown on Table 10-3. Therefore, the noise impacts due to Project construction noise are considered *less than significant* at all receiver locations.

<b>TABLE 10-3</b> :	CONSTRUCTION NOISE LEVEL	COMPLIANCE
TADLE IV J.		COMILIANCE

- ·	Construction Noise Levels (dBA Leq)						
Receiver Location <sup>1</sup>	Highest Construction Noise Levels <sup>2</sup>	Threshold <sup>3</sup>	Threshold Exceeded? <sup>4</sup>				
R1	57.8	80	No				
R2	54.0	80	No				
R3	53.5	80	No				
R4	51.2	80	No				
R5	54.9	80	No				

<sup>1</sup>Construction noise source and receiver locations are shown on Exhibit 10-A.

 $^2$  Highest construction noise level calculations based on distance from the construction noise source activity to the nearest receiver locations as shown on Table 10-2.

<sup>3</sup> Construction noise level thresholds as shown on Table 4-1.

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

<sup>5</sup> Project operational noise levels provided for informational purposes





#### 10.5 OFF-SITE ROADWAY AND UTILITY IMPROVEMENTS CONSTRUCTION NOISE ANALYSIS

To support the Project development, there will be grading, trenching, and paving for off-site improvements associated with roadway construction and utility installation for the Project. It is expected that these off-site improvements will be constructed within the existing public right-of-way (ROW) on Columbia Way/Avenue M. The loudest phase of construction associated with off-site roadway and utility improvements would likely be grading/excavation activities, which would generate similar noise levels compared to the grading/excavation phase of the proposed project's on-site construction activities previously outlined on Table 10-1.

It is expected that the off-site construction activities would not take place at any one location for more than four days due to the nature of the linear construction activity. Construction noise from this off-site work would, therefore, be relatively short-term and the noise levels would be reduced as construction work moves linearly along the selected alignment and farther from sensitive uses. However, to minimize the potential construction noise impacts from the Project construction and the off-site roadway and utility Improvements, the Project shall implement the following construction noise abatement measures.

- 1. All construction activities shall comply with PMC Section 8.28.030 limiting construction activities to the hours of 6:00 a.m. and 6:00 p.m., prohibiting earth excavating and similar activities between 8:00 p.m. and 6:30 a.m. and on Sundays in any residential zone or within 500 feet of any residence, hotel, motel, or recreational vehicle park.
- 2. Construction contractors shall equip all construction equipment, fixed or mobile, with properly operating and maintained mufflers, consistent with manufacturers' standards).
- 3. All stationary construction equipment shall be placed in such a manner so that emitted noise is directed away from any sensitive receivers.
- 4. Construction equipment staging areas shall be located at the greatest feasible distance between the staging area and the nearest sensitive receivers.
- 5. The construction contractor shall limit equipment and material deliveries to the same hours specified for construction equipment.
- 6. Electrically powered air compressors and similar power tools shall be used, when feasible, in place of diesel equipment.
- 7. No music or electronically reinforced speech from construction workers shall be allowed.

With the implementation of these construction noise abatement measures, the potential impacts from the Project and construction and off-site roadway and utility Improvements would be reduced. Therefore, the off-site roadway and utility improvement construction activities will be *less than significant.* 





### 10.6 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. Since the nighttime concrete pours will take place outside the hours permitted by PMC Section 8.28.030, the Project Applicant will be required to obtain authorization for nighttime work from the City of Palmdale. Any nighttime construction noise activities shall satisfy the noise limits outlined in Table 4-1.

#### **10.6.1** 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 pouring 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 Antelope Valley Commerce Center, this analysis relies on reference sound pressure level of 67.7 dBA Leq at 50 feet representing a sound power level of 100.3 dBA Lw. 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 Lw is used to describe the expected Project nighttime concrete pour noise activities.

#### 10.6.2 NIGHTTIME CONCRETE POUR NOISE LEVEL COMPLIANCE

As shown on Table 10-4, the noise levels associated with the nighttime concrete pour activities are estimated to range from 35.9 to 42.5 dBA  $L_{eq}$  and will satisfy the City of Palmdale stationarysource nighttime exterior hourly average  $L_{eq}$  residential noise level threshold at all the receiver locations. Based on the results of this analysis, all the nearest noise receiver locations will experience *less than significant* impacts due to the Project related nighttime concrete pour activities. Appendix 10.2 includes the CadnaA nighttime concrete pour noise model inputs.



<b>_</b> .	Concrete Pour Construction Noise Levels (dBA Leq)						
Receiver Location <sup>1</sup>	Exterior Noise Levels <sup>2</sup>	Threshold <sup>3</sup>	Threshold Exceeded? <sup>4</sup>				
R1	42.5	70	No				
R2	38.7	70	No				
R3	38.2	70	No				
R4	35.9	70	No				
R5	39.6	70	No				

#### TABLE 10-4: NIGHTTIME CONCRETE POUR NOISE LEVEL COMPLIANCE

<sup>1</sup>Construction noise source and receiver locations are shown on Exhibit 10-A.

<sup>2</sup>Nighttime Concrete Pour noise model inputs are included in Appendix 10.2.

<sup>3</sup> Exterior nighttime noise level standards as shown on Table 4-1.

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

#### **10.7** 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. Ground vibration levels associated with various types of construction equipment are summarized on Table 10-5. Based on the representative vibration levels presented for various construction equipment types, it is possible to estimate the potential for human response (annoyance) and building damage using the following vibration assessment methods defined by the FTA. To describe the vibration impacts the FTA provides the following equation:  $PPV_{equip} = PPV_{ref} \times (25/D)^{1.5}$ 

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

TABLE 10-5: VIBRATION SOURCE LEVELS FOR CONSTRUCTION EQUIPMENT

Federal Transit Administration, Transit Noise and Vibration Impact Assessment Manual

Table 10-6 presents the expected Project related vibration levels at the nearby receiver locations. At distances ranging from 127 to 746 feet from Project construction activities, construction vibration velocity levels are estimated to range from 0.001 to 0.018 PPV in/sec. Based on maximum acceptable continuous vibration threshold of 0.3 PPV (in/sec), the typical Project construction vibration levels will fall below the building damage thresholds at all the receiver



locations. Therefore, the Project-related vibration impacts are considered *less than significant* during typical construction activities at the Project site.

	Distance to Const.		Typical	Constructio PPV (i	on Vibration n/sec) <sup>3</sup>	1 Levels		Thresholds	Thresholds
Location <sup>1</sup>	Activity (Feet) <sup>2</sup>	Small bulldozer	Small Jack- Loaded Large V ulldozer hammer Trucks bulldozer		Vibratory Roller	Highest Vibration Level	PPV (in/sec)⁴	Exceeded? <sup>5</sup>	
R1	127'	0.000	0.003	0.007	0.008	0.018	0.018	0.3	No
R2	607'	0.000	0.000	0.001	0.001	0.002	0.002	0.3	No
R3	746'	0.000	0.000	0.000	0.001	0.001	0.001	0.3	No
R4	612'	0.000	0.000	0.001	0.001	0.002	0.002	0.3	No
R5	379'	0.000	0.001	0.001	0.002	0.004	0.004	0.3	No

#### TABLE 10-6: PROJECT CONSTRUCTION VIBRATION LEVELS

<sup>1</sup>Construction noise source and receiver locations are shown on Exhibit 10-A.

<sup>2</sup> Distance from receiver to limits of construction activity.

<sup>3</sup> Based on the Vibration Source Levels of Construction Equipment (Table 10-5).

<sup>4</sup>Caltrans Transportation and Construction Vibration Guidance Manual, April 2020, Table 19, p. 38.

<sup>5</sup> Does the peak vibration exceed the acceptable vibration thresholds?

"PPV" = Peak Particle Velocity



## 11 RAIL NOISE AND VIBRATION ANALYSIS

A noise and vibration analysis has been completed to determine the noise exposure and vibration levels impacting the Project that would result from the nearby off-site UPRR railroad tracks located approximately 270 feet west of Project industrial Building 11.

### 11.1 ON-SITE NOISE PREDICTION MODEL FROM OFF-SITE RAIL ACTIVITIES

The estimated railroad noise impacts from the UPRR mainline tracks located off-site and west of the Project site are calculated using the Federal Transit Administration (FTA) General Transit Noise Assessment Model. The FTA Model calculates the predicted noise level based on the type of train, distance to receiver, number of trains per hour, speed, number of cars per train, and type of railroad tracks. The train volumes and speeds for the Metrolink and freight operations were obtained from the current Metrolink schedule, and the existing data provided in the U.S. Department of Transportation Crossing Inventory Form (750642H) for Columbia Way/Avenue M, as shown on Table 11-1 and included in Appendix 11.1. (24)

Railroad	Modeled Train/	Speed	Daily Train Vo	lumes/Events
Activities	Engine Type	(mph)	Daytime	Nighttime
Metrolink <sup>1</sup>	Diesel	79	7	4
Freight <sup>2</sup>	Diesel	60	17	5

TABLE 11-1. UN-SITE KAILKOAD PARAMETERS	<b>TABLE 11-1:</b>	<b>ON-SITE RAILROAD</b>	PARAMETERS
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<sup>1</sup> Metrolink Antelope Valley Line Schedule.

<sup>2</sup> Based on the U.S. Department of Transportation Crossing Inventory Form 750642H at Columbia Way / Avenue M.

### **11.2** ON-SITE EXTERIOR NOISE LEVELS FROM OFF-SITE RAIL ACTIVITIES

Using the FTA railroad noise prediction model and the parameters outlined on Table 11-1, the expected exterior noise levels at the nearest industrial Project building façade facing the railroad (Buildings 10) were calculated. The on-site FTA model results indicates that the unmitigated exterior noise level resulting from off-site rail noise activities will approach 55.0 dBA CNEL, as shown on Table 11-2. Based on the City of Palmdale General Plan Noise Element Figure 16.1 land use compatibility criteria, the on-site exterior noise level of 55.0 dBA CNEL from off-site rail noise will not exceed the *normally acceptable* 75 dBA CNEL exterior noise criteria for the industrial uses of the Project, and therefore, represents a *less than significant* impact. The on-site noise analysis calculations from off-site rail activities are provided in Appendix 11.2.

Receiver Location	Noise Source	Unmitigated Noise Levels (dBA CNEL)	Threshold (dBA CNEL) <sup>1</sup>	Threshold Exceeded?
Western Façade (Building 10)	Railroad	55.0	70	No

TABLE 11-2: EXTERIOR RAILROAD NOISE LEVEL
---

<sup>1</sup> Normally acceptable land use noise compatibility criteria for industrial use such as the Project (Exhibit 3-A).

### **11.3** VIBRATION ANALYSIS FROM OFF-SITE RAIL ACTIVITIES

This section focuses on the potential ground-borne vibration associated with rail transportation activities. The estimated railroad vibration impacts from Metrolink and freight trains traveling on the railroad tracks offsite and west of the Project site are calculated using the Federal Transit Administration (FTA) *Transit Noise and Vibration Impact Assessment* General Vibration Assessment methodology. The FTA General Vibration Assessment calculates the predicted vibration level based on generalized ground surface vibration curves which were developed using actual measurements of representative North American transit systems. Figure 6-4 of the FTA *Transit Noise and Vibration Impact Assessment* shows the generalized ground surface vibration curves for three types of transit sources, as shown on Exhibit 11-A of this report. The generalized reference curves are used to identify the appropriate reference vibration level, before any adjustments, for the Project based on the type of train, speed, and distance to receiver locations. The FTA reference curves are provided in VdB to describe the human response to vibration levels.

Based on the reference curve for a locomotive powered passenger or freight train traveling at 50 mph, as shown on Exhibit 11-A, the reference vibration level at the Project Building 10 is estimated to be 73 VdB at roughly 270 feet. As previously shown on Table 11-1, the passenger trains passing the Project site are expected to travel at a higher speed of up to 79 mph, and therefore, the reference level is adjusted at 270 feet to reflect the change from 50 to 79 mph. In addition, the FTA provides vibration source and propagation adjustments to the reference vibration curve levels based on the characteristics of the trains and rail lines in the study area. Using the speed adjustments provided by the FTA, the vibration levels at the nearest industrial Project building façade facing the railroad (Buildings 10) are estimated at 78 VdB. Therefore, the vibration levels from off-site rail noise are shown to remain below the FTA vibration threshold of 84 VdB for office uses. (8 p. 131)





EXHIBIT 11-A: FTA REFERENCE GROUND SURFACE VIBRATION CURVES

Source: FTA Transit Noise and Vibration Impact Assessment Manual, Figure 6-4.



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# **12 REFERENCES**

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- 21. California Department of Transportation. *Traffic Noise Attenuation as a Function of Ground and Vegetation Final Report*. June 1995. FHWA/CA/TL-95/23.
- 22. Urban Crossroads. Antelope Valley Commerce Center Traffic Analysis. October 2023.
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- 24. U.S. Department of Transportation. Crossing Inventory Form, 750642H. 3/21/2023.



# **13 CERTIFICATION**

The contents of this noise study report represent an accurate depiction of the noise environment and impacts associated with the proposed Antelope Valley Commerce Center 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.

Bill Lawson, P.E., INCE Principal URBAN CROSSROADS, INC. 1133 Camelback #8329 Newport Beach, CA 92658 (949) 581-3148 blawson@urbanxroads.com



# 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 PALMDALE NOISE CONTROL



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#### Chapter 8.28

#### BUILDING CONSTRUCTION HOURS OF OPERATION AND NOISE CONTROL

Sections:

8.28.010 Definitions. 8.28.030 Construction noise prohibited in residential zones. 8.28.040 Exceptions. Appeals. 8.28.050 Exemptions – Generally. 8.28.060 Exemptions for public utilities. 8.28.070 8.28.080 Repealed. Violations - Penalties. 8.28.090

#### 8.28.010 Definitions.

As used in this chapter:

(A) "Person" means an individual, partnership, firm or corporation.

(B) "Section" means a section of this chapter.

(C) Reference to Ordinance or Statute. Whenever any reference is made to this chapter, or any other ordinance, or to any statute, such reference shall apply to all amendments and additions thereto, now or hereafter made. (Ord. 584 § 1, 1986)

#### 8.28.030 Construction noise prohibited in residential zones.

Except as otherwise provided in this chapter, no person shall perform any construction or repair work on any Sunday, or any other day after 8:00 p.m. or before 6:30 a.m., in any residential zone or within 500 feet of any residence, hotel, motel or recreational vehicle park. For the purposes of this section, construction and repair work includes work of any kind upon any building or structure, earth excavating, filling, or moving, and delivery, preparation or operation of construction equipment, materials or supplies where any of the foregoing entails the use of an air compressor, jack hammer, power-driven drill, riveting machine, excavator, semi-truck, diesel power truck, tractor, cement truck, or earth moving equipment, hand hammer, or other machine, tool, device or equipment which makes loud noise which disturbs the peace and quiet of any neighborhood or which causes discomfort or annoyance to any reasonable person of normal sensitiveness sleeping or residing in the area. (Ord. 1335 § 1, 2007; Ord. 584 § 1, 1986)

#### 8.28.040 Exceptions.

The provisions of PMC 8.28.030 do not apply to any person who performs the construction, repair, excavation or earth moving work involved pursuant to the express written permission of the City Engineer to perform such work at times prohibited in PMC 8.28.030. Upon receipt of an application in writing therefor, stating the reasons for the request and the facts upon which such reasons are based, the City Engineer may grant such permission if he finds that:

(A) The work proposed to be done is affected with public interest; or

(B) Hardship, injustice or unreasonable delay would result from the interruption thereof during the hours and days specified in PMC 8.28.030; or

(C) The building or structure involved is devoted or intended to be devoted to a use immediately incident to public defense. (Ord. 584 § 1, 1986)

#### 8.28.050 Appeals.

Any person dissatisfied with the decision of the City made pursuant to the provisions of this chapter may appeal therefrom to the administrative hearing officer appointed pursuant to Chapter 1.20 PMC, within 15 days of the date of the decision, by filing with the City Clerk a written notice of appeal, briefly stating in the notice the grounds

relied upon for appeal. If the appeal is made within the time prescribed, the City Clerk shall cause the matter to be set for hearing before the administrative hearing officer, to be held within 45 days from the date of receipt of the notice of appeal, giving the appellant not less than five days' notice in writing of the time and place of hearing. The findings and determinations of the administrative hearing officer at the hearing shall be final and conclusive, and within three days after the findings and determinations are made, the City Clerk shall give notice thereof to the appellant.

In the event no appeal is taken by the permittee, the decision of the City Engineer shall become final and conclusive on the expiration of the time fixed in this section for appeal. (Ord. 1322 § 3, 2007; Ord. 584 § 1, 1986)

#### 8.28.060 Exemptions – Generally.

The provisions of PMC 8.28.030 do not apply to the construction, repair, or excavation during prohibited hours as may be necessary for the preservation of life or property when such necessity arises during such hours as the offices of the City are closed, or where such necessity requires immediate action prior to the time at which it would be possible to obtain a permit pursuant to PMC 8.28.040, if the person doing such construction, repair or excavation obtains a permit therefor within one day after the office of the City Engineer is first opened subsequent to the making of such construction, repair or excavation. (Ord. 584 § 1, 1986)

#### 8.28.070 Exemptions for public utilities.

The provisions of PMC 8.28.030 do not apply to the construction, repair, or excavation by a public utility which is subject to the jurisdiction of the Public Utilities Commission as may be necessary for the preservation of life or property and where such necessity makes it necessary to construct, repair, or excavate during the prohibited hours. (Ord. 584 § 1, 1986)

#### 8.28.080 Exemptions in nonresidential zones.

Repealed by Ord. 1335. (Ord. 584 § 1, 1986)

#### 8.28.090 Violations – Penalties.

Any person violating any provision of this chapter is guilty of a misdemeanor punishable by a fine of not more than \$500.00 or by imprisonment in the County Jail for not more than six months or by both such fine and imprisonment. Every such person is guilty of a separate offense for every day during any portion of which any violation of any of the provisions of this chapter is committed, continued, or permitted by such person and shall be punished as provided by this chapter. (Ord. 584 § 1, 1986)

#### Chapter 9.18

#### DISTURBING, EXCESSIVE, LOUD, OR OFFENSIVE NOISE

Sections:

- 9.18.010 Noise.
- 9.18.020 Acts constituting disturbing, excessive, loud, offensive noise.
- 9.18.030 Loud parties.
- 9.18.040 Reimbursement for law enforcement costs.
- 9.18.050 Enforcement and penalties for all provisions of this chapter.

Prior legislation: Ords. 1208 and 1308.

#### 9.18.010 Noise.

(A) It shall be unlawful for any person to willfully make or continue, or cause or permit to be made or continued, any loud, unnecessary, or unusual noise which unreasonably disturbs the peace and quiet of any neighborhood or which causes discomfort or annoyance to any reasonable person of normal sensitiveness residing in the area.

(B) The characteristics and conditions, which may be considered in determining whether such noise violates the provisions of this section, shall include, but not be limited to, the following:

- (1) The volume of the noise;
- (2) The intensity of the noise;
- (3) Whether the nature of the noise is usual or unusual;
- (4) Whether the origin of the noise is natural or unnatural;
- (5) The volume and intensity of the background noise, if any;
- (6) The proximity of the noise to sleeping facilities;
- (7) The nature and zoning of the area within which the noise emanates;
- (8) The density of the inhabitation of the area within which the noise emanates;
- (9) The time of the day or night the noise occurs;
- (10) The duration of the noise;
- (11) Whether the noise is recurrent, intermittent, or constant;
- (12) Whether the noise is produced by a commercial or noncommercial activity. (Ord. 1332 § 1, 2007)

#### 9.18.020 Acts constituting disturbing, excessive, loud, offensive noise.

The following activities, among others, are declared to cause disturbing, excessive, loud, or offensive noises in violation of this chapter and causing or permitting such activities is unlawful; provided, however, that inclusion in this section shall not be construed as limiting the type of activities which may be found to cause disturbing, excessive, loud, or offensive noises:

(A) Horns, Signaling Devices, Etc. The unnecessary or unreasonable use or operation of horns, signaling devices, or other similar devices, on automobiles, motorcycles, motor-driven cycles or any other vehicles.

(B) Radios, Television Sets, Phonographs, Loud Speaking Amplifiers, and Similar Devices.

(1) Uses Restricted. The use or operation of any sound production or reproduction device, radio receiving set, loud speakers, and sound amplifier or other similar machine or device for the producing or reproducing of sound in such a manner as to disturb the peace, quiet, or comfort of any reasonable person of normal sensitivity in any area of the City is prohibited. This provision shall not apply to any participant in a licensed parade, to law enforcement or emergency personnel in the performance of their duties, or to any person duly authorized, licensed, or permitted by the City to engage in such conduct in a public park, public facility, or other public place.

(2) Prima Facie Violations of this Subsection. Any of the following shall constitute evidence of a prima facie violation of this subsection; provided, however, that inclusion herein shall not be construed as limiting the activities which may be found to violate this section:

(a) The operation of any such sound production or reproduction device, radio receiving set, musical instrument, drum, phonograph, television set, machine, loud speaker and sound amplifier, or similar machine or 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.

(b) The operation of any sound amplifier which is part of, or connected to, any radio, stereo receiver, compact disc player, digital video disc player, computer, cassette tape player, or other similar device when operated in such a manner as to be plainly audible at a distance of 50 feet and when operated in such a manner as to cause a person to be aware of vibration accompanying the sound at a distance of 50 feet from the source.

(3) Impoundment. Any person who is authorized to enforce any provision of this chapter and who encounters evidence of a prima facie violation of this section is empowered to confiscate and impound as evidence any or all of the components amplifying or transmitting the sound.

(C) Hospitals, Schools, Libraries, Rest Homes, Long-Term Medical or Mental Care Facilities. To make noise adjacent to a hospital, school, library, rest home, or long-term medical or mental care facility, which noise unreasonably interferes with the workings of such institutions or which disturbs or unduly annoys occupants of such institutions.

(D) Jake Brakes. The use of jake brakes, using compression release engine brakes and any method of using engine compression to slow a vehicle is prohibited in the City of Palmdale and unlawful. (Ord. 1458 § 1, 2014; Ord. 1332 § 1, 2007)

#### 9.18.030 Loud parties.

(A) Loud Parties Defined. A "loud party" is a gathering of two or more people on private property which is determined by law enforcement personnel at the scene to be disruptive to the public peace, health, safety, or welfare due to the magnitude of the crowd, noise, disturbances, unruly behavior of those attending the party or gathering, excessive traffic or traffic congestion, illegally parked vehicles blocking other traffic or fire access or destruction of property.

(B) Loud Parties Prohibited. It shall be unlawful for any responsible person to organize, cause, or permit a loud party.

(1) For the purposes of this subsection, "responsible person" means the person who owns the property where the party, gathering or event takes place; the person in charge of the premises; and/or the person who organized the event. If the responsible person is a minor, then the parents or guardians of that minor are also responsible persons whether or not they are present at the party. All responsible persons, as defined herein, are deemed to have caused or permitted the loud party and are responsible for and may be charged with a violation of this chapter; provided, however, a property owner who is not present at the party or gathering may not be charged with a violation of this chapter unless the absentee owner had knowledge that the party or gathering was occurring, was planned to occur or reasonably should have known the party or gathering would occur. This exception does not apply to a parent or guardian of a responsible person who is a minor.

(2) Prima Facie Violations of this Subsection. The following shall constitute evidence of a prima facie violation of this subsection; provided, however, that inclusion herein shall not be construed as limiting the activities which may be found to violate this subsection: A party, event or gathering where:

(a) Noise emanating from or attributable to that party, event or gathering is audible from a distance of 50 feet from the source of that noise; or

(b) Persons present at the party or gathering are acting in a wild, unruly, uncontrollable manner disruptive to neighbors; or

(c) The number of persons present violates the fire code, presenting a fire hazard; or

(d) Vehicles of those attending the party or gathering are illegally parked or parked in a manner to cause traffic congestion or to block traffic or fire access; or

(e) Persons present at the party or gathering have caused or are causing destruction to property of others.

(C) Loud Parties Declared a Public Nuisance. Loud parties as defined in this section are hereby declared to be a public nuisance and may be abated as set forth herein or as otherwise provided by law.

(D) Authority of Law Enforcement Personnel. Law enforcement personnel are authorized to take all actions and to give all directions and orders that may be necessary to abate the nuisance, violation or condition, including the arrest of, or issuance of citations to, the responsible person or persons, and any others who are in violation of this chapter or any other state statute or local ordinance.

(E) Cease and Desist Order. No person shall fail or refuse to obey or fail to comply with orders of law enforcement personnel to discontinue the loud party, to disperse or vacate the location of the loud party, and to turn off radios, television sets, phonographs, loud speaking amplifiers, and similar devices. Refusal to comply with such an order is a separate and additional offense from that of causing or permitting a loud party.

(F) Loud Party Participation Prohibited. All persons attending a party or social gathering declared to be a public nuisance by law enforcement personnel shall immediately disperse upon the order of law enforcement personnel, and all persons not domiciled at the site of such party or social gathering shall immediately leave the premises. No person shall fail or refuse to obey and abide by such an order. (Ord. 1458 § 2, 2014; Ord. 1332 § 1, 2007)

#### 9.18.040 Reimbursement for law enforcement costs.

If after issuance of a written reimbursement notice as required by this section, law enforcement personnel are required to respond to the property to address another violation of this chapter within a 30-day period after issuance of said notice, then the responsible person or persons, as defined in this chapter, shall be jointly and severally liable for all actual costs and expenses incurred by the City during second or subsequent responses.

(A) Written Reimbursement Notice. Law enforcement personnel responding to a loud party shall issue a written reimbursement notice to the responsible person that if within a 30-day period after the initial response law enforcement personnel are again required to respond to the property to address a violation of this chapter, then the responsible person shall be liable to reimburse the City for all costs and expenses incurred by law enforcement personnel during second or subsequent responses for violations of this chapter.

(B) Reimbursement of Costs and Expenses. All responsible persons for a party or gathering, which requires a second or subsequent response, as described herein above are jointly and severally liable for the following costs and expenses incurred by the City:

(1) The actual costs incurred by the City for the services of the law enforcement personnel for each response after the initial response;

(2) Damage to public property incurred in the course of any second or subsequent response by law enforcement personnel; and

(3) Injuries to any law enforcement personnel involved in a second or subsequent response.

(C) Collection. The expense of a reimbursable response hereunder shall be charged against the person liable for the expense under this chapter. The charge constitutes a debt of that person to the City, and is collectible by the City in the same manner as in the case of an obligation under a contract, expressed or implied.

(D) Other Penalties Not Precluded. Nothing contained in this subsection is intended to preclude the filing of any administrative or criminal charges or the imposition of criminal fines or administrative penalties, or the summary, civil or administrative abatement of any public nuisance under state or local law, including other sections of this chapter, against any person or persons who may be subject to the reimbursement provisions of this section. (Ord. 1332 § 1, 2007)

#### 9.18.050 Enforcement and penalties for all provisions of this chapter.

(A) This chapter may be enforced by Peace Officers and by the City of Palmdale employees specified in PMC Title 1.

(B) Violations of this chapter may be punished as set forth in PMC Title 1.

(C) As an additional remedy for violations of this chapter, the operation or maintenance of any device, instrument, vehicle, or machinery in violation of any provision of this chapter, which operation or maintenance causes discomfort or annoyance to reasonable persons of normal sensitiveness, or which endangers the comfort, repose, health, or peace of residents in the area, shall be deemed and is declared to be a public nuisance which may be abated through summary abatement, administrative abatement, or abatement by a restraining order or injunction issued by a court of competent jurisdiction. (Ord. 1332 § 1, 2007)

APPENDIX 3.2:

COUNTY OF LOS ANGELES NOISE CONTROL



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# Chapter 12.08 NOISE CONTROL

Parts:

# Part 1 GENERAL PROVISIONS

## 12.08.010 Title for citation.

The ordinance codified in this chapter may be cited as the "noise control ordinance of the county of Los Angeles."

(Ord. 11778 § 2 (Art. 1 § 101), 1978: Ord. 11773 § 2 (Art. 1 § 101), 1978.)

#### 12.08.020 Declaration of policy—Nuisances deemed misdemeanors.

- A. In order to control unnecessary, excessive and annoying noise and vibration in the county of Los Angeles, it is declared to be the policy of the county to prohibit such noise and vibration generated from any sources as specified in this chapter. It shall be the policy of the county to maintain quiet in those areas which exhibit low noise levels and to implement programs aimed at reducing noise in those areas within the county where noise levels are above acceptable values.
- B. It is determined that certain noise levels and vibration are detrimental to the public health, welfare and safety and contrary to public interest, and therefore the board of supervisors of the county does ordain and declare that creating, maintaining, causing or allowing to be created, caused or maintained any noise or vibration in a manner prohibited by or not in conformity with the provisions of this chapter is a public nuisance and shall be punishable as such.

(Ord. 11778 § 2 (Art. 2 § 201), 1978: Ord. 11773 § 2 (Art. 2 § 201), 1978.)

# Part 2 DEFINITIONS

# 12.08.030 Terminology—Conformity with ANSI standards.

All terminology used in this chapter, not defined in this Part 2, shall be in conformance with applicable publications of the American National Standards Institute (ANSI) or its successor body.

(Ord. 11778 § 2 (Art. 3 § 301), 1978: Ord. 11773 § 2 (Art. 3 § 301), 1978.)

#### 12.08.040 Definitions applicable.

The following words, phrases and terms as used in this chapter shall have the meanings as indicated in this Part 2.

(Ord. 11778 § 2 (Art. 3 § 302 (part)), 1978: Ord. 11773 § 2 (Art. 3 § 302 (part)), 1978.)

# 12.08.050 Agricultural property.

"Agricultural property" means a parcel of real property which is undeveloped for any use other than agricultural purposes.

(Ord. 11778 § 2 (Art. 3 § 302(a)), 1978: Ord. 11773 § 2 (Art. 3 § 302(a)), 1978.)

# 12.08.060 Ambient noise histogram.

"Ambient noise histogram" means the composite of all noise from sources near and far, excluding the alleged intrusive noise source. In this context, the ambient noise histogram shall constitute the normal or existing level of environmental noise at a given location.

(Ord. 11778 § 2 (Art. 3 § 302(b)), 1978: Ord. 11773 § 2 (Art. 3 § 302(b)), 1978.)

# 12.08.070 A-weighted sound level.

"A-weighted sound level" means the sound level in decibels as measured on a soundlevel meter using the A-weighting network. The level so read is designated dB (A) or dBA.

(Ord. 11778 § 2 (Art. 3 § 302(c)), 1978: Ord. 11773 § 2 (Art. 3 § 302(c)), 1978.)

# 12.08.080 Commercial property.

"Commercial property" means a parcel of real property which is developed and used either in part or in whole for commercial purposes. In cases of multiple land uses of any property, the county zoning classification of such property pursuant to county Ordinance 1494, as amended, shall be applicable. (See Title 22 of this code.)

(Ord. 11778 § 2 (Art. 3 § 302(d)), 1978: Ord. 11773 § 2 (Art. 3 § 302(d)), 1978.)

#### 12.08.090 Construction.

"Construction" means any site preparation, assembly, erection, substantial repair, alteration, or similar action, for or of public or private rights-of-way, structures, utilities, or similar property.

(Ord. 11778 § 2 (Art. 3 § 302(e)), 1978: Ord. 11773 § 2 (Art. 3 § 302(e)), 1978.)

#### 12.08.100 Cumulative period.

"Cumulative period" means an additive period of time composed of individual time segments which may be continuous or interrupted.

(Ord. 11778 § 2 (Art. 3 § 302(f)), 1978: Ord. 11773 § 2 (Art. 3 § 302(f)), 1978.)

#### 12.08.110 Decibel.

"Decibel" means a unit for measuring the amplitude of a sound, equal to 20 times the logarithm to the base of 10 of the ratio of the pressure of the sound measured to the reference pressure, which is 20 micropascals.

(Ord. 11778 § 2 (Art. 3 § 302(g)), 1978: Ord. 11773 § 2 (Art. 3 § 302(g)), 1978.)

## 12.08.120 Dwelling unit.

"Dwelling unit" means a single unit providing complete independent living facilities for one or more persons, including permanent provisions for living, sleeping, eating, cooking and sanitation.

(Ord. 11778 § 2 (Art. 3 § 302(h)), 1978: Ord. 11773 § 2 (Art. 3 § 302(h)), 1978.)

#### 12.08.130 Emergency machinery, vehicle or alarm.

"Emergency machinery, vehicle or alarm" means any machinery, vehicle or alarm used, employed, performed or operated in an effort to protect, provide or restore safe conditions in the community or for the citizenry, or work by private or public utilities when restoring utility service.

(Ord. 11778 § 2 (Art. 3 § 302(i)), 1978: Ord. 11773 (Art. 3 § 302(i)), 1978.)

#### 12.08.140 Emergency work.

"Emergency work" means any work performed for the purpose of preventing or alleviating the physical trauma or property damage threatened or caused by an emergency.

(Ord. 11778 § 2 (Art. 3 § 302(j)), 1978: Ord. 11773 (Art. 3 § 302(j)), 1978.)

#### 12.08.150 Fixed noise source.

"Fixed noise source" means a stationary device which creates sounds while fixed or motionless, including but not limited to residential, agricultural, industrial and commercial machinery and equipment, pumps, fans, compressors, air conditioners and refrigeration equipment.

(Ord. 11778 § 2 (Art. 3 § 302(k)), 1978: Ord. 11773 (Art. 3 § 302(k)), 1978.)

#### 12.08.160 Grading.

"Grading" means any excavating or filling of earth material or any combination thereof conducted at a site to prepare said site for construction or other improvements thereon.

(Ord. 11778 § 2 (Art. 3 § 302(1)), 1978: Ord. 11773 (Art. 3 § 302(1)), 1978.)

#### 12.08.170 Health care institution.

"Health care institution" means any hospital, convalescent home, or other similar facilities which provide health care, medical treatment, room, board or other services for the ill, retarded or convalescent.

(Ord. 11778 § 2 (Art. 3 § 302(m)), 1978: Ord. 11773 (Art. 3 § 302(m)), 1978.)

#### 12.08.180 Health officer.

"Health officer" means the director of the department of public health of the county of Los Angeles, or his duly authorized representative.

(Ord. 2006-0040 § 106, 2006: Ord. 11778 § 2 (Art. 3 § 302(n)), 1978: Ord. 11773 (Art. 3 § 302(n)), 1978.)

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## 12.08.190 Impulsive noise.

"Impulsive noise" means a sound of short duration, usually less than one second and of high intensity, with an abrupt onset and rapid decay.

(Ord. 11778 § 2 (Art. 3 § 302(o)), 1978: Ord. 11773 (Art. 3 § 302 (o)), 1978.)

# 12.08.200 Industrial property.

"Industrial property" means property which is developed and used either in part or in whole for manufacturing purposes. In cases of multiple land uses of any property, the county zoning classification of such property pursuant to county Ordinance 1494, as amended, shall be applicable. (See Title 22 of this code.)

(Ord. 11778 § 2 (Art. 3 § 302(p)), 1978: Ord. 11773 § 2 (Art. 3 § 302(p)), 1978.)

## 12.08.210 Intrusive noise.

"Intrusive noise" means that alleged offensive noise which intrudes over and above the existing ambient noise at the receptor property.

(Ord. 11778 § 2 (Art. 3 § 302(q)), 1978: Ord. 11773 § 2 (Art. 3 § 302(q)), 1978.)

## 12.08.220 Mobile noise source.

"Mobile noise source" means any noise source other than a fixed noise source.

(Ord. 11778 § 2 (Art. 3 § 302(r)), 1978: Ord. 11773 § 2 (Art. 3 § 302(r)), 1978.)

# 12.08.230 Noise disturbance.

"Noise disturbance" means an alleged intrusive noise which violates an applicable noise standard as set forth in this chapter.

(Ord. 11778 § 2 (Art. 3 § 302(s)), 1978: Ord. 11773 § 2 (Art. 3 § 302(s)), 1978.)

# 12.08.240 Noise histogram.

"Noise histogram" means a graphical representation of the distribution of frequency of occurrence of all noise levels near and far measured over a given period of time.

(Ord. 11778 § 2 (Art. 3 § 302(u)), 1978: Ord. 11773 § 2 (Art. 3 § 302(u)), 1978.)

# 12.08.250 Noise level (L<sub>N</sub>).

"Noise level (L  $_{\rm N}$ )" means that noise level expressed in decibels which exceeds the specified (L  $_{\rm N}$ ) value as a percentage of total time measured. For instance, an L  $_{25}$  noise level means that noise level which is exceeded 25 percent of the time measured.

(Ord. 11778 § 2 (Art. 3 § 302 (v)), 1978: Ord. 11773 § 2 (Art. 3 § 302(v)), 1978.)

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## 12.08.260 Noise-sensitive zone.

"Noise-sensitive zone" means any area designated pursuant to Part 4 of this chapter for the purpose of ensuring exceptional quiet.

(Ord. 11778 § 2 (Art. 3 § 302(t)), 1978: Ord. 11773 § 2 (Art. 3 § 302(t)), 1978.)

## 12.08.270 Noise zone.

"Noise zone" means any defined area or region of a generally consistent land use, as described in Section 12.08.380.

(Ord. 11778 § 2 (Art. 3 § 302(w)), 1978: Ord. 11773 § 2 (Art. 3 § 302(w)), 1978.)

## 12.08.280 Person.

"Person" means any individual, firm, association, partnership, joint venture, or corporation.

(Ord. 11778 § 2 (Art. 3 § 302(x)), 1978: Ord. 11773 § 2 (Art. 3 § 302(x)), 1978.)

## 12.08.290 Powered model vehicle.

"Powered model vehicle" means any self-propelled airborne, waterborne or landborne plane, vessel or vehicle which is not designed to carry individuals, including but not limited to any model airplane, boat, car or rocket.

(Ord. 11778 § 2 (Art. 3 § 302(y)), 1978: Ord. 11773 § 2(Art. 3 § 302(y)), 1978.)

#### 12.08.300 Public right-of-way.

"Public right-of-way" means any street, avenue, boulevard, highway, sidewalk or alley, or similar place, which is owned or controlled by a governmental entity.

(Ord. 11778 § 2 (Art. 3 § 302(z)), 1978: Ord. 11773 § 2 (Art. 3 § 302(z)), 1978.)

#### 12.08.310 Pure tone noise.

"Pure tone noise" means any sound which can be judged as audible as a single pitch or a set of single pitches by the health officer, for the purposes of this chapter, a pure tone shall exist if the one-third octave band sound-pressure level in the band with the tone exceeds the arithmetic average of the sound-pressure levels of the two contiguous one-third octave bands by 5 dB for center frequencies of 500 Hertz and above, and by 8 dB for center frequencies between 160 and 400 Hertz, and by 15 dB for center frequencies less than or equal to 125 Hertz.

(Ord. 11778 § 2 (Art. 3 § 302(aa)), 1978: Ord. 11773 § 2 (Art. 3 § 302(aa)), 1978.)

# 12.08.320 Real property boundary.

"Real property boundary" means an imaginary line along the ground surface, and its vertical extension, which separates the real property owned by one person from that owned by another person, but not including intrabuilding real property divisions.

(Ord. 11778 § 2 (Art. 3 § 302(bb)), 1978: Ord. 11773 § 2 (Art. 3 § 302(bb)), 1978.)

# 12.08.330 Residential property.

"Residential property" means a parcel of real property which is developed and used either in part or in whole for residential purposes, other than transient uses such as hotels and motels. In cases of multiple land uses of any property, the county zoning classification of such property pursuant to county Ordinance 1494, as amended, shall be applicable.

(Ord. 11778 § 2 (Art. 3 § 302(cc)), 1978: Ord. 11773 § 2 (Art. 3 § 302(cc)), 1978.)

## 12.08.340 Sound level meter.

"Sound level meter" means an instrument, including a microphone, an amplifier, an output meter and frequency weighting network, for the measurement of sound levels, which satisfies the requirements pertinent for Type S2A meters in American National Standards Institute specifications for sound level meters, S1.4-1971, or the most recent revision thereof.

(Ord. 11778 § 2 (Art. 3 § 302(dd)), 1978: Ord. 11773 § 2 (Art. 3 § 302(dd)), 1978.)

## 12.08.350 Vibration.

"Vibration" means the minimum ground or structure-borne vibrational motion necessary to cause a normal person to be aware of the vibration by such direct means as, but not limited to, sensation by touch or visual observations of moving objects. The perception threshold shall be presumed to be a motion velocity of 0.01 in/sec over the range of 1 to 100 Hertz.

(Ord. 11778 § 2 (Art. 3. § 302(ee)), 1978: Ord. 11773 § 2 (Art. 3 § 302(ee)), 1978.)

# 12.08.360 Weekday.

"Weekday" means any day, Monday through Friday, which is not a legal holiday.

(Ord. 11778 § 2 (Art. 3 § 302(ff)), 1978: Ord. 11773 § 2 (Art. 3 § 302(ff), 1978.)

# Part 3 COMMUNITY NOISE CRITERIA

#### 12.08.370 Decibel measurement—Basis.

Any decibel measurement made pursuant to the provisions of this chapter shall be based on a reference soundpressure of 20 micropascals, as measured with a sound level meter using the A-weighted network (scale) at slow response, or at the fast response when measuring impulsive sound levels and vibrations.

(Ord. 11778 § 2 (Art. 4 § 401), 1978: Ord. 11773 § 2 (Art. 4 § 401), 1978.)

#### 12.08.380 Noise zones designated.

Receptor properties described hereinafter in this chapter are hereby assigned to the following noise zones:

Noise Zone I—Noise-sensitive area; Noise Zone II—Residential properties; Noise Zone III—Commercial properties; Noise Zone IV—Industrial properties.

(Ord. 11778 § 2 (Art. 4 § 402), 1978: Ord. 11773 § 2 (Art. 4 § 402), 1978.)

## 12.08.390 Exterior noise standards—Citations for violations authorized when.

A. Unless otherwise herein provided, the following exterior noise levels shall apply to all receptor properties within a designated noise zone:

Noise Zone	Designated Noise Zone Land Use (Receptor property)	Time Interval	Exterior Noise Level (dB)
1	Noise-sensitive area	Anytime	45
11	Residential properties	10:00 pm to 7:00 am (nighttime)	45
		7:00 am to 10:00 pm (daytime)	50
111	Commercial properties	10:00 pm to 7:00 am (nighttime)	55
		7:00 am to 10:00 pm (daytime)	60
IV	Industrial properties	Anytime	70

B. Unless otherwise herein provided, no person shall operate or cause to be operated, any source of sound at any location within the unincorporated county, or allow the creation of any noise on property owned, leased, occupied or otherwise controlled by such person which causes the noise level, when measured on any other property either incorporated or unincorporated, to exceed any of the following exterior noise standards:

Standard No. 1 shall be the exterior noise level which may not be exceeded for a cumulative period of more than 30 minutes in any hour. Standard No. 1 shall be the applicable noise level from subsection A of this section; or, if the ambient L50 exceeds the foregoing level, then the ambient L50 becomes the exterior noise level for Standard No. 1.

Standard No. 2 shall be the exterior noise level which may not be exceeded for a cumulative period of more than 15 minutes in any hour. Standard No. 2 shall be the applicable noise level from subsection A of this section plus 5dB; or, if the ambient L25 exceeds the foregoing level, then the ambient L25 becomes the exterior noise level for Standard No. 2.

Standard No. 3 shall be the exterior noise level which may not be exceeded for a cumulative period of more than five minutes in any hour. Standard No. 3 shall be the applicable noise level from subsection A of this section plus 20dB; or, if the ambient L8.3 exceeds the foregoing level, then the ambient L8.3 becomes exterior noise level for Standard No. 3.

Standard No. 4 shall be the exterior noise level which may not be exceeded for a cumulative period of more than one minute in any hour. Standard No. 4 shall be the applicable noise level from subsection A of this section plus 15dB; or, if the ambient L1.7 exceeds the foregoing level, then the ambient L1.7 becomes the exterior noise level for Standard No. 4.

Standard No. 5 shall be the exterior noise level which may not be exceeded for any period of time. Standard No. 5 shall be the applicable noise level from subsection A of this section plus 20dB; or, if the ambient L0 exceeds the foregoing level then the ambient L0 becomes the exterior noise level for Standard No. 5.

- C. If the measurement location is on a boundary property between two different zones, the exterior noise level utilized in subsection B of this section to determine the exterior standard shall be the arithmetic mean of the exterior noise levels in subsection A of the subject zones. Except as provided for above in this subsection C, when an intruding noise source originates on an industrial property and is impacting another noise level as designated in subsection A shall be the daytime exterior noise level for the subject receptor property.
- D. The ambient noise histogram shall be measured at the same location along the property line utilized in subsection B of this section, with the alleged intruding noise source inoperative. If for any reason the alleged intruding noise source cannot be turned off, the ambient noise histogram will be estimated by performing a measurement in the same general area of the alleged intruding noise source but at a sufficient distance such that the noise from the alleged intruding noise source is at least 10dB below the ambient noise histogram in order that only the actual ambient noise histogram be measured. If the difference between the ambient noise histogram and the alleged intruding noise source is 5 to 10dB, then the level of the ambient noise histogram itself can be reasonably determined by subtracting a one-decibel correction to account for the contribution of the alleged intruding noise source.
- E. In the event the intrusive exceeds the exterior noise standards as set forth in subsections B and C of this section at a specific receptor property and the health officer has reason to believe that this violation at said specific receptor property was unanticipated and due to abnormal atmospheric conditions, the health officer shall issue an abatement notice in lieu of a citation. If the specific violation is abated, no citation shall be issued therefor. If, however, the specific violation is not abated, the health officer may issue a citation.

(Ord. 11778 § 2 (Art. 4 § 403), 1978: Ord. 11773 § 2 (Art. 4 § 403), 1978.)

## 12.08.400 Interior noise standards.

A. No person shall operate or cause to be operated within a dwelling unit, any source of sound, or allow the creation of any noise, which causes the noise level when measured inside a neighboring receiving dwelling unit to exceed the following standards:

Standard No. 1 The applicable interior noise level for cumulative period of more than five minutes in any hour; or

Standard No. 2 The applicable interior noise level plus 5dB for a cumulative period of more than one minute in any hour; or

Standard No. 3 The applicable interior noise level plus 10dB or the maximum measured ambient noise level for any period of time.

B. The following interior noise levels for multifamily residential dwellings shall apply, unless otherwise specifically indicated, within all such dwellings with windows in their normal seasonal configuration.

Noise Zone	Designated Land Use	Time Interval	Allowable Interior Noise Level (dB)
All	Multifamily	10 pm—7 am	40
	Residential	7 am—10 pm	45

C. If the measured ambient noise level reflected by the L50 exceeds that permissible within any of the interior noise standards in subsection A of Section 12.08.390, the allowable interior noise level shall be increased in 5dB increments in each standard as appropriate to reflect said ambient noise level (L50).

(Ord. 11778 § 2(Art. 4 § 404), 1978: Ord. 11773 § 2 (Art. 4 § 404), 1978.)

# 12.08.410 Correction for certain types of sounds.

For any source of sound which emits a pure tone or impulsive noise, the noise levels as set forth in Sections 12.08.390 and 12.08.400 shall be reduced by five decibels.

(Ord. 11778 § 2 (Art. 4 § 405), 1978: Ord. 11773 § 2 (Art. 4 § 405), 1978.)

## 12.08.420 Measurement methods.

- A. Utilizing the A-weighting scale of the sound-level meter and the "slow" meter response (use "fast" response for impulsive type sounds), the noise level shall be measured at a position or positions at any point on the receiver's property.
- B. In general, the microphone shall be located four to five feet above the ground; 10 feet or more from the nearest reflective surface, where possible. However, in those cases where another elevation is deemed appropriate, the latter shall be utilized.
- C. Interior noise measurements shall be made within the affected residential unit. The measurements shall be made at a point at least four feet from the wall, ceiling or floor nearest the noise source, with windows in the normal seasonal configuration. Calibration of the measurement equipment, utilizing an acoustic calibrator, shall be performed immediately prior to recording any noise data.

(Ord. 11778 § 2 (Art. 4 § 406), 1978: Ord. 11773 § 2 (Art. 4 § 406), 1978.)

# Part 4 SPECIFIC NOISE RESTRICTIONS

#### 12.08.430 Acts deemed violations when.

Notwithstanding any other provisions of this chapter, the acts set out in this Part 4, and the causing or permitting thereof, are declared to be in violation of this chapter.

(Ord. 11778 § 2 (Art. 5 § 501 (part)), 1978: Ord. 11773 § 2 (Art. 5 § 501 (part)), 1978.)

#### 12.08.440 Construction noise.

- A. Operating or causing the operation of any tools or equipment used in construction, drilling, repair, alteration or demolition work between weekday hours of 7:00 p.m. and 7:00 a.m., or at any time on Sundays or holidays, such that the sound therefrom creates a noise disturbance across a residential or commercial real-property line, except for emergency work of public service utilities or by variance issued by the health officer is prohibited.
- B. Noise Restrictions at Affected Structures. The contractor shall conduct construction activities in such a manner that the maximum noise levels at the affected buildings will not exceed those listed in the following schedule:
  - 1. At Residential Structures.
    - a. Mobile Equipment. Maximum noise levels for nonscheduled, intermittent, short-term operation (less than 10 days) of mobile equipment:

Semiresidential/
Commercial

Daily, except Sundays and legal holidays, 7:00 a.m. to 8:00 p.m.	75dBA	80dBA	85dBA
Daily, 8:00 p.m. to 7:00 a.m. and all day Sunday and legal holidays	60dBA	64dBA	70dBA

b. Stationary Equipment. Maximum noise level for repetitively scheduled and relatively long-term operation (periods of 10 days or more) of stationary equipment:

	Single-family Residential	Multi-family Residential	Semiresidential/ Commercial
Daily, except Sundays and legal holidays, 7:00 a.m. to 8:00 p.m.	60dBA	65dBA	70dBA
Daily, 8:00 p.m. to 7:00 a.m. and all day Sunday and legal holidays	50dBA	55dBA	60dBA

- 2. At Business Structures.
  - a. Mobile equipment. Maximum noise levels for nonscheduled, intermittent, short-term operation of mobile equipment:

Daily, including Sunday and legal holidays, all hours: maximum of 85dBA.

- C. All mobile or stationary internal-combustion-engine powered equipment or machinery shall be equipped with suitable exhaust and air-intake silencers in proper working order.
- D. In case of a conflict between this chapter and any other ordinance regulating construction activities, provisions of any specific ordinance regulating construction activities shall control.
- (Ord. 11778 § 2 (Art. 5 § 501(c)), 1978: Ord. 11778 § 2 (Art. 5 § 501(c)), 1978.)

# 12.08.450 Forced-air blowers in tunnel car washes.

Operating or permitting the operation of any forced-air blower in a tunnel car wash between the hours of 7:00 a.m. and 8:00 p.m. in such a manner as to exceed any of the following sound levels is prohibited:

	Units Installed	
Measurement Location	Before 1-1-80 dB	On or After 1-1-80 dB
Any point on contiguous receptor property, five feet above grade level, no closer than three feet from any wall		
Residential	70	60
Commercial/Industrial	75	65

(Ord. 11778 § 2 (Art. 5 § 501(m)), 1978: Ord. 11773 § 2 (Art. 5 § 501(m)), 1978.)

(Supp. No. 134, Update 3)

# 12.08.460 Loading and unloading operations.

Loading, unloading, opening, closing or other handling of boxes, crates, containers, building materials, garbage cans or similar objects between the hours of 10:00 p.m. and 6:00 a.m. in such a manner as to cause noise disturbance is prohibited.

(Ord. 11778 § 2 (Art. 5 § 501(b)), 1978: Ord. 11773 § 2 (Art. 5 § 501(b)), 1978.)

# 12.08.470 Noise disturbances in noise-sensitive zones.

- A. Creating or causing the creation of any noise disturbance within any noise-sensitive zone, as designated by the health officer, is prohibited, provided that conspicuous signs are displayed indicating the presence of the zone.
- B. Noise-sensitive zones must be indicated by the display of conspicuous signs in at least three separate locations within 164 meters (one-tenth mile) of the institution or facility.

(Ord. 11778 § 2 (Art. 5 § 501(k)), 1978: Ord. 11773 § 2(Art. 5 § 501(k)), 1978.)

## 12.08.480 Places of public entertainment.

Operating, playing or permitting the operation or playing of any radio, television, phonograph, drum, musical instrument, sound amplifier or similar device which produces, reproduces or amplifies sound in any place of public entertainment at a sound level greater than 95dBA, as read by the slow response on a soundlevel meter at any point that is normally occupied by a customer is prohibited, unless a conspicuous and legible sign is located outside such place, near each public entrance, stating "WARNING: SOUND LEVELS WITHIN MAY CAUSE HEARING IMPAIRMENT."

(Ord. 11778 § 2 (Art. 5 § 501(f)), 1978: Ord. 11773 § 2 (Art. 5 § 501(f)), 1978.)

# 12.08.490 Powered model vehicles.

Operating or permitting the operation of powered model vehicles so as to create a noise disturbance across a residential real-property boundary, or within a noise-sensitive zone between the hours of 8:00 p.m. and 7:00 a.m. the following day is prohibited.

(Ord. 11778 § 2 (Art. 5 § 501(g)), 1978: Ord. 11773 § 2 (Art. 5 § 501(g)) 1978.)

#### 12.08.500 Emergency signaling devices.

- A. The intentional sounding or permitting the sounding outdoors of any emergency signaling device, including fire, burglar or civil-defense alarm, siren, whistle, or similar stationary emergency signaling device, except for emergency purposes or for testing, as provided in subsection B2 below, is prohibited.
- B. 1. Testing of a stationary emergency signaling device shall not occur before 7:00 a.m. or after 7:00 p.m. Any such testing shall use only the minimum cycle test time. In no case shall such test time exceed 60 seconds.
  - 2. Testing of the complete emergency signaling system, including the functioning of the signaling device, and the personnel response to the signaling device, shall not occur more than once in each calendar month. Such testing shall not occur before 7:00 a.m. or after 10:00 p.m. The time limit specified in subsection B1 above shall not apply to such complete-system testing.

C. Sounding or permitting the sounding of any exterior burglar or fire alarm, or any motor-vehicle burglar alarm is prohibited, unless such alarm is terminated within 15 minutes of activation.

(Ord. 11778 § 2 (Art. 5 § 501(i)), 1978: Ord. 11773 § 2 (Art. 5 § 501(i)), 1978.)

## 12.08.510 Stationary nonemergency signaling devices.

- A. Sounding or permitting the sounding of any electronically amplified signal from any stationary bell, chime, siren, whistle, or similar device intended primarily for nonemergency purposes, from any place, for more than 10 consecutive seconds in any hourly period is prohibited.
- B. Houses of religious worship shall be exempt for the operation of this provision.
- C. Sound sources covered by this provision and not exempted under subsection B may be exempted by a variance issued by the health officer.

(Ord. 11778 § 2 (Art. 5 § 501(h)), 1978: Ord. 11773 § 2( Art. 5 § 501(h)), 1978.)

## 12.08.520 Refuse collection vehicles.

- A. On or after three years following August 17, 1978, the effective date of the ordinance codified in this chapter, operating or permitting the operation of the compacting mechanism of any motor vehicle which compacts refuse and which creates, during the compacting cycle, a sound level in excess of 86dBA when measured at 50 feet from any point of the vehicle is prohibited.
- B. Operating or permitting the operation of the compacting mechanism of any motor vehicle which compacts refuse between the hours of 10:00 p.m. and 6:00 a.m. the following day in a residential area or noise-sensitive zone, or within 500 feet thereof is prohibited.
- C. Collecting refuse with collection vehicle between the hours of 10:00 p.m. and 6:00 a.m. the following day in a residential area or noise-sensitive zone or within 500 feet thereof.
- D. In the case of conflict between this chapter and any other ordinance regulating refuse collection, provisions of any specific ordinance regulating refuse collection shall control.

(Ord. 11778 § 2 (Art. 5 § 501(j)), 1978: Ord. 11773 § 2 (Art. 5 § 501(j)), 1978.)

#### 12.08.530 Residential airconditioning or refrigeration equipment.

Operating or permitting the operation of any airconditioning or refrigeration equipment in such a manner as to exceed any of the following sound levels is prohibited.

Measurement Location	Units Installed Before 1-1-80 dBA	Units Installed On or After 1-1- 80 dBA
Any point on neighboring property line, 5 feet above grade level, no closer than 3 feet from any wall.	60	55
Center of neighboring patio, 5 feet above grade level, no closer than 3 feet from any wall.	55	50
Outside the neighboring living area window nearest the equipment location, not more	55	50

than 3 feet from the window opening, but at	
least 3 feet from any other surface.	

(Ord. 11778 § 2 (Art. 5 § 501(1)), 1978: Ord. 11773 § 2 (Art. 5 § 501(1)), 1978.)

## 12.08.540 Street sales.

Offering for sale, selling anything, or advertising by shouting or outcry within any residential or commercial area or noise-sensitive zone of the unincorporated areas of the county is prohibited except by variance issued by the health officer. The provisions of this section shall not be construed to prohibit the selling by outcry of merchandise, food and beverages at licensed sporting events, parades, fairs, circuses, or other similar licensed public-entertainment events.

(Ord. 11778 § 2 (Art 5 § 501(a)), 1978: Ord. 11773 § 2 (Art. 5 § 501(a)), 1978.)

#### 12.08.541 Street sales—Restrictions on sound system speakers.

A person offering for sale, selling or advertising anything edible shall not emit music or other sounds from an external speaker affixed to a motor vehicle between the hours of 8:00 p.m. and 6:00 a.m. within any residential, commercial or noise sensitive-zone of the unincorporated area of the County. The provisions of this section shall not be construed to prohibit the selling by outcry of merchandise, food and beverages, at licensed sporting events, parades, fairs, circuses, or other similar licensed-entertainment events.

(Ord. 2002-0028 § 2, 2002)

#### 12.08.550 Vehicle or motorboat repairs and testing.

Repairing, rebuilding, modifying or testing any motor vehicle, motorcycle or motorboat in such a manner as to cause a noise disturbance across a real-property boundary or within a noisesensitive zone is prohibited.

(Ord. 11778 § 2 (Art. 5 § 501(e)), 1978: Ord. 11773 § 2 (Art. 5 § 501(e)), 1978.)

#### 12.08.560 Vibration.

Operating or permitting the operation of any device that creates vibration which is above the vibration perception threshold of any individual at or beyond the property boundary of the source if on private property, or at 150 feet (46 meters) from the source if on a public space or public right-of-way is prohibited. The perception threshold shall be a motion velocity of 0.01 in/sec over the range of 1 to 100 Hertz.

(Ord. 11778 § 2 (Art. 5 § 501(d)), 1978: Ord. 11773 § 2 (Art. 5 § 501(d)), 1978.)

# Part 5 EXEMPTIONS

#### 12.08.570 Activities exempt from chapter restrictions.

The following activities set out in this chapter shall be exempted from the provisions of this chapter:

- A. Emergency Exemption. The emission of sound for the purpose of alerting persons to the existence of an emergency, or the emission of sound in the performance of emergency work;
- B. Warning Devices. Warning devices necessary for the protection of public safety, as for example police, fire and ambulance sirens, and train horns;
- C. Outdoor Activities. Activities conducted on public playgrounds and public or private school grounds, including but not limited to school athletic and school entertainment events;
- D. Exemption from Exterior Noise Standards. The following activities are exclusively regulated by the prohibitions of Part 4 of this chapter:
  - 1. Construction,
  - 2. Stationary nonemergency signaling devices,
  - 3. Emergency signaling devices,
  - 4. Refuse collection vehicles,
  - 5. Residential air-conditioning or refrigeration equipment,
  - 6. Forced-air blowers;
- E. Motion Picture Production and Related Activities;
- F. Railroad Activities. All locomotives and rail cars operated by any railroad which is regulated by the California Public Utilities Commission;
- G. Federal or State Preexempted Activities. Any activity, to the extent regulation thereof has been preempted by state or federal law;
- H. Public Health and Safety Activities. All transportation, flood control, and utility company maintenance and construction operations at any time on public right-of-way, and those situations which may occur on private real property deemed necessary to serve the best interest of the public and to protect the public's health and well being, including but not limited to street sweeping, debris and limb removal, removal of downed wires, restoring electrical service, repairing traffic signals, unplugging sewers, snow removal, house moving, vacuuming catchbasins, removal of damaged poles and vehicles, repair of water hydrants and mains, gas lines, oil lines, sewers, etc.;
- I. Motor Vehicles on Private Right-of-way and Private Property. Except as provided in Section 12.08.550, all legal vehicles of transportation operating in a legal manner in accordance with local, state and federal vehicle-noise regulations within the public right-of-way or air space, or on private property;
- J. Seismic Surveys Authorized by the State Land Commission;
- K. Agricultural Operations. All mechanical devices, apparatus or equivalent associated with agricultural operations conducted on agricultural property, unless if in the vicinity of residential land uses, in which case a variance permit is required to operate noise-producing devices, with the following stipulations:
  - 1. Operations do not take place between 8:00 p.m. and 6:00 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 agricultural commissioner,

- 4. Such devices utilized for pest control which incorporate stationary or mobile noise sources (electromechanical birdscare devices, etc.) are operated only by permit issued by the health officer. The allowable hours and days for operation of these devices will be specified in the permit,
- 5. All equipment and machinery powered by internal combustion engines shall be equipped with a proper muffler and air-intake silencer in good working order;
- L. Minor Maintenance to Residential Real Property. Noise sources associated with the minor maintenance of residential real property, provided said activities take place as follows:
  - 1. During Pacific Standard Time between the hours of 8:00 a.m. and 6:00 p.m. on any day except Sunday, when such activities may take place between the hours of 9:00 a.m. and 6:00 p.m., and
  - 2. During Daylight Savings Time between the hours of 8:00 a.m. and 7:00 p.m. on any day except Sunday, when such activities may take place between the hours of 9:00 a.m. and 6:00 p.m.;
- M. Operation of Oil and Gas Wells.
  - 1. Normal well servicing, remedial or maintenance work performed within an existing well which does not involve drilling or redrilling and which is restricted to the hours between 7:00 a.m. and 10:00 p.m., and
  - 2. Drilling or redrilling work which is done in full compliance with the conditions of permits issued under Chapter 5, Article 1, of the County Zoning Ordinance, as amended, as set out in Title 22 of this code.

(Ord. 97-0007 § 1, 1997: Ord. 11778 § 2(Art. 6 § 601), 1978: Ord. 11773 § 2 (Art. 6 § 601), 1978.)

# Part 6 VARIANCES

## **12.08.580** Conditions for granting variances—Health officer authority.

- A. Variances from the requirements of this chapter may be granted by the health officer for a period of not to exceed two years, subject to such terms, conditions and requirements as he may deem reasonable. A variance may be granted only if the health officer makes the findings that:
  - 1. Additional time is necessary for the applicant to alter or modify his activity, operation or noise source to comply with this chapter; or
  - 2. The activity, operation or noise source cannot feasibly be done in a manner that would comply with the provisions of this chapter, and no other reasonable alternative is available to the applicant.
- B. In granting a variance, the health officer may prescribe any conditions or requirements he deems necessary to minimize adverse effects upon the community or the surrounding neighborhood.
- C. In granting variances, the health officer 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, the general public interest, health and welfare, the feasibility of plans submitted for correction, and the effect on the community if the variance was refused.

(Ord. 11778 § 2 (Art. 7 § 701), 1978: Ord. 11773 § 2 (Art. 7 § 701), 1978.)

# 12.08.590 Application—Contents.

Every applicant for a variance shall file with the health officer a written application on a form prescribed by the health officer. The application shall state the name and address of the applicant, the nature of the noise source involved, and such other information as the health officer may require.

(Ord. 11778 § 2 (Art. 7 § 702), 1978: Ord. 11773 § 2 (Art. 7 § 702), 1978.)

# 12.08.600 Application—Fee.

Every applicant shall pay a fee of \$25.00 for each application for variance.

(Ord. 11778 § 2 (Art. 7 § 703), 1978: Ord. 11773 § 2 (Art. 7 § 703), 1978.)

## 12.08.610 Application—Action by health officer.

- A. The health officer shall act, within 30 days, if possible, on an application for a variance, and shall notify the applicant of the action taken, namely, approval, conditional approval, or denial. Before acting on an application for a variance, the health officer may require the applicant to furnish further information. Failure of the applicant to provide such further information may be grounds for denial of the variance.
- B. In the event of denial of an application for a variance, the health officer shall notify the applicant in writing of the reasons therefor. The health officer shall not accept a further application unless the applicant has complied with the objections specified by the health officer as his reasons for denial.

(Ord. 11778 § 2 (Art. 7 § 704), 1978: Ord. 11773 § 2 (Art. 7 § 704), 1978.)

# 12.08.620 Application—Denial conditions.

The applicant may at his option deem the variance denied if the health officer fails to act on the application within 30 days after filing or within 10 days after applicant furnishes the further information requested by the health officer, whichever is later.

(Ord. 11778 § 2 (Art. 7 § 705), 1978: Ord. 11773 § 2 (Art. 7 § 705), 1978.)

# 12.08.630 Public hearing—For reconsideration of health officer decision.

Within 10 days after notice by the health officer of the decision on application for variance, any interested party may petition the health officer in writing for a public hearing to reconsider the decision. The health officer shall thereupon appoint a hearing officer to conduct said hearing.

(Ord. 11778 § 2 (Art. 7 § 706), 1978: Ord. 11773 § 2 (Art. 7 § 706), 1978.)

# 12.08.640 Public hearing—Decision and findings—Appeals.

A. Based upon the evidence presented at the public hearing, the hearing officer may affirm, modify or reverse the previous determination subject to such terms, conditions and requirements as he may deem necessary. The hearing officer shall be guided by the same considerations as set forth in Section 12.08.580.

- B. A decision by the hearing officer to grant a variance may be made only if the hearing officer makes the findings that:
  - 1. Additional time is necessary for the applicant to alter or modify his activity, operation or noise source to comply with this chapter; or
  - 2. The activity, operation or noise source cannot feasibly be done in a manner that would comply with the provisions of this chapter, and no other reasonable alternative is available to the applicant.
- C. The decision of the hearing officer shall be by written order, and shall be final. Appeals from an adverse decision shall be made to a court of competent jurisdiction.

(Ord. 11778 § 2 (Art. 7 § 707), 1978: Ord. 11773 § 2 (Art. 7 § 707), 1978.)

# Part 7 VIOLATIONS AND ENFORCEMENT

## 12.08.650 Enforcement—Health officer powers and duties.

The health officer shall have primary responsibility for the enforcement of the noise regulations contained in this chapter. The health officer shall make all noise-level measurements required for the enforcement of this chapter. Nothing in this chapter shall prevent the health officer from efforts to obtain voluntary compliance by way of warning, notice, or educational means.

(Ord. 11778 § 2 (Art. 8 § 801), 1978: Ord. 11773 § 2 (Art. 8 § 801), 1978.)

## 12.08.660 Initial violations.

In the event of an initial violation of the provisions of this chapter a written notice of violation shall be given the alleged violator, specifying the time by which the condition shall be corrected or an application for permit or variance shall be received by the health officer. The health officer shall take no further action in the event the cause of the violation has been removed, the condition abated or fully corrected within the time period specified in the written notice.

(Ord. 11778 § 2 (Art. 8 § 802), 1978: Ord. 11773 § 2 (Art. 8 § 802), 1978.)

# 12.08.670 Violation—Penalty.

Any person violating any of the provisions of this chapter shall be deemed guilty of a misdemeanor and, upon conviction thereof, shall be punished by a fine of not more than \$500.00 or be imprisoned in the County Jail for a period not exceeding six months or by both such fine and imprisonment. Each day such violation is committed or permitted to continue shall constitute a separate offense and shall be punishable as such.

(Ord. 11778 § 2 (Art. 8 § 803), 1978: Ord. 11773 § 2 (Art. 8 § 803, 1978.)

# 12.08.680 Severability.

If any provision, clause, sentence or paragraph of this chapter or the application thereof to any person or circumstances shall be held invalid, such invalidity shall not affect the other provisions or application of the provisions of this chapter which can be given effect without the invalid provisions or application and, to this end, the provisions of this chapter are hereby declared to be severable.

(Ord. 11778 § 2 (Art. 8 § 804), 1978: Ord. 11773 § 2 (Art. 8 § 804), 1978.)

APPENDIX 5.1:

**STUDY AREA PHOTOS** 



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# JN:14267



14267\_L1\_A 1.North 34, 38' 46.380000", 118, 7' 23.380000"



14267\_L1\_A 2.South 34, 38' 46.380000", 118, 7' 23.350000"



14267\_L1\_A 3.East 34, 38' 46.400000", 118, 7' 23.300000"



14267\_L1\_A 4.West 34, 38' 46.340000", 118, 7' 23.350000"

# JN:14267



14267\_L2\_B 1.North 34, 38' 50.170000", 118, 7' 15.500000"



14267\_L2\_B 2.South 34, 38' 50.010000", 118, 7' 15.470000"



14267\_L2\_B 3.East 34, 38' 49.970000", 118, 7' 15.440000"



14267\_L2\_B 4.West 34, 38' 49.980000", 118, 7' 15.440000"
## JN:14267



14267\_L3\_C 1.North 34, 38' 54.570000", 118, 7' 7.750000"



14267\_L3\_C 2.South 34, 38' 54.390000", 118, 7' 7.780000"



14267\_L3\_C 3.East 34, 38' 54.540000", 118, 7' 7.670000"



14267\_L3\_C 4.West 34, 38' 54.510000", 118, 7' 7.700000"

## JN:14267



14267\_L4\_G 1.North 34, 38' 44.940000", 118, 7' 7.200000"



14267\_L4\_G 2.South 34, 38' 44.900000", 118, 7' 7.230000"



14267\_L4\_G 3.East 34, 38' 44.900000", 118, 7' 7.200000"



14267\_L4\_G 4.West 34, 38' 44.830000", 118, 7' 7.400000"

## JN:14267



14267\_L5\_H 1.North 34, 38' 49.160000", 118, 7' 42.880000"



14267\_L5\_H 2.South 34, 38' 49.100000", 118, 7' 42.880000"



14267\_L5\_H 3.East 34, 38' 49.090000", 118, 7' 42.880000"



14267\_L5\_H 4.West 34, 38' 49.170000", 118, 7' 42.960000"



14267\_L6\_l 1.North 34, 38' 25.140000", 118, 7' 41.120000"



14267\_L6\_l 2.South 34, 38' 25.040000", 118, 7' 41.120000"



14267\_L6\_l 3.East 34, 38' 25.060000", 118, 7' 40.960000"



14267\_L6\_I 4.West 34, 38' 24.970000", 118, 7' 40.990000"

APPENDIX 5.2:

**NOISE LEVEL MEASUREMENT WORKSHEETS** 



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						24-Ho	ur Noise Le	evel Measu	urement S	ummary						
Date:	Thursday, C	October 27, 2	022		Location:	L1 - Located	north of the j	oroject site n	iear single-fa	imily	Meter:	Piccolo II			JN:	14267
Project:	Antelope Va	alley Comme	rce Center		Source:	residence at	42020 4th St	E.							Analyst:	Z. Ibrahim
							Hourly L <sub>eq</sub> d	IBA Readings	(unadjusted)							
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Timeframe	Hour	L <sub>eq</sub>	L max	L <sub>min</sub>	L1%	L2%	L5%	L8%	L25%	L50%	L90%	L95%	L99%	L <sub>eq</sub>	Adj.	Adj. L <sub>eq</sub>
	0	59.5	69.4	46.5	69.0	68.2	66.3	64.7	59.3	55.3	48.4	47.7	46.7	59.5	10.0	69.5
	1	61.7	71.0	50.5	70.6	69.8	67.7 72.5	66.5	62.4	57.4	52.2	51.3	50.7	61.7	10.0	71.7
Night	2	65.7	74.9	56.8	74.0	74.3	72.5	69.9	65.9	62.4	52.9	52.1	56.9	65.7	10.0	74.0
0	4	69.7	80.5	57.7	80.1	79.4	76.8	73.8	68.9	65.5	59.9	58.8	57.8	69.7	10.0	79.7
	5	68.1	76.4	59.5	76.0	75.4	73.2	72.1	68.4	66.0	61.9	60.8	59.7	68.1	10.0	78.1
	6	68.5	76.3	61.0	75.9	75.3	73.3	72.0	68.9	67.0	63.2	62.2	61.2	68.5	10.0	78.5
	8	70.5	81.1	58.8	79.7 80.6	80.0	70.8	74.0	69.5	66.1	61.4	60.4	59.0	70.5	0.0	70.5
	9	71.4	79.0	58.3	78.5	78.0	76.4	75.2	72.5	70.1	61.5	60.1	58.6	71.4	0.0	71.4
	10	68.4	78.3	54.1	77.8	77.2	75.1	73.3	68.4	64.6	57.9	56.4	54.4	68.4	0.0	68.4
	11	71.6	83.0	55.1	82.0	80.7	78.7	77.2	70.5	64.4	58.3	57.1	55.5	71.6	0.0	71.6
	12	66.4	77.0	55.5	76.3 76.2	75.6 75.5	72.8 73.3	70.5	65.8	63.0 62.4	58.3	57.1	55.7	66.4	0.0	66.4
Day	13	66.4	75.8	55.5	75.4	74.8	72.6	70.8	66.2	63.6	58.8	57.4	55.8	66.4	0.0	66.4
	15	68.3	79.4	56.5	78.9	78.2	75.4	72.4	66.9	63.8	59.3	58.2	56.8	68.3	0.0	68.3
	16	67.6	78.6	56.9	78.1	77.3	74.0	71.3	66.4	64.0	60.0	58.8	57.3	67.6	0.0	67.6
	17	67.3	78.1	56.7	77.4	76.6	73.3	71.8	66.3	63.8	59.5	58.4	57.0	67.3	0.0	67.3
	18	68.6	80.9	55.5 49.7	80.0	79.4	72.5	70.0	65.0 64.1	62.4	53.0	55.0	49.9	68.6	5.0	73.6
	20	63.5	72.2	51.0	71.8	71.4	69.7	67.9	64.0	61.0	54.0	52.6	51.2	63.5	5.0	68.5
	21	64.4	76.3	50.4	75.7	74.9	70.6	67.7	63.6	60.1	53.1	51.6	50.6	64.4	5.0	69.4
Night	22	61.4	69.6	49.9	69.3	68.8	67.2	65.7	62.3	58.8	52.8	51.5	50.2	61.4	10.0	71.4
Timeframe	Hour	L	09.5	47.7 L	L1%	12%	66.4 15%	L8%	L25%	50.2 150%	49.5 190%	48.0 <b>195%</b>	47.8 L99%	60.1	L og (dBA)	70.1
Dou	Min	63.5	72.2	49.7	71.8	71.4	69.7	67.7	63.6	60.1	53.0	51.3	49.9	24 Hours	Daytime	Nighttime
Day	Max	71.6	83.0	61.8	82.0	80.7	78.7	77.2	72.5	70.1	64.0	63.1	62.1	24-Hour	(7am-10pm)	(10pm-7am)
Energy	Average	68.4	Ave	rage:	77.6	76.9	74.5	72.2	66.9	63.8	58.2	56.9	55.4	67.6	60 4	65.0
Night	Max	59.5 69.7	80.5	46.5	80.1	68.2 79.4	76.8	73.8	59.3 68.9	55.3 67.0	48.4 63.2	47.7	46.7	ס.יס	vð.4	02.Ö
Energy	Average	65.8	Ave	rage:	73.3	72.7	70.6	68.9	64.4	60.9	55.4	54.5	53.6			



						24-Ho	ur Noise Le	evel Measu	urement S	ummary						
Date:	Thursday, C	October 27, 2	022		Location:	L2 - Located	north of the I	oroject site r	iear single-fa	mily	Meter:	Piccolo II			JN:	14267
Project:	Antelope Va	alley Comme	rce Center		Source:	residence at	42057 5th St	E.							Analyst:	Z. Ibrahim
							Hourly L <sub>eq</sub> d	IBA Readings	(unadjusted)							
85.	0						1 1									
<b>₹</b> 80.																
<b>B</b> 70.	ğ <u> </u>															
							- <mark>2</mark>									
<b>1</b> 55.				50.2		9.4	- <mark>9</mark> - c	<u>,</u>	<u> </u>	t 00	- <mark>ო</mark> - ი	o – – –	N 0		<del>7</del> 0	9
9 45. 40.	<b>9 - 4</b> -	54	<u> </u>	- u			<u>+</u> +− <sup>i</sup>		2 <mark>.50 – 7</mark>	<mark></mark>	2 <mark>2 27</mark>	24	2 <mark>.53.</mark>		51.	49.
35.0	0 ++ 0	1 2	3	4 5	6	7 8	9 1	0 11	12 1	3 14	15 1	6 17	18 19	20	21 22	23
	Ū	1 2	5	- J	Ū	, 0	5 1	Hour Be	eginning	5 14	15 1	0 1/	10 15	20		25
Timeframe	Hour	L <sub>eq</sub>	L <sub>max</sub>	L <sub>min</sub>	L1%	L2%	L5%	L8%	L25%	L50%	L90%	L95%	L99%	L <sub>eq</sub>	Adj.	Adj. L <sub>eq</sub>
	0	46.7	52.8	42.1	52.4	51.8	50.6	49.6	47.5	45.6	43.2	42.8	42.3	46.7	10.0	56.7
	1	53.1	60.3	45.8 49.4	62.4 59.8	61.3 59.3	59.0 58.4	57.3 57.8	52.5	49.7 53.8	47.1	46.6	46.0	53.1 54.7	10.0	64.7
Night	3	57.7	64.9	48.9	64.6	64.3	63.6	62.8	58.1	54.7	50.4	49.7	49.0	57.7	10.0	67.7
	4	57.7	63.3	51.1	63.0	62.7	61.9	61.3	59.0	56.4	52.7	52.1	51.3	57.7	10.0	67.7
	5	60.2 60.0	65.3 63.8	54.1	65.1 63.5	64.8 63.3	63.9 62.7	63.3 62.3	61.4 61.0	59.3 59.7	55.8	55.0 56.4	54.3 55.8	60.2 60.0	10.0	70.2
	7	57.4	61.4	54.4	61.1	60.8	60.2	59.7	58.1	57.0	55.2	54.9	54.5	57.4	0.0	57.4
	8	53.9	62.4	49.0	61.4	60.3	58.3	57.3	54.1	52.2	49.9	49.6	49.2	53.9	0.0	53.9
	9 10	65.2 57.2	71.6 64.3	53.7 49.3	70.8	70.5	69.4 62.8	68.7 62.1	66.1 59.2	64.5 53.0	59.0 50.3	56.6 49.9	54.6	65.2 57.2	0.0	65.2 57.2
	10	57.2	65.5	47.5	64.8	63.9	62.2	61.4	58.7	53.8	49.7	49.2	47.8	57.1	0.0	57.1
	12	50.6	57.4	45.4	56.9	56.2	54.9	54.1	51.3	49.4	46.6	46.1	45.6	50.6	0.0	50.6
David	13	50.4	57.0	45.3	56.6	56.1	55.1	54.4	50.9	48.8	46.4	45.9	45.4	50.4	0.0	50.4
Day	14 15	50.8 54.3	57.5 63.5	45.2 49.3	57.1 62.6	56.5 61.3	55.3 58.7	54.3 57.5	51.4 54.4	49.5 52.4	46.4 50.2	45.9	45.3 49.4	50.8 54.3	0.0	50.8 54.3
	16	51.8	59.0	46.5	58.6	58.2	56.9	56.1	51.6	49.7	47.5	47.1	46.6	51.8	0.0	51.8
	17	54.1	60.2	49.4	59.9	59.4	58.3	57.5	54.8	52.7	50.4	50.0	49.6	54.1	0.0	54.1
	18	53.2	59.1	48.9	58.7	58.4	57.6	56.9	53.4	51.9	49.8	49.4	49.0	53.2	0.0	53.2
	19 20	54.0 56.3	59.2 62.7	49.4 50.3	58.9 62.3	58.5	57.7 60.8	57.0 60.1	54.7 57.1	53.3 54.7	50.7	50.2	49.6 50.5	54.0 56.3	5.0	59.0 61.3
	21	54.4	60.8	48.9	60.4	59.9	58.7	58.0	55.0	53.2	50.0	49.6	49.0	54.4	5.0	59.4
Night	22	51.6	57.3	46.4	57.0	56.6	55.8	54.9	52.3	50.6	47.7	47.0	46.5	51.6	10.0	61.6
Timeframe	23 Hour	49.6	56.7	44.1	56.3	55.8	54.5	53.4	50.1	47.9	45.1	44.7	44.2	49.6	10.0	59.6
Dav	Min	50.4	57.0	45.2	56.6	56.1	54.9	54.1	50.9	48.8	46.4	45.9	45.3	24 Hour	Daytime	Nighttime
Day	Max	65.2	71.6	54.4	70.8	70.5	69.4	68.7	66.1	64.5	59.0	56.6	54.6	24-Hour	(7am-10pm)	(10pm-7am)
Energy	Average	56.9	Ave	rage:	60.9	60.4	59.1	58.4	55.4	53.1	50.2	49.7	49.0	567	56 0	
Night	Max	60.2	65.3	55.7	65.1	64.8	63.9	63.3	61.4	59.7	45.2 56.9	56.4	42.5 55.8	50./	20.2	50.5
Energy	Average	56.5	Ave	rage:	60.5	60.0	58.9	58.1	55.3	53.1	50.0	49.4	48.8			



						24-Ho	ur Noise L	evel Meas	urement S	ummary						
Date:	Thursday, C	October 27, 2	022		Location:	L3 - Located	north of the	project site r	iear single-fa	mily	Meter:	Piccolo II			JN:	14267
Project:	Antelope V	alley Comme	rce Center		Source:	residence at	42104 6th St	: E.							Analyst:	Z. Ibrahim
							Hourly L <sub>eq</sub>	dBA Readings	(unadjusted)							
85.	0															
	0															
<b>5</b> 70.0	0															
ـــــــــــــــــــــــــــــــــــــ	Ő															
in 50.	0 0 	9. ri	4.	ن <u>ون</u>		<u>%</u> –	<u>च</u>	<u></u>	• • •	. <u>.</u>	<u>.</u> .	i 4	<del>.</del> <del>.</del>	<b>.</b>	<u></u>	8
<b>H</b> 40.	<b>51</b>	48 48	23	53	24	20 23	23		2 <mark>12</mark>	20	- <mark>49</mark>	6 <del>6</del>	47	<mark>20</mark>	49	43
55.	0	1 2	3	4 5	6	7 8	9 1	LO 11	12 1	.3 14	15 1	5 17	18 19	20	21 22	23
								Hour Be	eginning							
Timeframe	Hour	L <sub>eq</sub>	L max	L min	L1%	L2%	L5%	L8%	L25%	L50%	L90%	L95%	L99%	L <sub>eq</sub>	Adj.	Adj. L <sub>eq</sub>
	0	51.3	60.0	47.0	59.5	58.4	55.4	54.1	51.4	49.7	47.6	47.4	47.1	51.3	10.0	61.3
	2	48.3	53.2	42.6	52.8	55.5	54.0 51.4	52.5	48.7	40.5	45.5	45.2	42.0	48.3	10.0	58.3
Night	3	53.4	58.4	49.3	58.1	57.8	56.9	56.4	54.4	52.5	50.1	49.8	49.4	53.4	10.0	63.4
	4	54.5	58.1	50.8	57.8	57.5	57.0	56.7	55.5	54.1	51.9	51.5	51.0	54.5	10.0	64.5
	6	54.7	57.8	52.1	57.5	57.3	56.7	56.5	55.4	54.3	52.7	52.5	52.2	54.7	10.0	64.7
	7	53.8	57.6	51.6	57.3	56.9	56.2	55.8	54.3	53.4	52.2	51.9	51.7	53.8	0.0	53.8
	8	50.1 53.4	54.5 60.3	47.5 49.9	54.0 59.7	53.4 59.0	52.4 57.7	52.0 56.9	50.8 53.6	49.6 51.9	48.1 50.5	47.9 50.3	47.6 50.0	50.1 53.4	0.0	50.1 53.4
	10	55.4	61.8	49.4	61.0	60.0	59.3	59.0	56.8	54.5	50.5	50.5	49.7	55.4	0.0	55.4
	11	56.3	63.8	45.9	63.0	62.4	61.4	60.8	57.7	54.1	48.0	47.4	46.3	56.3	0.0	56.3
	12	51.6 52.1	61.7 60.0	43.4 44 9	61.0 59.5	59.8 58.8	57.0 57.5	55.5 56.7	51.9 52.8	48.8 49.6	45.1 46.0	44.5 45.6	43.7 45.0	51.6 52.1	0.0	51.6 52.1
Day	13	48.6	56.1	43.9	55.5	54.7	53.3	52.2	48.9	46.9	44.7	44.4	44.0	48.6	0.0	48.6
	15	49.7	58.8	42.0	58.3	57.7	55.8	54.2	49.7	46.7	43.2	42.8	42.2	49.7	0.0	49.7
	16 17	47.3 49.4	54.4 57.8	43.0 43.6	54.0 57.3	53.4 56.1	51.7 54.7	50.4 53.9	47.8 49.6	45.9 46.5	43.9 44.3	43.6 44.1	43.2 43.7	47.3 49.4	0.0	47.3 49.4
	18	47.6	52.0	44.9	51.7	51.2	50.3	49.7	48.2	47.0	45.6	45.3	45.0	47.6	0.0	47.6
	19	47.4	51.6	44.6	51.3	51.0	50.2	49.6	47.8	47.0	45.4	45.0	44.7	47.4	5.0	52.4
	20	49.1	56.0	46.3	55.6 54.1	53.6	54.5 52.6	54.0 51.9	49.9	49.5	47.2	46.8	46.5	50.7 49.1	5.0	55.7 54.1
Night	22	46.3	51.6	42.5	51.4	51.1	50.4	49.5	46.7	45.3	43.3	43.0	42.6	46.3	10.0	56.3
Timoframo	23	43.8	49.8	39.6	49.4	49.1	48.2	47.6	44.3	42.5	40.4	40.1	39.7	43.8	10.0	53.8
Dav	Min	47.3	51.6	42.0	51.3	51.0	50.2	49.6	47.8	45.9	43.2	42.8	42.2	24 Hours	Daytime	Nighttime
Day	Max	56.3	63.8	51.6	63.0	62.4	61.4	60.8	57.7	54.5	52.2	51.9	51.7	24-Hour	(7am-10pm)	(10pm-7am)
Energy	Average	51.8 43.8	49.8	rage:	<u>56.9</u> 49.4	<u>56.2</u> 49 1	<u>55.0</u> 48.2	54.2 47.6	51.4 44 3	49.3	46.7	46.3	45.9	51 Q	51 Q	51 Q
Night	Max	54.7	60.0	52.1	59.5	58.4	57.0	56.7	55.5	54.3	52.7	52.5	52.2	51.0	51.0	21.0
Energy	Average	51.8	Ave	rage:	55.5	55.1	54.0	53.3	51.1	49.5	47.4	47.1	46.7			

Deter	Thursday	) - t - k	022		l	24-Ho	ur Noise Le	evel Meas	urement S	ummary	1 de terre	Discolo II				44267
Date: Proiect:	Antelope V	october 27, 2 allev Comme	022 rce Center		Location: Source:	L4 - Located Columbia Wa	north of the ay.	project site r	iear silo at 46	51 E	Meter:	PICCOIO II			JN: Analvst:	14267 Z. Ibrahim
,		,					Hourly L	dBA Readinas	(unadjusted)						,	
							<i>y</i>									
85.																
<b>8</b> 75.	ğ ————————————————————————————————————															
<b>9</b> /0.0			o	. 8		·	<u> </u>	N	·	<mark>и — и</mark> —	6.0 4	<u>,                                     </u>	N 4	- o	<b>•</b>	
<b>_</b> 60.	0 - 00 -	7.4	2	2 2		2 <mark>2</mark>	<mark>  2</mark>	.0 <mark></mark>	– <mark>č</mark> –– ť	2 <u>- 2</u> -	_ <mark>``</mark> `	< <mark>≍</mark> -+	- <mark>2 2</mark> -		6.7	
- 55. - 10 50.	0 – <b>3</b> –	64												-	- 9 -	- 6
<b>P</b> 45.																
35.	ŏ ++															
	0	1 2	3	4 5	6	7 8	9 1	LO 11	12 1	3 14	15 1	6 17	18 19	20	21 22	23
								Hour Be	eginning							
Timeframe	Hour	L <sub>eq</sub>	L max	L <sub>min</sub>	L1%	L2%	L5%	L8%	L25%	L50%	L90%	L95%	L99%	L <sub>eq</sub>	Adj.	Adj. L <sub>eq</sub>
	0	62.8	73.3	46.4	73.0	72.4	69.9	68.3	62.3	55.6	47.7	47.0	46.5	62.8	10.0	72.8
	1	64.4	75.1	47.6	74.7	73.9	71.4	69.7	64.2	57.6	49.3	48.5	47.7	64.4	10.0	74.4
Night	2	67.4	77.9	54.0	//.4 80.7	76.5	73.9	72.1	67.2 70.2	63.1	56.6	55.5	54.2	6/.4 70.6	10.0	//.4 20.6
Nigrit	4	73.4	82.5	59.6	82.1	81.3	78.9	77.5	74.4	70.8	62.6	61.2	60.1	73.4	10.0	83.4
	5	72.8	80.8	60.6	80.5	79.9	78.1	76.8	73.9	70.6	63.6	62.1	60.8	72.8	10.0	82.8
	6	73.2	81.6	60.8	81.1	80.4	78.4	77.2	74.3	71.3	64.1	62.4	60.9	73.2	10.0	83.2
	7	73.2	80.0	63.3	79.7	79.1	77.6	76.7	74.5	72.0	66.3	65.0	63.5	73.2	0.0	73.2
	8	71.7	80.0	59.4	79.7	79.0	76.7	75.5	72.7	70.0	62.8	61.3	59.7	71.7	0.0	71.7
	9	72.0	79.9	59.2	79.6 78.0	79.0 77.2	77.1	76.0	/3.0	/0.2	64.0 50.8	62.3	59.5	/2.0	0.0	72.0
	10	69.4	78.4 77.4	55.6	78.0 77.0	76.4	75.5	74.4	71.4	67.2	59.8	57.6	55.9	70.2 69.4	0.0	70.2 69.4
	12	70.1	78.9	55.0	78.5	77.9	75.7	74.2	70.9	67.5	59.2	57.2	55.3	70.1	0.0	70.1
	13	72.2	83.3	56.1	82.9	82.0	78.3	75.8	71.8	68.5	60.4	58.3	56.4	72.2	0.0	72.2
Day	14	72.2	81.5	58.4	81.1	80.2	77.7	76.2	72.8	69.9	62.7	60.7	58.7	72.2	0.0	72.2
	15	73.9	83.9	61.9	83.5	82.6	79.3	77.2	73.9	71.4	66.2	64.3	62.2	73.9	0.0	73.9
	16	73.6	83.8	60.8	83.4	82.4	79.3	77.0	73.6	71.0	65.3	63.4	61.1	73.6	0.0	73.6
	1/	/3.5	83.8	61.6	83.4 70 F	82.4	78.8 76.1	76.7 75.1	/3.5	/1.1	65.5 62.5	64.0	62.0	/3.5	0.0	/3.5
	10	71.2	70.0	55.6	78.5 79.2	77.9	76.1	75.1	72.5	67.8	59 0	57.2	55.9	71.2	5.0	71.2
	20	70.0	79.6	56.1	79.2	78.4	75.8	74.3	70.7	67.1	59.1	57.2	56.3	70.4	5.0	75.0
	21	68.9	78.6	52.9	78.2	77.3	74.9	73.6	69.6	65.1	55.4	54.1	53.1	68.9	5.0	73.9
Night	22	66.7	76.0	51.2	75.7	74.8	72.8	71.6	67.8	62.6	53.3	52.2	51.4	66.7	10.0	76.7
- mgm	23	65.7	76.1	48.3	75.8	75.1	72.9	71.2	65.5	58.5	49.8	49.0	48.4	65.7	10.0	75.7
Timeframe	Hour				L1%	L2%	L5%	L8%	L25%	L50%	L90%	L95%	L99%		L <sub>eq</sub> (dBA)	Nightting
Day	IVIIN Max	68.9 73 9	77.4 83.9	52.9	//.0	76.4 82.6	74.6 79.3	/3.b 77.2	69.6 74.5	65.1 72.0	55.4 66.3	54.1 65.0	53.1	24-Hour	(7am-10nm)	Nighttime
Energy	Average	71.8	Ave	rage:	80.1	79.4	76.9	75.4	72.2	69.1	61.8	60.1	58.3		(vani-topin)	(±opin=rain)
Night	Min	62.8	73.3	46.4	73.0	72.4	69.9	68.3	62.3	55.6	47.7	47.0	46.5	71.2	71.8	70.1
Night	Max	73.4	82.5	60.8	82.1	81.3	78.9	77.5	74.4	71.3	64.1	62.4	60.9		, 2.0	
Energy	Average	70.1	Ave	rage:	77.9	77.1	74.9	73.3	68.9	64.0	56.1	55.0	54.0			



						24-Ho	ur Noise Le	evel Measu	urement S	ummary						
Date:	Thursday, C	October 27, 2	022		Location:	L5 - Located	northwest of	the project	site near gas	station at	Meter:	Piccolo II			JN:	14267
Project:	Antelope V	alley Comme	rce Center		Source:	42011 Sierra	Hwy.								Analyst:	Z. Ibrahim
							Hourly L <sub>eq</sub> d	IBA Readings	(unadjusted)							
85.0	n															
₹ <sup>80.0</sup>																
<b>a</b> 75.0 <b>p</b> 70.0	5									+						
- 65.0 - 60.0	2		o	0. 72.4	<u>ه</u>	74.	- <mark>6.6</mark> - 0	2	- m - F	n 80	<u></u>	<mark>и и</mark>	·. 6		4 m _	
<b>→</b> 55.0	ž – • –	- 60	67	- 6	99	- 39		8 <sup>66</sup>	<mark>.99</mark>			<mark>≥ 6</mark>	- <mark>67</mark>		66	
<b>p</b> 50.0	5 — <b>8</b> —	9					+ $+$							+		
<b>–</b> 40.0 35.0	3															
	0	1 2	3	4 5	6	7 8	91	0 11	12 1	3 14	15 1	6 17	18 19	20	21 22	23
								Hour Be	eginning							
Timeframe	Hour	L <sub>eq</sub>	L max	L min	L1%	L2%	L5%	L8%	L25%	L50%	L90%	L95%	L99%	L <sub>eq</sub>	Adj.	Adj. L <sub>eq</sub>
	0	58.5	67.1	49.4	66.7	66.1	64.6	63.5	59.2	55.1	50.5	50.0	49.5	58.5	10.0	68.5
	1	69.1 60.4	/8./ 68.2	51.3 49.6	78.1 67.9	67.3	76.8 66.1	76.0	68.5 61.4	57.1	52.3	51.8	51.4 49.7	69.1 60.4	10.0	79.1
Night	3	67.0	76.4	59.5	75.7	75.0	73.2	71.8	66.7	63.3	60.2	59.8	59.5	67.0	10.0	77.0
C C	4	67.0	78.7	56.9	78.2	77.0	73.2	71.2	65.4	62.3	58.6	57.8	57.1	67.0	10.0	77.0
	5	72.4	83.2	59.5	83.0	82.7	79.5	77.6	71.1	64.7	60.7	60.2	59.7	72.4	10.0	82.4
_	6	66.9	73.9	59.6	73.5	73.0	72.0	71.0	68.1	64.9	60.9	60.2	59.7	66.9	10.0	76.9
	8	74.3	77.3 84.9	59.8	76.5 84 1	75.0 82.6	73.7 80.2	72.4	69.4 74.4	68.4	62.0	61.2	60.5	08.0 74.3	0.0	08.0 74.3
	9	69.9	79.7	61.0	78.7	77.3	73.8	73.0	70.6	68.5	63.0	62.0	61.3	69.9	0.0	69.9
	10	66.9	74.2	56.5	73.7	73.1	71.7	70.9	68.6	64.6	58.8	57.6	56.6	66.9	0.0	66.9
	11	69.5	80.1	58.1	79.2	78.2	75.3	73.1	69.4	66.6	60.5	59.3	58.3	69.5	0.0	69.5
	12	66.3	75.7	55.1	75.2	74.7	72.2	70.1	66.6	64.0	58.0	56.5	55.3	66.3	0.0	66.3
Day	13	73.4 68.8	85.2 81.0	59.2	84.5 70.0	83.9	81.6	79.6 73.0	70.1 67.3	65.1 64.4	61.0 50.3	60.1 58 3	59.3	73.4 68.8	0.0	73.4 68.8
Duy	14	65.9	73.1	58.4	72.5	78.8	70.2	69.2	67.1	64.5	60.2	59.5	58.7	65.9	0.0	65.9
	16	67.2	76.6	58.3	76.1	75.5	73.5	70.5	67.4	64.9	60.3	59.5	58.6	67.2	0.0	67.2
	17	67.2	76.2	59.4	75.6	74.8	72.4	70.7	67.6	64.9	60.9	60.1	59.6	67.2	0.0	67.2
	18	67.7	75.7	60.7	75.3	74.6	72.3	71.3	68.5	65.8	62.1	61.4	60.9	67.7	0.0	67.7
	19	65.9	75.5	57.0	75.1	74.5	71.7	69.7	66.1	63.0	58.2	57.6	57.1	65.9	5.0	70.9
	20	66.4	77.5	57.5	70.8	75.9	72.7	71.0	66 0	62.4	58.9	57.5	57.0	66.4	5.0	71.7
NUT	22	66.3	74.9	62.6	74.1	73.4	71.3	70.0	66.2	64.3	62.9	62.8	62.6	66.3	10.0	76.3
Night	23	63.8	74.8	56.8	73.7	72.8	69.6	67.9	63.3	60.1	57.3	57.1	56.9	63.8	10.0	73.8
Timeframe	Hour	L <sub>eq</sub>	L max	L <sub>min</sub>	L1%	L2%	L5%	L8%	L25%	L50%	L90%	L95%	L99%		L <sub>eq</sub> (dBA)	
Day	Min	65.9	73.1	55.1	72.5	71.7	70.2	69.2	66.0	62.4	58.0	56.5	55.3	24-Hour	Daytime	Nighttime
Energy	Average	74.3	85.2 Δνε	61.U	84.5 77.3	83.9	81.6 73.9	79.8	74.4 68.3	65.5	60.2	62.0 59.3	58.5		(7am-10pm)	(10pm-7am)
Lincigy	Min	58.5	67.1	49.4	66.7	66.1	64.6	63.5	59.2	55.1	50.5	50.0	49.5	68.6	69.2	67.3
Night	Max	72.4	83.2	62.6	83.0	82.7	79.5	77.6	71.1	64.9	62.9	62.8	62.6		05.2	07.5
Energy	Average	67.3	Ave	rage:	74.5	73.9	71.8	70.5	65.6	61.0	57.1	56.7	56.2			



						24-Ho	ur Noise L	evel Meas	urement S	Summary						
Date:	Thursday, C	October 27, 2	022		Location:	L6 - Located	west of the	project site n	ear gas retai	il plaza at	Meter:	Piccolo II			JN:	14267
Project:	Antelope V	alley Comme	rce Center		Source:	190 Sierra Ct	:		0	•					Analyst:	Z. Ibrahim
							Hourly L <sub>eq</sub>	dBA Readings	(unadjusted)	)						
05	0															
≈ <sup>85.</sup>																
<b>/gp</b> 75.0	0															
e 65.	0		N	m	<b>∞</b>	<b>m H</b>	<u> </u>	6 <u>.</u>		<b>m</b>		n u	0			
<b>-</b> 55.	ŏ	- 5 5	67.	67.		67.	<b>⊢</b> ⊼		64.7	<mark></mark>	<mark></mark>	<mark>00</mark>	<mark>- 67.</mark>	<mark></mark>		4
<b>n</b> 50. <b>o</b> 45.	0 — <u>1</u>	60 57.					$\mp$ $\mp$					+ +	<b>9</b>	<mark></mark>	<mark></mark>	28
± 40.0																
	0	1 2	3	4 5	6	7 8	9	10 11	12 1	13 14	15 1	6 17	18 19	20	21 22	23
								Hour Be	eginning							
Timeframe	Hour	L <sub>eq</sub>	L max	L <sub>min</sub>	L1%	L2%	L5%	L8%	L25%	L50%	L90%	L95%	L99%	L <sub>eq</sub>	Adj.	Adj. L <sub>eq</sub>
	0	55.0	62.6	46.3	62.2	61.7	60.3	59.4	56.1	52.5	47.6	47.0	46.5	55.0	10.0	65.0
	1	60.7	67.9 67.1	50.1	67.6 66.7	67.2	66.1 64.0	65.2	62.0 57.6	58.4	51.3	50.8	50.2	60.7	10.0	/0./
Night	3	67.2	75.5	61.2	75.3	75.1	74.4	71.3	66.9	64.4	62.2	61.7	61.3	67.2	10.0	77.2
	4	62.9	70.5	54.9	70.3	69.9	68.6	67.5	63.4	60.6	56.4	55.7	55.1	62.9	10.0	72.9
	5	67.3	74.1	58.1	73.8	73.4	72.2	71.3	68.8	65.0	60.6	59.0	58.3	67.3	10.0	77.3
	6	65.8	71.2	57.8	71.0	70.6	69.6	69.1	67.1	64.9	60.0	58.9	58.0	65.8	10.0	75.8
	/	67.3 66.1	/2.5	60.0	72.2	71.9	/1.0	/0.4	68.5 67 5	66.5 65.0	62.4 60.6	61.1 50.7	60.2 59.0	67.3	0.0	67.3 66.1
	9	70.3	77.0	56.9	76.3	76.1	75.0	74.4	72.0	69.6	59.0	57.8	57.1	70.3	0.0	70.3
	10	66.9	75.9	55.1	75.4	75.0	74.1	73.3	65.7	61.5	57.1	56.0	55.3	66.9	0.0	66.9
	11	69.1	76.5	57.8	76.0	75.5	74.3	73.5	70.7	66.0	60.8	59.6	58.2	69.1	0.0	69.1
	12	64.7	73.1	57.3	72.7	72.1	70.0	68.7	64.8	62.7	59.0	58.3	57.4	64.7	0.0	64.7
Dav	13	65.3 65.6	/1.2	59.2	/1.0	/0./ 72.5	69.7 71 F	69.0	66.2	64.0	60.8 60.1	60.1 50.2	59.3	65.3 65.6	0.0	65.3 65.6
Day	14	65.2	74.0	58.5	74.1	75.5	69.2	68.1	65.4 66.0	64.3	60.5	59.5 59.7	58.8	65.2	0.0	65.2
	16	66.5	76.3	59.0	75.7	74.6	71.7	69.8	66.2	64.7	60.9	60.0	59.2	66.5	0.0	66.5
	17	66.6	74.6	60.3	74.2	73.5	71.2	69.7	66.9	65.4	62.1	61.4	60.5	66.6	0.0	66.6
	18	67.0	75.0	60.6	74.7	74.2	72.1	70.7	67.2	65.3	61.9	61.4	60.8	67.0	0.0	67.0
	19	62.3	67.9	55.2	67.7	67.3	66.4	65.7	63.5	61.4	57.1	56.2	55.4	62.3	5.0	67.3
	20	60.8	70.1 68.6	50.7 49.6	69.0 68.1	67.6	66 1	65.0	61.8	59.5 58.7	53.2	52.1	50.9 49.8	60.8	5.0	65.8
A12 1 4	22	61.1	69.7	48.6	69.3	68.7	66.8	66.0	61.6	58.4	51.4	50.1	48.8	61.1	10.0	71.1
Night	23	58.4	66.3	47.5	65.9	65.4	63.6	62.9	59.6	55.7	49.3	48.3	47.6	58.4	10.0	68.4
Timeframe	Hour	L <sub>eq</sub>	L max	L <sub>min</sub>	L1%	L2%	L5%	L8%	L25%	L50%	L90%	L95%	L99%		L <sub>eq</sub> (dBA)	
Day	Min	60.8	67.9	49.6	67.7	67.3	66.1	65.0	61.8	58.7	52.2	50.7	49.8	24-Hour	Daytime	Nighttime
Energy	Average	70.3 66.4	77.0 Ave	ou.b	70.3	70.1	75.0	74.4	66.3	63.9	62.4 59.2	58 2	57.3		(7am-10pm)	(10pm-7am)
Nicht	Min	55.0	62.6	46.3	62.2	61.7	60.3	59.4	56.1	52.5	47.6	47.0	46.5	65.5	66.4	63.6
Night	Max	67.3	75.5	61.2	75.3	75.1	74.4	71.3	68.8	65.0	62.2	61.7	61.3		5517	
Energy	Average	63.6	Ave	rage:	69.1	68.7	67.3	66.1	62.6	59.2	54.2	53.3	52.6			



APPENDIX 7.1:

**OFF-SITE TRAFFIC NOISE CONTOURS** 



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	FHWA-R	D-77-108 HIGH	IWAY I	NOISE	PREDIC		ODEL (	9/12/20	021)		
Scenar	rio: E					Project	Name: I	Antelo	pe Valley C	Commerc	)
Road Nan Road Segme	ne: 10th St. W ent: n/o Avenue	M				Job Ni	imber:	14267			
SITE	SPECIFIC IN	NPUT DATA				N	OISE N	IODE	L INPUT	S	
Highway Data				S	ite Cor	ditions (	Hard =	10, Sc	oft = 15)		
Average Daily	Traffic (Adt):	25,005 vehicl	es					Autos:	15		
Peak Hour	Percentage:	6.63%			Me	edium Tru	cks (2 A	Axles):	15		
Peak H	Hour Volume:	1,658 vehicle	s		He	avy Truc	ks (3+ A	Axles):	15		
Ve	ehicle Speed:	55 mph		V	ehicle	Mix					
Near/Far La	ane Distance:	87 feet		Ē	Veh	icleType		Day	Evening	Night	Daily
Site Data						A	utos:	75.2%	10.7%	14.0%	97.39%
Ba	rrier Height:	0.0 feet			М	edium Tr	ucks:	81.9%	6.8%	11.3%	1.93%
Barrier Type (0-V	Vall, 1-Berm):	0.0				Heavy Tr	ucks:	85.3%	2.0%	12.7%	0.69%
Centerline D	ist. to Barrier:	68.0 feet		N	loise S	ource Ele	vation	s (in fe	et)		
Centerline Dist.	to Observer:	68.0 feet				Autos	: 0.0	000			
Barrier Distance	to Observer:	0.0 feet			Mediu	m Trucks	2.2	297			
Observer Height	(Above Pad):	5.0 feet			Hear	vy Trucks	: 8.0	004	Grade Ad	iustment	: 0.0
P	ad Elevation:	0.0 feet		-							
Ro	ad Elevation:	0.0 feet		L	ane Eq	uivalent	Distanc	e (in i	'eet)		
	Road Grade:	0.0%				Autos	: 52.	505			
	Left View:	-90.0 degre	es		Mediu	m Trucks	: 52.	336			
	Right View:	90.0 degre	es		Hea	vy Trucks	: 52.	352			
FHWA Noise Mod	el Calculation	s									
VehicleType	REMEL	Traffic Flow	Dist	ance	Finite	Road	Fresn	el	Barrier Att	en Ber	rm Atten
Autos:	71.78	-0.63		-0.42		-1.20		-4.71	0.0	000	0.000
Medium Trucks:	82.40	-17.66		-0.40		-1.20		-4.88	0.0	000	0.000
Heavy Trucks:	86.40	-22.16		-0.40		-1.20		-5.29	0.0	000	0.000
Unmitigated Nois	e Levels (with	out Topo and	barrie	r attenu	uation)						
VehicleType	Leq Peak Ho	ur Leq Da	v	Leq Eve	ening	Leq I	Vight		Ldn	C	NEL
Autos:	69	9.5	69.3		66.9		63.2	2	71.1	1	71.5
Medium Trucks:	63	3.1	63.3		58.5		55.9	)	64.2	2	64.5
Heavy Trucks:	62	2.6	62.9		52.6		55.9	)	63.9	9	64.0
Venicle Noise:	1	1.1	71.0		67.6		64.6	)	72.8	)	72.9
Centerline Distan	ce to Noise C	ontour (in feet	9	70 "		05	0.4		0.404		-10.4
				/U dl	BA 10-	65 0	IBA	6	ou aba	55	aBA
		~	Lan:		100		216		465		1,001
		C	NEL:		106		228		491		1,058

Scenario	D: EP					Project	t Name.	Antelo	pe Valley (	Commerc	<b>)</b>
Road Name	e: 10th St. W					Job N	lumber.	14267			
Road Segmen	t: n/o Avenue	M									
SITES	PECIFIC IN	PUT DATA					NOISE	MODE	EL INPUT	S	
Highway Data				-	Site Con	ditions	(Hard	= 10, S	oft = 15)		
Average Daily	raffic (Adt):	25,483 vehicl	es					Autos.	: 15		
Peak Hour I	Percentage:	6.63%			Me	dium Tr	ucks (2	Axles).	: 15		
Peak He	our Volume:	1,690 vehicle	s		He	avy Tru	cks (3+	Axles).	: 15		
Vel	icle Speed:	55 mph		1	Vehicle I	Nix					
Near/Far Lar	e Distance:	87 feet			Veh	cleType	e	Day	Evening	Night	Daily
Site Data							Autos:	75.2%	6 10.7%	14.0%	97.449
Bar	rier Heiaht:	0.0 feet			M	edium T	rucks:	81.9%	6.8%	11.3%	1.89%
Barrier Type (0-Wa	all, 1-Berm):	0.0			ŀ	leavy T	rucks:	85.3%	6 2.0%	12.7%	0.67%
Centerline Dis	t. to Barrier:	68.0 feet		-	Noiso Sc	urco E	lovatio	ne (in f	inati		
Centerline Dist. t	o Observer:	68.0 feet		-	10/36 30	Auto	ievalio	000	eelj		
Barrier Distance t	o Observer:	0.0 feet			Mediu	n Truck	13. U re: 0	207			
Observer Height (/	Above Pad):	5.0 feet			Heav	v Truck	is: E	3.004	Grade Ad	liustment	: 0.0
Pa	d Elevation:	0.0 feet			mour	,				,	
Roa	d Elevation:	0.0 feet		1	Lane Eq	uivalen	t Distai	nce (in	feet)		
F	oad Grade:	0.0%				Auto	os: 52	2.505			
	Left View:	-90.0 degre	es		Mediu	n Truck	is: 52	2.336			
	Right View:	90.0 degre	es		Heav	y Truck	(S. 52	2.352			
FHWA Noise Mode	I Calculations	5									
VehicleType	REMEL	Traffic Flow	Di	stance	Finite	Road	Fres	snel	Barrier Att	ten Ber	m Atten
Autos:	71.78	-0.54		-0.4	2	-1.20		-4.71	0.	000	0.00
Medium Trucks:	82.40	-17.66		-0.4	0	-1.20		-4.88	0.	000	0.00
Heavy Trucks:	86.40	-22.16		-0.4	0	-1.20		-5.29	0.	000	0.00
Unmitigated Noise	Levels (with	out Topo and	barri	ier atten	uation)						
VehicleType	Leq Peak Hou	r Leq Day	/	Leq E	vening	Leq	Night		Ldn	C	NEL
Autos:	69	.6	69.4		66.9		63	.3	71.	1	71.
Medium Trucks:	63	.1	63.3		58.5		55	.9	64.	2	64.
Heavy Trucks:	62	.6	62.9		52.6		55	.9	63.	9	64.
Vehicle Noise:	71	.2	71.1		67.7		64	.7	72.	6	72.
Centerline Distanc	e to Noise Co	ntour (in feet	)	70							10.4
			I da:	/0 0	16A	65	aBA		ou aBA	55	aBA
		~	Ldn:		101		21	8	469		1,010
		C.	NEL:		107		23	U	496	)	1,068

Saturday, October 14, 2023

	FHWA-RI	D-77-108 HIGHV	VAY NO	SE F	PREDIC		IODEL (	9/12/2	:021)			
Scenar Road Nan Road Segme	rio: EC (2025) ne: 10th St. W ent: n/o Avenue	M				Project Job N	Name: lumber:	Antelo 14267	pe Valley	Comi	nerc	
SITE	SPECIFIC IN	IPUT DATA				N	IOISE I	MODE	EL INPUT	s	_	
Highway Data				S	ite Con	ditions	(Hard =	10, S	oft = 15)		_	
Average Daily	Traffic (Adt):	25,959 vehicles						Autos	15			
Peak Hour	Percentage:	6.63%			Ме	dium Tr	ucks (2	Axles)	: 15			
Peak F	our Volume:	1,721 vehicles			He	avy Tru	cks (3+ )	Axles)	: 15			
Ve	ehicle Speed:	55 mph		14	ohiclo	Mix						
Near/Far La	ne Distance:	87 feet		V	Veh	icle Type		Dav	Evening	Nic	tht	Daily
Sito Data				_	Ven	icie i ype	Autos	75 20	L Verning	14	0%	07 30%
one bata				-	м	, edium T	rucke:	81.0%	6 6 8%	11	3%	1 03%
Ba	rrier Height:	0.0 feet				Heavy T	rucks:	85 39	6 0.0%	12	7%	0.69%
Barner Type (U-VI	vall, 1-Berm):	0.0				loary n	40/10.	00.07	2.070			0.007
Centerline Di	te Observer:	68.0 feet		N	oise So	ource El	evation	s (in f	eet)			
Certientitie Dist.	to Observer.	00.0 feet				Auto	s: 0.	000				
Darrier Distance	(Abassa Daal)	0.0 feet			Mediu	m Truck	s: 2.	297				
Observer Height	(Above Pad):	5.0 feet			Heav	y Truck	s: 8.	004	Grade Ad	djustr	nent:	0.0
	ad Elevation:	0.0 feet		1	ano Fa	uivalon	Dietan	co (in	foot)			
RU	au Elevation. Bood Crodo:	0.0 teet			ине шү	Auto	c' 52	505	1000			
	Loft View:	0.0 %			Mediu	m Truck	e: 52	336				
	Right View:	90.0 degrees			Heav	ry Truck	s: 52.	.352				
FHWA Noise Mod	el Calculation	s										
VehicleType	REMEL	Traffic Flow	Distand	e	Finite	Road	Fresi	nel	Barrier At	ten	Bern	n Atten
Autos:	71.78	-0.47	-	0.42		-1.20		-4.71	0.	.000		0.000
Medium Trucks:	82.40	-17.50	-	0.40		-1.20		-4.88	0.	000		0.000
Heavy Trucks:	86.40	-21.99	-	0.40		-1.20		-5.29	0.	.000		0.000
Unmitigated Nois	e Levels (with	out Topo and b	arrier at	tenu	ation)							
VehicleType	Leq Peak Hou	ır Leq Day	Lee	y Eve	ening	Leq	Night		Ldn		CN	IEL
Autos:	69	.7 6	9.5		67.0		63.	4	71	.2		71.6
Medium Trucks:	63	.3 6	3.4		58.6		56.	1	64	.3		64.
Heavy Trucks:	62	.8 6	3.1		52.7		56.	1	64	.1		64.
Vehicle Noise:	71	.3 7	1.2		67.7		64.	В	72	.7		73.0
Centerline Distan	ce to Noise Co	ontour (in feet)		70 -4		05	-10.4		CO -/D A	-		-10.4
		,		ru at	5A	65	abA 004		ou aBA		55 0	3BA
		L	an:		103		221		47	0		1,026
		CN	EL:		108		234		50	3		1,085

	FHWA-RI	D-77-108 HIGH	WAY NO	ISE PREDI	CTION MO	DEL (9/12	/2021)		
Scenal Road Nan Road Segme	rio: ECP (2025 ne: 10th St. W ent: n/o Avenue	) > M			Project N Job Nui	lame: Ante mber: 1426	lope Valley C	commerc	
SITE	SPECIFIC IN	IPUT DATA			NC	DISE MOD	EL INPUT	s	
Highway Data				Site Co	nditions (H	lard = 10,	Soft = 15)		
Average Daily	Traffic (Adt):	26,102 vehicle	s			Auto	s: 15		
Peak Hour	Percentage:	6.63%		М	edium Truc	ks (2 Axles	s): 15		
Peak I	lour Volume:	1,731 vehicles	5	H	eavy Truck	s (3+ Axles	s): 15		
Ve	ehicle Speed:	55 mph		Vehicle	Mix				
Near/Far La	ane Distance:	87 feet		Venicie	hicleType	Dav	Evenina	Night	Daily
Site Data					Au	itos: 75.2	210.7%	14.0%	97.40%
Pa	rrior Hoight:	0.0 foot		٨	ledium Tru	cks: 81.9	9% 6.8%	11.3%	1.92%
Da Barrier Tyne (0-V	Vall 1-Berm)	0.0 1001			Heavy Tru	cks: 85.3	3% 2.0%	12.7%	0.68%
Centerline D	ist to Barrier:	68.0 feet							
Centerline Dist.	to Observer:	68.0 feet		Noise S	ource Elev	vations (in	feet)		
Barrier Distance	to Observer:	0.0 feet			Autos:	0.000			
Observer Height	(Above Pad):	5.0 feet		Medi	Im Trucks:	2.297	0		
P	ad Elevation:	0.0 feet		Hea	vy Trucks:	8.004	Grade Adj	ustment:	0.0
Ro	ad Elevation:	0.0 feet		Lane E	quivalent D	Distance (i	n feet)		
	Road Grade:	0.0%			Autos:	52.505			
	Left View:	-90.0 degree	s	Media	im Trucks:	52.336			
	Right View:	90.0 degree	:S	Hea	vy Trucks:	52.352			
FHWA Noise Mod	el Calculation	s							
VehicleType	REMEL	Traffic Flow	Distan	ce Finite	e Road	Fresnel	Barrier Att	en Berr	m Atten
Autos:	71.78	-0.44		-0.42	-1.20	-4.7	1 0.0	000	0.000
Medium Trucks:	82.40	-17.50		-0.40	-1.20	-4.8	8 0.0	000	0.000
Heavy Trucks:	86.40	-21.99		-0.40	-1.20	-5.2	9 0.0	000	0.000
Unmitigated Nois	e Levels (with	out Topo and	barrier a	ttenuation)					
VehicleType	Leq Peak Hou	ur Leq Day	Le	q Evening	Leq N	ight	Ldn	CI	IEL
Autos:	69	9.7	69.5	67.	)	63.4	71.2	2	71.7
Medium Trucks:	63	3.3	63.4	58.	6	56.1	64.3	3	64.6
Heavy Trucks:	62	2.8	63.1	52.	7	56.1	64.1	1	64.2
Vehicle Noise:	71	1.3	71.2	67.	3	64.8	72.1	7	73.1
Centerline Distan	ce to Noise C	ontour (in feet)		70 dBA	65 4	DA I	60 dRA	FF	dRA
			l dn:	100DA 103	05 02	222	00 UDA 179	55	1 020
		<i>c</i> 1		103		222	478		1,029
		CI	VLL.	108		204	505		1,000

	FHWA-R	D-77-108 HIGH	WAY NO	DISE F	PREDIC		ODEL (	9/12/2	021)		
Scenar Road Nan Road Segme	rio: EC (2032) ne: 10th St. W ent: n/o Avenue	M				Project I Job Nu	Name: I Imber:	Antelo 14267	pe Valley C	Commerc	
SITE	SPECIFIC IN	NPUT DATA				N	OISE N	IODE	L INPUT	S	
Highway Data		FHVA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)           CC (2032)         Project Name: Antelope Valley Commerc Job Number: 14267           Oth St. W         Job Number: 14267           State Conditions (Hard = 10, Soft = 15)         Image: Conditions (Hard = 10, Soft = 15)           If (Adt):         26,595 vehicles         Autos: 15           Bernitage:         6,63%         Medium Trucks (2 Axles): 15           Volume:         1,753 vehicles         Heavy Trucks (3+ Axles): 15           Vehicle Mix         Vehicle Mix         Nistance: 87 feet           Barrier:         68.0 feet         Autos: 75.2% 10.7% 14.0%           Barrier:         68.0 feet         Moise Source Elevations (in feet)           Barrier:         60.0 feet         Moise Source Elevations (in feet)           Barrier:         0.0 feet         Moise Source Elevations (in feet)           Verkiciens:         0.000         Heavy Trucks:         8.004           Grade:         0.0%         Autos:         52.352           Stutions:         0.00         Heavy Trucks:         52.352           Stutions:         0.00         Fresnel         Barrier Atten         Berrier           16:         0.00         Heavy Trucks:         52.352           Stutions:         0.00<									
Average Daily	Traffic (Adt):	26,595 vehicl	es				,	Autos:	15		
Peak Hour	FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)           Scenario: EC (2032)           Project Name: Antelope Valley Com           Noise Mame: Antelope Valley Com           Noise Mome: 14267           Noise Mome: 16, New Pad: 15, Septembolic State St										
Peak H	Hour Volume:	1,763 vehicle	s		He	avy Truc	ks (3+ A	(xles	15		
Ve	ehicle Speed:	55 mph		V	ehicle l	Mix					
Near/Far La	ane Distance:	87 feet			Veh	icleType		Day	Evening	Night	Daily
Site Data						A	utos:	75.2%	6 10.7%	14.0%	97.39%
Ba	rrier Height:	0.0 feet			M	edium Tru	ucks:	81.9%	6.8%	11.3%	1.93%
Barrier Type (0-V	Vall, 1-Berm):	0.0			1	Heavy Tru	ucks:	85.3%	6 2.0%	12.7%	0.69%
Centerline D	ist. to Barrier:	68.0 feet		N	oise Sc	ource Ele	vation	s (in f	eet)		
Centerline Dist.	to Observer:	68.0 feet				Autos	: 0.0	000			
Barrier Distance	to Observer:	0.0 feet			Mediu	m Trucks	2.2	297			
Observer Height	(Above Pad):	5.0 feet			Heav	y Trucks	: 8.0	004	Grade Ad	iustment	: 0.0
P	ad Elevation:	0.0 feet					Distant		f 41		
Ro	ad Elevation:	0.0 feet		La	ane Eq	uivaient	Distanc	e (In	reet)		
	Road Grade:	0.0%				Autos	52.	505			
	Left View:	-90.0 degre	es		Mediu	m Trucks	52.	330			
	Right View:	90.0 degre	es		Heav	y Trucks	52.	352			
FHWA Noise Mod	lel Calculation	s									
VehicleType	REMEL	Traffic Flow	Distar	ice	Finite	Road	Fresn	el	Barrier Att	en Ber	rm Atten
Autos:	71.78	-0.36		-0.42		-1.20		-4.71	0.0	000	0.000
Medium Trucks:	82.40	-17.39		-0.40		-1.20		-4.88	0.0	000	0.000
Heavy Trucks:	86.40	-21.89		-0.40		-1.20		-5.29	0.0	000	0.000
Unmitigated Nois	e Levels (with	out Topo and	barrier a	ttenu	ation)						
VehicleType	Leq Peak Ho	ur Leq Day	/ Le	eq Eve	ening	Leq N	Vight		Ldn	C	NEL
Autos:	69	9.8	69.6		67.1		63.5	5	71.3	3	71.8
Medium Trucks:	63	3.4	63.5		58.7		56.2	2	64.4	1	64.7
Heavy Trucks:	62	2.9	63.2		52.8		56.2	2	64.2	2	64.3
Vehicle Noise:	7	1.4	71.3		67.8		64.9	)	72.8	3	73.1
Centerline Distan	ce to Noise C	ontour (in feet	)								
				70 dE	BA	65 d	IBA		60 dBA	55	dBA
		-	Ldn:		104		225		484		1,043
		C	NEL:		110		237		512		1,102

	FINAN	p-77-100 migh	WAI	NOISE	FREDIC			12/2	<u>52</u> 1)		
Scenario	o: ECP (2032	.)				Project	Name: I	Antelo	pe Valley C	ommerc	;
Road Name	e: 10th St. W					Job N	umber: 1	4267			
Road Segmen	nt: n/o Avenue	• M									
SITE S	SPECIFIC IN	IPUT DATA				N	OISE N	IODE	L INPUT	5	
Highway Data				1	Site Cond	litions	Hard =	10, Sc	oft = 15)		
Average Daily	Traffic (Adt):	27,073 vehicle	es				,	Autos:	15		
Peak Hour I	Percentage:	6.63%			Med	lium Tru	icks (2 A	xles):	15		
Peak He	our Volume:	1,795 vehicle	s		Hea	avy Truc	:ks (3+ A	xles):	15		
Vel	hicle Speed:	55 mph		1	/ehicle N	lix					
Near/Far Lar	ne Distance:	87 feet		-	Vehic	cleType		Day	Evening	Night	Daily
Site Data						A	utos:	75.2%	10.7%	14.0%	97.43%
Bar	rier Heiaht:	0.0 feet	-		Me	dium Tr	ucks:	81.9%	6.8%	11.3%	1.89%
Barrier Type (0-W	all, 1-Berm):	0.0			н	leavy Tr	ucks:	85.3%	2.0%	12.7%	0.67%
Centerline Dis	t. to Barrier:	68.0 feet		-	Voico So	urco El	wation	(in fr	ootl		
Centerline Dist. I	to Observer:	68.0 feet		Ľ.	10/30 00	Autos	. 00	000			
Barrier Distance t	to Observer:	0.0 feet			Mediun	n Trucks	. 0.0	900			
Observer Height (/	Above Pad):	5.0 feet			Heav	/ Trucks	. 2.	004	Grade Ad	iustment	: 0.0
Pa	d Elevation:	0.0 feet									
Roa	d Elevation:	0.0 feet		4	.ane Equ	ivalent	Distand	e (in i	feet)		
F	Road Grade:	0.0%				Autos	: 52.	505			
	Left View:	-90.0 degree	es		Mediun	n Trucks	: 52.	336			
	Right View:	90.0 degre	2S		Heav	/ Trucks	: 52.3	352			
FHWA Noise Mode	el Calculation	S									
VehicleType	REMEL	Traffic Flow	Dis	stance	Finite I	Road	Fresn	el	Barrier Att	en Ber	m Atten
Autos:	71.78	-0.28		-0.42	2	-1.20		-4.71	0.0	000	0.000
Medium Trucks:	82.40	-17.39		-0.40	D	-1.20		-4.88	0.0	000	0.000
Heavy Trucks:	86.40	-21.89		-0.40	D	-1.20		-5.29	0.0	000	0.00
Unmitigated Noise	Levels (with	out Topo and	barrie	er atten	uation)						
VehicleType	Leq Peak Hou	ur Leq Day	/	Leq E	/ening	Leq	Vight		Ldn	C	NEL
Autos:	69	).9	69.6		67.2		63.6		71.4	ţ	71.8
Medium Trucks:	63	3.4	63.5		58.7		56.2		64.4	Ļ	64.1
Heavy Trucks:	62	2.9	63.2		52.8		56.2		64.2	2	64.3
Vehicle Noise:	71	1.4	71.3		67.9		64.9		72.8	3	73.2
Centerline Distanc	e to Noise Co	ontour (in feet	)	70 -	0.4		0.4		0 -0 4		-10.4
			I da:	100	16A	65 (	IBA	6	OU OBA	55	aBA
		~	Lan:		105		227		488		1,052
		C	NEL:		111		240		516		1.112

Saturday, October 14, 2023

Scenario: E Road Name: 10th St. W Road Segment: slo Avenue M     Project Name: Antelope Valley Commerc Job Number: 14267       Site Specific INPUT DATA     NOISE MODEL INPUTS       Highway Data     Site Conditions (Hard = 10, Soft = 15)       Average Daily Traffic (Adt): 20,948 vehicles Peak Hour Volume: 1,389 vehicles Vehicle Speed: 55 mph     Medium Trucks (24 Axles): 15       Vehicle Speed: 55 mph     Vehicle Type     Day     Evening     Night     D       Site Data     Of feet     Medium Trucks: (24 Axles): 15     Vehicle Type     Day     Evening     Night     D       Barrier Type (0-Wall, 1-Berm): Centerline Dist. to Diserver:     0.0 feet     Moise Source Elevations (In feet)     Noise Source Elevations (In feet)       Barrier Type (0-Wall, 1-Berm): Distance to Observer:     0.0 feet     Medium Trucks:     2.297       Observer Height (Above Pad):     5.0 feet     Autos:     2.297       Observer Height (Above Pad):     0.0 feet     Autos:     0.00       Read Elevation:     0.0 feet     Autos:     2.297       Observer: Height (Above Pad):     0.0 feet     Autos:     0.00       Read Elevation:     0.0 feet     Autos:     2.297       Observer: Height (Above Pad):     0.0 feet     Autos:     0.00       Read Elevation:     0.0 feet     Autos:     0.00
Road Name: 10th St. W     Job Number: 14267       Road Segment: slo Avenue M     NOISE MODEL INPUTS       Highway Data     Site Conditions (Hard = 10, Soft = 15)       Average Daily Traffic (Adt): 20,948 vehicles     Autos: 15       Peak Hour Volume: 1,389 vehicles     Medium Trucks (2 Axles): 15       Vehicle Speed: 55 mph     Heavy Trucks (3+ Axles): 15       Vehicle Speed: 55 mph     Vehicle Mix       Barrier Height: 0.0 feet     Medium Trucks: 85.3% 2.0% 12.7% 0       Barrier Type (0-Wall, 1-Berm): 0.0     Noise Source Elevations (in feet)       Centerline Dist. to Doserver: 68.0 feet     Autos: 2.297       Diserver Height (Above Pad): 5.0 feet     Medium Trucks: 8.0.04 Grade Adjustment: 0.0       Pad Elevation: 0.0 feet     Lane Equivalent Distance (in feet)
Road Segment: slo Avenue M       Site Specific INPUT DATA     NOISE MODEL INPUTS       Highway Data     Site Conditions (Hard = 10, Soft = 15)       Average Daily Traffic (Adt):     20,948 vehicles     Autos:     15       Peak Hour Percentage:     6.83%     Medium Trucks (2 Axles):     15       Peak Hour Volume:     1,389 vehicles     Heavy Trucks (2 Axles):     15       Vehicle Speed:     55 mph     Heavy Trucks (3 Axles):     15       Vehicle Speed:     56 mph     Vehicle Type     Day     Evening     Night     D       Site Data     Autos:     7.5%     10.7%     14.0%     13%       Barrier Theight:     0.0 feet     Medium Trucks:     81.9%     6.8%     11.3%     1       Barrier Tops (-Wall, 1-Berm):     0.0     Centerline Dist. to Dasriver:     68.0 feet     Noise Source Elevations (in feet)       Centerline Dist. to Observer:     0.0 feet     Medium Trucks:     8.04     Grade Adjustment:     0.0       Deserver Height (Above Pad):     5.0 feet     Autos:     0.00     Fade Elevation:     0.0 feet       Road Elevation:     0.0 feet     Lane Equivalent Distance (in feet)     Lane Equivalent Distance (in feet)
SITE SPECIFIC INPUT DATA         NOISE MODEL INPUTS           Highway Data         Site Conditions (Hard = 10, Soft = 15)           Average Daily Traffic (Adt):         20,948 vehicles           Peak Hour Percentage:         6.63%           Peak Hour Volume:         1,389 vehicles           Vehicle Speed:         55 medium Trucks (2 Axles):           Vehicle Speed:         55 mph           Vehicle Speed:         55 mph           Near/Far Lane Distance:         87 feet           Site Data         Autos::           Barrier Type (0-Wall, 1-Berm):         0.0 feet           Barrier Type (0-Wall, 1-Berm):         68.0 feet           Centerline Dist. to Barrier:         68.0 feet           Barrier Type (0-Wall, 1-Berm):         0.0 feet           Modium Trucks:         81.3% 6.0 feet           Autos::         0.000           Centerline Dist. to Diserver:         68.0 feet           Autos::         0.000           Medium Trucks:         82.297           Observer Height (Avore Pad):         5.0 feet           Road Elevation:         0.0 feet           Read Elevation:         0.0 feet
Highway Data         Site Conditions (Hard = 10, Soft = 15)           Average Daily Traffic (Adt):         20,948 vehicles         Autos:         15           Peak Hour Percentage:         6.63%         Medium Trucks (2 Avies):         15           Peak Hour Volume:         1,389 vehicles         Heavy Trucks (2 Avies):         15           Vehicle Speed:         55 mph         Heavy Trucks (3 + Avies):         15           Vehicle Speed:         56 mph         Vehicle Mix         Nots:         15,20           Site Data         Autos:         75,2%         10,7%         14,0%         97           Barrier Type (0-Wall, 1-Berm):         0.0         Medium Trucks:         81,9%         6.8%         11.3%         1           Barrier Dist. to Observer:         68.0 feet         Noise Source Elevations (in feet)         0.00         Kedium Trucks:         8.3%         0.0%         12.7%         0           Centerline Dist. to Observer:         60 feet         Autos:         0.000         Medium Trucks:         0.00         Medium Trucks:         2.0%         12.7%         0           Deserver: Height: Above Pad):         5.0 feet         Autos:         0.00         Medium Trucks:         8.04         Grad Adjustment:         0.0           Pad Elevation: </th
Average Daily Traffic (Ad):     20,948 vehicles     Autos:     15       Peak Hour Percentage:     6.63%     Medium Trucks (2 Axles):     15       Peak Hour Volume:     1,389 vehicles     Vehicle Speed:     55 mph       Vehicle Speed:     55 mph     Vehicle Type     Day     Evening     Night     D       Site Data     Autos:     75.2%     10.7%     10.7%     11.3%     1       Barrier Type (0-Wall, 1-Berm):     0.0     Medium Trucks:     8.0 feet     Noise Source Elevations (in feet)       Centerline Dist. to Doserver:     68.0 feet     Autos:     0.00     Noise Source Elevations (in feet)       Observer Height (Above Pad):     5.0 feet     Medium Trucks:     8.04     Grade Adjustment:     0.0       Road Elevation:     0.0 feet     Lane Equivalent Distance (in feet)     Lane Equivalent Distance (in feet)
Peak Hour Percentage:     6.83%     Medium Trucks (2 Axles):     15       Peak Hour Volume:     1,389 vehicles     Heavy Trucks (3 + Axles):     15       Vehicle Speed:     55 mph     Vehicle Mix     Vehicle Type     Day     Evening     Night     D       Site Data     Autos:     75.2%     10.7%     14.0%     91       Barrier Type (0-Wall, 1-Berm):     0.0     Medium Trucks:     81.3%     6.8%     11.3%     1       Centerline Dist. to Diserver:     68.0 feet     Noise Source Elevations (in feet)     0.00     Noise Source Elevations (in feet)       Observer Height (Above Pad):     5.0 feet     Medium Trucks:     8.04     Grade Adjustment:     0.01       Pad Elevation:     0.0 feet     Lane Equivalent Distance (in feet)     Lane Equivalent Distance (in feet)
Peak Hour Volume:     1,389 vehicles       Vehicle Speed:     55 mph       Near/Far Lane Distance:     87 feet       Vehicle Mix       Vehicle Mix       Vehicle Mix       Vehicle Type     Day       Evening     Night       D       Site Data       Barrier Height:     0.0 feet       Barrier Dist. to Dserver:     68.0 feet       Centerline Dist. to Dserver:     60.0 feet       Barrier Distance to Observer:     0.0 feet       Pad Elevation:     0.0 feet       Road Elevation:     0.0 feet
Vehicle Speed:         55 mph Bari/Er Lane Distance:         Vehicle Mix           Site Data         Day         Evening         Night         D           Barrier Height:         0.0 feet         Medium Trucks:         81.9%         6.8%         11.3%         1           Barrier Type (0-Wall, 1-Berrn):         0.0         Medium Trucks:         85.3%         2.0%         12.7%         0           Centerline Dist. to Doserver:         68.0 feet         Noise Source Elevations (in feet)         Vehicle Mix         12.7%         0           Deserver:         68.0 feet         Autos:         0.000         Noise Source Elevations (in feet)         12.7%         0           Observer:         0.0 feet         Medium Trucks:         8.0.400         reavy Trucks:         2.297           Observer Height (Above Pad):         5.0 feet         Heavy Trucks:         8.04         Grad Adjustment:         0.0           Road Elevation:         0.0 feet         Lane Equivalent Distance (in feet)         10.400         10.400
Near/Far Lane Distance:         87 feet         VehicleType         Day         Evening         Night         D           Site Data         Autos:         75.2%         10.7%         14.0%         91           Barrier Type (0-Wall, 1-Berrn):         0.0         Medium Trucks:         81.3%         6.8%         11.3%         1           Centerline Dist. to Diserver:         68.0 feet         Noise Source Elevations (in feet)         Noise Source Elevations (in feet)         0.00           Deserver:         0.0 feet         Medium Trucks:         2.297         Nedus:         2.297           Observer:         0.0 feet         Heavy Trucks:         8.004         Grade Adjustment:         0.01           Pad Elevation:         0.0 feet         Lane Equivalent Distance (in feet)         Lane Equivalent Distance (in feet)
Site Data     Date     Description     Description     Description       Barrier Height:     0.0 feet     Medium Trucks:     81.9%     6.8%     11.3%     1       Barrier Type (0-Wail, 1-Berm):     0.0     Medium Trucks:     81.9%     6.8%     11.3%     1       Centerline Dist. to Dbserver:     68.0 feet     Noise Source Elevations (in feet)     Kolos:     0.000       Centerline Dist. to Observer:     0.0 feet     Medium Trucks:     2.3%     2.0%     12.7%     0       Doserver Height (Above Pad):     5.0 feet     Medium Trucks:     2.297     Medium trucks:     2.297       Pad Elevation:     0.0 feet     Lane Equivalent Distance (in feet)     Lane Equivalent Distance (in feet)
Barrier Height:         0.0 feet         Medium Trucks:         81.9%         6.8%         11.3%         1           Barrier Type (0-Wall, 1-Berm):         0.0         Heavy Trucks:         81.9%         6.8%         11.3%         1           Barrier Type (0-Wall, 1-Berm):         0.0         Heavy Trucks:         85.3%         2.0%         12.7%         C           Centerline Dist. to Dbserver:         68.0 feet         Nolse Source Elevations (in feet)         Medium Trucks:         0.000           Barrier Distance to Observer:         0.0 feet         Medium Trucks:         0.000           Deserver Height (Above Pad):         5.0 feet         Medium Trucks:         8.004         Grade Adjustment:         0.0           Road Elevation:         0.0 feet         Lane Equivalent Distance (in feet)         Lane Equivalent Distance (in feet)         0.000
Barrier Type (O-Wall, 1-Berm):         0.0         Heavy Trucks:         85.3%         2.0%         12.7%         C           Centerline Dist. to Dbserver:         68.0 feet         Noise Source Elevations (in feet)         Noise Source Elevation:         Noise Source Elevations (in feet)         Noise Source Elevation:         Nois
Centerline Dist. to Barrier: 68.0 feet Barrier Distance to Observer: 68.0 feet Barrier Distance to Observer: 0.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Canterline Dist. to Observer: 68.0 feet Pad Elevation: 0.0 feet Centerline Dist. to Observer: 68.0 feet Centerline Dist. to Observe
Noise Source Elevations (in feet)           Centerine Dist. to Observer:         68.0 feet           Barrier Distance to Observer:         0.0 feet           Barrier Distance to Observer:         0.0 feet           Medium Trucks:         2.297           Observer Height (Above Pad):         5.0 feet           Pad Elevation:         0.0 feet           Road Elevation:         0.0 feet           Lane Equivalent Distance (in feet)
Denimine Dist. to Observer.     0.0 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       Road Elevation:     0.0 feet     Lane Equivalent Distance (in feet)
Dame     Distance to Observer.     Ook feet       Observer Height (Above Pad):     5.0 feet       Pad Elevation:     0.0 feet       Road Elevation:     0.0 feet         Lane Equivalent Distance (in feet)
Couserveil relight (Notver Pau).         3.0 feet         Heavy Trucks:         8.004         Grade Adjustment:         0.1           Pad Elevation:         0.0 feet         Lane Equivalent Distance (in feet)         Lane Equivalent Distance (in feet)
Road Elevation:     0.0 feet       Lane Equivalent Distance (in feet)
Road Grade: 0.0% Autos: 52.505
Left View: 00.0 dogroop Medium Trucks: 52.336
Right View: 90.0 degrees Heavy Trucks: 52.352
FHWA Noise Model Calculations VehicleType REMEL Traffic Flow Distance Finite Road Fresnel Barrier Atten Berrn A
Autos: 71.78 -1.40 -0.42 -1.20 -4.71 0.000
Medium Trucks: 82.40 -18.43 -0.40 -1.20 -4.88 0.000
Heavy Trucks: 86.40 -22.93 -0.40 -1.20 -5.29 0.000
Unmitigated Noise Levels (without Topo and barrier attenuation)
VehicleType Leg Peak Hour Leg Day Leg Evening Leg Night Ldn CNEL
Autos: 68.8 68.5 66.1 62.5 70.3
Medium Trucks: 62.4 62.5 57.7 55.2 63.4
Heavy Trucks: 61.9 62.2 51.8 55.2 63.2
Vehicle Noise: 70.3 70.2 66.8 63.8 71.7
Centerline Distance to Noise Contour (in feet)
70 dBA 65 dBA 60 dBA 55 dBA
Ldn: 89 192 413
CNEL: 94 203 436

	FHWA-RI	D-77-108 HIGH	IWAY N	DISE F	PREDICTIO	ON MODE	EL (9/12/2	:021)		
Scenar	io: EP				Pi	oject Nan	ne: Antelo	pe Valley (	Commerc	
Road Nam	ne: 10th St. W					lob Numb	er: 14267			
Road Segme	nt: s/o Avenue	• M								
SITE	SPECIFIC IN	IPUT DATA				NOIS	E MODE	EL INPUT	s	
Highway Data				S	ite Condit	ions (Har	d = 10, S	oft = 15)		
Average Daily	Traffic (Adt):	21,426 vehicl	es				Autos	: 15		
Peak Hour	Percentage:	6.63%			Mediu	m Trucks	(2 Axles)	: 15		
Peak H	lour Volume:	1,421 vehicle	s		Heavy	/ Trucks (	3+ Axles)	: 15		
Ve	hicle Speed:	55 mph		V	ehicle Mix					
Near/Far La	ne Distance:	87 feet		-	Vehicle	Type	Dav	Evenina	Niaht	Dailv
Site Data						Autos	: 75.29	6 10.7%	14.0%	97.45%
Ba	rrier Height:	0.0 feet			Medi	um Trucks	: 81.9%	6.8%	11.3%	1.89%
Barrier Type (0-W	/all. 1-Berm):	0.0			Hea	vy Trucks	: 85.3%	6 2.0%	12.7%	0.67%
Centerline Di	st. to Barrier:	68.0 feet		N	laise Sour	co Flovat	ione (in f	ioof)		
Centerline Dist.	to Observer:	68.0 feet			0136 0001	Autos:	0.000	001/		
Barrier Distance	to Observer:	0.0 feet			Madium	Frueke:	2 207			
Observer Height	(Above Pad):	5.0 feet			Hoover 1	TUCKS.	2.257	Grade An	liustment	0.0
P	ad Elevation:	0.0 feet			Tieavy I	TUCKS.	0.004	0/000/10	1001110111	0.0
Ro	ad Elevation:	0.0 feet		Li	ane Equiv	alent Dis	tance (in	feet)		
	Road Grade:	0.0%				Autos:	52.505			
	Left View:	-90.0 degre	es		Medium 1	rucks:	52.336			
	Right View:	90.0 degre	es		Heavy 1	rucks:	52.352			
FHWA Noise Mod	el Calculation	s								
VehicleType	REMEL	Traffic Flow	Dista	nce	Finite Ro	ad Fi	resnel	Barrier Att	en Ber	m Atten
Autos:	71.78	-1.30		-0.42	-	1.20	-4.71	0.	000	0.000
Medium Trucks:	82.40	-18.43		-0.40	-	1.20	-4.88	0.	000	0.000
Heavy Trucks:	86.40	-22.93		-0.40	-	1.20	-5.29	0.	000	0.000
Unmitigated Noise	e Levels (with	out Topo and	barrier a	attenu	ation)					
VehicleType	Leq Peak Hou	ur Leq Day	/ L	eq Eve	ening	Leq Nigh	t	Ldn	CI	VEL
Autos:	68	3.9	68.6		66.2		62.6	70.	4	70.8
Medium Trucks:	62	2.4	62.5		57.7		55.2	63.	4	63.7
Heavy Trucks:	61	1.9	62.2		51.8		55.2	63.	2	63.3
Vehicle Noise:	70	).4	70.3		66.9		63.9	71.	В	72.2
Centerline Distant	ce to Noise Co	ontour (in feet	)							
				70 dl	BA	65 dBA		60 dBA	55	dBA
			Ldn:		90		194	417	,	899
		С	NEL:		95		205	441		951

	FHWA-R	D-77-108 HIGH	WAY NO	DISE F	REDIC		ODEL (	9/12/2	021)		
Scena Road Nan Road Segme	rio: EC (2025) ne: 10th St. W ent: s/o Avenue	M				Project I Job Nu	Name: I Imber:	Antelo 14267	pe Valley C	Commerc	
SITE	SPECIFIC I	NPUT DATA				N	OISE N	IODE	L INPUT	s	
Highway Data				S	ite Con	ditions (	Hard =	10, S	oft = 15)		
Average Daily	Traffic (Adt):	33,158 vehicle	es				,	Autos.	15		
Peak Hour	Percentage:	6.63%			Me	dium Tru	cks (2 A	Axles).	15		
Peak I	Hour Volume:	2,198 vehicle	s		He	avy Truc	ks (3+ A	(xles)	15		
Ve	ehicle Speed:	55 mph		V	ehicle l	Mix					
Near/Far La	ane Distance:	87 feet			Veh	icleType		Day	Evening	Night	Daily
Site Data						A	utos:	75.2%	6 10.7%	14.0%	97.39%
Ba	rrier Height:	0.0 feet			M	edium Tru	ucks:	81.9%	6.8%	11.3%	1.93%
Barrier Type (0-V	Vall, 1-Berm):	0.0			1	Heavy Tru	ucks:	85.3%	6 2.0%	12.7%	0.69%
Centerline D	ist. to Barrier:	68.0 feet		N	oise So	ource Ele	vation	s (in f	eet)		
Centerline Dist.	to Observer:	68.0 feet				Autos	: 0.0	000			
Barrier Distance	to Observer:	0.0 feet			Mediu	m Trucks	2.2	297			
Observer Height	(Above Pad):	5.0 feet			Heav	y Trucks	: 8.0	004	Grade Ad	justment	: 0.0
P	ad Elevation:	0.0 feet		-				,,			
Ro	ad Elevation:	0.0 feet		Li	ane Eq	uivalent	Distanc	ce (In	feet)		
	Road Grade:	0.0%				Autos	: 52.	505			
	Left View:	-90.0 degre	es		Mediu	m Trucks	: 52.	336			
	Right View:	90.0 degre	es		Heav	ry Trucks	: 52.	352			
FHWA Noise Mod	lel Calculation	s									
VehicleType	REMEL	Traffic Flow	Distar	ice	Finite	Road	Fresn	el	Barrier Att	en Bei	rm Atten
Autos:	71.78	0.60		-0.42		-1.20		-4.71	0.0	000	0.000
Medium Trucks:	82.40	-16.44		-0.40		-1.20		-4.88	0.0	000	0.000
Heavy Trucks:	86.40	-20.93		-0.40		-1.20		-5.29	0.0	000	0.000
Unmitigated Nois	e Levels (with	out Topo and	barrier a	ttenu	ation)						
VehicleType	Leq Peak Ho	ur Leq Day	/ Le	eq Eve	ening	Leq N	Vight		Ldn	C	NEL
Autos:	70	).8	70.5		68.1		64.5	5	72.3	3	72.7
Medium Trucks:	64	1.4	64.5		59.7		57.1		65.4	4	65.7
Heavy Trucks:	60	3.9	64.2		53.8		57.2	2	65.2	2	65.2
Vehicle Noise:	72	2.3	72.2		68.8		65.8	3	73.7	7	74.1
Centerline Distan	ce to Noise C	ontour (in feet	)					1			
				70 dE	ЗA	65 d	ıвA		bU dBA	55	aBA
		-	Ldn:		121		260		561		1,208
		C	NEL:		128		275		593		1,277

	FHWA-RL		IVVAT	NUISE	PREDIC		ODEL	(9/12/2	021)		
Scenario	o: ECP (2025)	)				Project	Name:	Antelo	pe Valley (	Commer	
Road Name	e: 10th St. W					Job N	umber:	14267			
Road Segmen	nt: s/o Avenue	M									
SITES	SPECIFIC IN	PUT DATA				N	IOISE	MODE	L INPUT	S	
Highway Data				1	Site Con	ditions	(Hard =	= 10, S	oft = 15)		
Average Daily	Traffic (Adt):	33,301 vehicle	es					Autos.	15		
Peak Hour I	Percentage:	6.63%			Me	dium Tri	ucks (2	Axles).	15		
Peak He	our Volume:	2,208 vehicle	s		He	avy Tru	cks (3+	Axles).	15		
Vel	hicle Speed:	55 mph		1	Vehicle I	Mix					
Near/Far Lar	ne Distance:	87 feet			Veh	icleType		Day	Evening	Night	Daily
Site Data							Autos:	75.2%	6 10.7%	14.0%	97.409
Bar	rier Heiaht:	0.0 feet			Me	edium T	rucks:	81.9%	6.8%	11.3%	1.929
Barrier Type (0-Wa	all, 1-Berm):	0.0			ŀ	leavy T	rucks:	85.3%	6 2.0%	12.7%	0.68
Centerline Dis	t. to Barrier:	68.0 feet			Noise Sr	urce Fl	ovation	ne (in f	oof)		
Centerline Dist. t	to Observer:	68.0 feet		·	10/30 00	Auto	e' 0	000			
Barrier Distance t	to Observer:	0.0 feet			Mediu	m Truck	s. 0 s <sup>.</sup> 2	297			
Observer Height (/	Above Pad):	5.0 feet			Heav	v Truck	s: 8	.004	Grade Ad	liustment	: 0.0
Pa	d Elevation:	0.0 feet				,					
Roa	d Elevation:	0.0 feet		1	Lane Eq	uivalent	Distan	ce (in	feet)		
F	Road Grade:	0.0%				Auto	s: 52	.505			
	Left View:	-90.0 degre	es		Mediui	m Truck	s: 52	.336			
	Right View:	90.0 degre	es		Heav	у тиск	s: 52	.352			
FHWA Noise Mode	Calculation:	s									
VehicleType	REMEL	Traffic Flow	Di	stance	Finite	Road	Fres	nel	Barrier Att	en Bei	m Atten
Autos:	71.78	0.62		-0.42	2	-1.20		-4.71	0.	000	0.00
Medium Trucks:	82.40	-16.44		-0.40	0	-1.20		-4.88	0.	000	0.00
Heavy Trucks:	86.40	-20.93		-0.40	0	-1.20		-5.29	0.	000	0.00
Unmitigated Noise	Levels (with	out Topo and	barri	er atten	uation)						
VehicleType	Leq Peak Hou	r Leq Day	/	Leg Ev	vening	Leq	Night		Ldn	С	NEL
Autos:	70	.8	70.5		68.1		64.	5	72.	3	72
Medium Trucks:	64	.4	64.5		59.7		57.	1	65.	4	65
Heavy Trucks:	63	.9	64.2		53.8		57.	2	65.	2	65.
Vehicle Noise:	72	.3	72.2		68.8		65.	9	73.	8	74.
Centerline Distanc	e to Noise Co	ontour (in feet	)								
			L	70 c	'BA	65	dBA		60 dBA	55	dBA
			Ldn:		121		26	1	562	2	1,210
		0	NEL		100		276	3	50/		1 280

Saturday, October 14, 2023

	FHWA-RI	D-77-108 HIGH	WAY NO	ISE	PREDIC	TION M	ODEL	(9/12/2	021)		
Scena Road Nar Road Segme	rio: EC (2032) ne: 10th St. W ent: s/o Avenue	M				Project Job N	Name: umber:	Antelo 14267	pe Valley (	Commerc	;
SITE	SPECIFIC IN	IPUT DATA				N	IOISE	MODE	L INPUT	s	
Highway Data				S	ite Con	ditions	(Hard =	= 10, Sc	oft = 15)		
Average Daily	Traffic (Adt):	41,298 vehicle	es					Autos:	15		
Peak Hou	Percentage:	6.63%			Me	dium Tri	ucks (2	Axles):	15		
Peak	lour Volume:	2,738 vehicles	6		He	avy Truc	cks (3+	Axles):	15		
V	ehicle Speed:	55 mph		v	ehicle I	Mix					
Near/Far La	ane Distance:	87 feet		-	Veh	icleTvpe		Dav	Evenina	Niaht	Dailv
Site Data						0.01.jp0 /	Autos:	75.2%	10.7%	14.0%	97.39%
D.	rrior Hoight:	0.0 foot			Me	edium Ti	rucks:	81.9%	6.8%	11.3%	1.93%
Barrier Type (0-1	Vall 1-Berm)	0.0 1001			ŀ	leavy Ti	rucks:	85.3%	2.0%	12.7%	0.69%
Centerline D	ist to Barrier:	68.0 feet		_							
Centerline Dist	to Observer:	68.0 feet		N	loise Sc	ource El	evation	is (in fe	eet)		
Barrier Distance	to Observer:	0.0 feet				Auto	s: 0	.000			
Observer Height	(Above Pad):	5.0 feet			Mediui	n Truck	s: 2	.297			
F	ad Elevation:	0.0 feet			Heav	y Truck	s: 8	.004	Grade Ad	yusimeni	. 0.0
Ro	ad Elevation:	0.0 feet		L	ane Eq	uivalent	Distan	ce (in i	feet)		
	Road Grade:	0.0%			-	Auto	s: 52	.505			
	Left View:	-90.0 degree	es		Mediui	n Truck	s: 52	.336			
	Right View:	90.0 degree	es		Heav	y Truck	s: 52	.352			
FHWA Noise Mod	el Calculation	s									
VehicleType	REMEL	Traffic Flow	Distan	се	Finite	Road	Fres	nel	Barrier Att	en Ber	m Atten
Autos.	71.78	1.55		-0.42		-1.20		-4.71	0.	000	0.00
Medium Trucks.	82.40	-15.48		-0.40	)	-1.20		-4.88	0.	000	0.00
Heavy Trucks.	86.40	-19.98		-0.40	)	-1.20		-5.29	0.	000	0.00
Unmitigated Nois	e Levels (with	out Topo and	barrier a	ttenı	uation)						
VehicleType	Leq Peak Hou	ur Leq Day	Le	q Ev	ening	Leq	Night		Ldn	C	NEL
Autos	71	.7	71.5		69.0		65.	4	73.	2	73.
Medium Trucks	65	5.3	65.4		60.7		58.	1	66.	4	66.
Heavy Trucks	64	.8	65.1		54.8		58.	1	66.	1	66.
Vehicle Noise.	73	3.3	73.2		69.8		66.	8	74.	7	75.
Centerline Distan	ce to Noise Co	ontour (in feet)						1			
				70 d	BA	65	dBA	6	50 dBA	55	dBA
			Ldn:		140		301	1	649	)	1,398
		CI	VEL:		148		318	3	686	5	1,478

	FHWA-R	D-77-108 HIGH	IWAY NC	DISE	PREDIC	TION MC	DEL (9	)/12/2	021)		
Scenari Road Nam Road Segmer	io: ECP (2032 e: 10th St. W nt: s/o Avenue	2) 9 M				Project N Job Nu	lame: A mber: 1	Antelo 4267	pe Valley C	commerc	0
SITE	SPECIFIC II	NPUT DATA				NC	DISE N	IODE	L INPUT	5	
Highway Data				S	ite Con	ditions (H	lard =	10, S	oft = 15)		
Average Daily	Traffic (Adt):	41,776 vehicl	es				A	Autos.	15		
Peak Hour	Percentage:	6.63%			Ме	dium Truc	cks (2 A	xles).	15		
Peak H	our Volume:	2,770 vehicle	s		He	avy Truck	(3+ A	xles).	15		
Ve	hicle Speed:	55 mph		V	ehicle I	Mix					
Near/Far La	ne Distance:	87 feet		-	Veh	icleType		Dav	Evenina	Niaht	Daily
Site Data						AL	itos:	75.29	6 10.7%	14.0%	97.42%
Bar	rior Hoight	0.0 feet			M	edium Tru	icks:	81.9%	6.8%	11.3%	1.91%
Barrier Type (0-W	all_1-Berm):	0.0			ŀ	leavy Tru	icks:	85.3%	6 2.0%	12.7%	0.68%
Centerline Dis	st. to Barrier:	68.0 feet			aiaa Ce	uree Ele	votiona	lin f	in of l		
Centerline Dist.	to Observer:	68.0 feet		14	uise su	Autoo	valions	000	eel)		
Barrier Distance	to Observer:	0.0 feet			A de alle a	Autos.	0.0	007			
Observer Height (	Above Pad):	5.0 feet			Mediui	TT Trucks:	2.2	.97	Grade Ad	iustmon	H 0 0
Pa	ad Elevation:	0.0 feet			neav	y mucks.	0.0	/04	Grade Adj	usunen	. 0.0
Roa	ad Elevation:	0.0 feet		L	ane Eq	uivalent L	Distanc	e (in	feet)		
F	Road Grade:	0.0%				Autos:	52.5	505			
	Left View:	-90.0 degre	es		Mediu	m Trucks:	52.3	336			
	Right View:	90.0 degre	es		Heav	y Trucks:	52.3	352			
FHWA Noise Mode	el Calculation	IS									
VehicleType	REMEL	Traffic Flow	Distan	ice	Finite	Road	Fresn	e/	Barrier Atte	en Bei	rm Atten
Autos:	71.78	1.60		-0.42		-1.20		4.71	0.0	000	0.000
Medium Trucks:	82.40	-15.48		-0.40		-1.20		-4.88	0.0	000	0.000
Heavy Trucks:	86.40	-19.98		-0.40		-1.20		-5.29	0.0	000	0.000
Unmitigated Noise	e Levels (with	out Topo and	barrier a	ttenu	ation)						
VehicleType	Leq Peak Ho	ur Leq Daj	/ Le	eq Ev	ening	Leq N	light		Ldn	С	NEL
Autos:	7.	1.8	71.5		69.1		65.5		73.3	3	73.7
Medium Trucks:	65	5.3	65.4		60.7		58.1		66.4	ţ	66.7
Heavy Trucks:	64	4.8	65.1		54.8		58.1		66.1		66.2
Vehicle Noise:	73	3.3	73.2		69.8		66.8		74.7	7	75.1
Centerline Distance	e to Noise C	ontour (in feet	)								
				70 di	BA	65 dl	BA		60 dBA	55	dBA
		-	Ldn:		141		303		653		1,406
		С	NEL:		149		320		690		1,487

	FHWA-R	D-77-108 HIGH	IWAY N	OISE F	PREDIC		ODEL (	9/12/20	021)		
Scenar	rio: E					Project	Name: /	Antelo	pe Valley C	Commerc	)
Road Nan Road Segme	ne: Sierra Hwy ent: n/o Avenue	≥L				Job Ni	umber: 1	14267			
SITE	SPECIFIC IN	IPUT DATA				N	OISE N	IODE	L INPUT	s	
Highway Data				S	ite Con	ditions (	'Hard =	10, Sc	oft = 15)		
Average Daily	Traffic (Adt):	23,859 vehicl	es				,	Autos:	15		
Peak Hour	Percentage:	6.63%			Me	dium Tru	icks (2 A	Axles):	15		
Peak H	Hour Volume:	1,582 vehicle	s		He	avy Truc	ks (3+ A	Axles):	15		
Ve	ehicle Speed:	55 mph		V	ehicle	Mix					
Near/Far La	ane Distance:	87 feet			Veh	icleType		Day	Evening	Night	Daily
Site Data						A	utos:	75.2%	10.7%	14.0%	97.39%
Ba	rrier Height:	0.0 feet			М	edium Tr	ucks:	81.9%	6.8%	11.3%	1.93%
Barrier Type (0-V	Vall, 1-Berm):	0.0			1	Heavy Tr	ucks:	85.3%	2.0%	12.7%	0.69%
Centerline D	ist. to Barrier:	68.0 feet		N	oise So	ource Ele	evations	s (in fe	eet)		
Centerline Dist.	to Observer:	68.0 feet				Autos	: 0.0	000			
Barrier Distance	to Observer:	0.0 feet			Mediu	m Trucks	: 2.2	297			
Observer Height	(Above Pad):	5.0 feet			Heav	/y Trucks	: 8.0	004	Grade Ad	justment	: 0.0
P	ad Elevation:	0.0 feet		_							
Ro	ad Elevation:	0.0 feet		La	ane Eq	uivalent	Distanc	e (in i	feet)		
	Road Grade:	0.0%				Autos	: 52.	505			
	Left View:	-90.0 degre	es		Mediu	m Trucks	: 52.3	336			
	Right View:	90.0 degre	es		Heav	/y Trucks	: 52.3	352			
FHWA Noise Mod	el Calculation	s									
VehicleType	REMEL	Traffic Flow	Dista	nce	Finite	Road	Fresn	el	Barrier Att	en Ber	rm Atten
Autos:	71.78	-0.83		-0.42		-1.20		-4.71	0.0	000	0.000
Medium Trucks:	82.40	-17.87		-0.40		-1.20		-4.88	0.0	000	0.000
Heavy Trucks:	86.40	-22.36		-0.40		-1.20		-5.29	0.0	000	0.000
Unmitigated Nois	e Levels (with	out Topo and	barrier	attenu	ation)	_					
VehicleType	Leq Peak Ho	ur Leq Da	/ L	.eq Eve	ening	Leq I	Vight		Ldn	C	NEL
Autos:	69	9.3	69.1		66.6		63.0	)	70.9	9	71.3
Medium Trucks:	62	2.9	63.1		58.3		55.7	, 	64.0	D	64.3
Heavy Trucks:	62	2.4	62.7		52.4		55.7		63.7	7	63.8
Vehicle Noise:	70	).9	70.8		67.4		64.4	•	72.3	3	72.7
Centerline Distan	ce to Noise C	ontour (in feet	)	70 "		05	0.4		0.404		-10.4
				70 dE	5A	65 0	IBA	6	ou aBA	55	abA 077
		~	Lan:		97		209		450		970
		C	NEL:		103		221		476		1,025

	FHWA-KL	0-77-108 HIGH	IVVAT	NOISE	PREDIC		IUDEE	(9/12/2	021)		
Scenario	D: EP					Project	t Name	: Antelo	pe Valley (	Commerc	
Road Name	e: Sierra Hwy.					Job N	lumber	14267			
Road Segmen	t: n/o Avenue	L									
SITE S	SPECIFIC IN	PUT DATA				1	NOISE	MODE	EL INPUT	S	
Highway Data					Site Con	ditions	(Hard	= 10, S	oft = 15)		
Average Daily	Traffic (Adt):	25,790 vehicle	es					Autos.	15		
Peak Hour I	Percentage:	6.63%			Me	dium Tr	ucks (2	Axles).	15		
Peak He	our Volume:	1,710 vehicle	s		He	avy Tru	cks (3+	Axles).	15		
Vel	nicle Speed:	55 mph		1	Vehicle I	Nix					
Near/Far Lar	ne Distance:	87 feet			Veh	cleType	9	Day	Evening	Night	Daily
Site Data							Autos:	75.2%	6 10.7%	14.0%	95.56%
Bar	rier Heiaht:	0.0 feet			Me	edium T	rucks:	81.9%	6.8%	11.3%	2.119
Barrier Type (0-Wa	all, 1-Berm):	0.0			ŀ	leavy T	rucks:	85.3%	6 2.0%	12.7%	2.33%
Centerline Dis	t. to Barrier:	68.0 feet		-	Noise Sr	urco F	lovatio	ne (in f	oof)		
Centerline Dist. t	o Observer:	68.0 feet		-	10/30 00	Auto	10 VIII0	000			
Barrier Distance t	o Observer:	0.0 feet			Mediu	n Truck	is: 0	297			
Observer Height (/	Above Pad):	5.0 feet			Heav	v Truck	is: 8	3.004	Grade Ad	justment	0.0
Pa	d Elevation:	0.0 feet		_							
Roa	d Elevation:	0.0 feet		1	Lane Eq	livalen	t Dista	nce (in	feet)		
F	Road Grade:	0.0%				Auto	is: 52	2.505			
	Left View:	-90.0 degree	es		Meaiui	n Iruck	(S. 52	2.336			
	Right view:	90.0 degre	es		neav	y much	S. 04	2.302			
FHWA Noise Mode	I Calculation:	s									
VehicleType	REMEL	Traffic Flow	Di	stance	Finite	Road	Fres	snel	Barrier Att	ten Ber	m Atten
Autos:	71.78	-0.58		-0.4	2	-1.20		-4.71	0.	000	0.00
Medium Trucks:	82.40	-17.14		-0.4	0	-1.20		-4.88	0.	000	0.00
Heavy Trucks:	86.40	-16.71		-0.4	0	-1.20		-5.29	0.	000	0.00
Unmitigated Noise	Levels (with	out Topo and	barri	er atten	uation)						
VehicleType	Leq Peak Hou	r Leq Day	1	Leg E	vening	Leq	Night		Ldn	C	VEL
Autos:	69	.6	69.3		66.9		63	.3	71.	1	71.
Medium Trucks:	63	.7	63.8		59.0		56	.4	64.	7	65.
Heavy Trucks:	68	.1	68.4		58.0		61	.4	69.	4	69.
Vehicle Noise:	72	.5	72.5		68.0		66	.0	73.	9	74.
Centerline Distanc	e to Noise Co	ontour (in feet	)								
				70 0	1BA	65	dBA		60 dBA	55	dBA
			Ldn:		124		26	7	574	t	1,238
		C	NEL		120		27	0	601	1	1 20/

Saturday, October 14, 2023

	FHWA-RD	-77-108 HIGHV	AY NO	ISE F	PREDIC	TION M	ODEL	(9/12/2	021)			
Scenari Road Nam	o: EC (2025) e: Sierra Hwy.					Project Job N	Name: umber:	Antelo 14267	pe Valley	Comr	nerc	
Road Segmen	n: n/o Avenue	L		-								
SITE S	SPECIFIC IN	PUT DATA		-	ite 0	N	IOISE	MODE	L INPU	rs		
Highway Data				S	ite Con	aitions	(Hard =	= 10, Se	5ft = 15)			
Average Daily	Traffic (Adt):	31,234 vehicles						Autos:	15			
Peak Hour	Percentage:	6.63%			Mee	dium Tri	ucks (2	Axles):	15			
Peak H	our Volume:	2,071 vehicles			Hea	avy Truc	cks (3+	Axles):	15			
Vei	hicle Speed:	55 mph		V	ehicle N	lix						
Near/Far Lai	ne Distance:	87 feet		F	Vehi	cleType		Day	Evening	Nig	ht	Daily
Site Data							Autos:	75.2%	5 10.7%	14	.0%	97.39%
Bar	rier Height:	0.0 feet			Me	dium Ti	rucks:	81.9%	6.8%	11	.3%	1.93%
Barrier Type (0-W	all. 1-Berm):	0.0			H	leavy Ti	rucks:	85.3%	5 2.0%	12	.7%	0.69%
Centerline Dis	st. to Barrier:	68.0 feet		N	laisa Sa	urco El	ovation	ne (in fi	nof)			
Centerline Dist.	to Observer:	68.0 feet		N	0136 30	Auto	evalion	000	eei)			
Barrier Distance	to Observer:	0.0 feet			A da alium	Auto	s. U	207				
Observer Height (	Above Pad):	5.0 feet			weatur	n Truck	s: 2	.297	Grade A	diusta	nont	0.0
Pa	ad Elevation:	0.0 feet			Heav	y Truck	5: 8	.004	Grade A	ujusin	ient.	0.0
Roa	ad Elevation:	0.0 feet		L	ane Equ	iivalent	Distar	ice (in	feet)			
F	Road Grade:	0.0%				Auto	s: 52	.505				
	Left View:	-90.0 degrees			Mediur	n Truck	s: 52	.336				
	Right View:	90.0 degrees			Heav	y Truck	s: 52	.352				
FHWA Noise Mode	el Calculations	5										
VehicleType	REMEL	Traffic Flow	Distan	се	Finite	Road	Fres	nel	Barrier A	tten	Berr	n Atten
Autos:	71.78	0.34		-0.42		-1.20		-4.71	0	.000		0.000
Medium Trucks:	82.40	-16.70		-0.40		-1.20		-4.88	0	.000		0.000
Heavy Trucks:	86.40	-21.19		-0.40		-1.20		-5.29	0	.000		0.000
Unmitigated Noise	Evels (with	out Topo and b	arrier a	ttenu	ation)							
VehicleType	Leq Peak Hou	r Leq Day	Le	q Eve	ening	Leq	Night		Ldn		C٨	IEL
Autos:	70	.5 7	0.3		67.8		64.	2	72	.0		72.4
Medium Trucks:	64	.1 6	4.2		59.4		56.	9	65	.1		65.4
Heavy Trucks:	63	.6 6	3.9		53.5		56.	9	64	.9		65.0
Vehicle Noise:	72	.1 7.	2.0		68.5		65.	6	73	.5		73.8
Centerline Distanc	e to Noise Co	ntour (in feet)										
				70 dl	BA	65	dBA		50 dBA		55 (	JBA
		L	dn:		116		25		53	9		1,161
		CN	EL:		123		264	4	56	9		1,227

	FHWA-RI	D-77-108 HIGH	WAY NO	ISE F	PREDICT	ION MOE	DEL (9/12/2	:021)		
Scenari Road Nam	o: ECP (2025 e: Sierra Hwy	)			F	Project Na Job Num	ame: Antelo aber: 14267	pe Valley (	Commerc	;
Road Segmer	nt: n/o Avenue	L								
SITE S	SPECIFIC IN	IPUT DATA				NO	SE MODE	L INPUT	s	
Highway Data				Si	ite Condi	itions (Ha	ard = 10, S	oft = 15)		
Average Daily	Traffic (Adt):	31,793 vehicle	es				Autos	: 15		
Peak Hour	Percentage:	6.63%			Medi	um Truck	s (2 Axles)	: 15		
Peak H	our Volume:	2,108 vehicle	S		Heav	vy Trucks	(3+ Axles)	: 15		
Vel	hicle Speed:	55 mph		V	ehicle Mi	Y				
Near/Far Lar	ne Distance:	87 feet		-	Vehicl	eTvpe	Dav	Evenina	Niaht	Dailv
Site Data						Aut	os: 75.29	6 10.7%	14.0%	97.02%
Bar	rior Hoight	0.0 feet			Med	lium Truc	ks: 81.9%	6.8%	11.3%	1.96%
Barrier Type (0-W	all. 1-Berm):	0.0			He	avy Truc	ks: 85.3%	6 2.0%	12.7%	1.02%
Centerline Dis	t. to Barrier:	68.0 feet		M	oise Sou	rco Flova	ations (in f	ioof)		
Centerline Dist.	to Observer:	68.0 feet			0136 000	Autos:	0.000	000		
Barrier Distance	o Observer:	0.0 feet			Modium	Trucks:	2 207			
Observer Height (J	Above Pad):	5.0 feet			Heavy	Trucks:	8 004	Grade Ad	liustment	0.0
Pa	d Elevation:	0.0 feet			neavy	mucks.	0.004		,	
Roa	d Elevation:	0.0 feet		La	ane Equi	valent Di	stance (in	feet)		
F	Road Grade:	0.0%				Autos:	52.505			
	Left View:	-90.0 degre	es		Medium	Trucks:	52.336			
	Right View:	90.0 degre	es		Heavy	Trucks:	52.352			
FHWA Noise Mode	Calculation	s								
VehicleType	REMEL	Traffic Flow	Distan	се	Finite R	load	Fresnel	Barrier At	ten Ber	m Atten
Autos:	71.78	0.40		-0.42		-1.20	-4.71	0.	000	0.000
Medium Trucks:	82.40	-16.55		-0.40		-1.20	-4.88	0.	000	0.000
Heavy Trucks:	86.40	-19.39		-0.40		-1.20	-5.29	0.	000	0.000
Unmitigated Noise	Levels (with	out Topo and	barrier a	ttenu	ation)					
VehicleType	Leq Peak Hou	ir Leq Day	' Le	eq Eve	ening	Leq Nig	pht	Ldn	C	NEL
Autos:	70	0.6	70.3		67.9		64.3	72.	1	72.5
Medium Trucks:	64	.3	64.4		59.6		57.0	65.	3	65.6
Heavy Trucks:	65	5.4	65.7		55.3		58.7	66.	7	66.8
Vehicle Noise:	72	2.4	72.4		68.7		65.9	73.	8	74.2
Centerline Distance	e to Noise Co	ontour (in feet	)							
				70 dE	BA	65 dB/	A	60 dBA	55	dBA
			Ldn:		123		264	569	Ð	1,227
		C	NEL:		129		279	600	)	1,293

	FHWA-R	D-77-108 HIGH	WAY N	DISE F	REDIC		DDEL (	9/12/2	021)		
Scenar Road Nan Road Segme	rio: EC (2032) ne: Sierra Hwy nt: n/o Avenue					Project I Job Nu	Name: i imber:	Antelo 14267	pe Valley C	Commerc	
SITE	SPECIFIC IN	NPUT DATA				N	OISE N	IODE	L INPUT	S	
Highway Data				S	ite Con	ditions (	Hard =	10, So	oft = 15)		
Average Daily	Traffic (Adt):	36,151 vehicle	es			diana Tara	-1 (0)	Autos:	15		
Peak Hour	Percentage:	0.03%			ivie		CKS (2 A	(xies).	15		
Peak	lour volume:	2,397 vehicle	s		не	avy Truci	KS (3+ A	axies):	15		
Ve Maan/Ean La	enicie Speea:	oo mpn		V	ehicle I	Nix					
Near/Far La	ine Distance:	87 Teet			Veh	icleType		Day	Evening	Night	Daily
Site Data						A	utos:	75.2%	5 10.7%	14.0%	97.39%
Ba	rrier Height:	0.0 feet			Me	edium Tru	ucks:	81.9%	6.8%	11.3%	1.93%
Barrier Type (0-V	Vall, 1-Berm):	0.0			ŀ	leavy Tru	ucks:	85.3%	2.0%	12.7%	0.69%
Centerline D	ist. to Barrier:	68.0 feet		N	oise Sc	ource Ele	vation	s (in f	eet)		
Centerline Dist.	to Observer:	68.0 feet				Autos	: 0.0	000			
Barrier Distance	to Observer:	0.0 feet			Mediui	n Trucks	: 2.1	297			
Observer Height	(Above Pad):	5.0 feet			Heav	y Trucks	: 8.0	004	Grade Ad	justment	: 0.0
P	ad Elevation:	0.0 feet					Distant		f 4)		
Ro	ad Elevation:	0.0 feet		La	ane Equ	livalent	Distant	ce (In	reet)		
	Road Grade:	0.0%				Autos.	. 52.	505			
	Left View:	-90.0 degre	es		Mealui	TI TTUCKS	: 52.	330			
	Right View:	90.0 degre	es		Heav	y Trucks.	: 52.	352			
FHWA Noise Mod	el Calculation	s									
VehicleType	REMEL	Traffic Flow	Dista	nce	Finite	Road	Fresn	el	Barrier Att	en Ber	rm Atten
Autos:	71.78	0.97		-0.42		-1.20		-4.71	0.0	000	0.000
Medium Trucks:	82.40	-16.06		-0.40		-1.20		-4.88	0.0	000	0.000
Heavy Trucks:	86.40	-20.56		-0.40		-1.20		-5.29	0.0	000	0.000
Unmitigated Nois	e Levels (with	out Topo and	barrier a	attenu	ation)						
VehicleType	Leq Peak Ho	ur Leq Day	/ L	eq Eve	ening	Leq N	light		Ldn	C	NEL
Autos:	71	1.1	70.9		68.5		64.8	3	72.7	7	73.1
Medium Trucks:	64	1.7	64.9		60.1		57.5	5	65.8	3	66.1
Heavy Trucks:	64	1.2	64.5		54.2		57.5	5	65.5	5	65.6
Vehicle Noise:	72	2.7	72.6		69.2		66.2	2	74.1	1	74.5
Centerline Distan	ce to Noise C	ontour (in feet	)								
				70 dE	BA	65 d	BA	(	50 dBA	55	dBA
			Ldn:		128		276		594		1,280
		C	NEL:		135		291		628	,	1,353

	FUMA-KI		IVVAT	NOISE	PREDIC			5/12/20	JZ I)		
Scenario	: ECP (2032	)				Project	Name: I	Antelo	pe Valley C	Commerc	>
Road Name	e: Sierra Hwy					Job N	umber:	14267			
Road Segmen	t: n/o Avenue	L									
SITE S	PECIFIC IN	PUT DATA				N	IOISE N	IODE	L INPUT	s	
Highway Data				3	Site Con	ditions	(Hard =	10, Sc	oft = 15)		
Average Daily	raffic (Adt):	38,082 vehicle	es					Autos:	15		
Peak Hour I	Percentage:	6.63%			Me	dium Tri	ucks (2 A	Axles):	15		
Peak He	our Volume:	2,525 vehicle	s		He	avy Tru	cks (3+ A	Axles):	15		
Vel	icle Speed:	55 mph		1	/ehicle I	Nix					
Near/Far Lar	e Distance:	87 feet		-	Vehi	cleType		Day	Evening	Night	Daily
Site Data						/	Autos:	75.2%	10.7%	14.0%	96.15%
Bar	rier Height:	0.0 feet			Me	edium T	rucks:	81.9%	6.8%	11.3%	2.05%
Barrier Type (0-Wa	all, 1-Berm):	0.0			ŀ	leavy Ti	rucks:	85.3%	2.0%	12.7%	1.80%
Centerline Dis	t. to Barrier:	68.0 feet		-	loiso Sa	urco El	ovation	r (in fr	ootl		
Centerline Dist. t	o Observer:	68.0 feet		-	10/36 30	Auto	evalion:	000	eel)		
Barrier Distance t	o Observer:	0.0 feet			Mediu	n Truck	s: 0.	297			
Observer Height (/	Above Pad):	5.0 feet			Heav	v Truck	s: 8.0	004	Grade Ad	iustment	: 0.0
Pa	d Elevation:	0.0 feet				,					
Roa	d Elevation:	0.0 feet		4	ane Equ	uivalent	Distant	ce (in i	feet)		
F	load Grade:	0.0%				Auto	s: 52.	505			
	Left View:	-90.0 degre	es		Mediur	n Truck	s: 52.	336			
	Right View:	90.0 degre	es		Heav	у т гиск	s: 52.	352			
FHWA Noise Mode	I Calculation	5									
VehicleType	REMEL	Traffic Flow	Dis	stance	Finite	Road	Fresh	el	Barrier Att	en Ber	m Atten
Autos:	71.78	1.14		-0.42	2	-1.20		-4.71	0.0	000	0.00
Medium Trucks:	82.40	-15.57		-0.40	)	-1.20		-4.88	0.0	000	0.00
Heavy Trucks:	86.40	-16.14		-0.40	)	-1.20		-5.29	0.0	000	0.00
Unmitigated Noise	Levels (with	out Topo and	barrie	er atten	uation)						
VehicleType	Leq Peak Hoi	r Leq Day	/	Leg Ev	rening	Leq	Night		Ldn	C	NEL
Autos:	71	.3	71.1		68.6		65.0	)	72.	В	73.
Medium Trucks:	65	.2	65.4		60.6		58.0	)	66.3	3	66.
Heavy Trucks:	68	.7	69.0		58.6		62.0	)	70.	0	70.0
Vehicle Noise:	73	.8	73.8		69.6		67.3	8	75.3	2	75.
Centerline Distanc	e to Noise Co	ontour (in feet	)								
			L	70 c	IBA	65	dBA	6	60 dBA	55	dBA
			Ldn:		152		327		704		1,517
		C	NEL:		159		343		739		1.591

Saturday, October 14, 2023

	FHWA-RD	0-77-108 HIGHV	AY N	OISE I	PREDIC	TION M	ODEL (	9/12/2	021)		
Scenario Road Name Road Segmen	o: E e: Sierra Hwy. t: s/o Avenue	L				Project Job N	Name: . umber:	Antelo 14267	pe Valley (	Comme	irc
SITE S	SPECIFIC IN	PUT DATA				N	OISE I	NODE	L INPUT	s	
Highway Data				S	ite Con	ditions	(Hard =	10, So	oft = 15)		
Average Daily	Traffic (Adt):	28,142 vehicles						Autos:	15		
Peak Hour I	Percentage:	6.63%			Me	dium Tru	icks (2 /	Axles):	15		
Peak He	our Volume:	1,866 vehicles			He	avy Truc	:ks (3+ /	Axles):	15		
Vel	nicle Speed:	55 mph			ohiclo I	liv					
Near/Far Lar	e Distance:	87 feet		ľ	Veh	icleTune		Dav	Evening	Night	Daily
Sito Data				_	ven	cie i ype	utos	75 2%	10.7%	14.0	07 20%
Sile Dala						r dium Tr	ulos.	91.0%	6 9%	14.0	70 97.3970 % 1.03%
Bar	rier Height:	0.0 feet			IVIC	deaver Tr	ucks.	95 20/	2.0%	12.7	% 0.60%
Barrier Type (0-Wa	all, 1-Berm):	0.0			r	leavy II	ucks.	00.37	5 2.0%	12.7	70 0.0970
Centerline Dis	t. to Barrier:	68.0 feet		N	loise Sc	urce El	evation	s (in f	eet)		
Centerline Dist. t	o Observer:	68.0 feet				Autos	s: 0.	000			
Barrier Distance t	o Observer:	0.0 feet			Mediui	n Trucks	2.	297			
Observer Height ()	Above Pad):	5.0 feet			Heav	v Trucks	s: 8.	004	Grade Ad	ljustme	nt: 0.0
Pa	d Elevation:	0.0 feet					Distant		F 43		
Roa	FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)           Scenario: E         Project Name: Antelope Valley Commerc Job Number: 14267           Socenario: E         Project Name: Antelope Valley Commerc Job Number: 14267           Sitte Specific INPUT DATA         NOISE MODEL INPUTS Inhway Data           Average Daily Traffic (Adt): 28,142 vehicles Peak Hour Percentage: 6,63%         Noise ModDeL inPUTS Average Daily Traffic (Adt): 28,142 vehicles           Vehicle Speed: 55 mph Near/Far Lane Distance: 87 feet         Vehicle Mix Vehicle Type         Day Evening Night         Daly Rearting Type (O-Wall, 1-Berrin): 0.0           One terterline Dist. to Barrier: 68.0 feet Canterline Dist. to Observer: 68.0 feet Road Elevation: 0.0 feet         Medium Trucks: 81.9%         Cande Adjustment: 0.0           Read Elevation: 0.0 feet           Rarier Distance to Observer: 0.0 feet         Medium Trucks: 82.30           Read Elevation: 0.0 feet           Read Elevation: 0.0 feet           Read Elevation: 0.0 feet           Read Calculations           Vehicle Type         Read Adjustment: 0.0           Read Sudo 12: 0.040         Canter Atten Berm Atten Autos: 71.76         Canter Atten										
F	Road Grade:	0.0%				Autos	52.	505			
	Left View:	-90.0 degrees			Meaiui	m Trucks	52.	336			
	Right View:	90.0 degrees			Heav	y Trucks	52.	352			
FHWA Noise Mode	I Calculations	5									
VehicleType	REMEL	Traffic Flow	Dista	nce	Finite	Road	Fresr	nel 🛛	Barrier Att	en B	erm Atten
Autos:	71.78	-0.12		-0.42		-1.20		-4.71	0.	000	0.000
Medium Trucks:	82.40	-17.15		-0.40	)	-1.20		-4.88	0.	000	0.000
Heavy Trucks:	86.40	-21.64		-0.40		-1.20		-5.29	0.	000	0.000
Unmitigated Noise	Levels (with	out Topo and b	arrier	attenu	uation)						
VehicleType	Leq Peak Hou	r Leq Day	L	.eq Ev	ening	Leq	Night		Ldn		CNEL
Autos:	70	.0 6	9.8		67.4		63.8	3	71.	6	72.0
Medium Trucks:	63	.7 6	3.8		59.0		56.4	1	64.	7	65.0
Heavy Trucks:	63	.2 6	3.5		53.1		56.4	1	64.	5	64.5
Vehicle Noise:	71	.6 7	1.5		68.1		65.1	I	73.	0	73.4
Centerline Distanc	e to Noise Co	ontour (in feet)			'						
				70 d	BA	65 (	зBA		50 dBA	5	5 dBA
		L	dn:		108		233		503	3	1,083
		CN	EL:		114		247		531		1,145

	FHWA-RI	D-77-108 HIGH	IWAY I	NOISE	PREDIC		DEL (9/12/	2021)		
Scenar	io: EP					Project N	lame: Antel	ope Valley (	Commer	c
Road Nan	ne: Sierra Hwy	r.				Job Nu	mber: 1426	7		
Road Segme	nt: s/o Avenue	e L								l
SITE	SPECIFIC IN	NPUT DATA				N	DISE MOD	EL INPUT	S	
Highway Data				S	Site Con	ditions (l	Hard = 10, S	Soft = 15)		
Average Daily	Traffic (Adt):	30,460 vehicl	es				Auto	s: 15		
Peak Hour	Percentage:	6.63%			Mee	dium Truc	cks (2 Axles	): 15		
Peak H	lour Volume:	2,020 vehicle	s		Hei	avy Truck	is (3+ Axles	): 15		
Ve	hicle Speed:	55 mph		V	/ehicle N	<i>lix</i>				
Near/Far La	ne Distance:	87 feet			Vehi	cleType	Day	Evening	Night	Daily
Site Data						AL	itos: 75.2	% 10.7%	14.0%	95.88%
Ba	rrier Height:	0.0 feet			Me	edium Tru	icks: 81.9	% 6.8%	11.3%	2.05%
Barrier Type (0-V	Vall, 1-Berm):	0.0			F	leavy Tru	icks: 85.3	% 2.0%	12.7%	2.07%
Centerline Di	st. to Barrier:	68.0 feet			loise So	urce Fle	vations (in	feet)		
Centerline Dist.	to Observer:	68.0 feet		-	10/30 00	Autos	0.000	1001/		
Barrier Distance	to Observer:	0.0 feet			Mediur	n Trucks	2 297			
Observer Height	(Above Pad):	5.0 feet			Heav	v Trucks	8 004	Grade Ad	liustment	t: 0.0
P	ad Elevation:	0.0 feet			mour	, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	0.001			
Ro	ad Elevation:	0.0 feet		L	ane Equ	ivalent l	Distance (ir	i feet)		
	Road Grade:	0.0%				Autos:	52.505			
	Left View:	-90.0 degre	es		Mediur	n Trucks:	52.336			
	Right View:	90.0 degre	es		Heav	y Trucks:	52.352			
FHWA Noise Mod	el Calculation	s								
VehicleType	REMEL	Traffic Flow	Dist	ance	Finite	Road	Fresnel	Barrier At	ten Bei	rm Atten
Autos:	71.78	0.16		-0.42	2	-1.20	-4.7	0.	000	0.000
Medium Trucks:	82.40	-16.53		-0.40	)	-1.20	-4.88	B 0.	000	0.000
Heavy Trucks:	86.40	-16.50		-0.40	)	-1.20	-5.29	9 0.	000	0.000
Unmitigated Nois	e Levels (with	out Topo and	barrie	r attenu	uation)					
VehicleType	Leq Peak Hou	ur Leq Da	V	Leq Ev	rening	Leq N	light	Ldn	С	NEL
Autos:	70	0.3	70.1		67.6		64.0	71.	8	72.3
Medium Trucks:	64	4.3	64.4		59.6		57.1	65.	3	65.6
Heavy Trucks:	68	3.3	68.6		58.2		61.6	69.	6	69.7
Vehicle Noise:	73	3.1	73.0		68.7		66.5	74.	4	74.7
Centerline Distan	ce to Noise Co	ontour (in feel	9							
				70 d	IBA	65 di	BA	60 dBA	55	dBA
			Ldn:		134		290	624	1	1,345
		С	NEL:		141		303	654	1	1,408

	FHWA-RI	D-77-108 HIGH	IWAY N	OISE F	PREDIC	TION MO	DDEL (	9/12/2	021)		
Scenar Road Nam Road Segme	io: EC (2025) ne: Sierra Hwy nt: s/o Avenue	• L				Project I Job Nu	Name: i imber:	Antelo 14267	pe Valley C	Commerc	
SITE	SPECIFIC IN	IPUT DATA				N	OISE N	IODE	L INPUT	S	
Highway Data				S	ite Con	ditions (	Hard =	10, So	oft = 15)		
Average Daily	Traffic (Adt):	35,718 vehicl	es				,	Autos:	15		
Peak Hour	Percentage:	6.63%			Me	dium Tru	cks (2 A	(xles	15		
Peak H	lour Volume:	2,368 vehicle	s		He	avy Truci	ks (3+ A	(xles	15		
Ve	hicle Speed:	55 mph		V	ehicle I	Nix					
Near/Far La	ne Distance:	87 feet			Veh	icleType		Day	Evening	Night	Daily
Site Data						A	utos:	75.2%	5 10.7%	14.0%	97.39%
Ba	rrier Height:	0.0 feet			Me	edium Tru	ucks:	81.9%	6.8%	11.3%	1.93%
Barrier Type (0-W	/all, 1-Berm):	0.0			ŀ	leavy Tru	ucks:	85.3%	2.0%	12.7%	0.69%
Centerline Di	st. to Barrier:	68.0 feet		N	oise Sc	ource Ele	vation	s (in f	eet)		
Centerline Dist.	to Observer:	68.0 feet				Autos	: 0.0	000			
Barrier Distance	to Observer:	0.0 feet			Mediui	n Trucks	: 2.1	297			
Observer Height	(Above Pad):	5.0 feet			Heav	y Trucks	: 8.0	004	Grade Ad	iustment	0.0
Pi	ad Elevation:	0.0 feet				vivalant	Dioton	o (in	fact		
Ro	ad Elevation:	0.0 feet		L	ane Equ	Autoo	DISTAIL		leel)		
	Road Grade:	0.0%			Modiu	m Trucks	. 52.	226			
	Right View	-90.0 degre	85 85		Heav	v Trucks	52	352			
	rught tion.	30.0 dogio	00			,					
FHWA Noise Mod	el Calculation	s								-	
VehicleType	REMEL	Traffic Flow	Dista	nce	Finite	Road	Fresn	el 4 74	Barrier Att	en Bei	rm Atten
Autos: Medium Trucks:	11.78	0.92		-0.42		-1.20		-4.71	0.0	000	0.000
Heavy Trucks:	86.40	-20.61		-0.40		-1.20		-5 29	0.0	000	0.000
Manufiliante et Maria	- 1 1- 4	20.01	hi		-411	1.20		0.20	0.0		0.000
VehicleType	Levels (with	r Lea Da	barrier	er Eve	ation)	l ea N	liaht	1	l dn	0	NEI
Autos:	2097 Cak 1100 71	1	70.8	CY LV	68.4	Legn	64.8	3	72.6	3	73.0
Medium Trucks:	64	.7	64.8		60.0		57.5	5	65.7	7	66.0
Heavy Trucks:	64	1.2	64.5		54.1		57.5	5	65.5	5	65.6
Vehicle Noise:	72	2.6	72.5		69.1		66.2	2	74.1	1	74.4
Centerline Distant	ce to Noise Co	ontour (in feet	)								
				70 dE	ЗA	65 d	BA	(	60 dBA	55	dBA
			Ldn:		127		273		589		1,269
		С	NEL:		134		289		623		1,342

	FRWA-KL	-//-108 HIGH	WAT	NOISE	PREDIC		ODEL (	9/12/20	JZ I)		
Scenario	D: ECP (2025)	)				Project	Name: I	Antelo	pe Valley C	Commerc	>
Road Name	e: Sierra Hwy.					Job N	umber:	14267			
Road Segmen	t: s/o Avenue	L									
SITE S	PECIFIC IN	PUT DATA				N	IOISE N	IODE	L INPUT	s	
Highway Data				S	ite Con	ditions	(Hard =	10, Sc	oft = 15)		
Average Daily	raffic (Adt):	36,348 vehicle	s					Autos:	15		
Peak Hour I	Percentage:	6.63%			Me	dium Tru	ucks (2 A	Axles):	15		
Peak He	our Volume:	2,410 vehicles	6		Hei	avy Truc	cks (3+ A	Axles):	15		
Vel	icle Speed:	55 mph		v	ehicle N	lix					
Near/Far Lar	e Distance:	87 feet			Vehi	cleType		Day	Evening	Night	Daily
Site Data						A	Autos:	75.2%	10.7%	14.0%	97.07%
Bar	rier Heiaht:	0.0 feet			Me	edium Ti	rucks:	81.9%	6.8%	11.3%	1.95%
Barrier Type (0-Wa	all, 1-Berm):	0.0			F	leavy Ti	ucks:	85.3%	2.0%	12.7%	0.97%
Centerline Dis	t. to Barrier:	68.0 feet			laisa Sa	urco El	ovation	r (in fr	ootl		
Centerline Dist. t	o Observer:	68.0 feet		-	0136 00	Auto		000			
Barrier Distance t	o Observer:	0.0 feet			Mediur	n Truck	s. 0.	297			
Observer Height (/	Above Pad):	5.0 feet			Heav	v Truck	s: 8.0	004	Grade Ad	iustment	: 0.0
Pa	d Elevation:	0.0 feet				,					
Roa	d Elevation:	0.0 feet		L	ane Equ	iivalent	Distant	ce (in i	feet)		
F	load Grade:	0.0%				Autos	s: 52.	505			
	Left View:	-90.0 degree	es		Mediur	n Truck:	s: 52.	336			
	Right View:	90.0 degree	es		Heav	y Truck	s: 52.	352			
FHWA Noise Mode	I Calculation:	S									
VehicleType	REMEL	Traffic Flow	Dist	tance	Finite	Road	Fresn	el	Barrier Att	en Ber	m Atten
Autos:	71.78	0.98		-0.42		-1.20		-4.71	0.0	000	0.00
Medium Trucks:	82.40	-15.98		-0.40	)	-1.20		-4.88	0.0	000	0.00
Heavy Trucks:	86.40	-19.00		-0.40	)	-1.20		-5.29	0.0	000	0.00
Unmitigated Noise	Levels (with	out Topo and	barrie	r attenu	uation)						
VehicleType	Leq Peak Hou	r Leq Day	r	Leq Ev	ening	Leq	Night		Ldn	C	NEL
Autos:	71	.1	70.9		68.5		64.9	)	72.	7	73.
Medium Trucks:	64	.8	64.9		60.2		57.6	6	65.9	9	66.
Heavy Trucks:	65	.8	66.1		55.7		59.1	-	67.	1	67.2
Vehicle Noise:	73	.0	72.9		69.3		66.5	Ď	74.4	1	74.
Centerline Distanc	e to Noise Co	ontour (in feet,	)				-				
			L	70 d	BA	65	dBA	6	60 dBA	55	dBA
			Ldn:		133		287		619	1	1,334
		C	VEL		1/1		303		653		1 406

Saturday, October 14, 2023

	FHWA-RD	0-77-108 HIGH	VAY NO	ISE F	PREDIC		IODEL	9/12/2	021)			
Scena	rio: EC (2032)					Project	Name:	Antelo	pe Valley	Comr	nerc	
Road Nar	ne: Sierra Hwy.					Job N	lumber:	14267				
Road Segme	ent: s/o Avenue	L										
SITE	SPECIFIC IN	PUT DATA				N	IOISE	MODE	L INPU	s		
Highway Data				S	ite Con	ditions	(Hard =	: 10, So	oft = 15)			
Average Daily	Traffic (Adt):	40,769 vehicles	6					Autos:	15			
Peak Hou	Percentage:	6.63%			Me	dium Tr	ucks (2	Axles):	15			
Peak I	lour Volume:	2,703 vehicles			He	avy Tru	cks (3+	Axles):	15			
Ve	ehicle Speed:	55 mph		V	ehicle I	Mix						
Near/Far La	ane Distance:	87 feet		-	Veh	icleTvpe		Dav	Evenina	Nia	ht	Dailv
Site Data						,	Autos:	75.2%	5 10.7%	14	.0%	97.39%
Ba	rrier Height	0.0 feet			Me	edium T	rucks:	81.9%	6.8%	11	.3%	1.93%
Barrier Type (0-V	Vall. 1-Berm):	0.0			ŀ	Heavy T	rucks:	85.3%	5 2.0%	12	.7%	0.69%
Centerline D	ist. to Barrier:	68.0 feet		N	laisa Sa	urco El	ovation	e (in f	nof)			
Centerline Dist.	to Observer:	68.0 feet		14	0/36 30	Auto	evalion	000	eei)			
Barrier Distance	to Observer:	0.0 feet			Modiu	m Truck	s. U	207				
Observer Height	(Above Pad):	5.0 feet			Heav	n Truck	o. 2	004	Grade A	diusta	nent <sup>.</sup>	0.0
F	Pad Elevation: 0.0 feet					y much	3. 0	.004				
Ro	Road Elevation: 0.0 feet					uivalen	t Distan	ce (in	feet)			
	Road Grade:	0.0%				Auto	s: 52	.505				
	Left View:	-90.0 degree	6		Mediui	m Truck	s: 52	.336				
	Right View:	90.0 degree	6		Heav	ry Truck	s: 52	.352				
FHWA Noise Mod	lel Calculation	5										
VehicleType	REMEL	Traffic Flow	Distand	ce	Finite	Road	Fres	nel	Barrier A	ten	Berr	n Atten
Autos:	71.78	1.49	-	0.42		-1.20		-4.71	0	.000	-	0.000
Medium Trucks:	82.40	-15.54	-	0.40		-1.20		-4.88	0	.000		0.000
Heavy Trucks:	86.40	-20.03	-	0.40		-1.20		-5.29	0	.000		0.000
Unmitigated Nois	e Levels (with	out Topo and b	arrier at	tenu	ation)							
VehicleType	Leq Peak Hou	r Leq Day	Lee	q Eve	ening	Leq	Night		Ldn		C٨	IEL
Autos:	71	.7 7	1.4		69.0		65.	4	73	.2		73.6
Medium Trucks:	65	.3 6	5.4		60.6		58.	0	66	.3		66.6
Heavy Trucks:	64	.8 6	5.1		54.7		58.	1	66	.1		66.1
Vehicle Noise:	73	.2 7	3.1		69.7		66.	7	74	.6		75.0
Centerline Distan	ce to Noise Co	ontour (in feet)								-		
	Average Daily Traffic (Adt):         40,769 vehicles         Autos:         15           Peak Hour Vercentage:         6.63%         Medium Trucks (2 Axles):         15           Peak Hour Volume:         2,703 vehicles         Heavy Trucks (3 + Axles):         15           Vehicle Speed:         55 mph         Vehicle Type         Day         Evening         Night         Daily           Data         Autos:         75.2%         10.7%         14.0%         97.39%           Barrier Height:         0.0         Autos:         55.3%         2.0%         12.7%         0.69%           Centerline Dist to Barrier:         68.0 feet         Autos:         0.00         Heavy Trucks:         85.3%         2.0%         12.7%         0.69%           Patellevation:         0.0 feet         Molians:         0.00         Medium Trucks:         2.297         12.7%         0.69%           Road Elevation:         0.0 feet         Autos:         52.05         Medium Trucks:         52.305         14.3%         0.04         14.0%         14.0%         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000											
		L	.dn:		139		299	)	64	3		1,386
		CN	EL:		147		316	6	68	0		1,465

	FHWA-RI	0-77-108 HIGHWA	Y NOISI	E PREDIC	TION MOI	DEL (9/12/2	:021)		
Scenari Road Nam Road Segmer	io: ECP (2032) e: Sierra Hwy nt: s/o Avenue	) L			Project Na Job Nurr	ame: Antelo aber: 14267	ppe Valley (	Commerc	
SITE	SPECIFIC IN	IPUT DATA			NO	ISE MODE	EL INPUT	S	
Highway Data				Site Con	ditions (H	ard = 10, S	oft = 15)		
Average Daily	Traffic (Adt):	43,087 vehicles				Autos	: 15		
Peak Hour	Percentage:	6.63%		Mee	dium Truck	(s (2 Axles)	: 15		
Peak H	our Volume:	2,857 vehicles		Hei	avy Trucks	(3+ Axles)	: 15		
Ve	hicle Speed:	55 mph		Vehicle N	Aix				
Near/Far La	ne Distance:	87 feet		Vehi	cleTvpe	Dav	Evenina	Niaht	Dailv
Site Data					Aut	os: 75.2%	6 10.7%	14.0%	96.32%
Ba	rior Hoight:	0.0 foot		Me	dium Truc	ks: 81.9%	6.8%	11.3%	2.02%
Barrier Type (0-W	all. 1-Berm):	0.0		F	leavy Truc	ks: 85.3%	6 2.0%	12.7%	1.66%
Centerline Dis	st. to Barrier:	68.0 feet		Noine Co	uree Elevi	ationa (in f	in nt)		
Centerline Dist.	to Observer:	68.0 feet		Noise 30	Autoo		eel)		
Barrier Distance	to Observer:	0.0 feet		Modium	Autos.	2 207			
Observer Height (	Above Pad):	5.0 feet		Heave	ITTUCKS.	2.257	Grade An	liustment	0.0
Pa	ad Elevation:	0.0 feet		neav	y TTUCKS.	0.004	Orade Au	justinent	0.0
Roa	ad Elevation:	0.0 feet		Lane Equ	ivalent D	istance (in	feet)		
F	Road Grade:	0.0%			Autos:	52.505			
	Left View:	-90.0 degrees		Mediur	n Trucks:	52.336			
	Right View:	90.0 degrees		Heav	y Trucks:	52.352			
FHWA Noise Mode	el Calculation	s							
VehicleType	REMEL	Traffic Flow D	Distance	Finite	Road	Fresnel	Barrier Att	ten Ber	m Atten
Autos:	71.78	1.69	-0.4	42	-1.20	-4.71	0.	000	0.000
Medium Trucks:	82.40	-15.10	-0.4	40	-1.20	-4.88	0.	000	0.000
Heavy Trucks:	86.40	-15.94	-0.4	40	-1.20	-5.29	0.	000	0.000
Unmitigated Noise	e Levels (with	out Topo and bar	rier atte	nuation)					
VehicleType	Leq Peak Hou	ir Leq Day	Leg E	evning	Leq Nig	ght	Ldn	CI	VEL
Autos:	71	.8 71.6	3	69.2		65.6	73.	4	73.8
Medium Trucks:	65	.7 65.8	3	61.0		58.5	66.	7	67.0
Heavy Trucks:	68	.9 69.2	2	58.8		62.1	70.	2	70.2
Vehicle Noise:	74	.3 74.2	2	70.1		67.7	75.	7	76.0
Centerline Distance	e to Noise Co	ontour (in feet)							
			70	ава	65 dB.	A	6U aBA	55	aBA
		Ldn	с	162		349	753	5	1,622
		CNEL		170		367	790	,	1,702

	FHWA-R	D-77-108 HIGH	WAY NO	DISE F	PREDIC	TION M	ODEL (S	9/12/20	021)		
Scena	rio: E					Project	Name: /	Antelo	pe Valley C	Commerc	5
Road Nan Road Segme	ne: Sierra Hwy ent: s/o Avenue	≥M				Job Ni	umber: 1	14267			
SITE	SPECIFIC IN	NPUT DATA				N	OISE N	IODE	L INPUT	s	
Highway Data				S	ite Cor	ditions (	'Hard =	10, Sc	oft = 15)		
Average Daily	Traffic (Adt):	31,279 vehicl	es					Autos:	15		
Peak Hour	Percentage:	6.63%			Me	edium Tru	icks (2 A	Axles):	15		
Peak I	Hour Volume:	2,074 vehicle	s		He	avy Truc	ks (3+ A	Axles):	15		
Ve	ehicle Speed:	55 mph		V	ehicle	Mix					-
Near/Far La	ane Distance:	87 feet			Veh	icleType		Day	Evening	Night	Daily
Site Data						A	utos:	75.2%	10.7%	14.0%	97.39%
Ba	rrier Height:	0.0 feet			М	edium Tr	ucks:	81.9%	6.8%	11.3%	1.93%
Barrier Type (0-V	Vall, 1-Berm):	0.0				Heavy Tr	ucks:	85.3%	2.0%	12.7%	0.69%
Centerline D	ist. to Barrier:	68.0 feet		N	oise S	ource Ele	evations	s (in fe	eet)		
Centerline Dist.	to Observer:	68.0 feet				Autos	: 0.0	000			
Barrier Distance	to Observer:	0.0 feet			Mediu	m Trucks	: 2.2	297			
Observer Height	(Above Pad):	5.0 feet			Hear	vy Trucks	: 8.0	004	Grade Ad	justment	: 0.0
F	ad Elevation:	0.0 feet									
Ro	ad Elevation:	0.0 feet		Li	ane Eq	uivalent	Distanc	ce (in i	teet)		
	Road Grade:	0.0%				Autos	52.	505			
	Left View:	-90.0 degre	es		Meaiu	m Trucks	52.	336			
	Right View:	90.0 degre	es		неа	vy Trucks	52.	352			
FHWA Noise Mod	lel Calculation	s									
VehicleType	REMEL	Traffic Flow	Distar	nce	Finite	Road	Fresn	e/	Barrier Att	en Ber	m Atten
Autos:	71.78	0.34		-0.42		-1.20		-4.71	0.0	000	0.000
Medium Trucks:	82.40	-16.69		-0.40		-1.20		-4.88	0.0	000	0.000
Heavy Trucks:	86.40	-21.18		-0.40		-1.20		-5.29	0.0	000	0.000
Unmitigated Nois	e Levels (with	out Topo and	barrier a	attenu	ation)						
VehicleType	Leq Peak Ho	ur Leq Day	/ L	eq Eve	ening	Leq I	Vight		Ldn	C	NEL
Autos:	70	0.5	70.3		67.8		64.2	2	72.0	D	72.5
Medium Trucks:	64	1.1	64.2		59.4		56.9	)	65.	1	65.5
Heavy Trucks:	63	3.6	63.9		53.5		56.9	)	64.9	9	65.0
Vehicle Noise:	72	2.1	72.0		68.6		65.6	6	73.	5	73.9
Centerline Distan	ce to Noise C	ontour (in feet	)								
			ட	70 dl	BA	65 0	IBA	6	ou dBA	55	аВА
			Ldn:		116		250		539		1,162
		C	NEL:		123		265		570		1,228

	FHWA-RL	-77-108 HIGH	IVVAT	NUISE	PREDIC		IUDEL (	9/12/2	021)		
Scenari	o: EP					Project	Name:	Antelo	pe Valley (	Commerc	
Road Nam	e: Sierra Hwy.					Job N	lumber:	14267			
Road Segmer	nt: s/o Avenue	M									
SITE	SPECIFIC IN	PUT DATA				1	IOISE N	IODE	L INPUT	s	
Highway Data				1	Site Con	ditions	(Hard =	10, So	oft = 15)		
Average Daily	Traffic (Adt):	36,120 vehicle	es					Autos:	15		
Peak Hour	Percentage:	6.63%			Me	dium Tr	ucks (2 A	Axles):	15		
Peak H	our Volume:	2,395 vehicle	s		He	avy Tru	cks (3+ A	Axles):	15		
Ve	hicle Speed:	55 mph		1	/ehicle l	Mix					
Near/Far La	ne Distance:	87 feet			Veh	icleType		Day	Evening	Night	Daily
Site Data							Autos:	75.2%	10.7%	14.0%	96.30%
Bar	rier Heiaht:	0.0 feet			M	edium T	rucks:	81.9%	6.8%	11.3%	1.90%
Barrier Type (0-W	all. 1-Berm):	0.0			F	leavy T	rucks:	85.3%	2.0%	12.7%	1.80%
Centerline Dis	st. to Barrier:	68.0 feet		-	Voico Sc	urco E	ovation	r (in f	nof)		
Centerline Dist.	to Observer:	68.0 feet		<i>'</i>	10/36 30	Auto		000	eel)		
Barrier Distance	to Observer:	0.0 feet			Modiu	m Truck	5. U.I	207			
Observer Height (	Above Pad):	5.0 feet			Heav	v Truck	s. 2 s. 81	004	Grade Ad	iustment	0.0
Pa	ad Elevation:	0.0 feet			mour	<i>y m</i> aon	0. 0.			,	
Roa	ad Elevation:	0.0 feet		1	ane Eq	uivalen	t Distand	ce (in i	feet)		
F	Road Grade:	0.0%				Auto	s: 52.	505			
	Left View:	-90.0 degree	es		Mediu	m Truck	s: 52.	336			
	Right View:	90.0 degre	es		Heav	y Truck	s: 52.	352			
FHWA Noise Mode	el Calculations	5									
VehicleType	REMEL	Traffic Flow	Di	stance	Finite	Road	Fresn	el	Barrier Att	en Ber	m Atten
Autos:	71.78	0.92		-0.42	2	-1.20		-4.71	0.0	000	0.00
Medium Trucks:	82.40	-16.13		-0.40	D	-1.20		-4.88	0.0	000	0.00
Heavy Trucks:	86.40	-16.35		-0.40	D	-1.20		-5.29	0.0	000	0.00
Unmitigated Noise	Levels (with	out Topo and	barri	er atten	uation)						
VehicleType	Leq Peak Hou	r Leq Day	/	Leg Ev	/ening	Leq	Night		Ldn	CI	NEL
Autos:	71	.1	70.8		68.4		64.8	3	72.	6	73.
Medium Trucks:	64	.7	64.8		60.0		57.5	5	65.	7	66.
Heavy Trucks:	68	.4	68.7		58.4		61.7		69.	7	69.
Vehicle Noise:	73	.6	73.5		69.4		67.0	)	75.	0	75.
Centerline Distanc	e to Noise Co	ntour (in feet	)								
			L	70 c	iBA	65	dBA	6	50 dBA	55	dBA
		~	Ldn:		146		314		676		1,457
		C	VEL:		153		329		709		1.529

Saturday, October 14, 2023

	FHWA-RI	0-77-108 HIGH	NAY NO	ISE	PREDIC		IODEL	(9/12/2	:021)			
Scenar Road Narr Road Segme	io: EC (2025) ne: Sierra Hwy. nt: s/o Avenue	M				Project Job N	Name: lumber:	Antelo 14267	pe Valley	Com	merc	
SITE	SPECIFIC IN	IPUT DATA				P	OISE	MODI	EL INPU	тз		
Highway Data				S	ite Con	ditions	(Hard =	= 10, S	oft = 15)			
Average Daily	Traffic (Adt):	38,490 vehicle	s					Autos	15			
Peak Hour	Percentage:	6.63%			Me	dium Tr	ucks (2	Axles)	: 15			
Peak H	our Volume:	2,552 vehicles			He	avy Tru	cks (3+	Axles)	: 15			
Ve	hicle Speed:	55 mph			ahicla I	Mix						
Near/Far La	ne Distance:	87 feet		-	Veh	icle Type		Dav	Evening		ight	Daily
Site Data				+	Ven	icie i ype	Autos:	75.2º	6 10 7%	6 1	4.0%	07 30%
Sile Dala					14	, adium T	rucks:	81 09	6 68%	61	13%	1 03%
Ba	rrier Height:	0.0 feet				Heavy T	rucke:	85 39	6 0.07	61	2.7%	0.60%
Barner Type (U-W	/all, 1-Berm):	0.0				icuty i	racks.	00.07	0 2.07		2.1 /0	0.00 /
Centerline Di	st. to Barrier:	68.0 feet		٨	loise So	ource E	levation	ıs (in f	eet)			
Centenine Dist.	to Observer:	08.0 feet				Auto	s: 0	.000				
Barrier Distance	to Observer:	0.0 feet			Mediu	m Truck	s: 2	.297				
Observer Height	(ADOVE Pad):	5.0 feet			Heav	y Truck	s: 8	.004	Grade A	djust	ment:	0.0
Pi	ad Elevation:	0.0 feet			ano Ea	uivalon	t Dictor	co (in	foot)			
Ro	FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)           Scenario: EC (2025)         Project Name: Antelope Valley Commerc Job Number: 14267           Road Name: Siera Hwy, Road Segment: s/o Avenue M           SITE SPECIFIC INPUT DATA         NOISE MODEL INPUTS           add Segment: s/o Avenue M           SITE SPECIFIC INPUT DATA         NOISE MODEL INPUTS           add Segment: s/o Avenue M           SITE SPECIFIC INPUT DATA         NOISE MODEL INPUTS           add Segment: s/o Avenue M           SITE SPECIFIC INPUT DATA         NOISE MODEL INPUTS           add Segment: s/o Avenue M           SITE SPECIFIC INPUT DATA         NOISE MODEL INPUTS           Autos: 15           Vericle Mix         Mode Sect 55 mph           Near/Far Lane Distance: 87 feet         Autos: 81.9% 6.8% 11.3% 1.93%           Medium Trucks: 81.9% 6.8% 11.3% 1.93%           Right / Move Pad): 5.0 feet           Refer to Distance (In feet)           Autos: 52.2505           Medium Trucks: 82.9% 6.40           Autos: 52.350           Mode Calculati											
	Road Grade.	0.0%	-		Modiu	m Truck	3. JZ	226				
	Right View:	90.0 degree	s		Heav	ry Truck	s: 52	.352				
FHWA Noise Mod	el Calculation	s										
VehicleType	Scenario: EC (2025) Road Name: Sierra Hwy.         Project Name: Antelope Valley Commerc. Job Number: 14267           Stad Segment: sio Avenue M         NOISE MODEL INPUTS           Sitte SPECIFIC INPUT DATA         NOISE MODEL INPUTS           way Data         Site Conditions (Hard = 10, Soft = 15)           Way Data         Site Conditions (Hard = 10, Soft = 15)           Way Data         Site Conditions (Hard = 10, Soft = 15)           Venice Speed:         6.63%         Medium Trucks: (2 Axles): 15           Peak Hour Volume:         2,552 vehicles         Heavy Trucks: (3 + Axles): 15           Vehicle Speed:         55 mph         Vehicle Mix         Vehicle Mix           Deart         Autos:         75.2%         10.7%         14.0%         97.3%           Barrier Height:         0.0 feet         Medium Trucks:         81.9%         6.8%         11.3%         1.93%           Centerline Dist. to Diserver:         6.0 feet         Medium Trucks:         82.97         Medium Trucks:         2.297           Pad Elevation:         0.0 feet         Medium Trucks:         52.305         Autos:         52.305           Road Elevation:         0.0 feet         Autos:         52.352         Autos:         52.352           Anose Model Calculatons         Distance         Fi											
Autos:	71.78	1.24		0.42		-1.20		-4.71	(	0.000		0.000
Medium Trucks:	82.40	-15.79		0.40		-1.20		-4.88	0	0.000		0.000
Heavy Trucks:	86.40	-20.28		0.40		-1.20		-5.29	(	).000		0.000
Unmitigated Noise	e Levels (with	out Topo and I	parrier at	ttenı	uation)							
VehicleType	Leq Peak Hou	ir Leq Day	Le	q Ev	ening	Leq	Night		Ldn		CN	VEL
Autos:	71	.4	/1.2		68.7		65.	1	72	2.9		73.4
Medium Trucks:	65	.0 6	65.1		60.3		57.	8	66	3.0		66.4
Heavy Trucks:	64	.5 6	64.8		54.4		57.	8	65	5.8		65.9
Vehicle Noise:	73	.0	2.9		69.5		66.	5	74	1.4		74.8
Centerline Distan	ce to Noise Co	ontour (in feet)		70 .			-10.4		CO -/D A			-10.4
				/Ud	BA 400	65	aBA	,	ou aba		55	DBA 4 00 1
			_an:		133		287	r •	61	19		1,334
	Scenario: EC (2025)         Project Name: Antelope Valley Commerc Job Number: 14267           Road Segment: slo Avenue M         Noise Model: INPUTS           Sitte SPECIFIC INPUT DATA         Noise Model: INPUTS           Average Daily Traffic (Adt):         38,490 vehicles         Autos:         15           Average Daily Traffic (Adt):         38,490 vehicles         Autos:         15           Peak Hour Percentage:         6.63%         Medium Trucks (2 Axles):         15           Vehicle Speed:         55 mph         Vehicle Type         Day         Evening         Night         Daily           Near/Far Lane Distance:         87 feet         Vehicle Type         Day         Evening         Night         Daily           Barrier Height:         0.0 feet         Moise Source Elevations (in feet)         Autos:         75.2%         10.7%         0.68%         11.3%         193%           Barrier Height:         0.0 feet         Autos:         75.2%         0.07%         4.07%         9.06%         11.3%         1.93%           Centerline Dist to Barrier:         68.0 feet         Autos:         75.2%         0.07%         4.07%         0.09%           Road Elevation:         0.0 feet         Autos:         0.000         Medium Trucks:         8.304											

	FHWA-RI	0-77-108 HIGHW	AY NOIS	E PREDIC	CTION MO	DEL (9/12	/2021)		
Scenai Road Nan Road Segme	rio: ECP (2025 ne: Sierra Hwy ent: s/o Avenue	) М			Project N Job Nur	ame: Ante nber: 1426	lope Valley (	Commerc	;
SITE	SPECIFIC IN	IPUT DATA			NO	ISE MOD	DEL INPUT	S	
Highway Data				Site Con	ditions (H	lard = 10,	Soft = 15)		
Average Daily	Traffic (Adt):	40,048 vehicles				Auto	s: 15		
Peak Hour	Percentage:	6.63%		Me	dium Truc	ks (2 Axle:	s): 15		
Peak I	lour Volume:	2,655 vehicles		He	avy Truck	s (3+ Axle:	s): 15		
Ve	ehicle Speed:	55 mph		Vehicle	Mix				
Near/Far La	ane Distance:	87 feet		Veh	icleType	Dav	Evenina	Night	Daily
Site Data					Au	tos: 75.2	2% 10.7%	14.0%	97.16%
Ba	rrier Height	0.0 feet		м	edium Tru	cks: 81.9	9% 6.8%	11.3%	1.91%
Ba Parrier Type (0 V	Vall 1 Perm):	0.0 Teet			Heavy Tru	cks: 85.3	3% 2.0%	12.7%	0.93%
Centerline D	ist to Barrier	68.0 feet							
Centerline Dist	to Observer:	68.0 feet		Noise Se	ource Elev	ations (in	feet)		
Barrier Distance	to Observer:	0.0 feet			Autos:	0.000			
Observer Height	(Above Pad):	5.0 feet		Mediu	m Trucks:	2.297			
P	ad Elevation:	0.0 feet		Heav	/y Trucks:	8.004	Grade Ad	ijustment	: 0.0
Ro	ad Elevation:	0.0 feet		Lane Eq	uivalent D	istance (i	n feet)		
	Road Grade:	0.0%			Autos:	52.505			
	Left View:	-90.0 degrees		Mediu	m Trucks:	52.336			
	Right View:	90.0 degrees		Hear	/y Trucks:	52.352			
FHWA Noise Mod	el Calculation	s		1					
VehicleType	REMEL	Traffic Flow	Distance	Finite	Road	Fresnel	Barrier At	ten Ber	m Atten
Autos:	71.78	1.41	-0	.42	-1.20	-4.7	1 0.	000	0.000
Medium Trucks:	82.40	-15.67	-0	.40	-1.20	-4.8	8 0.	000	0.000
Heavy Trucks:	86.40	-18.77	-0	.40	-1.20	-5.2	9 0.	000	0.000
Unmitigated Nois	e Levels (with	out Topo and ba	arrier atte	enuation)				_	
VehicleType	Leq Peak Hou	ir Leq Day	Leq	Evening	Leq Ni	ght	Ldn	C	NEL
Autos:	71	.6 71	.3	68.9		65.3	73.	1	73.5
Medium Trucks:	65	.1 65	5.3	60.5		57.9	66.	2	66.5
Heavy Trucks:	66	.0 66	6.3	56.0		59.3	67.	3	67.4
Vehicle Noise:	73	.3 73	3.3	69.7		66.9	74.	8	75.1
Centerline Distan	ce to Noise Co	ontour (in feet)	7/		05 -15		60 - ID A		-10.4
			/(	Jaba	65 dE	204	ou aBA	55	1 410
			in: 	141		304	655	2	1,412
		CNE	L.	149		321	692	<u> </u>	1,490

	FHWA-R	D-77-108 HIGH	WAY NO	DISE P	REDIC		ODEL (	9/12/2	021)		
Scena Road Nan Road Segme	rio: EC (2032) ne: Sierra Hwy ent: s/o Avenue	M				Project Job Ni	Name: / umber: `	Antelo 14267	pe Valley C	Commerc	3
SITE	SPECIFIC IN	IPUT DATA				N	OISE N	IODE	L INPUT	S	
Highway Data				Si	te Con	ditions (	'Hard =	10, Sc	oft = 15)		
Average Daily	Traffic (Adt):	43,297 vehicl	es					Autos:	15		
Peak Hou	Percentage:	6.63%			Me	dium Tru	icks (2 A	Axles):	15		
Peak I	lour Volume:	2,871 vehicle	s		He	avy Truc	ks (3+ A	Axles):	15		
Ve	ehicle Speed:	55 mph		Ve	hicle	Mix					
Near/Far La	ane Distance:	87 feet			Veh	icleType		Day	Evening	Night	Daily
Site Data						A	utos:	75.2%	10.7%	14.0%	97.39%
Ba	rrier Heiaht:	0.0 feet			М	edium Tr	ucks:	81.9%	6.8%	11.3%	1.93%
Barrier Type (0-V	Vall, 1-Berm):	0.0			1	Heavy Tr	ucks:	85.3%	2.0%	12.7%	0.69%
Centerline D	ist. to Barrier:	68.0 feet		N	oise So	ource Ele	evation	s (in fe	eet)		
Centerline Dist.	to Observer:	68.0 feet				Autos	: 0.0	000	,		
Barrier Distance	to Observer:	0.0 feet			Mediu	m Trucks	: 2.1	297			
Observer Height	(Above Pad):	5.0 feet			Heav	/y Trucks	: 8.0	004	Grade Ad	iustment	t: 0.0
F	ad Elevation:	0.0 feet		-							
Ro	ad Elevation:	0.0 feet		La	ne Eq	uivalent	Distanc	ce (In i	teet)		
	Road Grade:	0.0%				Autos	52.	505			
	Left View:	-90.0 degre	es		Meaiu	m Trucks	52.	336			
	Right View:	90.0 degre	es		Heav	/y Trucks	52.	352			
FHWA Noise Mod	lel Calculation	s									
VehicleType	REMEL	Traffic Flow	Distan	се	Finite	Road	Fresn	el	Barrier Att	en Ber	rm Atten
Autos:	71.78	1.76		-0.42		-1.20		-4.71	0.0	000	0.000
Medium Trucks:	82.40	-15.28		-0.40		-1.20		-4.88	0.0	000	0.000
Heavy Trucks:	86.40	-19.77		-0.40		-1.20		-5.29	0.0	000	0.000
Unmitigated Nois	e Levels (with	out Topo and	barrier a	ttenu	ation)						
VehicleType	Leq Peak Ho	ur Leq Day	/ Le	eq Eve	ening	Leq I	Vight		Ldn	C	NEL
Autos:	71	1.9	71.7		69.2		65.6	6	73.4	1	73.9
Medium Trucks:	65	5.5	65.6		60.9		58.3	3	66.6	3	66.9
Heavy Trucks:	65	5.0	65.3		55.0		58.3	3	66.3	3	66.4
venicle Noise:		3.5	73.4		70.0		67.0	)	74.9	9	75.3
Centerline Distan	ce to Noise C	ontour (in feet	)								
			ட	70 dE	SA	65 0	IBA	6	ou dBA	55	аВА
		-	Lan:		144		311		670		1,443
		C	VEL:		153		329		708		1,525

	FHWA-RL	-77-108 HIGH	IVVAT	NUISE	PREDIC		ODEL (	9/12/2	021)		
Scenario	: ECP (2032)					Project	Name:	Antelo	pe Valley (	Commerc	;
Road Name	: Sierra Hwy.					Job N	umber:	14267			
Road Segmen	s/o Avenue	M									
SITE S	PECIFIC IN	PUT DATA				N	OISE	NODE	L INPUT	S	
Highway Data				;	Site Con	ditions	(Hard =	10, So	oft = 15)		
Average Daily T	raffic (Adt):	48,138 vehicle	es					Autos:	15		
Peak Hour F	Percentage:	6.63%			Me	dium Tru	ıcks (2 )	Axles):	15		
Peak Ho	ur Volume:	3,192 vehicle	s		He	avy Truc	:ks (3+ )	Axles):	15		
Veh	icle Speed:	55 mph		1	Vehicle I	Mix					
Near/Far Lan	e Distance:	87 feet		F	Veh	icleType		Day	Evening	Night	Daily
Site Data						F	utos:	75.2%	5 10.7%	14.0%	96.57
Barr	ier Height:	0.0 feet			M	edium Tr	ucks:	81.9%	6.8%	11.3%	1.919
Barrier Type (0-Wa	II, 1-Berm):	0.0			I	Heavy Tr	ucks:	85.3%	2.0%	12.7%	1.529
Centerline Dist	to Barrier:	68.0 feet		5	Noise So	ource El	evation	s (in f	eet)		
Centerline Dist. to	Observer:	68.0 feet		-		Autos	s: 0.	000			
Barrier Distance to	Observer:	0.0 feet			Mediu	m Trucks	5: 2.	297			
Observer Height (A	bove Pad):	5.0 feet			Heav	y Trucks	s: 8.	004	Grade Ad	justment	: 0.0
Pa	d Elevation:	0.0 feet		H	-						
Road	d Elevation:	0.0 feet		-	Lane Eq	uivalent	Distan	ce (In	reet)		
R	oad Grade:	0.0%				Autos	52.	505			
	Left View:	-90.0 degree	es		Mediu	m Trucks	5: 52.	330			
	Right view:	90.0 degre	es		nea	y mucks	s. 52.	302			
FHWA Noise Model	Calculations	5									
VehicleType	REMEL	Traffic Flow	Di	stance	Finite	Road	Fresr	nel	Barrier Att	en Ber	m Atten
Autos:	71.78	2.18		-0.4	2	-1.20		-4.71	0.0	000	0.00
Medium Trucks:	82.40	-14.86		-0.4	0	-1.20		-4.88	0.0	000	0.00
Heavy Trucks:	86.40	-15.84		-0.4	0	-1.20		-5.29	0.0	000	0.00
Unmitigated Noise	Levels (with	out Topo and	barri	er atten	uation)						
VehicleType I	.eq Peak Hou	r Leq Day	/	Leg E	vening	Leq	Night		Ldn	C	NEL
Autos:	72	.3	72.1		69.7		66.	1	73.9	9	74.
Medium Trucks:	65	.9	66.1		61.3		58.	7	67.	D	67.
Heavy Trucks:	69	.0	69.3		58.9		62.3	3	70.3	3	70.
Vehicle Noise:	74	.6	74.6		70.6		68.	1	76.	0	76.
Centerline Distance	to Noise Co	ntour (in feet	)								
				70 0	'BA	65 (	dBA	1	50 dBA	55	dBA
			Ldn:		171		369		795		1,712
		C	NEL:		180		388		835		1,799

Saturday, October 14, 2023

Scenario: E				Project N	lame:	Antelo	pe Valley	Comm	erc
Road Name: Sierra Hwy.				Job Nu	mber:	14267			
Road Segment: s/o Avenue N	1								
SITE SPECIFIC INF	UT DATA			N	DISE	MODE	L INPUT	s	
Highway Data		4	Site Con	ditions (l	lard =	10, Sc	oft = 15)		
Average Daily Traffic (Adt): 3	9,732 vehicles					Autos:	15		
Peak Hour Percentage:	6.63%		Me	dium True	cks (2	Axles):	15		
Peak Hour Volume: 2	634 vehicles		He	avy Truck	(3+ .	Axles):	15		
Vehicle Speed:	55 mph	5	Vehicle I	Aix					
Near/Far Lane Distance:	87 feet	F	Vehi	cleTvpe		Dav	Evenina	Niah	t Dailv
Site Data				A	itos:	75.2%	10.7%	14.0	0% 97.39%
Barrier Height:	0.0 feet		Me	edium Tru	cks:	81.9%	6.8%	11.3	3% 1.93%
Barrier Type (0-Wall, 1-Berm):	0.0		F	leavy Tru	icks:	85.3%	2.0%	12.7	7% 0.69%
Centerline Dist. to Barrier:	68.0 feet	-	Noise So	urco Elo	vation	e (in fa	oof)		
Centerline Dist. to Observer:	68.0 feet	Ľ.	10/30 00	Autos	0	000			
Barrier Distance to Observer:	0.0 feet		Modiu	n Trucke	2	207			
Observer Height (Above Pad):	5.0 feet		Heav	n Trucks.	2	004	Grade Ad	liustm	nt <sup>.</sup> 0 0
Pad Elevation:	0.0 feet	L	Tieav	y mucks.	0.	004	0/000/10	, ao an	. 0.0
Road Elevation:	0.0 feet	1	Lane Equ	ivalent l	Distan	ce (in i	feet)		
Road Grade:	0.0%			Autos:	52	505			
Left View:	-90.0 degrees		Mediur	n Trucks:	52	.336			
Right View:	90.0 degrees		Heav	y Trucks:	52	352			
FHWA Noise Model Calculations									
VehicleType REMEL	Traffic Flow Dis	stance	Finite	Road	Fres	nel	Barrier At	ten E	Berm Atten
Autos: 71.78	1.38	-0.4	2	-1.20		-4.71	0.	000	0.000
Medium Trucks: 82.40	-15.65	-0.4	0	-1.20		-4.88	0.	000	0.000
Heavy Trucks: 86.40	-20.15	-0.4	0	-1.20		-5.29	0.	000	0.000
Unmitigated Noise Levels (withou	ut Topo and barri	er atten	uation)						
VehicleType Leq Peak Hour	Leq Day	Leg E	vening	Leq N	light		Ldn		CNEL
Autos: 71.5	5 71.3		68.9		65.	3	73.	1	73.5
Medium Trucks: 65.2	65.3		60.5		57.	9	66.	2	66.5
Heavy Trucks: 64.6	65.0		54.6		57.	9	65.	9	66.0
Vehicle Noise: 73.1	73.0		69.6		66.	6	74.	5	74.9
Centerline Distance to Noise Con	tour (in feet)								
		70 0	dBA	65 d	BA	6	60 dBA		55 dBA
	1 dn:		126		20/		633	3	1.363
	Lun.		130		234		000		1

	FHWA-R	D-77-108 HIGH	WAY NO	DISE	PREDIC		ODEL (	9/12/2	021)		
Scenai Road Nan Road Segme	rio: EP ne: Sierra Hwy ent: s/o Avenue	N				Project Job Ni	Name: I Imber:	Antelo 14267	pe Valley (	Comm	erc
SITE	SPECIFIC II	NPUT DATA				N	OISE N	IODE	L INPUT	s	
Highway Data				s	Site Con	ditions (	'Hard =	10, S	oft = 15)		
Average Daily Peak Hour Peak F	Traffic (Adt): Percentage: Hour Volume:	41,390 vehicle 6.63% 2,744 vehicle	es 5		Me He	dium Tru avy Truc	, icks (2 Å ks (3+ Å	Autos: Axles). Axles).	15 15 15		
Ve	ehicle Speed:	55 mph		ν	/ehicle l	Mix					
Near/Far La	ane Distance:	87 feet			Veh	icleType		Day	Evening	Nigh	t Daily
Site Data						A	utos:	75.2%	6 10.7%	14.0	96.23%
Ba	rrier Height	0.0 feet			M	edium Tr	ucks:	81.9%	6.8%	11.3	3% 2.05%
Barrier Type (0-V	Vall, 1-Berm):	0.0			ŀ	Heavy Tr	ucks:	85.3%	6 2.0%	12.7	'% 1.71%
Centerline D	ist. to Barrier:	68.0 feet		٨	loise Sc	ource Ele	vation	s (in f	eet)		
Centerline Dist.	to Observer:	68.0 feet				Autos	: 0.0	000	1		
Barrier Distance	to Observer:	0.0 feet			Mediui	m Trucks	2.	297			
Observer Height	(Above Pad):	5.0 feet			Heav	v Trucks	: 8.0	004	Grade Ad	justme	ent: 0.0
P	ad Elevation:	0.0 feet		L							
Ro	ad Elevation:	0.0 feet		L	ane Eq	uivalent	Distanc	ce (in	feet)		
	Road Grade:	0.0%				Autos	: 52.	505			
	Left View: Right View:	-90.0 degree 90.0 degree	es es		Mediui Heav	m Trucks /y Trucks	52. 52.	336 352			
FHWA Noise Mod	el Calculation	5									
VehicleType	REMEL	Traffic Flow	Distar	псе	Finite	Road	Fresn	e/	Barrier Att	en E	Berm Atten
Autos:	71.78	1.51		-0.42	2	-1.20		-4.71	0.0	000	0.000
Medium Trucks:	82.40	-15.20		-0.40	)	-1.20		-4.88	0.0	000	0.000
Heavy Trucks:	86.40	-15.98		-0.40	)	-1.20		-5.29	0.0	000	0.000
Unmitigated Nois	e Levels (with	out Topo and	barrier a	attenu	uation)						
VehicleType	Leq Peak Ho	ur Leq Day	' L	eq Ev	rening	Leq I	Vight		Ldn		CNEL
Autos:	7.	1.7	71.4		69.0		65.4	ŀ	73.	2	73.6
Medium Trucks:	65	5.6	65.7		60.9		58.4	ŀ	66.	6	66.9
Heavy Trucks:	68	3.8	69.1		58.7		62.1	1	70.	1	70.2
Vehicle Noise:	74	4.1	74.1		70.0		67.6	6	75.	5	75.8
Centerline Distan	ce to Noise C	ontour (in feet	)			-					
				70 d	BA	65 0	íВА		60 dBA		55 dBA
			Ldn:		159		342		738	5	1,590
		C	NEL:		167		359		774	-	1,668

	FHWA-R	D-77-108 HIGH	WAY NO		PREDIC		ODEL (	9/12/2	021)		
Scena Road Nan Road Segme	rio: EC (2025) ne: Sierra Hwy ent: s/o Avenue	/. ≥ N				Project Job Ni	Name: / umber: `	Antelo 14267	pe Valley C	Commerc	
SITE	SPECIFIC IN	NPUT DATA				N	OISE N	IODE	L INPUT	s	
Highway Data				S	ite Con	ditions (	'Hard =	10, Sc	oft = 15)		
Average Daily	Traffic (Adt):	47,046 vehicl	es				,	Autos:	15		
Peak Hou	Percentage:	6.63%			Me	edium Tru	icks (2 A	(xles)	15		
Peak I	Hour Volume:	3,119 vehicle	s		He	avy Truc	ks (3+ A	(xles)	15		
Ve	ehicle Speed:	55 mph		V	ohiclo	Mix					
Near/Far La	ane Distance:	87 feet		-	Veh	icleType		Dav	Evenina	Niaht	Dailv
Site Data						A	utos:	75.2%	10.7%	14.0%	97.39%
Ba	rrier Height:	0.0 feet			М	edium Tr	ucks:	81.9%	6.8%	11.3%	1.93%
Barrier Type (0-V	Vall, 1-Berm):	0.0			1	Heavy Tr	ucks:	85.3%	2.0%	12.7%	0.69%
Centerline D	ist. to Barrier:	68.0 feet		N	oise So	ource Ele	vation	s (in fe	et)		
Centerline Dist.	to Observer:	68.0 feet				Autos	: 0.0	000			
Barrier Distance	to Observer:	0.0 feet			Mediu	m Trucks	2.1	297			
Observer Height	(Above Pad):	5.0 feet			Heav	vv Trucks	: 8.0	004	Grade Ad	justment	: 0.0
P	ad Elevation:	0.0 feet		_							
Ro	ad Elevation:	0.0 feet		La	ane Eq	uivalent	Distanc	e (in i	teet)		
	Road Grade:	0.0%				Autos	: 52.	505			
	Left View:	-90.0 degre	es		Mediu	m Trucks	: 52.	336			
	Right View:	90.0 degre	es		Heav	vy Trucks	: 52.	352			
FHWA Noise Mod	lel Calculation	IS									
VehicleType	REMEL	Traffic Flow	Distar	nce	Finite	Road	Fresn	el	Barrier Att	en Bei	rm Atten
Autos:	71.78	2.12		-0.42		-1.20		-4.71	0.0	000	0.000
Medium Trucks:	82.40	-14.92		-0.40		-1.20		-4.88	0.0	000	0.000
Heavy Trucks:	86.40	-19.41		-0.40		-1.20		-5.29	0.0	000	0.000
Unmitigated Nois	e Levels (with	out Topo and	barrier a	ttenu	ation)						
VehicleType	Leq Peak Ho	ur Leq Da	/ L(	eq Eve	ening	Leq I	Vight		Ldn	C	NEL
Autos:	72	2.3	72.0		69.6		66.0	)	73.8	3	74.2
Medium Trucks:	65	5.9	66.0		61.2		58.7	,	66.9	9	67.2
Heavy Trucks:	65	5.4	65.7		55.3		58.7	<u> </u>	66.7	7	66.8
Vehicle Noise:	73	3.8	73.7		70.3		67.4	ŀ	75.3	3	75.6
Centerline Distan	ce to Noise C	ontour (in feet	)		_				-		
				70 dE	BA	65 0	1BA	6	60 dBA	55	dBA
		-	Ldn:		153		329		708		1,525
		С	NEL:		161		347		748		1,612

	THUANE		WAI	NOISE	FREDIC		IUDEE	(9/12/2	021)		
Scenario	: ECP (2025)	)				Project	Name:	Antelo	pe Valley (	Commerc	
Road Name	e: Sierra Hwy.					Job N	lumber:	14267			
Road Segmen	t: s/o Avenue	N									
SITE S	PECIFIC IN	PUT DATA					OISE	MODE	L INPUT	S	
Highway Data					Site Con	ditions	(Hard :	= 10, S	oft = 15)		
Average Daily 1	raffic (Adt):	47,533 vehicle	es					Autos.	15		
Peak Hour I	Percentage:	6.63%			Me	dium Tr	ucks (2	Axles).	15		
Peak Ho	our Volume:	3,151 vehicle	5		He	avy Tru	cks (3+	Axles).	15		
Veh	icle Speed:	55 mph			Vehicle I	Nix					
Near/Far Lan	e Distance:	87 feet			Veh	icleType	9	Day	Evening	Night	Daily
Site Data							Autos:	75.2%	5 10.7%	14.0%	97.14%
Ban	rier Height:	0.0 feet			Me	edium T	rucks:	81.9%	6.8%	11.3%	1.95%
Barrier Type (0-Wa	all, 1-Berm):	0.0			ŀ	leavy T	rucks:	85.3%	2.0%	12.7%	0.91%
Centerline Dis	t. to Barrier:	68.0 feet			Noise Sr	urce F	levatio	ns (in f	eef)		
Centerline Dist. t	o Observer:	68.0 feet		F	10.00 00	Auto	s' (	000			
Barrier Distance t	o Observer:	0.0 feet			Mediu	n Truck	s: 2	297			
Observer Height (/	Above Pad):	5.0 feet			Heav	v Truck	s: 8	.004	Grade Ad	justment	: 0.0
Pa	d Elevation:	0.0 feet		F							
Roa	d Elevation:	0.0 feet		4	Lane Eq	livalen	t Distar	ice (in	feet)		
F	oad Grade:	0.0%				Auto	s: 52	.505			
	Left View:	-90.0 degree	es		Meaiui	n Truck	S. 52	.336			
	Right View:	90.0 degre	es		Heav	у ттиск	S: 52	.352			
FHWA Noise Mode	Calculations	s									
VehicleType	REMEL	Traffic Flow	Dis	stance	Finite	Road	Fres	nel	Barrier Att	ten Ber	m Atten
Autos:	71.78	2.15		-0.4	2	-1.20		-4.71	0.	000	0.000
Medium Trucks:	82.40	-14.82		-0.4	0	-1.20		-4.88	0.	000	0.00
Heavy Trucks:	86.40	-18.14		-0.4	0	-1.20		-5.29	0.	000	0.00
Unmitigated Noise	Levels (with	out Topo and	barri	er atten	uation)						
VehicleType	Leq Peak Hou	r Leq Day	'	Leq E	vening	Leq	Night		Ldn	C	NEL
Autos:	72	.3	72.1		69.6		66	.0	73.	8	74.3
Medium Trucks:	66	.0	66.1		61.3		58	.8	67.	0	67.
Heavy Trucks:	66	.7	67.0		56.6		59	.9	68.	0	68.
Vehicle Noise:	74	.1	74.0		70.4		67	.6	75.	5	75.
Centerline Distance	e to Noise Co	ontour (in feet	)								
			Ι	70 0	dBA	65	dBA		60 dBA	55	dBA
			Ldn:		158		34	1	734	Ļ	1,582
		0	VEL:		167		36	n	775		1 669

Saturday, October 14, 2023

Scenario: EC (2032)     Project Name: Antelope Valley Commerc Job Number: 14/267       Road Segment: slo Avenue N     Noise MODEL INPUT S       Sitte SPECIFIC INPUT DATA     Noise MODEL INPUTS       Highway Data     Site Conditions (Hard = 10, Soft = 15)       Average Daily Traffic (Adt): 51,922 vehicles Peak Hour Porentage: 6.63%     Autos: 15       Vehicle Speed: 55 mph Near/Far Lane Distance: 87 feet     Medium Trucks (2 Axles): 15       Vehicle Type     Day       Earrier Height:     0.0 feet       Barrier Type (Q-Wall, 1-Berm):     0.0 feet	Daily 37.39%
Note in term         Step Segment: so low nouse N           Site Specific INPUT DATA         Noise MODEL INPUTS           Highway Data         Site Conditions (Hard = 10, Soft = 15)           Average Daily Traffic (Adt):         51,922 vehicles           Peak Hour Percentage:         6.63%           Vehicle Speed:         55 mph           Near/Far Lane Distance:         87 feet           Site Data         Autos:           Barrier Height:         0.0 feet           Barrier Type (Q-Wall, 1-Berm):         0.0           Barrier Old:         0.0 feet	Daily 7.39%
SITE SPECIFIC INPUT DATA         NOISE MODEL INPUTS           Highway Data         Site Conditions (Hard = 10, Soft = 15)           Average Daily Traffic (Adt): 51,922 vehicles         Autos: 15           Peak Hour Percentage: 6.63%         Medium Trucks (2 Aktes): 15           Peak Hour Volume: 3,442 vehicles         Heavy Trucks (3 + Aktes): 15           Vehicle Speed: 55 mph         Vehicle Mix           Near/Far Lane Distance: 87 feet         Vehicle Mix           Site Data         Autos: 75.2% 10.7% 14.0%           Barrier Height: 0.0 feet         Medium Trucks: 81.9% 6.8% 11.3%           Barrier Ol-Wall, 1-Berm): 0.0         Heavy Trucks: 85.3% 2.0% 12.7%	Daily )7.39%
Highway Data         Site Conditions (Hard = 10, Soft = 15)           Average Daily Traffic (Adt):         51,922 vehicles         Autos:         15           Peak Hour Percentage:         6.63%         Medium Trucks (2 Avles):         15           Peak Hour Volume:         3,442 vehicles         Heavy Trucks (3 + Axles):         15           Vehicle Speed:         55 mph         Heavy Trucks (3 + Axles):         15           Site Data         Vehicle Type         Day         Evening         Night           Site Data         Autos:         75.2%         10.7%         14.0%           Barrier Height:         0.0         Medium Trucks:         81.9%         6.8%         11.3%           Barrier Type (Q-Wail, 1-Berm):         0.0         Heavy Trucks:         85.3%         2.0%         12.7%	Daily
Average Daily Traffic (Adt):         51,922 vehicles         Autos:         15           Peak Hour Percentage:         6.63%         Medium Trucks (2 Axles):         15           Peak Hour Volume:         3.442 vehicles         Heavy Trucks (2 Axles):         15           Vehicle Speed:         55 mph         Heavy Trucks (3 4 Axles):         15           Vehicle Speed:         55 mph         Vehicle Mix         Vehicle Mix           Site Data         Autos:         75.2% 10.7% 14.0%           Barrier Height:         0.0         Medium Trucks:         81.9% 6.8% 11.3%           Barrier Type (0-Wall, 1-Berm):         0.0         Heavy Trucks:         85.3% 2.0% 12.7%	Daily 7.39%
Peak Hour Percentage:         6.63%         Medium Trucks (2 Axles):         15           Peak Hour Volume:         3.442 vehicles         Heavy Trucks (3 + Axles):         15           Vehicle Speed:         55 mph         Vehicle Mix         Vehicle Mix           Near/Far Lane Distance:         87 feet         Vehicle Type         Day         Evening         Night           Site Data         Autos:         75.2%         10.7%         14.0%           Barrier Height:         0.0         Heavy Trucks:         81.9%         6.8%         11.3%           Barrier Type (0-Wail, 1-Berm):         0.0         Heavy Trucks:         85.3%         2.0%         12.7%	Daily )7.39%
Peak Hour Volume:         3,442 vehicles         Heavy Trucks (3+ Axles):         15           Vehicle Speed:         55 mph         Vehicle Mix         Vehicle Mix         Vehicle Mix           Site Data         Vehicle Mix         Vehicle Mix         Vehicle Mix         Vehicle Mix           Site Data         Vehicle Mix         Vehicle Mix         Vehicle Mix         Vehicle Mix           Barrier Height:         0.0 feet         Medium Trucks:         81.9%         6.8%         11.3%           Barrier Type (Q-Wail, 1-Berm):         0.0         Heavy Trucks:         85.3%         2.0%         12.7%	Daily 7.39%
Vehicle Speed:         55 mph           Near/Far Lane Distance:         87 feet           Vehicle Type         Day           Evening         Night           Site Data         Autos:           Barrier Height:         0.0 feet           Barrier Type (0-Wall, 1-Berm):         0.0           Heavy Trucks:         85.3%           2.0%         12.7%	Daily 7.39%
Barrier Height:         0.0         feet         Vehicle Type         Day         Evening         Night           Site Data         Autos:         75.2%         10.7%         14.0%           Barrier Height:         0.0 feet         Medium Trucks:         81.9%         6.8%         11.3%           Barrier Uppe         Dit /r D. Province         0.0         Heavy Trucks:         85.3%         2.0%         12.7%	Daily 37.39%
Barrier Height:         0.0         feet         Medium Trucks:         81.9%         6.8%         11.3%           Barrier Type (0-Wall, 1-Berm):         0.0         Leave Trucks:         85.3%         2.0%         12.7%	)7.39%
Barrier Height:         0.0 feet         Medium Trucks:         81.9%         6.8%         11.3%           Barrier Type (0-Wail, 1-Berm):         0.0         Heavy Trucks:         85.3%         2.0%         12.7%	
Barrier Type (0-Wall, 1-Berrin: 0.0 for the Unit of th	1.93%
Contration Dict to Device and Chart	0.69%
Centerline Dist. to Barrier: 08.0 feet Noise Source Elevations (in feet)	
Centerline Dist. to Observer: 68.0 feet	
Barrier Distance to Observer: 0.0 feet	
Observer Height (Above Pad): 5.0 feet	0
Pad Elevation: 0.0 feet	/.0
Road Elevation: 0.0 feet Lane Equivalent Distance (in feet)	
Road Grade: 0.0% Autos: 52.505	
Left View: -90.0 degrees Medium Trucks: 52.336	
Right View: 90.0 degrees Heavy Trucks: 52.352	
FHWA Noise Model Calculations	
VehicleType REMEL Traffic Flow Distance Finite Road Fresnel Barrier Atten Berrier	Atten
Autos: 71.78 2.54 -0.42 -1.20 -4.71 0.000	0.000
Medium Trucks: 82.40 -14.49 -0.40 -1.20 -4.88 0.000	0.000
Heavy Trucks: 86.40 -18.98 -0.40 -1.20 -5.29 0.000	0.000
Unmitigated Noise Levels (without Topo and barrier attenuation)	
VehicleType Leq Peak Hour Leq Day Leq Evening Leq Night Ldn CN	L
Autos: 72.7 72.5 70.0 66.4 74.2	74.7
Medium Trucks: 66.3 66.4 61.6 59.1 67.3	67.3
Heavy Trucks: 65.8 66.1 55.7 59.1 67.1	67.2
Vehicle Noise: 74.3 74.2 70.8 67.8 75.7	76.1
Centerline Distance to Noise Contour (in feet)	
70 dPA 65 dPA 60 dPA 55 d	
70 dBA 00 dBA 00 dBA 00 dBA	BA
Ldn: 163 351 756	БА 1,629

Scenario: ECP (2032) Road Name: Sierra Hwy. Road Segment: slo Avenue N       Project Name: Antelope Valley Commen- Job Number: 14267         Stree Segment: slo Avenue N       Noise Model LinPuts         Highway Data       Site Conditions (Hard = 10, Soft = 15)         Average Daily Traffic (Adt): 53,580 vehicles Peak Hour Volume: 3,552 vehicles Vehicle Speed: 55 mph       Autos: 15         Near/Far Lane Distance: 87 feet       Medium Trucks (2 Axles): 15         Vehicle Speed: 55 mph       Vehicle Mix         Barrier Height:       0.0 feet         Barrier Height:       0.0 feet         Barrier Dist. to Diserver:       68.0 feet         Road Elevation:       0.0 feet         Road Elevation:       0.0 feet         Road Elevation:       0.0 feet         Road Crade:       0.0%         Laft View: -90.0 degrees       Medium Trucks: 2.237         Medium Trucks:       5.2.355         Laft View: -90.0 degrees       Medium Trucks: 52.336         FHWA Noise Model Calculations       Vehicle Finite Road Fresnel       Barrier Atten         VehiceType       ReMEL       Traffic Fiow       Distance         Medium Trucks:       82.30       -4.71       0.000         Medium Trucks:       52.355       Medium Trucks: 52.352         FHWA Noise Model Calculations </th <th>Daily 96.50% 2.02% 1.48%</th>	Daily 96.50% 2.02% 1.48%
SITE SPECIFIC INPUT DATA         NOISE MODEL INPUTS           Highway Data         Site Conditions (Hard = 10, Soft = 15)           Average Daily Traffic (Adt):         53,580 vehicles         Autos:         15           Peak Hour Percentage:         6,63%         Medium Trucks (2 Axles):         15           Peak Hour Volume:         3,552 vehicles         Medium Trucks (2 Axles):         15           Vehicel Speed:         55 mph         Heavy Trucks (3 + Axles):         15           Vehicel Speed:         55 mph         Vehicle Type         Day         Evening         Night           Barrier Height:         0.0 feet         Autos:         75.2%         10.7%         14.0%           Barrier Height:         0.0 feet         Medium Trucks:         85.3%         2.0%         1.2%           Centerline Dist. to Barrier:         68.0 feet         Moles Source Elevations (in feet)         Moledium Trucks:         2.297           Observer Height (Above Pad):         5.0 feet         Autos:         9.00 degrees         Medium Trucks:         8.04         Grade Adjustment           Road Grade:         0.0%         Laft View:         90.0 degrees         Medium Trucks:         52.350           FHWA Noise Model Calculations         VehicleType         Traffic Flow         Dista	Daily 96.50% 2.02% 1.48%
Site Conditions (Hard = 10, Soft = 15)           Average Daily Traffic (Adt):         53,560 vehicles         Autos:         15           Peak Hour Percentage:         6.83%         Medium Trucks (2 Axles):         15           Peak Hour Volume:         3,552 vehicles         Medium Trucks (2 Axles):         15           Vehicle Speed:         55 mph         Vehicle Mix         Vehicle Mix           Site Data         Autos:         75.2%         10.7%         14.0%           Barrier Height:         0.0 feet         Autos:         75.2%         12.7%           Barrier Height:         0.0 feet         Medium Trucks:         81.9%         6.8%         11.3%           Barrier Distance to Observer:         68.0 feet         Noise Source Elevations:         0.000         Medium Trucks:         2.297           Observer Height (Above Pad):         5.0 feet         Autos:         2.505         4utos:         2.505           Laft View:         90.0 degrees         Medium Trucks:         52.305         Earrier Atten         Earrier Atten           VehicleType         ReMEL         Traffic Flow         Distance         Finite Road         Fresnel         Barrier Atten         Earrier Atten         Earrier Atten         Earrier Atten         Earrier Atten	Daily 96.50% 2.02% 1.48%
Average Daily Traffic (Ad):         53,580 vehicles         Autos:         15           Peak Hour Percentage:         6,63%         Medium Trucks (2 Axles):         15           Peak Hour Volume:         3,552 vehicles         Heavy Trucks (2 Axles):         15           Vehicle Speed:         55 mph         Heavy Trucks (3 Axles):         15           Vehicle Speed:         55 mph         Vehicle Mix         Vehicle Mix           Site Data         Autos:         75.2%         10.7%         14.0%           Barrier Height:         0.0 feet         Medium Trucks:         81.9%         6.8%         11.3%           Barrier Type (0-Wall, 1-Berm):         0.0         Centerline Dist to Deserver:         0.0 feet         Moise Source Elevations (in feet)           Centerline Dist to Observer:         0.0 feet         Mutos:         0.00         Medium Trucks:         8.004           Barrier Height (Above Pag):         5.0 feet         Autos:         0.00         Medium Trucks:         2.0%         12.7%           Observer:         0.0 feet         Mutos:         0.00         Medium Trucks:         8.004         12.7%           Road Elevation:         0.0 feet         Mutos:         5.0505         Heavy Trucks:         5.2.3505           Medium Truc	Daily 96.50% 2.02% 1.48%
Peak Hour Volume:         3,552 vehicles         Medium Trucks (2 Axles):         15           Vehicle Speed:         55 mph         Heavy Trucks (3 Axles):         15           Near/Far Lane Distance:         87 feet         Vehicle Type         Day         Evening         Night           Stet Data         Autos:         75.2%         10.7%         14.0%           Barrier Height:         0.0 feet         Autos:         75.2%         10.7%         14.0%           Barrier Type (0-Wall, 1-Berm):         0.0         Medium Trucks:         81.9%         6.8%         11.3%           Centerline Dist. to Barrier:         68.0 feet         Autos:         0.000         Medium Trucks:         8.004         Grade Adjustmen           Pad Elevation:         0.0 feet         Autos:         0.000         Medium Trucks:         8.004         Grade Adjustmen           Road Grade:         0.0%         Laft View::         90.0 degrees         Medium Trucks:         52.505         Medium Trucks:         52.36           FHWA Noise Model Calculations         VehicleType         REMEL         Traffic Flow         Distance         Finite Road         Fresnel         Barrier Atten         Be           Autos:         71.78         2.64         -0.42         -1.20 </th <th>Daily 96.50% 2.02% 1.48%</th>	Daily 96.50% 2.02% 1.48%
Peak Hour Volume:         3,552         Vehicles         Heavy Trucks (3+ Axles):         15           Vehicle Speed:         55         mph         Vehicle Mix         Vehicle Mix         Night           Site Data         Autos:         75.2%         10.7%         14.0%           Barrier Height:         0.0 feet         Autos:         75.2%         10.7%         14.0%           Barrier Height:         0.0 feet         Autos:         75.2%         10.7%         14.0%           Barrier Height:         0.0 feet         Medium Trucks:         81.9%         6.8%         11.3%           Barrier Distance to Observer:         68.0 feet         Autos:         0.00         12.7%           Observer Height (Above Pad):         5.0 feet         Medium Trucks:         8.297         12.0%           Pad Elevation:         0.0 feet         Autos:         52.505         14           Road Grade:         0.0%         Autos:         52.336         14           Lant Equivalent Distance         fresnel         Barrier Atten         Be           Autos:         71.78         2.64         0.42         1.20         -4.71         0.000           Medium Trucks:         86.40         -14.14         -0.40	Daily 96.50% 2.02% 1.48%
Vehicle Speed:         55 mph           Near/Far Lane Distance:         87 feet           Vehicle Type         Day         Evening         Night           Site Data         Autos:         75.2%         10.7%         14.0%           Barrier Height:         0.0 feet         Medium Trucks:         81.9%         6.8%         11.3%           Barrier Type (0-Wall, 1-Berm):         0.0         Medium Trucks:         81.9%         6.8%         11.3%           Barrier Type (0-Wall, 1-Berm):         0.0         Medium Trucks:         85.3%         2.0%         12.7%           Centerline Dist. to Deserver:         0.0 feet         Autos:         0.00         Medium Trucks:         8.004         Grade Adjustmen           Barier Distance to Observer:         0.0 feet         Medium Trucks:         8.004         Grade Adjustmen           Road Elevation:         0.0 feet         Autos:         52.505         Medium Trucks:         52.505           Medium Trucks:         9.0.0 degrees         Medium Trucks:         52.352         FHWA Noise Model Calculations           Vehicle Type         REMEL         Traffic Flow         Distance         Finite Road         Fresnel         Barrier Atten         Be           Autos:         71.7B	Daily 96.50% 2.02% 1.48%
Near/Far Lane Distance:         87 feet         Vehic/ceType         Day         Evening         Night           Site Data         Autos:         75.2%         10.7%         14.0%           Barrier Height:         0.0 feet         Medium Trucks:         81.9%         68.9%         11.3%           Barrier Type (0-Wall, 1-Berm):         0.0         Medium Trucks:         81.9%         68.9%         11.3%           Centerline Dist. to Barrier:         68.0 feet         Moise Source Elevations (in feet)         70.0%           Centerline Dist. to Doserver:         0.0 feet         Autos:         0.000         Medium Trucks:         2.0%         12.7%           Barrier Height (Above Pad):         5.0 feet         Autos:         0.000         Medium Trucks:         2.004         Grade Adjustmen           Road Elevation:         0.0 feet         Lane Equivalent Distance (in feet)         10.0%         Medium Trucks:         52.505         Medium Trucks:         52.352           FHWA Noise Model Calculations         VehicleType         REMEL         Traffic Flow         Distance         Finite Road         Freesnel         Barrier Atten         Be           Autos:         71.78         2.64         -0.42         -1.20         -4.74         0.000	Daily 96.50% 2.02% 1.48%
Site Data         Autos:         75.2%         10.7%         14.0%           Barrier Height:         0.0 feet         Medium Trucks:         81.9%         6.8%         11.3%           Barrier Jise Outos:         0.0         Medium Trucks:         81.9%         6.8%         11.3%           Barrier Dist. to Barrier:         68.0 feet         Moise Source Ilevations:         0.00         Moise Source Ilevations:         0.000           Observer Height (Above Pad):         5.0 feet         Autos:         0.000         Medium Trucks:         2.297           Observer Height (Above Pad):         5.0 feet         Autos:         5.2.05         Medium Trucks:         8.04 Grade:         0.0%           Left View:         90.0 degrees         Medium Trucks:         52.305         Medium Trucks:         52.305           FHWA Noise Model Calculations         VehicleType         REMEL         Traffic Flow         Distance         Finite Road         Fresnel         Barrier Atten         Be           Autos:         71.78         2.64         -0.42         -1.20         -4.71         0.000           Medium Trucks:         86.40         -15.50         -0.40         -1.20         -5.29         0.000           Medium Trucks:         86.40         -15	96.50% 2.02% 1.48%
Barrier Height:         0.0 feet           Barrier Type (0-Wall, 1-Berm):         0.0           Centerline Dist. to Dserver:         68.0 feet           Barrier Dist. to Dserver:         68.0 feet           Barrier Dist. to Observer:         6.0 feet           Barrier Dist. to Observer:         6.0 feet           Barrier Dist. to Observer:         0.0 feet           Barrier Distance to Observer:         0.0 feet           Pad Elevation:         0.0 feet           Road Grade:         0.0%           Left View:         90.0 degrees           Right View:         90.0 degrees           FHWA Noise Model Calculations         Vehicle Type           Vehicle Type         REMEL         Traffic Flow           Vehicle Type         Reado         -4.20           Autos:         71.7B         2.64           -0.42         -1.20         -4.77           Medium Trucks:         86.40           -15.50         -0.40         -1.20 </th <th>2.02% 1.48%</th>	2.02% 1.48%
Barrier Type (G-Wall, 1-Berm):     0.0 teet       Centerline Dist. to Barrier:     68.0 feet       Centerline Dist. to Observer:     68.0 feet       Barrier Type (Above Pad):     5.0 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       PHALE     Traffic Flow       VehicleType     REMEL       Turks:     8.6.0       VehicleType     REMEL       Turks:     8.6.0       Autos:     71.78       2.64     -0.42       Autos:     71.78       2.64     -0.42       Autos:     71.78       2.64     -0.42       -1.20     -4.74       0.000       Medium Trucks:     86.40       -15.50     -0.40       -1.20     -5.29       0.000	1.48%
Centerline Dist. to Barrier:     68.0 feet       Centerline Dist. to Observer:     60.0 feet       Barrier Distance to Observer:     0.0 feet       Observer Height (Above Pad):     5.0 feet       Pad Elevation:     0.0 feet       Road Grade:     0.0 feet       Autos:     52.505       Medium Trucks:     52.336       Heavy Trucks:     52.352         FHWA Noise Model Calculations       VehicleType     REMEL     Traffic Flow     Distance       Autos:     71.78     2.64     -0.42       Autos:     71.78     2.64         Autos:     71.70<	: 0.0
Centerline Dist. to Observer:       68.0 feet         Barrier Distance to Observer:       0.0 feet         Observer Height (Above Pad):       5.0 feet         Road Elevation:       0.0 feet         Road Grade:       0.0%         Left View:       -90.0 degrees         Right View:       90.0 degrees         VehicleType       REMEL         Autos:       1.0.00         Medium Trucks:       52.336         Heavy Trucks:       52.336         Heavy Trucks:       52.336         Heavy Trucks:       52.336         Heavy Trucks:       52.32	: 0.0
Barrier Distance to Observer:     0.0 feet     Mattime     0.00       Observer Height (Above Pad):     5.0 feet     Medium Trucks:     2.297       Pad Elevation:     0.0 feet     Heavy Trucks:     8.004     Grade Adjustmen.       Road Elevation:     0.0 feet     Lane Equivalent Distance (in feet)     Lane Equivalent Distance (in feet)       Road Grade:     0.0%     Mattes:     52.505       Medium Trucks:     52.336     Medium Trucks:     52.336       FHWA Noise Model Calculations     VehicleType     REMEL     Traffic Flow     Distance     Finite Road     Fresnel     Barrier Atten     Be       Autos:     71.78     2.64     -0.42     -1.20     -4.71     0.000       Heavy Trucks:     86.40     -15.50     -0.40     -1.20     -5.29     0.000       Unmitigated Noise Levels (without Topo and barrier attenuation)     Left Vence and barrier attenuation	: 0.0
Observer Height (Above Pad):     5.0 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       Right View:     -90.0 degrees       VehicleType     REMEL       Taffic Flow     Distance       Autos:     71.78       2.64     -0.42       Autos:     71.78       2.64     -0.42       Autos:     71.78       2.64     -0.42       -1.20     -4.71       0.000       Heavy Trucks:     86.40       -15.50     -0.40       -1.20     -5.29       0.000	: 0.0
Pad Elevation:     0.0 feet       Road Elevation:     0.0 feet       Road Grade:     0.0%       Left View:     -90.0 degrees       Right View:     90.0 degrees       FHWA Noise Model Calculations       VehicleType     REMEL       Traffic Flow     Distance       Finite Road     Fresnel       Barrier Atten     Be       Autos:     52.505       Medium Trucks:     52.336       Heavy Trucks:     52.352	. 0.0
Road Elevation:         0.0 feet         Lane Equivalent Distance (in feet)           Road Grade:         0.0%         Autos:         52.505           Left View:         90.0 degrees         Medium Trucks:         52.336           FHWA Noise Model Calculations         Heavy Trucks:         52.352           FHWA Noise Model Calculations         Finite Road         Fresnel         Barrier Atten         Be           Autos:         71.78         2.64         -0.42         -1.20         -4.71         0.000           Medium Trucks:         82.40         -14.14         -040         -1.20         -4.88         0.000           Heavy Trucks:         86.40         -15.50         -0.40         -1.20         -5.29         0.000	
Road Grade:         0.0%         Autos:         52.505           Left View:         -90.0 degrees         Medium Trucks:         52.336           Right View:         90.0 degrees         Medium Trucks:         52.352           FHWA Noise Model Calculations         Vehicle Type         REMEL         Traffic Flow         Distance         Finite Road         Fresnel         Barrier Atten         Be           Autos:         71.78         2.64         -0.42         -1.20         -4.71         0.000           Medium Trucks:         82.40         -14.14         -0.40         -1.20         -4.78         0.000           Heavy Trucks:         86.40         -15.50         -0.40         -1.20         -5.29         0.000           Unmitigated Noise Levels (without Topo and barrier attenuation)         -1.20         -5.29         0.000         -5.29         0.000	
Left View:         -90.0 degrees         Medium Trucks:         52.336           Right View:         90.0 degrees         Medium Trucks:         52.352           FHWA Noise Model Calculations         Distance         Finite Road         Fresnel         Barrier Atten         Be           VehicleType         REMEL         Traffic Flow         Distance         Finite Road         Fresnel         Barrier Atten         Be           Autos:         71.78         2.64         -0.42         -1.20         -4.71         0.000           Medium Trucks:         82.40         -14.14         -0.40         -1.20         -4.88         0.000           Heavy Trucks:         86.40         -15.50         -0.40         -1.20         -5.29         0.000           Unmitigated Noise Levels (without Topo and barrier attenuation)	
Right View:         90.0 degrees         Heavy Trucks:         52.352           FHWA Noise Model Calculations         VehicleType         REMEL         Traffic Flow         Distance         Finite Road         Fresnel         Barrier Atten         Be           Autos:         71.78         2.64         -0.42         -1.20         -4.71         0.000           Medium Trucks:         82.40         -14.14         -0.40         -1.20         -4.88         0.000           Heavy Trucks:         86.40         -15.50         -0.40         -1.20         -5.29         0.000	
FHWA Noise Model Calculations         Distance         Finite Road         Fresnel         Barrier Atten         Be           VehicleType         REMEL         Traffic Flow         Distance         Finite Road         Fresnel         Barrier Atten         Be           Autos:         71.78         2.64         -0.42         -1.20         -4.71         0.000           Medium Trucks:         82.40         -14.14         -0.40         -1.20         -4.88         0.000           Heavy Trucks:         86.40         -15.50         -0.40         -1.20         -5.29         0.000           Unmitigated Noise Levels (without Topo and barrier attenuation)	
VehicleType         REMEL         Traffic Flow         Distance         Finite Road         Fresnel         Barrier Atten         Be           Autos:         71.78         2.64         -0.42         -1.20         -4.71         0.000           Medium Trucks:         82.40         -14.14         -0.40         -1.20         -4.88         0.000           Heavy Trucks:         86.40         -15.50         -0.40         -1.20         -5.29         0.000           Unmitigated Noise Levels (without Topo and barrier attenuation)	
Autos:         71.78         2.64         -0.42         -1.20         -4.71         0.000           Medium Trucks:         82.40         -14.14         -0.40         -1.20         -4.88         0.000           Heavy Trucks:         86.40         -15.50         -0.40         -1.20         -5.29         0.000           Unmitigated Noise Levels (without Topo and barrier attenuation)	m Atten
Medium Trucks:         82.40         -14.14         -0.40         -1.20         -4.88         0.000           Heavy Trucks:         86.40         -15.50         -0.40         -1.20         -5.29         0.000           Unmitigated Noise Levels (without Topo and barrier attenuation)	0.000
Heavy Trucks:         86.40         -15.50         -0.40         -1.20         -5.29         0.000           Unmitigated Noise Levels (without Topo and barrier attenuation)	0.000
Unmitigated Noise Levels (without Topo and barrier attenuation)	0.000
VehicleType Leq Peak Hour Leq Day Leq Evening Leq Night Ldn C	NEL
Autos: 72.8 72.6 70.1 66.5 74.3	74.8
Medium Trucks: 66.7 66.8 62.0 59.4 67.7	68.0
Heavy Trucks: 69.3 69.6 59.2 62.6 70.6	70.7
Vehicle Noise: 75.1 75.0 71.0 68.6 76.5	76.8
Centerline Distance to Noise Contour (in feet)	
70 dBA 65 dBA 60 dBA 55	
Ldn: 184 396 853	dBA
CNEL: 193 416 897	dBA 1,838

	FHWA-R	D-77-108 HIGH	WAY N	OISE F	PREDIC	TION MO	DDEL (S	9/12/2	021)		
Scenar Road Nan	io: E	Wy				Project I	Vame: /	Antelo	pe Valley C	Commerc	
Road Segme	nt: n/o Avenue	vvy. e L				300 110	mber.	14207			
SITE	SPECIFIC I	NPUT DATA				N	DISE N	IODE	L INPUT	s	
Highway Data				S	ite Con	ditions (	Hard =	10, Sc	oft = 15)		
Average Daily	Traffic (Adt):	17,253 vehicl	es				,	Autos:	15		
Peak Hour	Percentage:	6.63%			Me	dium Tru	cks (2 A	(xles):	15		
Peak H	lour Volume:	1,144 vehicle	s		He	avy Truci	ks (3+ A	(xles):	15		
Ve	hicle Speed:	55 mph		V	ehicle I	Nix					
Near/Far La	ne Distance:	70 feet			Veh	icleType		Day	Evening	Night	Daily
Site Data						A	utos:	75.2%	5 10.7%	14.0%	97.39%
Ba	rrier Height:	0.0 feet			Me	edium Tru	icks:	81.9%	6.8%	11.3%	1.93%
Barrier Type (0-V	Vall, 1-Berm):	0.0			ŀ	leavy Tru	icks:	85.3%	2.0%	12.7%	0.69%
Centerline D	ist. to Barrier:	52.0 feet		N	oise So	ource Ele	vations	s (in fe	eet)		
Centerline Dist.	to Observer:	52.0 feet				Autos	: 0.0	000			
Barrier Distance	to Observer:	0.0 feet			Mediui	n Trucks	2.2	297			
Observer Height	(Above Pad):	5.0 feet			Heav	y Trucks	8.0	004	Grade Ad	justment	: 0.0
P	ad Elevation:	0.0 feet					Di- 4		f 4)		
Ro	ad Elevation:	0.0 feet		La	ane Equ	livalent	Distant	e (In 1	reet)		
	Road Grade:	0.0%			1 4	Autos.	38.	181			
	Left View:	-90.0 degre	es		Mediui	TI TTUCKS.	38.	003 575			
	Right view:	90.0 degre	es		neav	y mucks.	. 30.3	575			
FHWA Noise Mod	el Calculation	s									
VehicleType	REMEL	Traffic Flow	Dista	nce	Finite	Road	Fresn	el	Barrier Att	en Bei	rm Atten
Autos:	71.78	-2.24		1.55		-1.20		-4.66	0.0	000	0.000
Medium Trucks:	82.40	-19.27		1.59		-1.20		-4.87	0.0	000	0.000
Heavy Trucks:	86.40	-23.77		1.59		-1.20		-5.41	0.0	000	0.000
Unmitigated Nois	e Levels (with	out Topo and	barrier	attenu	ation)						
VehicleType	Leq Peak Ho	ur Leq Day	′ L	.eq Eve	ening	Leq N	light		Ldn	C	NEL
Autos:	69	9.9	69.6		67.2		63.6		71.4	4	71.8
Medium Trucks:	63	3.5	63.6		58.9		56.3		64.6	о -	64.9
Heavy Trucks:	63	3.0	63.3		53.0		56.3		64.3	3	64.4
Venicle Noise:	7	1.5	/1.4		67.9		65.0		72.9	9	73.2
Centerline Distan	ce to Noise C	ontour (in feet	)					_			
				70 dł	BA	65 d	BA	6	50 dBA	55	dBA
		-	Ldn:		81		174		376		810
		C	NEL:		86		184		397		856

Scenario: E	D		_	_	_	Project	Name	Antolo		ommor	
Road Name: C	r hallender '	Wv				Job Ni	imher:	14267	pe valley c	Jonnien	-
Road Segment: n	o Avenue	L				00071		201			
SITE SPE	CIFIC IN	PUT DATA				N	OISE	IODE		s	
Highway Data				;	Site Con	ditions (	Hard =	10, So	oft = 15)		
Average Daily Traff	ïc (Adt):	18,254 vehicle	es					Autos:	15		
Peak Hour Perc	entage:	6.63%			Me	dium Tru	icks (2 A	Axles):	15		
Peak Hour	Volume:	1,210 vehicle	s		He	avy Truc	ks (3+ A	Axles):	15		
Vehicle	Speed:	55 mph		1	Vehicle	Mix					
Near/Far Lane D	istance:	70 feet		F	Veh	icleType		Day	Evening	Night	Daily
Site Data						A	utos:	75.2%	10.7%	14.0%	97.53
Barrier	Heiaht:	0.0 feet			M	edium Tr	ucks:	81.9%	6.8%	11.3%	1.829
Barrier Type (0-Wall, 1	-Berm):	0.0			1	leavy Tr	ucks:	85.3%	2.0%	12.7%	0.65
Centerline Dist. to	Barrier:	52.0 feet			Noise Sr	urce El	avation	s (in fi	aat)		
Centerline Dist. to O	bserver:	52.0 feet		-	10.00 00	Autos	. 01	000	,		
Barrier Distance to O	bserver:	0.0 feet			Mediu	m Trucks	. 0.	297			
Observer Height (Abo	/e Pad):	5.0 feet			Heav	v Trucks	. 8.0	004	Grade Ad	iustment	: 0.0
Pad El	evation:	0.0 feet		_							
Road El	Road Elevation: 0.0 feet Road Grade: 0.0%				Lane Eq	uivalent	Distand	ce (in i	feet)		
Road	Grade:	0.0%				Autos	:: 38.	781			
Le	eft View:	-90.0 degre	es		Mediu	m Trucks	: 38.	553			
Rig	ht View:	90.0 degre	es		Heav	y Trucks	: 38.	575			
FHWA Noise Model Ca	lculations	5									
VehicleType R	EMEL	Traffic Flow	Di	stance	Finite	Road	Fresn	el	Barrier Att	en Bei	rm Atten
Autos:	71.78	-1.99		1.5	5	-1.20		-4.66	0.0	000	0.00
Medium Trucks:	82.40	-19.27		1.5	9	-1.20		-4.87	0.0	000	0.00
Heavy Trucks:	86.40	-23.77		1.5	9	-1.20		-5.41	0.0	000	0.00
Unmitigated Noise Lev	els (with	out Topo and	barri	er atten	uation)						
VehicleType Leq	Peak Hou	r Leq Day	/	Leg E	vening	Leq I	Vight		Ldn	С	NEL
Autos:	70	.1	69.9		67.5		63.9	)	71.3	7	72
Medium Trucks:	63	.5	63.6		58.9		56.3	3	64.6	6	64
Heavy Trucks:	63	.0	63.3		53.0		56.3	3	64.3	3	64.
Vehicle Noise:	71	.6	71.5		68.2		65.2	2	73.1	1	73.
Centerline Distance to	Noise Co	ntour (in feet	)	=0							
			I da:	/00	JBA 00	65 (	IBA		DU dBA	55	aBA
		~	Lan: NEL		83		1/9		386		832
		C .	VEL:		88		190		409	1	880

Saturday, October 14, 2023

	FHWA-RD	-77-108 HIGH	WAY	NOISE	PREDIC	TION M	ODEL (	9/12/2	021)		
Scenari Road Nam Road Segmer	o: EC (2025) e: Challenger \ nt: n/o Avenue	Ny. L				Project Job N	Name: . umber:	Antelo 14267	pe Valley (	Comm	erc
SITE	SPECIFIC IN	PUT DATA				N	OISE I	NODE	L INPUT	S	
Highway Data					Site Con	ditions	(Hard =	10, So	oft = 15)		
Average Daily	Traffic (Adt):	17,361 vehicle	es					Autos:	15		
Peak Hour	Percentage:	6.63%			Me	dium Tru	icks (2 /	Axles):	15		
Peak H	our Volume:	1,151 vehicle	5		He	avy Truc	cks (3+ /	Axles):	15		
Ve	hicle Speed:	55 mph		ŀ	Vohiclo	Aiv					
Near/Far La	ne Distance:	70 feet		-	Venicie i	icleTune		Dav	Evening	Niah	t Daily
Site Data					ven	cie i ype /	Autos:	75.2%	10.7%	14.0	0% 97.39%
Ba	rior Hoight:	0.0 foot			Me	edium Tr	ucks:	81.9%	6.8%	11.3	3% 1.93%
Barrier Type (0-W	all 1-Berm)	0.0 1001			ŀ	leavy Tr	ucks:	85.3%	2.0%	12.7	7% 0.69%
Centerline Dis	st. to Barrier:	52.0 feet		-	N-1 0-			- (in f	41		
Centerline Dist.	to Observer:	52.0 feet		-	Noise Sc	ource El	evation	s (IN TO	eet)		
Barrier Distance	to Observer:	0.0 feet				Autos	s: 0.	000			
Observer Height (	Above Pad):	5.0 feet			Mediui	T TTUCKS	S: Z.	297	Grade Ac	livetme	ant 0.0
Pa	ad Elevation:	0.0 feet			Heav	y Trucks	5. 8.	004	Graue Au	jusuno	<i>m.</i> 0.0
Roa	ad Elevation:	0.0 feet			Lane Equ	uivalent	Distan	ce (in	feet)		
I	Road Grade:	0.0%				Autos	s: 38.	781			
	Left View:	-90.0 degree	es		Mediur	n Trucks	s: 38.	553			
	Right View:	90.0 degree	es		Heav	y Trucks	s: 38.	575			
FHWA Noise Mode	el Calculations			I							
VehicleType	REMEL	Traffic Flow	Dis	stance	Finite	Road	Fresr	nel	Barrier At	ten E	Berm Atten
Autos:	71.78	-2.21		1.5	55	-1.20		-4.66	0.	000	0.000
Medium Trucks:	82.40	-19.25		1.5	59	-1.20		-4.87	0.	000	0.000
Heavy Trucks:	86.40	-23.74		1.5	59	-1.20		-5.41	0.	000	0.000
Unmitigated Noise	Levels (witho	ut Topo and	barrie	er atter	nuation)						
VehicleType	Leq Peak Hou	r Leq Day	r	Leq E	vening	Leq	Night		Ldn		CNEL
Autos:	69.	9	69.7		67.2		63.6	3	71.	4	71.9
Medium Trucks:	63.	5	63.7		58.9		56.3	3	64.	6	64.9
Heavy Trucks:	63.	0	63.3		53.0		56.3	3	64.	3	64.4
Vehicle Noise:	71.	5	71.4		68.0		65.0	)	72.	9	73.3
Centerline Distanc	e to Noise Co	ntour (in feet				0-					
			L	70	ава	65 (	JBA		DU aBA	_	55 aBA
		~	Lan:		81		175		371	r N	813
		Ci	vel:		86		185		399	9	859

	FHWA-RI	D-77-108 HIGH	IWAY N	OISE	PREDIC		DEL (9	0/12/2	021)		
Scenai Road Nan Road Segme	rio: ECP (2025 ne: Challenger ent: n/o Avenue	) Wy. e L				Project N Job Nu	lame: A mber: 1	Antelo 4267	pe Valley C	Commer	c
SITE	SPECIFIC IN	IPUT DATA				NC	DISE N	IODE	L INPUT	s	
Highway Data				S	ite Con	ditions (H	lard =	10, S	oft = 15)		
Average Daily	Traffic (Adt):	17,647 vehicl	es				A	Autos.	15		
Peak Hour	Percentage:	6.63%			Me	dium Truc	:ks (2 A	xles).	15		
Peak H	Hour Volume:	1,170 vehicle	s		He	avy Truck	is (3+ A	xles).	15		
Ve	ehicle Speed:	55 mph		V	ahicla I	Mix					
Near/Far La	ane Distance:	70 feet		-	Veh	icleType		Dav	Evenina	Niaht	Daily
Site Data						AL	itos:	75.2%	5 10.7%	14.0%	97.43%
Ba	orrier Height	0.0 feet			M	edium Tru	cks:	81.9%	6.8%	11.3%	1.90%
Barrier Type (0-V	Vall. 1-Berm):	0.0			F	leavy Tru	cks:	85.3%	5 2.0%	12.7%	0.67%
Centerline D	ist. to Barrier:	52.0 feet			laisa Sr	urce Fle	vations	(in f	oof)		
Centerline Dist.	to Observer:	52.0 feet			0136 00	Autos	0.0	000			
Barrier Distance	to Observer:	0.0 feet			Modiu	m Trucke:	2.2	00			
Observer Height	(Above Pad):	5.0 feet			Hoo	n Trucks.	2.2	04	Grade Ad	iustmen	t <sup>.</sup> 0.0
P	ad Elevation:	0.0 feet			Tieav	y mucks.	0.0	/04	0/000/10	uounon	0.0
Ro	ad Elevation:	0.0 feet		L	ane Eq	uivalent L	Distanc	e (in	feet)		
	Road Grade:	0.0%				Autos:	38.7	'81			
	Left View:	-90.0 degre	es		Mediui	m Trucks:	38.5	553			
	Right View:	90.0 degre	es		Heav	y Trucks:	38.5	575			
FHWA Noise Mod	lel Calculation	s									
VehicleType	REMEL	Traffic Flow	Dista	nce	Finite	Road	Fresn	e/	Barrier Atte	en Be	rm Atten
Autos:	71.78	-2.14		1.55	i	-1.20		4.66	0.0	000	0.000
Medium Trucks:	82.40	-19.25		1.59	)	-1.20		4.87	0.0	000	0.000
Heavy Trucks:	86.40	-23.74		1.59	)	-1.20		-5.41	0.0	000	0.000
Unmitigated Nois	e Levels (with	out Topo and	barrier	attenı	uation)						
VehicleType	Leq Peak Hou	ur Leq Da	y L	.eq Ev	ening	Leq N	ight		Ldn	C	NEL
Autos:	70	0.0	69.7		67.3		63.7		71.5	5	71.9
Medium Trucks:	63	3.5	63.7		58.9		56.3		64.6	6	64.9
Heavy Trucks:	63	3.0	63.3		53.0		56.3		64.3	3	64.4
Vehicle Noise:	71	1.5	71.4		68.0		65.1		73.0	)	73.3
Centerline Distan	ce to Noise C	ontour (in fee	)								
				70 d	BA	65 dl	BA		60 dBA	55	5 dBA
			Ldn:		82		177		380		820
		C	NEL:		87		187		402		866

	FHWA-R	D-77-108 HIGH	WAY N	DISE F	PREDIC	TION MO	DDEL (	9/12/2	021)		
Scenar Road Nan Road Segme	rio: EC (2032) ne: Challenger nt: n/o Avenue	Wy. 9 L				Project I Job Nu	Name: . Imber:	Antelo 14267	pe Valley (	Commer	c
SITE	SPECIFIC IN	NPUT DATA				N	OISE I	NODE	L INPUT	s	
Highway Data				S	ite Con	ditions (	Hard =	10, S	oft = 15)		
Average Daily	Traffic (Adt):	17,433 vehicl	es					Autos:	15		
Peak Hour	Percentage:	6.63%			Me	dium Tru	cks (2 /	Axles).	15		
Peak H	lour Volume:	1,156 vehicle	s		He	avy Truci	ks (3+ /	Axles).	15		
Ve	hicle Speed:	55 mph		V	ehicle I	Mix					
Near/Far La	ne Distance:	70 feet			Veh	icleTvpe		Dav	Evenina	Niaht	Dailv
Site Data						A	utos:	75.2%	6 10.7%	14.0%	97.39%
Ba	rrier Heiaht:	0.0 feet			Me	edium Tru	ucks:	81.9%	6.8%	11.3%	1.93%
Barrier Type (0-V	Vall, 1-Berm):	0.0			ŀ	leavy Tru	ucks:	85.3%	6 2.0%	12.7%	0.69%
Centerline D	ist. to Barrier:	52.0 feet		N	oise So	urce Ele	vation	s (in f	eet)		
Centerline Dist.	to Observer:	52.0 feet				Autos	: 0.	000	,		
Barrier Distance	to Observer:	0.0 feet			Mediui	n Trucks	2.	297			
Observer Height	(Above Pad):	5.0 feet			Heav	v Trucks	: 8.	004	Grade Ad	justmen	t: 0.0
P	ad Elevation:	0.0 feet			_						
Ro	ad Elevation:	0.0 feet		Li	ane Equ	livalent	Distan	ce (In	feet)		
	Road Grade:	0.0%				Autos.	. 38.	781			
	Left View:	-90.0 degre	es		wealui	TI TTUCKS	: 38. . 00	553			
	Right View:	90.0 degre	es		Heav	y Trucks	: 38.	5/5			
FHWA Noise Mod	el Calculation	s									
VehicleType	REMEL	Traffic Flow	Dista	nce	Finite	Road	Fresr	nel	Barrier Att	en Be	rm Atten
Autos:	71.78	-2.20		1.55		-1.20		-4.66	0.0	000	0.000
Medium Trucks:	82.40	-19.23		1.59		-1.20		-4.87	0.0	000	0.000
Heavy Trucks:	86.40	-23.72		1.59		-1.20		-5.41	0.0	000	0.000
Unmitigated Nois	e Levels (with	out Topo and	barrier a	attenu	ation)						
VehicleType	Leq Peak Ho	ur Leq Day	′ L	eq Eve	ening	Leq N	light		Ldn	C	NEL
Autos:	69	9.9	69.7		67.3		63.7	7	71.	5	71.9
Medium Trucks:	63	3.6	63.7		58.9		56.3	3	64.0	6	64.9
Heavy Trucks:	63	3.1	63.4		53.0		56.4	1	64.4	4	64.4
Vehicle Noise:	71	1.5	71.4		68.0		65.0	)	72.9	9	73.3
Centerline Distan	ce to Noise C	ontour (in feet	)								
				70 dE	BA	65 d	BA		60 dBA	55	ō dBA
		_	Ldn:		82		176		378		815
		C	NEL:		86		186		400		862

				NOIDE			ODEE (	<i>, , , , , , , , , , , , , , , , , , , </i>	<b>52</b> 1)		
Scenario	: ECP (2032)					Project	Name: I	Antelo	pe Valley (	Commer	C
Road Name	Challenger	Wy.				Job N	umber:	14267			
Road Segmen	t: n/o Avenue	L									
SITE S	PECIFIC IN	PUT DATA				N	OISE N	NODE	EL INPUT	s	
Highway Data				5	Site Con	ditions	Hard =	10, S	oft = 15)		
Average Daily 7	raffic (Adt):	18,434 vehicle	es					Autos.	15		
Peak Hour F	Percentage:	6.63%			Me	dium Tru	icks (2 A	Axles).	15		
Peak Ho	our Volume:	1,222 vehicle	s		He	avy Truc	:ks (3+ A	Axles).	15		
Veh	icle Speed:	55 mph		N	/ehicle l	Mix					
Near/Far Lan	e Distance:	70 feet		_	Veh	icleType		Day	Evening	Night	Daily
Site Data						A	utos:	75.2%	6 10.7%	14.0%	97.53
Bari	ier Heiaht:	0.0 feet			Me	edium Tr	ucks:	81.9%	6.8%	11.3%	1.82
Barrier Type (0-Wa	II. 1-Berm):	0.0			F	leavy Tr	ucks:	85.3%	6 2.0%	12.7%	0.659
Centerline Dis	to Barrier:	52.0 feet			laiaa Ca	uree El	vetion	o /in f	a a fi		
Centerline Dist. to	o Observer:	52.0 feet		7	ioise sc	Autor	evalion	000	eel)		
Barrier Distance to	o Observer:	0.0 feet			Modiu	m Trucki	. 0.1	207			
Observer Height (A	bove Pad):	5.0 feet			Heav	n Trucks	· 2	201	Grade An	iustmen	t- 0.0
Pa	d Elevation:	0.0 feet			near	y mache	. 0.	504	0/000 / 10	,	0.0
Roa	Road Elevation: 0.0 feet Road Grade: 0.0%					uivalent	Distand	ce (in	feet)		
R	oad Grade:	0.0%				Autos	: 38.	781			
	Left View:	-90.0 degree	es		Mediui	m Trucks	: 38.	553			
	Right View:	90.0 degre	es		Heav	y Trucks	:: 38.	575			
FHWA Noise Mode	Calculations	;									
VehicleType	REMEL	Traffic Flow	Di	stance	Finite	Road	Fresn	el	Barrier Att	en Be	rm Atten
Autos:	71.78	-1.95		1.55	5	-1.20		-4.66	0.	000	0.00
Medium Trucks:	82.40	-19.23		1.59	)	-1.20		-4.87	0.	000	0.00
Heavy Trucks:	86.40	-23.72		1.59	)	-1.20		-5.41	0.	000	0.00
Unmitigated Noise	Levels (with	out Topo and	barri	er atteni	uation)						
VehicleType	.eq Peak Hou	r Leq Day	/	Leq Ev	ening	Leq	Vight		Ldn	C	NEL
Autos:	70	2	69.9		67.5		63.9	)	71.	7	72
Medium Trucks:	63	.6	63.7		58.9		56.3	3	64.	6	64.
Heavy Trucks:	63	.1	63.4		53.0		56.4	1	64.	4	64.
Vehicle Noise:	71	.7	71.6		68.2		65.2	2	73.	1	73.
Centerline Distance	e to Noise Co	ntour (in feet	)	70	-		10.4	_			
			1.40	70 d	BA	65 (	IBA		ьо ава	55	авА
		~	Lan:		84		181		389	1	838
		C	VEL.		89		191		411		886

Saturday, October 14, 2023

	FHWA-RD	-77-108 HIGHW	AY NOIS	E PREDIC	TION MOD	EL (9/12/	2021)		
Scenari Road Nam Road Segmer	o: E e: Challenger \ nt: s/o Avenue	Wy. L			Project Nai Job Numi	ne: Antel ber: 1426	ope Valley Co 7	ommerc	:
SITE	SPECIFIC IN	PUT DATA			NOIS	SE MOD	EL INPUTS		
Highway Data				Site Con	ditions (Ha	rd = 10, S	oft = 15)		
Average Daily	Traffic (Adt):	9,501 vehicles				Autos	a: 15		
Peak Hour	Percentage:	6.63%		Me	dium Trucks	(2 Axles	: 15		
Peak H	our Volume:	630 vehicles		He	avy Trucks	(3+ Axles	: 15		
Ve	hicle Speed:	55 mph		Vehicle	Mix				
Near/Far La	ne Distance:	70 feet		Veh	icleType	Dav	Evenina	Niaht	Dailv
Site Data					Auto	s: 75.2	% 10.7%	14.0%	97.39%
Bai	rior Hoight	0.0 feet		м	edium Truck	s: 81.9	% 6.8%	11.3%	1.93%
Barrier Type (0-W	all. 1-Berm):	0.0		1	Heavy Truck	s: 85.3	% 2.0%	12.7%	0.69%
Centerline Dis	st. to Barrier:	52.0 feet		Noico S	urco Elova	tions (in	foot)		
Centerline Dist.	to Observer:	52.0 feet		NOISE 30		0.000	leel)		
Barrier Distance	to Observer:	0.0 feet		Madiu	Trucko:	2 207			
Observer Height (	Above Pad):	5.0 feet		Hear	W Trucks:	2.237	Grade Adiu	istment	0.0
Pa	ad Elevation:	0.0 feet		Tical	y mucks.	0.004	endde maje	iounom.	0.0
Roa	ad Elevation:	0.0 feet		Lane Eq	uivalent Dis	tance (in	feet)		
1	Road Grade:	0.0%			Autos:	38.781			
	Left View:	-90.0 degrees		Mediu	m Trucks:	38.553			
	Right View:	90.0 degrees		Heav	y Trucks:	38.575			
FHWA Noise Mode	el Calculations			1					
VehicleType	REMEL	Traffic Flow	Distance	Finite	Road F	resnel	Barrier Atte	n Ber	m Atten
Autos:	71.78	-4.83	1	.55	-1.20	-4.66	0.0	00	0.000
Medium Trucks:	82.40	-21.86	1	.59	-1.20	-4.87	0.0	00	0.000
Heavy Trucks:	86.40	-26.36	1	.59	-1.20	-5.41	0.0	00	0.00
Unmitigated Noise	Levels (witho	ut Topo and ba	nrier atte	enuation)					
VehicleType	Leq Peak Hou	r Leq Day	Leq	Evening	Leq Nigl	nt	Ldn	CI	VEL
Autos:	67.	3 67	.1	64.6		61.0	68.8		69.3
Medium Trucks:	60.	9 61	.1	56.3		53.7	62.0		62.3
Heavy Trucks:	60.	4 60	).7	50.4		53.7	61.7		61.
Vehicle Noise:	68.	9 68	1.8	65.4		62.4	70.3		70.
Centerline Distance	e to Noise Co	ntour (in feet)							
			70	) dBA	65 dBA		60 dBA	55	dBA
		La	in:	54		117	252		544
		CNE	EL:	57		124	267		575

	FHWA-RD	0-77-108 HIGH	IWAY	NOISE	PREDIC	TION MC	DDEL (S	0/12/2	021)		
Scenar	rio: EP					Project N	Vame: A	ntelo	pe Valley C	ommer	c
Road Nan	ne: Challenger	Wy.				Job Nu	mber: 1	4267			
Road Segme	nt: s/o Avenue	L									
SITE	SPECIFIC IN	PUT DATA				N	DISE N	IODE	L INPUT	5	
Highway Data				1	Site Con	ditions (I	Hard =	10, S	oft = 15)		
Average Daily	Traffic (Adt):	10,935 vehicle	es				A	Autos.	15		
Peak Hour	Percentage:	6.63%			Me	dium Truc	cks (2 A	xles).	15		
Peak H	lour Volume:	725 vehicle	s		He	avy Truck	ks (3+ A	xles).	15		
Ve	ehicle Speed:	55 mph		1	Vehicle I	Mix					
Near/Far La	ane Distance:	70 feet		F	Veh	icleType	1	Day	Evening	Night	Daily
Site Data						AL	utos:	, 75.29	6 10.7%	14.0%	6 97.73%
Ba	rrier Height:	0.0 feet			M	edium Tru	icks:	81.9%	6.8%	11.3%	6 1.68%
Barrier Type (0-W	Vall, 1-Berm):	0.0			ŀ	Heavy Tru	icks:	85.3%	6 2.0%	12.7%	6 0.60%
Centerline Di	ist. to Barrier:	52.0 feet		1	Noise Sc	ource Ele	vations	in f	eet)		
Centerline Dist.	to Observer:	52.0 feet				Autos:	0.0	000			
Barrier Distance	to Observer:	0.0 feet			Mediu	m Trucks	2.2	97			
Observer Height	(Above Pad):	5.0 feet			Heav	v Trucks	80	04	Grade Adi	iustmen	t: 0.0
P	ad Elevation:	0.0 feet			mour	<i>y maono.</i>	0.0				
Ro	ad Elevation:	0.0 feet		1	Lane Eq	uivalent l	Distanc	e (in	feet)		
	Road Grade:	0.0%				Autos:	38.7	781			
	Left View:	-90.0 degree	es		Mediui	m Trucks:	38.5	553			
	Right View:	90.0 degree	es		Heav	y Trucks:	38.5	575			
FHWA Noise Mod	el Calculations	5									
VehicleType	REMEL	Traffic Flow	Dis	stance	Finite	Road	Fresn	e/	Barrier Atte	en Be	rm Atten
Autos:	71.78	-4.21		1.5	5	-1.20		4.66	0.0	000	0.000
Medium Trucks:	82.40	-21.86		1.5	9	-1.20		4.87	0.0	000	0.000
Heavy Trucks:	86.40	-26.36		1.5	9	-1.20		-5.41	0.0	000	0.000
Unmitigated Nois	e Levels (with	out Topo and	barrie	er atten	uation)						
VehicleType	Leq Peak Hou	r Leq Day	/	Leq E	vening	Leq N	light		Ldn	0	NEL
Autos:	67	.9	67.7		65.3		61.6		69.5	5	69.9
Medium Trucks:	60	.9	61.1		56.3		53.7		62.0	)	62.3
Heavy Trucks:	60	.4	60.7		50.4		53.7		61.7	7	61.8
Vehicle Noise:	69	.3	69.2		65.9		62.9		70.7	7	71.1
Centerline Distan	ce to Noise Co	ntour (in feet	)								
			Т	70 c	dBA	65 di	BA		60 dBA	55	5 dBA
			Ldn:		58		126		271		583
		C	NEL:		62		133		286		617

Scenario:         EC (2025)         Project Name: Antelope Valley Commerc           Road Name:         Challenger Wy.         Job Number: 14267           Road Segment:         s/o Avenue L         Sitte SPECIFIC INPUT DATA           Highway Data         Site Conditions (Hard = 10, Soft = 15)	
SITE SPECIFIC INPUT DATA         NOISE MODEL INPUTS           Highway Data         Site Conditions (Hard = 10, Soft = 15)	
Highway Data Site Conditions (Hard = 10, Soft = 15)	
Average Daily Traffic (Adt): 9,636 vehicles Autos: 15	
Peak Hour Percentage: 6.63% Medium Trucks (2 Axles): 15	
Peak Hour Volume: 639 vehicles Heavy Trucks (3+ Axles): 15	
Vehicle Speed: 55 mph	
Near/Far Lane Distance: 70 feet Vehicle Type Day Evening Night D	ailv
Site Data Autos: 75.2% 10.7% 14.0% 97	.39%
Barrier Height: 0.0 feet Medium Trucks: 81.9% 6.8% 11.3% 1	.93%
Barrier Type (0-Wall, 1-Berm): 0.0 Heavy Trucks: 85.3% 2.0% 12.7% 0	.69%
Centerline Dist. to Barrier: 52.0 feet Noise Source Elevations (in feet)	
Centerline Dist. to Observer: 52.0 feet	
Barrier Distance to Observer: 0.0 feet Medium Trucks: 2 207	
Observer Height (Above Pad): 5.0 feet Heavy Trucks: 8 004 Grade Adjustment: 0.0	0
Pad Elevation: 0.0 feet	-
Road Elevation: 0.0 feet Lane Equivalent Distance (in feet)	
Road Grade: 0.0% Autos: 38.781	
Left View: -90.0 degrees Medium Trucks: 38.553	
Right View: 90.0 degrees Heavy Trucks: 38.575	
FHWA Noise Model Calculations	
VehicleType REMEL Traffic Flow Distance Finite Road Fresnel Barrier Atten Berm A	tten
Autos: 71.78 -4.77 1.55 -1.20 -4.66 0.000	0.000
Medium Trucks: 82.40 -21.80 1.59 -1.20 -4.87 0.000	0.000
Heavy Trucks: 86.40 -26.30 1.59 -1.20 -5.41 0.000	0.000
Unmitigated Noise Levels (without Topo and barrier attenuation)	
VehicleType Leq Peak Hour Leq Day Leq Evening Leq Night Ldn CNEL	
Autos: 67.4 67.1 64.7 61.1 68.9	69.3
Medium Trucks: 61.0 61.1 56.3 53.8 62.0	62.3
Heavy Trucks: 60.5 60.8 50.4 53.8 61.8	61.9
Vehicle Noise: 68.9 68.8 65.4 62.5 70.4	70.7
Centerline Distance to Noise Contour (in feet)	
70 dBA 65 dBA 60 dBA 55 dB/	4
Ldn: 55 118 255	549
CNEL: 58 125 269	580

FHW.	A-RD	-77-108 HIGF	IWAY	' NOISE	PREDIC		IODEL (	9/12/2	021)		
Scenario: ECP (2 Road Name: Challer Road Segment: s/o Ave	2025) nger V enue I	Ny.				Project Job N	t Name: lumber:	Antelo 14267	pe Valley C	Commerc	
										5	
Highway Data	0 1141	OI DAIA			Site Con	ditions	(Hard =	10, S	oft = 15)	•	
Average Daily Traffic (Ac	tt):	9 993 vehicl	es				•	Autos	15		
Peak Hour Percentac	ne:	6.63%			Me	dium Tr	ucks (2)	Axles)	15		
Peak Hour Volum	ne:	663 vehicle	s		He	avy Tru	cks (3+ )	Axles)	15		
Vehicle Spee	ed:	55 mph			Vahiala	Mise					
Near/Far Lane Distant	ce:	70 feet		-	Venicie	icleTvne		Dav	Evening	Night	Daily
Site Data					VCII	icic i ypc	Autos:	75.29	6 10.7%	14.0%	97 489
Damia II-ini	h. 4.	0.0.6+			м	edium T	nucks:	81.99	6.8%	11.3%	1.86%
Barrier Heigi Rarrier Tupe (0 Wall 1 Perr	nt:	0.0 reet				Heavy T	rucks:	85.39	6 2.0%	12.7%	0.66%
Centerline Dist to Barri	11). or:	52.0 feet		-							
Centerline Dist. to Observ	er:	52.0 feet		4	Noise So	ource E	levation	s (in f	eet)		
Barrier Distance to Observ	er:	0.0 feet				Auto	is: 0.	000			
Observer Height (Above Pa	d):	5.0 feet			Mediu	m Truck	(S. 2.	297	Crada Ad	iuotmont	
Pad Elevation	on:	0.0 feet			Heat	у ттиск	S. 8.	004	Grade Auj	usunen	0.0
Road Elevation	on:	0.0 feet		1	Lane Eq	uivalen	t Distan	ce (in	feet)		
Road Grad	de:	0.0%				Auto	s: 38.	781			
Left Vie	W.	-90.0 degre	es		Mediu	m Truck	s: 38.	553			
Right Vie	W.	90.0 degre	es		Hear	/y Truck	is: 38.	575			
FHWA Noise Model Calcula	tions										
VehicleType REMEL	<u>L</u>	Traffic Flow	Di	stance	Finite	Road	Fresr	nel	Barrier Att	en Ber	m Atten
Autos: 7	1.78	-4.61		1.5	5	-1.20		-4.66	0.0	000	0.00
Medium Trucks: 82	2.40	-21.80		1.5	9	-1.20		-4.87	0.0	000	0.00
Heavy Trucks: 8	6.40	-26.30		1.5	9	-1.20		-5.41	0.0	000	0.00
Unmitigated Noise Levels (	witho	ut Topo and	barri	ier atten	uation)						
VehicleType Leq Peak	Hour	<ul> <li>Leq Day</li> </ul>	/	Leq E	vening	Leq	Night		Ldn	C	VEL
Autos:	67.	5	67.3		64.8		61.2	2	69.1	1	69.
Medium Trucks:	61.	0	61.1		56.3		53.8	5	62.0	J	62.
Vehicle Noise:	60.	0	8.00		50.4 65.9		53.8	5	61.8	5	61. 70
venicie ivolse:	09.	U	00.9		0.00		62.0	0	70.:	נ	70.
Centerline Distance to Nois	e Col	ntour (in feet	)	70 -	dRΔ	65	dBA	1	60 dBA	55	dBA
			I dn'	701	-DA 56	05	120		250	- 55	550
		C	NEL.		50		120		259		501
		0			55		121		214		551

Saturday, October 14, 2023

	FHWA-RD	-77-108 HIGHWA	Y NOISE	E PREDIC	TION M	ODEL (	9/12/20	)21)		
Scenar Road Nam Road Segmei	io: EC (2032) le: Challenger nt: s/o Avenue	Ny. L			Project Job N	Name: . umber:	Antelop 14267	oe Valley (	Commerc	2
SITE	SPECIFIC IN	PUT DATA			N	OISE I	IODE		s	
Highway Data				Site Con	ditions	(Hard =	10, So	ft = 15)		
Average Daily	FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12)           Scenario: EC (2032)         Project Name: Antel           Road Name: Challenger Wy.         Job Number: 1426           SITE SPECIFIC INPUT DATA         NOISE MODE           Peak Hour Volume: 645 vehicles         Vehicle Speed: 55 mph           Vehicle Speed: 55 mph         Vehicle Speed: 52 0 feet         Medium Trucks: 81.9           Noise Source Elevations (in Autos: 0.000           Medium Trucks: 85.3           Heavy Trucks: 85.3           Peak Hour Interver: 52.0 feet           Autos: 0.000           Medium Trucks: 2.297           Read Elevation: 0.0 feet           Radie Grade: 0.0%           Autos: 38.781           Medium Trucks: 38.593           Right View: 90.0 degrees           Right View: 90.0 degrees		Autos:	15						
Peak Hour	Percentage:	6.63%		Me	dium Tru	icks (2 /	Axles):	15		
Peak H	lour Volume:	645 vehicles		He	avy Truc	:ks (3+ /	Axles):	15		
Ve	hicle Speed:	55 mph	-	Vehicle	Mix					
Near/Far La	ne Distance:	70 feet	-	Vehicle	icleTvne	1	Dav	Evenina	Niaht	Daily
Site Data				VCII	A	utos:	75.2%	10.7%	14.0%	97.39%
Ba	wier Height	0.0 feet		М	edium Tr	ucks:	81.9%	6.8%	11.3%	1.93%
Barrier Type (0-M	(all 1-Berm)	0.0 1001			leavy Tr	ucks:	85.3%	2.0%	12.7%	0.69%
Centerline Di	st. to Barrier:	52.0 feet	-					0		
Centerline Dist.	to Observer:	52.0 feet	-	Noise So	ource El	evation	s (in fe	et)		
Barrier Distance	to Observer:	0.0 feet			Autos	5.' 0.	000			
Observer Height (	Above Pad):	5.0 feet		Mediu	m Trucks	3. 2.	297	Crada Ad	livetment	
Pa	ad Elevation:	0.0 feet		Heav	y Trucks	5. 8.	J04	Grade Au	Jusuneni	. 0.0
Roa	ad Elevation:	0.0 feet	[	Lane Eq	uivalent	Distan	ce (in f	eet)		
1	Road Grade:	0.0%	ſ		Autos	38.	781			
	Left View:	-90.0 degrees		Mediu	m Trucks	38.	553			
	Right View:	90.0 degrees		Heav	y Trucks	s: 38.	575			
FHWA Noise Mode	el Calculations									
VehicleType	REMEL	Traffic Flow L	Distance	Finite	Road	Fresr	el i	Barrier Att	en Bei	rm Atten
Autos:	71.78	-4.73	1.5	55	-1.20		-4.66	0.0	000	0.000
Medium Trucks:	82.40	-21.76	1.5	59	-1.20		-4.87	0.0	000	0.000
Heavy Trucks:	86.40	-26.26	1.5	59	-1.20		-5.41	0.0	000	0.000
Unmitigated Noise	e Levels (witho	ut Topo and bar	rier attei	nuation)						
VehicleType	Leq Peak Hou	r Leq Day	Leq E	vening	Leq	Night		Ldn	C	NEL
Autos:	67.	4 67.2	2	64.7		61.1		68.9	9	69.4
Medium Trucks:	61.	0 61.3	2	56.4		53.8	3	62.	1	62.4
Heavy Trucks:	60.	5 60.8	8	50.5		53.8	}	61.6	3	61.9
Vehicle Noise:	69.	0 68.9	9	65.5		62.5	5	70.4	4	70.8
Centerline Distanc	e to Noise Co	ntour (in feet)	70	-/04		10.4		0.404		
		l da	/0	abA 55	65 (	1BA 440	6	U aBA	55	OBA
		Lan	1: ,	55		119		256	•	552
		CNEL	-	58		126		271		584

	FHWA-RD	0-77-108 HIGHWA	Y NOISE	PREDIC	TION MC	DDEL (S	9/12/2	:021)		
Scenai Road Nan Road Segme	rio: ECP (2032) ne: Challenger ent: s/o Avenue	Wy.			Project I Job Nu	Vame: A mber: 1	Antelo	ppe Valley C	ommer	C
SITE	SPECIFIC IN	PUT DATA			N	DISE N	IODE	EL INPUTS	5	
Highway Data				Site Con	ditions (I	Hard =	10, S	oft = 15)		
Average Daily Peak Hour	Traffic (Adt): Percentage:	11,159 vehicles 6.63%		Me	dium Tru	cks (2 A	Autos (xles)	: 15 : 15		
Peak	Hour Volume:	740 vehicles		не	avy Truci	(S (3+ A	(xies)	15		
Near/Ear L	enicie Speed:	55 mpn	[	Vehicle I	Mix					
iveai/i ai La	ine Distance.	70 leet		Veh	icleType		Day	Evening	Night	Daily
Site Data					A	utos:	75.29	6 10.7%	14.0%	97.72%
Ba	rrier Height:	0.0 feet		M	edium Tru	icks:	81.9%	6.8%	11.3%	1.68%
Barrier Type (0-V	Vall, 1-Berm):	0.0			Heavy Tru	icks:	85.3%	6 2.0%	12.7%	0.60%
Centerline D	ist. to Barrier:	52.0 feet		Noise So	ource Ele	vations	in f	eet)		
Centerline Dist.	to Observer:	52.0 feet			Autos.	0.0	000			
Barrier Distance	to Observer:	0.0 feet		Mediu	m Trucks.	2.2	297			
Observer Height	(Above Pad):	5.0 feet		Heav	y Trucks.	8.0	004	Grade Adj	ustmen	t: 0.0
P	ad Elevation:	0.0 feet	-	1 F		Di-4	- 6-	f 41		
Ro	ad Elevation:	0.0 feet	-	Lane Eq	uivalent	Distanc	e (In	reet)		
	Road Grade:	0.0%		Martin	Autos.	38.	181			
	Right View:	-90.0 degrees 90.0 degrees		Heav	n Trucks. vy Trucks.	38.5	53 575			
FHWA Noise Mod	el Calculation	s								
VehicleType	REMEL	Traffic Flow D	Distance	Finite	Road	Fresn	el	Barrier Atte	en Be	rm Atten
Autos:	71.78	-4.12	1.5	55	-1.20		-4.66	0.0	00	0.000
Medium Trucks:	82.40	-21.76	1.5	59	-1.20		-4.87	0.0	00	0.000
Heavy Trucks:	86.40	-26.26	1.5	59	-1.20		-5.41	0.0	00	0.000
Unmitigated Nois	e Levels (with	out Topo and barı	rier atter	nuation)						
VehicleType	Leq Peak Hou	r Leq Day	Leq E	vening	Leq N	light		Ldn	C	NEL
Autos:	68	.0 67.8	3	65.3		61.7		69.5	;	70.0
Medium Trucks:	61	.0 61.2	2	56.4		53.8		62.1		62.4
Heavy Trucks:	60	.5 60.8	3	50.5		53.8		61.8	5	61.9
Vehicle Noise:	69	.4 69.3	3	66.0		62.9		70.8	5	71.2
Centerline Distan	ce to Noise Co	ontour (in feet)					r			
			70	dBA	65 d	BA		60 dBA	55	i dBA
		Ldn	¢	59		127		275		592
		CNEL	2	63		135		291		626

	FHWA-R	D-77-108 HIGH	WAY N	OISE	PREDIC	TION MO	DDEL (	9/12/2	021)		
Scenai Road Nan Road Segme	io: E ne: 20th St. nt: n/o Avenue	M				Project I Job Nu	Vame: / mber: `	Antelo 14267	pe Valley (	Commerc	;
SITE	SPECIFIC IN	IPUT DATA				N	DISE N	IODE	L INPUT	S	
Highway Data				S	ite Con	ditions (	Hard =	10, Sc	oft = 15)		
Average Daily	Traffic (Adt):	6,199 vehicl	es				,	Autos:	15		
Peak Hour	Percentage:	6.63%			Me	dium Tru	cks (2 A	(xles)	15		
Peak H	lour Volume:	411 vehicle	s		He	avy Truci	ks (3+ A	Axles):	15		
Ve	hicle Speed:	55 mph		V	ohicle I	Aix					
Near/Far La	ne Distance:	70 feet		-	Vehi	cleTvpe		Dav	Evenina	Night	Dailv
Site Data						A	utos:	75.2%	10.7%	14.0%	97.39%
Ba	rrier Heiaht:	0.0 feet			Me	edium Tru	icks:	81.9%	6.8%	11.3%	1.93%
Barrier Type (0-V	/all, 1-Berm):	0.0			ŀ	leavy Tru	icks:	85.3%	2.0%	12.7%	0.69%
Centerline D	st. to Barrier:	52.0 feet		N	loise So	urce Ele	vation	s (in fe	eet)		
Centerline Dist.	to Observer:	52.0 feet				Autos	: 0.0	000	,		
Barrier Distance	to Observer:	0.0 feet			Mediur	n Trucks	2.2	297			
Observer Height	(Above Pad):	5.0 feet			Heav	v Trucks	. 8.0	004	Grade Ad	justment	: 0.0
P	ad Elevation:	0.0 feet		-							
Ro	ad Elevation:	0.0 feet		L	ane Equ	iivalent	Distanc	e (in i	feet)		
	Road Grade:	0.0%				Autos	38.	781			
	Left View:	-90.0 degre	es		Mediur	n Trucks	38.	553			
	Right View:	90.0 degre	es		Heav	y Trucks	38.	575			
FHWA Noise Mod	el Calculation	s									
VehicleType	REMEL	Traffic Flow	Dista	nce	Finite	Road	Fresn	el	Barrier Att	en Ber	m Atten
Autos:	71.78	-6.69		1.55		-1.20		-4.66	0.0	000	0.000
Medium Trucks:	82.40	-23.72		1.59	1	-1.20		-4.87	0.0	000	0.000
Heavy Trucks:	86.40	-28.21		1.59		-1.20		-5.41	0.0	000	0.000
Unmitigated Nois	e Levels (with	out Topo and	barrier	attenu	uation)						
VehicleType	Leq Peak Ho	ur Leq Da	/ L	eq Ev	ening	Leq N	light		Ldn	C	NEL
Autos:	65	5.4	65.2		62.8		59.2	2	67.0	D	67.4
Medium Trucks:	59	9.1	59.2		54.4		51.9	)	60.	1	60.4
Heavy Trucks:	58	3.6	58.9		48.5		51.9	)	59.9	9	60.0
Vehicle Noise:	67	.0	66.9		63.5		60.5	5	68.4	4	68.8
Centerline Distan	ce to Noise C	ontour (in feet	)								
				70 d	BA	65 d	BA	6	60 dBA	55	dBA
			Ldn:		41		88		190		409
		С	NEL:		43		93		201		432

	FHWA-RL	D-77-106 HIGH	IVVAT	NUISE	PREDIC		ODEL (	9/12/2	021)		
Scenario	o: EP					Project	Name: I	Antelo	pe Valley C	ommer	>
Road Name	e: 20th St.					Job Ni	imber: *	4267			
Road Segmen	nt: n/o Avenue	M									
SITE S	SPECIFIC IN	IPUT DATA				N	OISE N	IODE	L INPUT	s	
Highway Data				-	Site Con	ditions (	'Hard =	10, So	oft = 15)		
Average Daily	Traffic (Adt):	6,722 vehicle	es				,	Autos:	15		
Peak Hour I	Percentage:	6.63%			Me	dium Tru	cks (2 A	xles):	15		
Peak He	our Volume:	446 vehicle	s		He	avy Truc	ks (3+ A	xles):	15		
Vel	hicle Speed:	55 mph		1	Vehicle I	Nix					
Near/Far Lar	ne Distance:	70 feet		-	Veh	cleType		Day	Evening	Night	Daily
Site Data						A	utos:	75.2%	10.7%	14.0%	97.59%
Bar	rier Heiaht:	0.0 feet			Me	edium Tr	ucks:	81.9%	6.8%	11.3%	1.78%
Barrier Type (0-Wa	all, 1-Berm):	0.0			ŀ	leavy Tr	ucks:	85.3%	2.0%	12.7%	0.63%
Centerline Dis	t. to Barrier:	52.0 feet		-	Noiso Sr	urco Ele	vation	in f	aat)		
Centerline Dist. t	to Observer:	52.0 feet		F	10.00 00	Autos	. 00	000	,		
Barrier Distance t	to Observer:	0.0 feet			Mediu	n Trucks	. 0.0	997			
Observer Height (/	Above Pad):	5.0 feet			Heav	v Trucks	. 8.0	004	Grade Ad	iustment	: 0.0
Pa	d Elevation:	0.0 feet		_		,					
Roa	d Elevation:	0.0 feet		1	Lane Eq	uivalent	Distand	e (in	feet)		
F	Road Grade:	0.0%				Autos	: 38.	781			
	Left View:	-90.0 degre	es		Mediui	n Trucks	38.	53			
	Right View:	90.0 degre	es		Heav	y Trucks	38.	5/5			
FHWA Noise Mode	Calculation:	s									
VehicleType	REMEL	Traffic Flow	Di	stance	Finite	Road	Fresn	el	Barrier Att	en Ber	m Atten
Autos:	71.78	-6.32		1.5	5	-1.20		-4.66	0.0	000	0.00
Medium Trucks:	82.40	-23.72		1.5	9	-1.20		-4.87	0.0	000	0.00
Heavy Trucks:	86.40	-28.21		1.5	9	-1.20		-5.41	0.0	000	0.00
Unmitigated Noise	Levels (with	out Topo and	barri	ier atten	uation)						
VehicleType	Leq Peak Hou	ir Leq Day	1	Leg E	vening	Leq I	Vight		Ldn	C	NEL
Autos:	65	.8	65.6		63.1		59.5		67.3	3	67.
Medium Trucks:	59	.1	59.2		54.4		51.9		60.1	I	60.4
Heavy Trucks:	58	.6	58.9		48.5		51.9		59.9	)	60.
Vehicle Noise:	67	.3	67.2		63.8		60.8		68.1	7	69.
Centerline Distanc	e to Noise Co	ontour (in feet	)								
				70 0	dBA	65 c	<i>IBA</i>	6	60 dBA	55	dBA
			Ldn:		43		92		198		426
		C	NEL		45		97		209		450

Saturday, October 14, 2023

	FHWA-RD	0-77-108 HIGHV	VAY NO	ISE F	PREDIC	TION M	ODEL (	9/12/2	021)			
Scenai Road Nan Road Segme	rio: EC (2025) ne: 20th St. ent: n/o Avenue	М				Project Job N	Name: / umber: `	Antelo 14267	pe Valley	Com	merc	
SITE	SPECIFIC IN	PUT DATA				N	OISE N	IODE	L INPU	TS		
Highway Data				S	ite Con	ditions	(Hard =	10, So	oft = 15)			
Average Daily	Traffic (Adt):	6,199 vehicles	6				,	Autos:	15			
Peak Hour	Percentage:	6.63%			Me	dium Tru	icks (2 A	(xles)	15			
Peak H	Hour Volume:	411 vehicles			He	avy Truc	:ks (3+ A	(xles)	15			
Ve	ehicle Speed:	55 mph		V	ohiclo	Mix						
Near/Far La	ane Distance:	70 feet		v	Veh	VIIX		Dav	Evening	. Ni	aht	Daily
Site Data				+	ven	icie i ype A	utos:	75.2%	10.7%	1	4.0%	97.39%
		0.0.6			м	edium Tr	ucks:	81.9%	6.8%	1	1.3%	1.93%
Ba Parrier Type (0 V	Vall 1 Borm):	0.0 reet				Heavv Tr	ucks:	85.3%	2.0%	5 13	2.7%	0.69%
Centerline D	ist to Barrier	52.0 feet										
Centerline Dist	to Observer:	52.0 feet		N	oise So	burce El	evations	s (in f	eet)			
Barrier Distance	to Observer:	0.0 feet				Autos	s: 0.0	000				
Observer Height	(Above Pad):	5.0 feet			Mediu	m Trucks	s: 2.2	297				
P	ad Elevation:	0.0 feet			Heav	y Trucks	s: 8.0	004	Grade A	ajust	ment:	0.0
Ro	ad Elevation:	0.0 feet		L	ane Eq	uivalent	Distand	e (in	feet)			
	Road Grade:	0.0%				Autos	: 38.	781				
	Left View:	-90.0 degrees			Mediu	m Trucks	38.	553				
	Right View:	90.0 degrees	3		Heav	/y Trucks	38.	575				
FHWA Noise Mod	lel Calculations	5		_								
VehicleType	REMEL	Traffic Flow	Distan	се	Finite	Road	Fresn	el	Barrier A	tten	Berr	n Atten
Autos:	71.78	-6.69		1.55		-1.20		-4.66	0	0.000		0.000
Medium Trucks:	82.40	-23.72		1.59		-1.20		-4.87	0	0.000		0.000
Heavy Trucks:	86.40	-28.21		1.59		-1.20		-5.41	0	0.000		0.000
Unmitigated Nois	e Levels (with	out Topo and b	arrier a	ttenu	ation)							
VehicleType	Leq Peak Hou	r Leq Day	Le	q Eve	ening	Leq	Night		Ldn		CN	IEL
Autos:	65	.4 6	5.2		62.8		59.2	2	67	.0		67.4
Medium Trucks:	59	.1 5	9.2		54.4		51.9	)	60	).1		60.4
Heavy Trucks:	58	.6 5	8.9		48.5		51.9	)	59	9.9		60.0
Vehicle Noise:	67	.0 6	6.9		63.5		60.5	5	68	3.4		68.8
Centerline Distan	ce to Noise Co	ontour (in feet)						1				
				70 dl	BA	65 0	зBA		60 dBA		55	dBA
		L	dn:		41		88		19	90		409
		CN	EL:		43		93		20	)1		432

	FHWA-RI	D-77-108 HIGHV	VAY NO	ISE P	REDIC		DEL (	9/12/2	.021)			
Scenar Road Nan Road Segme	io: ECP (2025 ne: 20th St. nt: n/o Avenue	i) e M				Project N Job Nu	lame: / mber: '	Antelo 14267	ppe Valley (	Comi	nerc	
SITE	SPECIFIC IN	NPUT DATA				NC	DISE N	NODE	EL INPUT	s		
Highway Data				Si	te Con	ditions (H	lard =	10, S	oft = 15)			
Average Daily	Traffic (Adt):	6,341 vehicles	6					Autos	: 15			
Peak Hour	Percentage:	6.63%			Me	dium Truc	:ks (2 A	Axles)	: 15			
Peak H	lour Volume:	420 vehicles			He	avy Truck	is (3+ A	Axles)	: 15			
Ve	hicle Speed:	55 mph		Ve	hicle I	Mix						
Near/Far La	ne Distance:	70 feet		-	Vehi	icleTvpe		Dav	Evenina	Nic	tht	Dailv
Site Data						AL	itos:	75.29	6 10.7%	14	.0%	97.45%
Ba	rrier Height	0.0 feet			Me	edium Tru	cks:	81.9%	6.8%	11	.3%	1.88%
Barrier Type (0-V	Vall. 1-Berm):	0.0			ŀ	leavy Tru	cks:	85.3%	6 2.0%	12	.7%	0.67%
Centerline Di	st. to Barrier:	52.0 feet		No	nisa Sa	urce Fle	vation	s (in f	ioof)			
Centerline Dist.	to Observer:	52.0 feet		/**	//30 00	Autos	0.0	000	000			
Barrier Distance	to Observer:	0.0 feet			Modiu	m Trucke:	2 2	207				
Observer Height	(Above Pad):	5.0 feet			Heav	n Trucks. N Trucks:	8.0	004	Grade Ac	liustr	nent:	0.0
P	ad Elevation:	0.0 feet			neav	y mucho.	0.0	004		,		
Ro	ad Elevation:	0.0 feet		La	ne Equ	uivalent L	Distand	ce (in	feet)			
	Road Grade:	0.0%				Autos:	38.	781				
	Left View:	-90.0 degrees	6		Mediur	m Trucks:	38.	553				
	Right View:	90.0 degrees	3		Heav	y Trucks:	38.	575				
FHWA Noise Mod	el Calculation	s										
VehicleType	REMEL	Traffic Flow	Distan	ce	Finite	Road	Fresn	el	Barrier At	ten	Bern	n Atten
Autos:	71.78	-6.58		1.55		-1.20		-4.66	0.	000		0.000
Medium Trucks:	82.40	-23.72		1.59		-1.20		-4.87	0.	000		0.000
Heavy Trucks:	86.40	-28.21		1.59		-1.20		-5.41	0.	000		0.000
Unmitigated Nois	e Levels (with	out Topo and b	arrier at	ttenua	ation)							
VehicleType	Leq Peak Ho	ur Leq Day	Le	q Eve	ning	Leq N	ight		Ldn		CN	IEL
Autos:	65	5.5 6	5.3		62.9		59.3	3	67.	1		67.5
Medium Trucks:	59	9.1 5	9.2		54.4		51.9	)	60.	1		60.4
Heavy Trucks:	58	3.6 5	8.9		48.5		51.9	)	59.	9		60.0
Vehicle Noise:	67	7.1 6	7.0		63.6		60.6	6	68.	5		68.9
Centerline Distan	ce to Noise C	ontour (in feet)										-
				70 dB	BA	65 dl	ВА		60 dBA		55 c	1BA
		L	dn:		41		89		192	2	_	414
		CN	EL:		44		94		203	3		437

	FHWA-RI	D-77-108 HIGH	WAY NO	ISE F	PREDIC	TION MO	ODEL (	9/12/2	021)		
Scenar Road Nan Road Segme	nio: EC (2032) ne: 20th St. nt: n/o Avenue	M				Project I Job Nu	Vame: Imber:	Antelo 14267	pe Valley	Comme	rc
SITE	SPECIFIC IN	IPUT DATA				N	OISE	MODE	L INPUT	s	
Highway Data				S	ite Con	ditions (	Hard =	: 10, S	oft = 15)		
Average Daily	Traffic (Adt):	6,199 vehicl	es					Autos	15		
Peak Hour	Percentage:	6.63%			Med	dium Tru	cks (2	Axles).	15		
Peak H	lour Volume:	411 vehicle	s		Hea	avy Truci	ks (3+.	Axles).	15		
Ve	hicle Speed:	55 mph		V	ohiclo I	Aix					
Near/Far La	ne Distance:	70 feet		-	Vehi	cleTvpe		Dav	Evenina	Niaht	Dailv
Site Data						A	utos:	75.2%	6 10.7%	14.0	% 97.39%
Ba	rrier Heiaht:	0.0 feet			Ме	edium Tru	ucks:	81.9%	6.8%	11.39	% 1.93%
Barrier Type (0-W	/all, 1-Berm):	0.0			H	leavy Tru	ucks:	85.3%	6 2.0%	12.79	% 0.69%
Centerline Di	st. to Barrier:	52.0 feet		N	oise So	urce Ele	vation	s (in f	eet)		
Centerline Dist.	to Observer:	52.0 feet				Autos	: 0	.000	,		
Barrier Distance	to Observer:	0.0 feet			Mediur	n Trucks	: 2	297			
Observer Height	(Above Pad):	5.0 feet			Heav	y Trucks	: 8	.004	Grade Ad	djustmer	nt: 0.0
P	ad Elevation:	0.0 feet						,,		-	
Ro	ad Elevation:	0.0 feet		Li	ane Equ	livalent	Distan	ce (In	teet)		
	Road Grade:	0.0%				Autos.	: 38	.781			
	Left View:	-90.0 degre	es		Meaiur	n Trucks.	: 38	.553			
	Right View:	90.0 degre	es		Heav	y Trucks	: 38	.575			
FHWA Noise Mod	el Calculation	s									
VehicleType	REMEL	Traffic Flow	Distan	се	Finite	Road	Fres	nel	Barrier At	ten Be	erm Atten
Autos:	71.78	-6.69		1.55		-1.20		-4.66	0.	.000	0.000
Medium Trucks:	82.40	-23.72		1.59		-1.20		-4.87	0.	.000	0.000
Heavy Trucks:	86.40	-28.21		1.59		-1.20		-5.41	0.	.000	0.000
Unmitigated Nois	e Levels (with	out Topo and	barrier a	ttenu	ation)						
VehicleType	Leq Peak Hou	ur Leq Day	/ Le	q Eve	ening	Leq N	light		Ldn	(	CNEL
Autos:	65	5.4	65.2		62.8		59.	2	67.	.0	67.4
Medium Trucks:	59	9.1	59.2		54.4		51.	9	60.	.1	60.4
Heavy Trucks:	58	3.6	58.9		48.5		51.	9	59.	.9	60.0
Vehicle Noise:	67	r.0	66.9		63.5		60.	5	68.	.4	68.8
Centerline Distan	ce to Noise C	ontour (in feet	)								
			🖵	70 dl	BA	65 d	BA		bu dBA	5	5 dBA
			Ldn:		41		88	3	190	0	409
		C	NEL:		43		93	3	20	1	432

				TOIOL			<b>69555</b> (1		<i></i>		
Scenari	o: ECP (2032	.)				Project	Name: I	Antelo	pe Valley C	Commerc	;
Road Nam	e: 20th St.					Job N	umber: *	4267			
Road Segmer	nt: n/o Avenue	: M									
SITES	SPECIFIC IN	IPUT DATA				N	OISE N	IODE	L INPUT	S	
Highway Data					Site Con	ditions	(Hard =	10, Sc	oft = 15)		
Average Daily	Traffic (Adt):	6,722 vehicle	es					Autos:	15		
Peak Hour	Percentage:	6.63%			Mee	dium Tru	ucks (2 A	xles):	15		
Peak H	our Volume:	446 vehicle	s		Hei	avy Truc	cks (3+ A	xles):	15		
Vel	hicle Speed:	55 mph			Vehicle N	lix					
Near/Far Lar	ne Distance:	70 feet			Vehi	cleType		Day	Evening	Night	Daily
Site Data						A	Autos:	75.2%	10.7%	14.0%	97.59%
Bar	rier Heiaht:	0.0 feet			Me	edium Ti	ucks:	81.9%	6.8%	11.3%	1.78%
Barrier Type (0-W	all, 1-Berm):	0.0			F	leavy Ti	ucks:	85.3%	2.0%	12.7%	0.63%
Centerline Dis	t. to Barrier:	52.0 feet		-	Noiso So	urco El	ovation	(in fr	ootl		
Centerline Dist.	to Observer:	52.0 feet			140/36 30	Auto		000	eel)		
Barrier Distance	o Observer:	0.0 feet			Mediur	n Truck	5. 0.0	007			
Observer Height (J	Above Pad):	5.0 feet			Heav	v Truck	s: 8.0	004	Grade Ad	iustment	: 0.0
Pa	d Elevation:	0.0 feet				,					
Roa	d Elevation:	0.0 feet		4	Lane Equ	iivalent	Distanc	e (in i	feet)		
F	Road Grade:	0.0%				Auto:	s: 38.	781			
	Left View:	-90.0 degre	es		Mediur	n Truck	s: 38.	53			
	Right View:	90.0 degree	es		Heav	y Trucks	s: 38.	575			
FHWA Noise Mode	l Calculation	s									
VehicleType	REMEL	Traffic Flow	Dis	stance	Finite	Road	Fresn	el	Barrier Att	en Ber	m Atten
Autos:	71.78	-6.32		1.5	5	-1.20		-4.66	0.0	000	0.000
Medium Trucks:	82.40	-23.72		1.5	9	-1.20		-4.87	0.0	000	0.00
Heavy Trucks:	86.40	-28.21		1.5	9	-1.20		-5.41	0.0	000	0.000
Unmitigated Noise	Levels (with	out Topo and	barrie	er atter	uation)						
VehicleType	Leq Peak Hou	ur Leq Day	/	Leq E	vening	Leq	Night		Ldn	C	NEL
Autos:	65	i.8	65.6		63.1		59.5		67.3	3	67.8
Medium Trucks:	59	).1	59.2		54.4		51.9		60.1	1	60.4
Heavy Trucks:	58	1.6	58.9		48.5		51.9		59.9	9	60.0
Vehicle Noise:	67	'.3	67.2		63.8		60.8		68.7	7	69.
Centerline Distanc	e to Noise Co	ontour (in feet	)								
			. L	70	dBA	65	dBA	6	60 dBA	55	dBA
		-	Ldn:		43		92		198		426
		C	NEL:		45		97		209		450

Saturday, October 14, 2023

	FHWA-RD	0-77-108 HIGHV	VAY NOI	SE I	PREDIC		NODEL (	9/12/2	:021)			
Scenar Road Nam Road Segme	io: E le: Avenue M nt: w/o SR-14	SB Ramps				Projec Job N	t Name: lumber:	Antelo 14267	pe Valle	/ Con	nmerc	
SITE	SPECIFIC IN	IPUT DATA					NOISE	MODE	EL INPU	TS		
Highway Data				S	ite Con	ditions	(Hard =	10, S	oft = 15)			
Average Daily	Traffic (Adt):	18,626 vehicles	5					Autos	15			
Peak Hour	Percentage:	6.63%			Me	dium Ti	rucks (2	Axles).	: 15			
Peak H	lour Volume:	1,235 vehicles			He	avy Tru	cks (3+ )	Axles).	: 15			
Ve	hicle Speed:	50 mph		V	ohiclo	Mix						
Near/Far La	ne Distance:	87 feet		-	Veh	icleType	9	Day	Evenin	q N	ight	Daily
Site Data				+			Autos:	75.2%	6 10.79	% 1	4.0%	97.39%
Ba	rrier Heiaht:	0.0 feet			М	edium 1	rucks:	81.9%	6.89	% 1	1.3%	1.93%
Barrier Type (0-W	all, 1-Berm):	0.0			1	Heavy 1	rucks:	85.3%	6 2.09	% 1	2.7%	0.69%
Centerline Di	st. to Barrier:	68.0 feet		N	loise So	ource E	levation	s (in f	eet)			
Centerline Dist.	to Observer:	68.0 feet		F		Auto	os: 0	000	,			
Barrier Distance	to Observer:	0.0 feet			Mediu	m Truck	(s <sup>.</sup> 2	297				
Observer Height (	Above Pad):	5.0 feet			Heav	/v Truck	(s: 8	004	Grade	Adjus	tment:	0.0
Pa	ad Elevation:	0.0 feet		L								
Roa	ad Elevation:	0.0 feet		L	ane Eq	uivalen	t Distan	ce (in	feet)			
1	Road Grade:	0.0%				Auto	os: 52	505				
	Left View:	-90.0 degrees	6		Mediu	m Truck	(s: 52	.336				
	Right View:	90.0 degrees	6		Heav	/y Truck	(s: 52	.352				
FHWA Noise Mode	el Calculation	s										
VehicleType	REMEL	Traffic Flow	Distanc	e	Finite	Road	Fresi	nel	Barrier /	Atten	Ben	m Atten
Autos:	70.20	-1.49	-	0.42		-1.20		-4.71		0.000		0.000
Medium Trucks:	81.00	-18.53	-	0.40		-1.20		-4.88		0.000		0.000
Heavy Trucks:	85.38	-23.02	-	0.40		-1.20		-5.29		0.000		0.000
Unmitigated Noise	e Levels (with	out Topo and b	arrier at	tenu	ation)							
VehicleType	Leq Peak Hou	ir Leq Day	Leo	; Ev	ening	Leq	Night		Ldn		CI	IEL
Autos:	67	.1 6	6.8		64.4		60.	В	6	8.6		69.0
Medium Trucks:	60	.9 6	1.0		56.2		53.	7	6	1.9		62.2
Heavy Trucks:	60	.8 6	1.1		50.7		54.	0	6	2.1		62.1
Vehicle Noise:	68	.8 6	8.7		65.2		62.	3	7	0.2		70.5
Centerline Distant	ce to Noise Co	ontour (in feet)										
				70 d	BA	65	dBA	1	60 dBA		55	dBA
		L	.dn:		70		151		3	25		699
		CN	EL:		74		159	)	3	43		739

	FHWA-RL	0-77-108 HIGH	WATN	UISE F	REDIC	TION M	ODEL	9/12/2	021)		
Scenar	io: EP					Project	Name:	Antelo	pe Valley	Comme	rc
Road Nam	e: Avenue M					Job Nu	umber:	14267	,		
Road Segme	nt: w/o SR-14	SB Ramps									
SITE	SPECIFIC IN	PUT DATA				N	OISE	MODE		s	
Highway Data				S	ite Con	ditions (	Hard =	: 10, Se	oft = 15)		
Average Daily	Traffic (Adt):	19,149 vehicle	s					Autos:	15		
Peak Hour	Percentage:	6.63%			Mee	dium Tru	icks (2	Axles):	15		
Peak H	lour Volume:	1,270 vehicles	5		Hea	avy Truc	ks (3+	Axles):	15		
Ve	hicle Speed:	50 mph		V	ehicle N	<i>lix</i>					
Near/Far La	ne Distance:	87 feet		-	Vehi	cleType		Day	Evening	Night	Daily
Site Data						A	utos:	75.2%	10.7%	14.0	% 97.46%
Ba	rrier Heiaht:	0.0 feet			Me	edium Tr	ucks:	81.9%	6.8%	11.39	% 1.88%
Barrier Type (0-W	/all, 1-Berm):	0.0			F	leavy Tr	ucks:	85.3%	5 2.0%	12.7	% 0.67%
Centerline Di	st. to Barrier:	68.0 feet		N	oise So	urce Ele	evatior	s (in f	eet)		
Centerline Dist.	to Observer:	68.0 feet				Autos	. 0	000	,		
Barrier Distance	to Observer:	0.0 feet			Mediur	n Trucks	. 2	297			
Observer Height	(Above Pad):	5.0 feet			Heav	v Trucks	. –	004	Grade Ad	liustmei	nt: 0.0
P	ad Elevation:	0.0 feet		-							
Ro	ad Elevation:	0.0 feet		Li	ane Equ	iivalent	Distan	ce (in	feet)		
	Road Grade:	0.0%				Autos	: 52	.505			
	Left View:	-90.0 degree	'S		Mediur	n Trucks	: 52	.336			
	Right View:	90.0 degree	'S		Heav	y Trucks	: 52	.352			
FHWA Noise Mod	el Calculation:	s									
VehicleType	REMEL	Traffic Flow	Dista	nce	Finite	Road	Fres	nel	Barrier At	ten B	erm Atten
Autos:	70.20	-1.37		-0.42		-1.20		-4.71	0.	000	0.000
Medium Trucks:	81.00	-18.53		-0.40		-1.20		-4.88	0.	000	0.000
Heavy Trucks:	85.38	-23.02		-0.40		-1.20		-5.29	0.	000	0.000
Unmitigated Noise	e Levels (with	out Topo and	barrier a	attenu	ation)						
VehicleType	Leq Peak Hou	r Leq Day	Ĺ	eq Eve	ening	Leq I	Vight		Ldn		CNEL
Autos:	67	.2	67.0		64.5		60.	9	68.	7	69.2
Medium Trucks:	60	.9	61.0		56.2		53.	7	61.	9	62.2
Heavy Trucks:	60	.8	61.1		50.7		54.	0	62.	.1	62.1
Vehicle Noise:	68	.9	68.8		65.3		62.	4	70.	.3	70.6
Centerline Distant	ce to Noise Co	ontour (in feet)									
				70 dl	BA	65 0	1BA		50 dBA	5	5 dBA
			Ldn:		71		153	3	32	9	709
		CI	VEL:		75		16	I	34	7	749

	FHWA-RI	D-77-108 HIGH	WAY NO	ISE F	PREDIC	TION MC	DDEL (	9/12/20	021)		
Scenario Road Name Road Segmen	o: EC (2025) e: Avenue M tt: w/o SR-14	SB Ramps				Project N Job Nu	lame: i mber: `	Antelop 14267	be Valley C	Commerc	>
SITE S	SPECIFIC IN	PUT DATA				N	DISE	IODE		s	
Highway Data				S	ite Con	ditions (I	Hard =	10, So	ft = 15)		
Average Daily	Traffic (Adt):	19,259 vehicl	es				,	Autos:	15		
Peak Hour I	Percentage:	6.63%			Me	dium Truc	cks (2 A	Axles):	15		
Peak Ho	our Volume:	1,277 vehicle	s		He	avy Truck	(3+ A	Axles):	15		
Vel	hicle Speed:	50 mph		V	ehicle I	Mix					
Near/Far Lar	ne Distance:	87 feet		-	Vehi	icleTvpe		Dav	Evenina	Niaht	Dailv
Site Data						AL	utos:	75.2%	10.7%	14.0%	97.39%
Bar	rier Heiaht:	0.0 feet			Me	edium Tru	icks:	81.9%	6.8%	11.3%	1.93%
Barrier Type (0-Wa	all, 1-Berm):	0.0			ŀ	leavy Tru	icks:	85.3%	2.0%	12.7%	0.69%
Centerline Dis	t. to Barrier:	68.0 feet		N	oise So	urce Ele	vation	s (in fe	et)		
Centerline Dist. t	o Observer:	68.0 feet				Autos:	0.0	000			
Barrier Distance t	o Observer:	0.0 feet			Mediur	n Trucks:	2.5	297			
Observer Height (/	Above Pad):	5.0 feet			Heav	y Trucks:	8.0	004	Grade Ad	iustment	: 0.0
Pa	d Elevation:	0.0 feet					Di- 4	- C- A	41		
Roa	d Elevation:	0.0 feet		La	ane Equ	uivaient L	Jistano	:e (IN 1	eet)		
F	Road Grade:	0.0%			Madin	Autos:	52.	505			
	Left View: Pight View:	-90.0 degre	es		Heav	TI Trucks:	52.	330 352			
	Night view.	90.0 degre	55		near	y macks.	02.	002			
FHWA Noise Mode	l Calculation	s									
VehicleType	REMEL	Traffic Flow	Distan	се	Finite	Road	Fresn	e/	Barrier Att	en Ber	m Atten
Autos:	70.20	-1.35		-0.42		-1.20		-4.77	0.0	000	0.000
Medium Trucks:	81.00	-18.38		-0.40		-1.20		-4.66	0.0	000	0.000
neavy nucks.	00.00	-22.00		-0.40		-1.20		-9.29	0.0	000	0.000
Unmitigated Noise	Levels (with	out Topo and	barrier a	ttenu	ation)	1 1	l'auta d	1	Lala	-	
Venicie i ype	Leq Peak Hol	Ir Leq Day	67.0	eq Eve	ening	Leq N	ignt eo c		Lan		VEL 60.2
Medium Trucks:	61	.2	61.0		56.4		52.0	,	62 -	1	62.4
Heavy Trucks	10	1.0	61.2		50.4		54.2	,	62 1	2	62.3
Vehicle Noise:	68	3.9	68.8		65.3		62.4		70.3	3	70.7
Centerline Distanc	e to Noise Co	ontour (in feet	)								
		(		70 dł	BA	65 di	BA	6	0 dBA	55	dBA
			Ldn:		72		154		332	•	715
		C	NEL:		76		163		351		755

Scenario	5: ECP (2025)				Project N	lame: A	ntelo	be Valley C	ommerc	
Road Name	e: Avenue M	_			Job Nu	nber: 1	4267			
Road Segmen	t: w/o SR-14 SB	Ramps								
SITE S	PECIFIC INPU	IT DATA			NC	DISE N	ODE	L INPUT	5	
Highway Data				Site Con	ditions (F	lard =	10, Sc	oft = 15)		
Average Daily 1	Traffic (Adt): 19	402 vehicles				A	lutos:	15		
Peak Hour I	Percentage: 6	.63%		Med	dium Truc	:ks (2 A	xles):	15		
Peak Ho	our Volume: 1,2	286 vehicles		Hea	avy Truck	s (3+ A	xles):	15		
Veh	icle Speed:	50 mph		Vehicle N	lix					
Near/Far Lar	e Distance:	87 feet		Vehi	cleType	1	Day	Evening	Night	Daily
Site Data					AL	itos:	75.2%	10.7%	14.0%	97.41%
Ban	rier Height:	0.0 feet		Me	dium Tru	cks:	31.9%	6.8%	11.3%	1.91%
Barrier Type (0-Wa	all. 1-Berm):	0.0		H	leavy Tru	cks:	35.3%	2.0%	12.7%	0.68%
Centerline Dis	t. to Barrier:	68.0 feet	H	Naina Ca	uree Ele	otions	lin fe	(at)		
Centerline Dist. t	o Observer:	68.0 feet	Ľ	NUISe 30	urce Ele	auons	00	el)		
Barrier Distance t	o Observer:	0.0 feet		Modium	Autos.	0.0	00			
Observer Height (A	Above Pad):	5.0 feet		Heav	v Trucks.	2.2	97 04	Grade Ad	iustment	. 0 0
Pa	d Elevation:	0.0 feet		neav.	y mucks.	0.0	04	Orade Adj	usunen	0.0
Roa	d Elevation:	1	Lane Equ	ivalent L	Distanc	e (in i	feet)			
F	load Grade: 0	.0%			Autos:	52.5	05			
	Left View: -	90.0 degrees		Mediun	n Trucks:	52.3	36			
	Right View:	90.0 degrees		Heav	y Trucks:	52.3	52			
FHWA Noise Mode	l Calculations			1	1					
VehicleType	REMEL Tr	affic Flow Di	stance	Finite	Road	Fresn	e/	Barrier Atte	en Ber	m Atten
Autos:	70.20	-1.32	-0.4	2	-1.20		4.71	0.0	000	0.000
Medium Trucks:	81.00	-18.38	-0.4	0	-1.20		4.88	0.0	000	0.000
Heavy Trucks:	85.38	-22.88	-0.4	0	-1.20		·3.29	0.0	000	0.000
Unmitigated Noise	Levels (without	Topo and barri	ier atten	uation)						
VehicleType	Leq Peak Hour	Leq Day	Leq E	vening	Leq N	ight		Ldn	C	NEL
Autos:	67.3	67.0		64.6		61.0		68.8	3	69.2
Medium Trucks:	61.0	61.1		56.4		53.8		62.1		62.4
Heavy Trucks:	60.9	61.2		50.8		54.2		62.2	2	62.3
Vehicle Noise:	68.9	68.8		65.4		62.4		70.4	ļ	70.7
Centerline Distanc	e to Noise Conte	our (in feet)	70 /	1RA	65 di	34	ŕ	0 dBA	55	dBA
		l dn'	,01	70	00 01	155	, c	3354	55	710
		CNFL:		76		162		353		759
		UNILL.		10		103		552		130

Saturday, October 14, 2023

	FHWA-RI	D-77-108 HIGH\	NAY NOI	SE F	PREDIC		IODEL	(9/12/2	2021)			
Scenar Road Narr Road Segme	io: EC (2032) ne: Avenue M nt: w/o SR-14	SB Ramps				Projec Job N	t Name: lumber:	Antelo 14267	ope Valley	Com	merc	
SITE	SPECIFIC IN	IPUT DATA				I	NOISE	MOD	EL INPU	TS		
Highway Data				S	ite Con	ditions	(Hard =	= 10, S	oft = 15)			
Average Daily	Traffic (Adt):	19,682 vehicles	s					Autos	: 15			
Peak Hour	Percentage:	6.63%			Me	dium Ti	rucks (2	Axles)	: 15			
Peak H	lour Volume:	1,305 vehicles			He	avy Tru	icks (3+	Axles)	: 15			
Ve	hicle Speed:	50 mph		V	ehicle	Mix						
Near/Far La	ne Distance:	87 feet		F	Veh	icleType	e	Day	Evening	Nig	ght	Daily
Site Data							Autos:	75.29	6 10.7%	5 14	1.0%	97.39%
Ba	rrier Heiaht:	0.0 feet			М	edium 1	rucks:	81.9%	6.8%	5 11	.3%	1.93%
Barrier Type (0-W	/all, 1-Berm):	0.0			1	Heavy 1	rucks:	85.3%	% 2.0%	5 12	2.7%	0.69%
Centerline Di	st. to Barrier:	68.0 feet		N	oise So	ource E	levatior	ıs (in f	feet)			
Centerline Dist.	to Observer:	68.0 feet		-		Auto	os: 0	000				
Barrier Distance	to Observer:	0.0 feet			Mediu	m Truck	(s: 2	.297				
Observer Height	(Above Pad):	5.0 feet			Heav	v Truck	(s: 8	004	Grade A	diustr	nent:	0.0
P	ad Elevation:	0.0 feet			moun	,						
Ro	ad Elevation:	0.0 feet		L	ane Eq	uivalen	t Distan	ice (in	feet)			
	Road Grade:	0.0%				Auto	os: 52	.505				
	Left View:	-90.0 degree	S		Mediu	m Truck	(s: 52	.336				
	Right View:	90.0 degree	S		Heav	/y Truck	(s: 52	.352				
FHWA Noise Mod	el Calculation	s										
VehicleType	REMEL	Traffic Flow	Distanc	е	Finite	Road	Fres	nel	Barrier A	tten	Berr	m Atten
Autos:	70.20	-1.25	-(	).42		-1.20		-4.71	0	0.000		0.00
Medium Trucks:	81.00	-18.29	-(	0.40		-1.20		-4.88	0	0.000		0.00
Heavy Trucks:	85.38	-22.78	-(	0.40		-1.20		-5.29	0	0.000		0.00
Unmitigated Noise	e Levels (with	out Topo and b	arrier att	enu	ation)							
VehicleType	Leq Peak Hou	ır Leq Day	Leq	Eve	ening	Leq	Night		Ldn		CN	IEL
Autos:	67	.3 6	57.1		64.7		61.	0	68	8.9		69.
Medium Trucks:	61	.1 6	51.2		56.4		53.	.9	62	2.1		62.
Heavy Trucks:	61	.0 6	51.3		50.9		54.	3	62	2.3		62.
Vehicle Noise:	69	.0 6	68.9		65.4		62.	.5	70	).4		70.
Centerline Distant	ce to Noise Co	ontour (in feet)						1		-		
			7	'U dl	BA	65	авА		6U aBA	_	55	aBA 705
			an: El·		73		15	5	33	57 16		725
		CN	EL.		11		10	5	30	00		766

	FHWA-RL	0-77-108 HIGHV	AY NO	ISE PR	EDIC	TION MO	DEL (	9/12/2	021)			
Scenar	io: ECP (2032)	)				Project N	lame:	Antelo	pe Valley	Comm	erc	
Road Nam	e: Avenue M					Job Nur	mber:	14267				
Road Segme	nt: w/o SR-14	SB Ramps										
SITE	SPECIFIC IN	PUT DATA				NO	ISE	NODE	L INPUT	s		
Highway Data				Site	e Con	ditions (H	lard =	10, Sc	oft = 15)			-
Average Daily	Traffic (Adt):	20,205 vehicles						Autos:	15			
Peak Hour	Percentage:	6.63%			Med	dium Truc	:ks (2	Axles):	15			
Peak H	lour Volume:	1,340 vehicles			Hea	avy Truck	s (3+ .	Axles):	15			
Ve	hicle Speed:	50 mph		Vet	hicle M	lix						
Near/Far La	ne Distance:	87 feet			Vehi	cleType		Day	Evening	Nigh	t	Daily
Site Data						Au	tos:	75.2%	10.7%	14.0	0% 9	97.45%
Ba	rrier Height:	0.0 feet			Me	dium Tru	cks:	81.9%	6.8%	11.3	3%	1.88%
Barrier Type (0-W	/all. 1-Berm):	0.0			H	leavy Tru	cks:	85.3%	2.0%	12.7	7%	0.67%
Centerline Di	st. to Barrier:	68.0 feet		Noi	ico So	urco Elos	ation	e (in f	ootl			
Centerline Dist.	to Observer:	68.0 feet		1401	36 30	Autos:	0	000	eei)			
Barrier Distance	to Observer:	0.0 feet			Andium	n Trucks:	2	207				
Observer Height (	(Above Pad):	5.0 feet			Heav	v Trucks:	2.	004	Grade Ad	diustme	ant <sup>.</sup> (	0
Pa	ad Elevation:	0.0 feet			neav,	y macks.	0.	004		,		
Roa	ad Elevation:	0.0 feet		Lar	ne Equ	ivalent D	Distan	ce (in i	feet)			
1	Road Grade:	0.0%				Autos:	52	505				
	Left View:	-90.0 degrees		٨	Mediun	n Trucks:	52	336				
	Right View:	90.0 degrees			Heav	y Trucks:	52	352				
FHWA Noise Mode	el Calculation	s		_								
VehicleType	REMEL	Traffic Flow	Distan	ce i	Finite	Road	Fresi	nel	Barrier At	ten E	Berm	Atten
Autos:	70.20	-1.14		0.42		-1.20		-4.71	0.	000		0.000
Medium Trucks:	81.00	-18.29		0.40		-1.20		-4.88	0.	000		0.000
Heavy Trucks:	85.38	-22.78		0.40		-1.20		-5.29	0.	000		0.000
Unmitigated Noise	e Levels (with	out Topo and b	arrier a	tenua	tion)					-		-
VehicleType	Leq Peak Hou	r Leq Day	Le	q Even	ning	Leq Ni	ight		Ldn		CNE	L
Autos:	67	.4 6	7.2		64.8		61.	2	69.	.0		69.4
Medium Trucks:	61	.1 6	1.2		56.4		53.	Э	62.	.1		62.5
Heavy Trucks:	61	.0 6	1.3		50.9		54.	3	62.	.3		62.4
Vehicle Noise:	69	.1 6	9.0		65.5		62.	6	70.	.5		70.9
Centerline Distand	ce to Noise Co	ontour (in feet)								-		-
				70 dBA	4	65 dE	BA	6	60 dBA		55 dE	3A
		L	dn:		73		158	_	34	1		735
		CN	EL:		78		167		36	)		776

	FHWA-R	D-77-108 HIGH	WAY NO	ISE F	PREDIC	TION M	ODEL (	9/12/2	021)		
Scenar Road Nan Road Segme	io: E ne: Avenue M nt: e/o SR-14	NB Ramps				Project Job Nu	Name: . umber:	Antelo 14267	pe Valley (	Commerc	;
SITE	SPECIFIC IN	NPUT DATA				N	OISE P	NODE	L INPUT	S	
Highway Data				S	ite Con	ditions (	'Hard =	10, So	oft = 15)		
Average Daily	Traffic (Adt):	31,234 vehicl	es					Autos:	15		
Peak Hour	Percentage:	6.63%			Me	dium Tru	icks (2 /	Axles):	15		
Peak F	our Volume:	2,071 vehicle	s		He	avy Truc	ks (3+ )	Axles):	15		
Ve	hicle Speed:	50 mph		V	ohicle I	Niv					
Near/Far La	ne Distance:	87 feet		-	Vehi	icleTyne		Dav	Evenina	Niaht	Daily
Site Data					1011	A	utos:	75.2%	5 10.7%	14.0%	97.39%
Ba	rrier Heiaht:	0.0 feet			Me	edium Tri	ucks:	81.9%	6.8%	11.3%	1.93%
Barrier Type (0-W	/all, 1-Berm):	0.0			ŀ	leavy Tr	ucks:	85.3%	2.0%	12.7%	0.69%
Centerline Di	st. to Barrier:	68.0 feet		N	loise So	ource Ele	vation	s (in f	eet)		
Centerline Dist.	to Observer:	68.0 feet		-		Autos	. 0	000			-
Barrier Distance	to Observer:	0.0 feet			Mediur	n Trucks	2	297			
Observer Height	(Above Pad):	5.0 feet			Heav	v Trucks	: 8	004	Grade Ad	iustment	: 0.0
P	ad Elevation:	0.0 feet				,					
Ro	ad Elevation:	0.0 feet		L	ane Equ	uivalent	Distan	ce (in	feet)		
	Road Grade:	0.0%				Autos	:: 52.	505			
	Left View:	-90.0 degre	es		Mediur	m Trucks	:: 52.	336			
	Right View:	90.0 degre	es		Heav	y Trucks	: 52.	352			
FHWA Noise Mod	el Calculation	s									
VehicleType	REMEL	Traffic Flow	Distan	се	Finite	Road	Fresr	nel	Barrier Att	en Ber	m Atten
Autos:	70.20	0.75		-0.42		-1.20		-4.71	0.0	000	0.000
Medium Trucks:	81.00	-16.28		-0.40		-1.20		-4.88	0.0	000	0.000
Heavy Trucks:	85.38	-20.78		-0.40		-1.20		-5.29	0.0	000	0.000
Unmitigated Nois	e Levels (with	out Topo and	barrier a	ttenu	uation)						
VehicleType	Leq Peak Ho	ur Leq Day	/ Le	q Eve	ening	Leq I	Vight		Ldn	CI	NEL
Autos:	69	9.3	69.1		66.7		63.0	)	70.9	3	71.3
Medium Trucks:	63	3.1	63.2		58.5		55.9	9	64.3	2	64.5
Heavy Trucks:	63	3.0	63.3		52.9		56.3	3	64.3	3	64.4
Vehicle Noise:	71	1.0	70.9		67.4		64.5	0	72.4	1	72.8
Centerline Distan	ce to Noise C	ontour (in feet	)								
				70 dl	BA	65 a	1BA		60 dBA	55	dBA
		_	Ldn:		99		213		458	1	987
		C	NEL:		104		225		484		1,043

						_					
Scenario	D: EP					Project	Name: I	Antelo	pe Valley C	commerc	
Road Name	e: Avenue M					Job N	umber:	14267			
Road Segmen	t: e/o SR-14 I	NB Ramps									
SITE S	PECIFIC IN	IPUT DATA				N	OISE N	IODE	L INPUT	5	
Highway Data				4	Site Con	ditions	(Hard =	10, So	oft = 15)		
Average Daily 1	raffic (Adt):	46,057 vehicle	es					Autos:	15		
Peak Hour I	Percentage:	6.63%			Me	dium Tru	ucks (2 A	Axles):	15		
Peak Ho	our Volume:	3,054 vehicle	s		He	avy Truc	cks (3+ A	Axles):	15		
Veh	icle Speed:	50 mph			Vehicle I	Nix					
Near/Far Lan	e Distance:	87 feet		-	Vehi	icleTvpe		Dav	Evenina	Niaht	Dailv
Site Data							Autos:	75.2%	10.7%	14.0%	92.95%
Ban	rior Hoight:	0.0 foot			Me	edium Ti	ucks:	81.9%	6.8%	11.3%	2.15%
Barrier Type (0-14/2	all 1-Rerm)	0.0			ŀ	leavy Ti	ucks:	85.3%	2.0%	12.7%	4.90%
Centerline Dis	t to Barrier	68.0 feet		_		-					
Centerline Dist. t	o Observer:	68.0 feet		1	Noise So	urce El	evation	s (in fe	eet)		
Barrier Distance t	o Observer:	0.0 feet				Auto	s: 0.0	000			
Observer Height (/	Above Pad):	5.0 feet			Mediur	n Trucks	s: 2.1	297			
Pa	d Elevation:	0.0 feet			Heav	y Truck	s: 8.0	004	Grade Ad	ustment	: 0.0
Roa	d Elevation:	0.0 feet		1	Lane Equ	uivalent	Distand	ce (in i	feet)		
F	oad Grade:			Auto:	s: 52.	505					
	Left View:	-90.0 degree	es		Mediur	n Truck	s: 52.	336			
	Right View:	90.0 degree	es		Heav	y Truck:	s: 52.	352			
FHWA Noise Mode	I Calculation	s									
VehicleType	REMEL	Traffic Flow	Di	stance	Finite	Road	Fresh	el	Barrier Att	en Ber	m Atten
Autos:	70.20	2.24		-0.4	2	-1.20		-4.71	0.0	000	0.000
Medium Trucks:	81.00	-14.12		-0.4	0	-1.20		-4.88	0.0	000	0.000
Heavy Trucks:	85.38	-10.55		-0.4	0	-1.20		-5.29	0.0	000	0.000
Unmitigated Noise	Levels (with	out Topo and	barri	er atten	uation)						
VehicleType	Leq Peak Hoi	ir Leq Day	/	Leg E	vening	Leq	Night		Ldn	C	NEL
Autos:	70	.8	70.6		68.1		64.5	5	72.3	3	72.8
Medium Trucks:	65	.3	65.4		60.6		58.1		66.3	3	66.0
Heavy Trucks:	73	.2	73.5		63.2		66.5	5	74.	5	74.6
Vehicle Noise:	75	.6	75.7		69.9		69.0	)	77.0	)	77.2
Centerline Distance	e to Noise Co	ontour (in feet	)	70	-10.4		-/0.4		0 -0 4		-10.4
			I da:	700	3BA 400	65 (	IBA		DU aBA	55	aBA
		0	Lan:		198		427		921		1,984
		C	VEL:		205		442		953		2,053

Saturday, October 14, 2023

	FHWA-RD	0-77-108 HIGH	WAY N	OISE F	PREDIC		ODEL (	9/12/2	021)		
Scenar Road Nam Road Segme	io: EC (2025) ne: Avenue M nt: e/o SR-14 N	NB Ramps				Project Job Nu	Name: I Imber:	Antelo 14267	pe Valley C	Commerc	
SITE	SPECIFIC IN	PUT DATA				N	OISE N	IODE	L INPUT	s	
Highway Data				S	ite Con	ditions (	Hard =	10, S	oft = 15)		
Average Daily	Traffic (Adt):	40,650 vehicle	es				,	Autos:	15		
Peak Hour	Percentage:	6.63%			Me	dium Tru	cks (2 A	Axles).	15		
Peak H	lour Volume:	2,695 vehicle	s		He	avy Truc	ks (3+ A	Axles).	15		
Ve	hicle Speed:	50 mph		V	ehicle I	Mix					
Near/Far La	ne Distance:	87 feet		-	Veh	icleType		Day	Evening	Night	Daily
Site Data						A	utos:	75.2%	6 10.7%	14.0%	97.39%
Ba	rrier Height:	0.0 feet			Me	edium Tr	ucks:	81.9%	6.8%	11.3%	1.93%
Barrier Type (0-W	/all, 1-Berm):	0.0			ŀ	Heavy Tr	ucks:	85.3%	6 2.0%	12.7%	0.69%
Centerline Di	st. to Barrier:	68.0 feet		N	oise Sc	ource Ele	vation	s (in f	eet)		
Centerline Dist.	to Observer:	68.0 feet		-	0.00 00	Autos	. 01	200			
Barrier Distance	to Observer:	0.0 feet			Mediu	m Trucks	. 2:	297			
Observer Height (	Above Pad):	5.0 feet			Heav	w Trucks	. 81	104	Grade Ad	iustment.	0.0
Pa	ad Elevation:	0.0 feet			mour	, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	. 0.				
Roa	ad Elevation:	0.0 feet		Li	ane Equ	uivalent	Distand	ce (in	feet)		
	Road Grade:	0.0%				Autos	: 52.	505			
	Left View:	-90.0 degree	es		Mediur	m Trucks	52.	336			
	Right View:	90.0 degree	es		Heav	ry Trucks	52.	352			
FHWA Noise Mode	el Calculation:	5									
VehicleType	REMEL	Traffic Flow	Dista	nce	Finite	Road	Fresn	el	Barrier Att	en Ber	m Atten
Autos:	70.20	1.90		-0.42		-1.20		-4.71	0.0	000	0.000
Medium Trucks:	81.00	-15.14		-0.40		-1.20		-4.88	0.0	000	0.000
Heavy Trucks:	85.38	-19.63		-0.40		-1.20		-5.29	0.0	000	0.000
Unmitigated Noise	e Levels (with	out Topo and	barrier	attenu	ation)						
VehicleType	Leq Peak Hou	r Leq Day	′ L	eq Eve	ening	Leq I	Vight		Ldn	CI	VEL
Autos:	70	.5	70.2		67.8		64.2	2	72.0	)	72.4
Medium Trucks:	64	.3	64.4		59.6		57.0	)	65.3	3	65.6
Heavy Trucks:	64	.1	64.4		54.1		57.4		65.4	1	65.5
Vehicle Noise:	72	.2	72.1		68.6		65.7	, 	73.6	5	73.9
Centerline Distance	ce to Noise Co	ntour (in feet	)					_			
			L	70 dł	BA	65 a	IBA		50 dBA	55	dBA
		~	Ldn:		118		253		546		1,177
		Ci	NEL:		124		268		577		1,243

	FRIVA-KI		WATN		REDIC		ODEL	9/12/2	021)		
Scenar	io: ECP (2025	)				Project	Name:	Antelo	pe Valley (	Commer	c
Road Nam	e: Avenue M					Job Nu	umber:	14267			
Road Segme	nt: e/o SR-14	NB Ramps									
SITE	SPECIFIC IN	IPUT DATA				N	OISE	MODE	L INPUT	s	
Highway Data				Si	ite Con	ditions (	Hard =	: 10, Se	oft = 15)		
Average Daily	Traffic (Adt):	45,327 vehicl	es					Autos:	15		
Peak Hour	Percentage:	6.63%			Mee	dium Tru	icks (2	Axles):	15		
Peak H	lour Volume:	3,005 vehicle	s		Hei	avy Truc	ks (3+	Axles):	15		
Ve	hicle Speed:	50 mph		V	ehicle N	<i>lix</i>				-	
Near/Far La	ne Distance:	87 feet			Vehi	cleType		Day	Evening	Night	Daily
Site Data						A	utos:	75.2%	5 10.7%	14.0%	6 96.31%
Ba	rrier Heiaht:	0.0 feet			Ме	edium Tr	ucks:	81.9%	6.8%	11.3%	6 1.94%
Barrier Type (0-W	/all, 1-Berm):	0.0			F	leavy Tr	ucks:	85.3%	5 2.0%	12.7%	6 1.74%
Centerline Di	st. to Barrier:	68.0 feet		N	oise So	urce Ele	evatior	s (in f	eet)		
Centerline Dist.	to Observer:	68.0 feet				Autos	: 0	000			
Barrier Distance	to Observer:	0.0 feet			Mediur	n Trucks	: 2	.297			
Observer Height	(Above Pad):	5.0 feet			Heav	v Trucks	. –	004	Grade Ad	iustmen	t: 0.0
P	ad Elevation:	0.0 feet				,					
Ro	ad Elevation:	0.0 feet		La	ane Equ	iivalent	Distan	ce (in	feet)		
	Road Grade:	0.0%				Autos	: 52	.505			
	Left View:	-90.0 degre	es		Mediur	n Trucks	52	.336			
	Right View:	90.0 degre	es		Heav	y Trucks	:: 52	.352			
FHWA Noise Mod	el Calculation	s									
VehicleType	REMEL	Traffic Flow	Dista	ance	Finite	Road	Fres	nel	Barrier Att	en Be	erm Atten
Autos:	70.20	2.32		-0.42		-1.20		-4.71	0.0	000	0.000
Medium Trucks:	81.00	-14.63		-0.40		-1.20		-4.88	0.0	000	0.000
Heavy Trucks:	85.38	-15.10		-0.40		-1.20		-5.29	0.0	000	0.000
Unmitigated Noise	e Levels (with	out Topo and	barrier	attenu	ation)						
VehicleType	Leq Peak Hou	ir Leq Day	/	Leq Eve	ening	Leq I	Vight		Ldn	C	ONEL
Autos:	70	).9	70.7		68.2		64.	6	72.4	1	72.9
Medium Trucks:	64	.8	64.9		60.1		57.	6	65.	3	66.1
Heavy Trucks:	68	3.7	69.0		58.6		62.	0	70.	)	70.1
Vehicle Noise:	73	1.6	73.5		69.2		67.	0	74.9	)	75.3
Centerline Distant	ce to Noise Co	ontour (in feet	)								
				70 dE	BA	65 c	1BA		50 dBA	55	5 dBA
			Ldn:		145		313	3	675	;	1,453
		С	NEL:		152		328	3	707		1,523

	FHWA-R	D-77-108 HIGH	WAY NO	DISE F	PREDIC	TION MO	DDEL (	9/12/20	021)		
Scena Road Nan Road Segme	rio: EC (2032) ne: Avenue M ent: e/o SR-14	NB Ramps				Project I Job Nu	Vame: / mber: `	Antelop 14267	pe Valley C	Commerc	;
SITE	SPECIFIC I	NPUT DATA				N	DISE N	IODE	L INPUT	S	
Highway Data				Si	ite Con	ditions (	Hard =	10, So	oft = 15)		
Average Daily	Traffic (Adt):	46,928 vehicl	es				,	Autos:	15		
Peak Hour	Percentage:	6.63%			Me	dium Tru	cks (2 A	Axles):	15		
Peak I	-lour Volume:	3,111 vehicle	5		He	avy Truci	ks (3+ A	Axles):	15		
Ve	ehicle Speed:	50 mph		V	ohiclo I	Mix					
Near/Far La	ane Distance:	87 feet			Veh	icleTyne		Dav	Evenina	Niaht	Daily
Site Data					ven	A	utos:	75.2%	10.7%	14.0%	97.39%
Ba	rrier Heiaht:	0.0 feet			Me	edium Tru	icks:	81.9%	6.8%	11.3%	1.93%
Barrier Type (0-V	Vall, 1-Berm):	0.0			ŀ	Heavy Tru	icks:	85.3%	2.0%	12.7%	0.69%
Centerline D	ist. to Barrier:	68.0 feet		N	oise So	ource Ele	vation	s (in fe	eet)		
Centerline Dist.	to Observer:	68.0 feet				Autos	0.0	000			
Barrier Distance	to Observer:	0.0 feet			Mediu	m Trucks	2	297			
Observer Height	(Above Pad):	5.0 feet			Heav	v Trucks	8.0	004	Grade Ad	iustment	: 0.0
P	ad Elevation:	0.0 feet			11001	y maono.	. 0.				
Ro	ad Elevation:	0.0 feet		Lá	ane Equ	uivalent	Distand	ce (in f	feet)		
	Road Grade:	0.0%				Autos.	52.	505			
	Left View:	-90.0 degre	es		Mediui	m Trucks	52.	336			
	Right View:	90.0 degre	es		Heav	ry Trucks	52.	352			
FHWA Noise Mod	el Calculation	s									
VehicleType	REMEL	Traffic Flow	Distar	ice	Finite	Road	Fresn	el	Barrier Att	en Ber	m Atten
Autos:	70.20	2.52		-0.42		-1.20		-4.71	0.0	000	0.000
Medium Trucks:	81.00	-14.51		-0.40		-1.20		-4.88	0.0	000	0.000
Heavy Trucks:	85.38	-19.01		-0.40		-1.20		-5.29	0.0	000	0.000
Unmitigated Nois	e Levels (with	out Topo and	barrier a	ttenu	ation)						
VehicleType	Leq Peak Ho	ur Leq Day	' Le	eq Eve	ening	Leq N	light		Ldn	C	NEL
Autos:	71	1.1	70.9		68.4		64.8	3	72.6	3	73.1
Medium Trucks:	64	1.9	65.0		60.2		57.7	,	65.9	9	66.2
Heavy Trucks:	64	1.8	65.1		54.7		58.1		66.1	1	66.2
Vehicle Noise:	72	2.8	72.7		69.2		66.3	3	74.2	2	74.6
Centerline Distan	ce to Noise C	ontour (in feet	)								
				70 dE	BA	65 d	BA	6	60 dBA	55	dBA
			Ldn:		129		279		601		1,295
		C	VEL:		137		295		635		1,368

Scenario: E Road Name: A Road Segment: e SITE SPE Highway Data Average Daily Trafi	CP (2032) wenue M o SR-14 M	NB Ramps				Projec	t Name:	Antelo	pe Valley C	Commer	c
Road Name: A Road Segment: e SITE SPE Highway Data Average Daily Trafi	venue M /o SR-14 M	NB Ramps									
Road Segment: e SITE SPE Highway Data Average Daily Trafi	0 SR-14 N	VB Ramps	Road Name: Avenue M								
SITE SPE Highway Data Average Daily Traf	CIEIC IN										
Highway Data Average Daily Traf	.011 10 114	PUT DATA					NOISE	NODE	L INPUT	S	
Average Daily Traf					Site Con	ditions	(Hard =	10, Se	oft = 15)		
	fic (Adt):	61,751 vehicle	es					Autos:	15		
Peak Hour Pere	centage:	6.63%			Me	dium T	rucks (2 /	Axles):	15		
Peak Hour	Volume:	4,094 vehicle	s		Hea	avy Tru	ıcks (3+ )	Axles):	15		
Vehicle	e Speed:	50 mph		ľ	Vehicle N	lix					-
Near/Far Lane D	Distance:	87 feet		Ī	Vehi	cleTyp	е	Day	Evening	Night	Daily
Site Data							Autos:	75.2%	10.7%	14.0%	6 94.08%
Barrier	Height:	0.0 feet			Me	edium T	rucks:	81.9%	6.8%	11.3%	6 2.09%
Barrier Type (0-Wall,	1-Berm):	0.0			F	leavy 1	Frucks:	85.3%	2.0%	12.79	6 3.83%
Centerline Dist. to	Barrier:	68.0 feet		ŀ	Noise So	urce F	levation	s (in fi	pet)		
Centerline Dist. to O	bserver:	68.0 feet		ŀ		Auto	ns' 0	000	,		
Barrier Distance to O	bserver:	0.0 feet			Mediur	n Truci	ks: 2	297			
Observer Height (Abo	ve Pad):	5.0 feet			Heav	v Trucl	ks: 8.	004	Grade Ad	justmen	t: 0.0
Pad E	Pad Elevation: 0.0 teet										
Road E	Road Elevation: 0.0 feet						t Distan	ce (in	teet)		
Road	Road Grade: 0.0%					Auto	DS: 52.	505			
Li	eft View:	-90.0 degree	es		Mediur	n Truci v Truci	(S: 52.	330			
Rig	nit view.	90.0 degre	25		neav	y muci	13. 32.	332			
FHWA Noise Model Ca	alculation	5									
VehicleType R	REMEL	Traffic Flow	Dis	stance	Finite	Road	Fresr	nel	Barrier Att	en Be	rm Atten
Autos:	70.20	3.56		-0.4	12	-1.20		-4.71	0.0	000	0.000
Medium Trucks:	81.00	-12.96		-0.4	10	-1.20		-4.88	0.0	000	0.000
Heavy Trucks:	85.38	-10.35		-0.4	10	-1.20		-5.29	0.0	000	0.000
Unmitigated Noise Le	vels (with	out Topo and	barrie	er atter	nuation)						
VehicleType Leq	Peak Hou	r Leq Day	/	Leq E	vening	Leg	Night		Ldn	0	:NEL
Autos:	72	.1	71.9		69.5		65.9	9	73.7	7	74.
Medium Trucks:	66	.4	66.6		61.8		59.3	2	67.5	5	67.8
Heavy Trucks:	73	.4	73.7		63.4		66.	( -	74.7	/	74.8
Vehicle Noise:	76	.3	76.4		71.0		69.	(	77.	7	77.9
Centerline Distance to	Noise Co	ontour (in feet	)								
			L	70	dBA	65	dBA	(	60 dBA	5	5 dBA
			Ldn:		221		476		1,026		2,210
		C	NEL:		229		494		1,065		2,295

Saturday, October 14, 2023

	FHWA-RD	)-77-108 HIGH	NAY NO	ISE I	PREDIC		ODEL (	9/12/20	021)			
Scena Road Nan Road Segme	rio: E ne: Avenue M ent: w/o Sierra H	łwy.				Project Job Ni	Name: / umber: `	Antelop 14267	oe Valley	Com	merc	
SITE	SPECIFIC IN	PUT DATA				N	OISE N	IODE	L INPU	TS		
Highway Data				S	ite Con	ditions (	'Hard =	10, So	ft = 15)			
Average Daily	Traffic (Adt):	23,829 vehicle	s					Autos:	15			
Peak Hou	Percentage:	6.63%			Me	dium Tru	icks (2 A	Axles):	15			
Peak I	-lour Volume:	1,580 vehicles			He	avy Truc	ks (3+ A	Axles):	15			
Ve	ehicle Speed:	55 mph		V	ahicla I	Mix						
Near/Far La	ane Distance:	87 feet		-	Veh	icleTvne		Dav	Evening	Ni	aht	Daily
Site Data					ven	A	utos:	75.2%	10.79	6 1	4.0%	97.39%
Be	wier Height	0.0 feet			M	edium Tr	ucks:	81.9%	6.8%	6 1	1.3%	1.93%
Parrier Type (0 V	Vall 1 Perm):	0.0 1001			/	leavy Tr	ucks:	85.3%	2.09	6 1	2.7%	0.69%
Centerline D	ist to Barrier:	68.0 feet		-								
Centerline Dist.	to Observer:	68.0 feet		N	loise Sc	ource Ele	evation	s (in te	et)			
Barrier Distance	to Observer:	0.0 feet				Autos	: 0.0	000				
Observer Height	(Above Pad):	5.0 feet			Mediu	m Trucks	. 2.1	297	0			
F	ad Elevation:	0.0 feet			Heav	ry Trucks	:: 8.0	004	Grade A	lajust	ment:	0.0
Ro	ad Elevation:	0.0 feet		L	ane Eq	uivalent	Distand	ce (in f	eet)			
	Road Grade:	0.0%				Autos	: 52.	505				
	Left View:	-90.0 degree	s		Mediu	m Trucks	52.	336				
	Right View:	90.0 degree	s		Heav	ry Trucks	52.	352				
FHWA Noise Mod	el Calculation:	5										
VehicleType	REMEL	Traffic Flow	Distan	се	Finite	Road	Fresn	el	Barrier A	tten	Berr	n Atten
Autos:	71.78	-0.84		-0.42		-1.20		-4.71	(	0.000		0.000
Medium Trucks:	82.40	-17.87		-0.40	)	-1.20		-4.88	(	0.000		0.000
Heavy Trucks:	86.40	-22.37		-0.40		-1.20		-5.29	(	).000		0.000
Unmitigated Nois	e Levels (with	out Topo and I	oarrier a	ttenu	uation)							
VehicleType	Leq Peak Hou	r Leq Day	Le	q Ev	ening	Leq I	Vight		Ldn		C٨	IEL
Autos:	69	.3 6	39.1		66.6		63.0	)	70	).9		71.3
Medium Trucks:	62	.9 (	63.1		58.3		55.7	,	64	1.0		64.3
Heavy Trucks:	62	.4 6	32.7		52.4		55.7	'	6	3.7		63.8
Vehicle Noise:	70	.9	70.8		67.4		64.4	ŀ	72	2.3		72.7
Centerline Distan	ce to Noise Co	ntour (in feet)						-				
				70 d	BA	65 c	IBA	6	0 dBA		55 (	dBA
			_dn:		97		209		4	50		969
		CN	IEL:		102		221		4	15		1,024

	FHWA-RD	0-77-108 HIGH\	VAY NC	ISE F	PREDIC	TION M	ODEL (S	9/12/2	021)		
Scenar	io: EP					Project	Name: A	Antelo	pe Valley C	ommerc	5
Road Nam	e: Avenue M					Job N	umber: 1	4267			
Road Segmer	nt: w/o Sierra H	Hwy.									
SITE	SPECIFIC IN	PUT DATA				N	IOISE N	IODE	L INPUTS	5	
Highway Data				S	ite Con	ditions	(Hard =	10, S	oft = 15)		
Average Daily	Traffic (Adt):	39,607 vehicle	S					Autos	15		
Peak Hour	Percentage:	6.63%			Me	dium Tru	ucks (2 A	xles)	15		
Peak H	lour Volume:	2,626 vehicles			He	avy Truc	cks (3+ A	xles)	15		
Ve	hicle Speed:	55 mph		V	ehicle I	Nix					
Near/Far La	ne Distance:	87 feet		-	Vehi	cleType		Day	Evening	Night	Daily
Site Data						A	Autos:	75.29	6 10.7%	14.0%	92.29%
Bai	rrier Height:	0.0 feet			Me	edium Ti	rucks:	81.9%	6.8%	11.3%	2.14%
Barrier Type (0-W	(all, 1-Berm):	0.0			ŀ	leavy Ti	rucks:	85.3%	6 2.0%	12.7%	5.57%
Centerline Dis	st. to Barrier:	68.0 feet		N	loise So	urce El	evations	in f	eet)		
Centerline Dist.	to Observer:	68.0 feet				Auto	s: 0.0	000			-
Barrier Distance	to Observer:	0.0 feet			Mediu	n Truck	s 2.2	97			
Observer Height (	Above Pad):	5.0 feet			Heav	v Truck	s' 80	004	Grade Adi	ustment	: 0.0
Pa	ad Elevation:	0.0 feet		L	neav	y macks	3. 0.0	-04			
Roa	ad Elevation:	0.0 feet		Li	ane Equ	uivalent	Distanc	e (in	feet)		
I	Road Grade:	0.0%				Autos	s: 52.8	505			
	Left View:	-90.0 degree	5		Mediur	n Truck	s: 52.3	336			
	Right View:	90.0 degree	5		Heav	y Truck	s: 52.3	352			
FHWA Noise Mode	el Calculation:	s									
VehicleType	REMEL	Traffic Flow	Distan	се	Finite	Road	Fresn	el	Barrier Atte	en Ber	m Atten
Autos:	71.78	1.14		-0.42		-1.20		-4.71	0.0	00	0.000
Medium Trucks:	82.40	-15.21		-0.40		-1.20		-4.88	0.0	00	0.000
Heavy Trucks:	86.40	-11.06		-0.40		-1.20		-5.29	0.0	00	0.000
Unmitigated Noise	e Levels (with	out Topo and L	arrier a	ttenu	ation)						
VehicleType	Leq Peak Hou	r Leq Day	Le	q Eve	ening	Leq	Night		Ldn	C	NEL
Autos:	71	.3 7	1.1		68.6		65.0		72.8		73.2
Medium Trucks:	65	.6 6	5.7		60.9		58.4		66.6		66.9
Heavy Trucks:	73	.7 7	4.0		63.7		67.0		75.0		75.1
Vehicle Noise:	76	.1 7	6.2		70.4		69.5		77.5		77.7
Centerline Distance	ce to Noise Co	ontour (in feet)									
				70 dl	BA	65	dBA		60 dBA	55	dBA
		L	.dn:		214		460		991		2,135
		CN	EL:		221		476		1,025		2,209

	FHWA-R	D-77-108 HIGH	IWAY N	IOISE	PREDIC	TION MO	ODEL (S	9/12/20	021)		
Scenai Road Nan Road Segme	rio: EC (2025) ne: Avenue M nt: w/o Sierra	Hwy.				Project I Job Nu	Name: / ımber: 1	Anteloj 14267	pe Valley C	Commerc	
SITE	SPECIFIC IN	NPUT DATA				N	OISE N	IODE	L INPUT	S	
Highway Data				S	Site Con	ditions (	Hard =	10, Sc	oft = 15)		
Average Daily	Traffic (Adt):	26,882 vehicl	es					Autos:	15		
Peak Hour	Percentage:	6.63%			Me	dium Tru	cks (2 A	(xles):	15		
Peak H	lour Volume:	1,782 vehicle	s		He	avy Truc	ks (3+ A	(xles):	15		
Ve	hicle Speed:	55 mph		L.	/ohiclo I	Air					
Near/Far La	ne Distance:	87 feet		-	Vehi	cleTvne		Dav	Evenina	Niaht	Daily
Site Data						A	utos:	75.2%	10.7%	14.0%	97.39%
Ba	rrier Heiaht:	0.0 feet			Me	edium Tru	ucks:	81.9%	6.8%	11.3%	1.93%
Barrier Type (0-V	Vall, 1-Berm):	0.0			F	leavy Tru	ucks:	85.3%	2.0%	12.7%	0.69%
Centerline D	ist. to Barrier:	68.0 feet			loise So	urce Ele	vations	s (in fe	et)		
Centerline Dist.	to Observer:	68.0 feet		-		Autos	. 0.0	000	,		
Barrier Distance	to Observer:	0.0 feet			Mediur	n Trucks	2.3	97			
Observer Height	(Above Pad):	5.0 feet			Heav	v Trucks	: 8.0	004	Grade Ad	iustment	: 0.0
P	ad Elevation:	0.0 feet				,					
Ro	ad Elevation:	0.0 feet		L	ane Equ	ivalent	Distanc	e (in t	feet)		
	Road Grade:	0.0%				Autos	: 52.	505			
	Left View:	-90.0 degre	es		Mediur	n Trucks	: 52.3	336			
	Right View:	90.0 degre	es		Heav	y Trucks	: 52.3	352			
FHWA Noise Mod	el Calculation	IS									
VehicleType	REMEL	Traffic Flow	Dista	ance	Finite	Road	Fresn	el	Barrier Att	en Ber	m Atten
Autos:	71.78	-0.31		-0.42	2	-1.20		-4.71	0.0	000	0.000
Medium Trucks:	82.40	-17.35		-0.40	)	-1.20		-4.88	0.0	000	0.000
Heavy Trucks:	86.40	-21.84		-0.40	)	-1.20		-5.29	0.0	000	0.000
Unmitigated Nois	e Levels (with	out Topo and	barrier	atten	uation)						
VehicleType	Leq Peak Ho	ur Leq Da	y I	Leq Ev	rening	Leq N	Vight		Ldn	C	NEL
Autos:	69	9.8	69.6		67.2		63.6	;	71.4	1	71.8
Medium Trucks:	63	3.5	63.6		58.8		56.2		64.5	5	64.8
Heavy Trucks:	63	3.0	63.3		52.9		56.2		64.3	3	64.3
Vehicle Noise:	71	1.4	71.3		67.9		64.9		72.8	3	73.2
Centerline Distan	ce to Noise C	ontour (in fee	t)								
				70 d	IBA 🗌	65 d	IBA	e	60 dBA	55	dBA
			Ldn:		105		226		487		1,050
		C	NEL:		111		239		515		1,110

. ·	500 (0005)		_								
Scenario	5. ECP (2025)					Project	Name:	Antelo	pe valley (	ommero	;
Road Name Road Segmen	e: Avenue IVI	hand				JOD N	umber:	14207			
Road Segmen	. w/o Sierra P	HWY.									
SITE S	SPECIFIC IN	PUT DATA				N	IOISE	MODE	L INPUT	S	
Highway Data				1	Site Con	ditions	(Hard =	10, Se	oft = 15)		
Average Daily 1	Traffic (Adt):	31,844 vehicle	es					Autos:	15		
Peak Hour I	Percentage:	6.63%			Me	dium Tr	ucks (2	Axles):	15		
Peak Ho	our Volume:	2,111 vehicles	s		He	avy Tru	cks (3+	Axles):	15		
Veh	nicle Speed:	55 mph		1	/ehicle l	Mix					
Near/Far Lan	ne Distance:	87 feet			Veh	icleType		Day	Evening	Night	Daily
Site Data							Autos:	75.2%	10.7%	14.0%	95.88%
Bar	rier Heiaht <sup>.</sup>	0.0 feet			M	edium T	rucks:	81.9%	6.8%	11.3%	1.93%
Barrier Type (0-Wa	all. 1-Berm):	0.0			ŀ	leavy T	rucks:	85.3%	2.0%	12.7%	2.18%
Centerline Dis	t. to Barrier:	68.0 feet		-				- (- *	41		
Centerline Dist. t	o Observer:	68.0 feet		4	voise Sc	ource El	evation	S (IN T	eet)		
Barrier Distance t	o Observer:	0.0 feet			Madiu	AUIO Truck	s: 0.	207			
Observer Height (/	Above Pad):	5.0 feet			Healu	II TIUCK	s. z	297	Grade Ad	iuctmont	
Pa	d Elevation:	0.0 feet			neav	y muck	s. o	004	Grade Au	usunen	. 0.0
Roa	d Elevation:	0.0 feet		1	ane Eq	uivalen	t Distan	ce (in	feet)		
F	Road Grade:	0.0%				Auto	s: 52	505			
	Left View:	-90.0 degree	es		Mediu	m Truck	s: 52	.336			
	Right View:	90.0 degree	es		Heav	ry Truck	s: 52	.352			
FHWA Noise Mode	I Calculation	s									
VehicleType	REMEL	Traffic Flow	Dis	stance	Finite	Road	Fres	nel	Barrier Att	en Ber	m Atten
Autos:	71.78	0.35		-0.42	2	-1.20		-4.71	0.0	000	0.000
Medium Trucks:	82.40	-16.60		-0.40	D	-1.20		-4.88	0.0	000	0.00
Heavy Trucks:	86.40	-16.07		-0.40	D	-1.20		-5.29	0.0	000	0.00
Unmitigated Noise	Levels (with	out Topo and	barri	er atten	uation)						
VehicleType	Leq Peak Hou	r Leq Day	<i>(</i>	Leg Ev	/ening	Leq	Night		Ldn	C	NEL
Autos:	70	.5	70.3		67.8		64.	2	72.	0	72.
Medium Trucks:	64	.2	64.3		59.5		57.	0	65.3	2	65.
Heavy Trucks:	68	.7	69.0		58.7		62.	0	70.	)	70.
Vehicle Noise:	73	.3	73.3		68.9		66.	8	74.	7	75.
Centerline Distance	e to Noise Co	ontour (in feet,	)	-				1			
			L	70 c	iBA	65	dBA	1	50 dBA	55	dBA
			Lan:		140		301		648		1,396
		C	v HI '		146		216		678		1 461

Saturday, October 14, 2023

	FHWA-RD	-77-108 HIGHV	VAY NO	ISE I	PREDIC	TION M	ODEL (	9/12/2	021)			
Scenai Road Nan Road Segme	rio: EC (2032) ne: Avenue M ent: w/o Sierra H	łwy.				Project Job N	Name: . umber:	Antelo 14267	pe Valle	/ Com	nmerc	
SITE	SPECIFIC IN	PUT DATA				N	OISE I	NODE	L INPU	TS		
Highway Data				S	ite Con	ditions	(Hard =	10, So	oft = 15)			
Average Daily	Traffic (Adt):	28,917 vehicles	6					Autos:	15			
Peak Hour	Percentage:	6.63%			Me	dium Tru	icks (2 /	Axles):	15			
Peak H	Hour Volume:	1,917 vehicles			He	avy Truc	:ks (3+ /	Axles):	15			
Ve	ehicle Speed:	55 mph			chiele	Mise						
Near/Far La	ane Distance:	87 feet		-	Veh	icle Type		Dav	Evenin	~ N	iaht	Daily
Site Data					ven	icie i ype	utos:	75.2%	10.79	y 10	4.0%	97.39%
one butu					м	, edium Ti	ucks:	81.9%	6.8	% 1	1.3%	1.93%
Ba Domiou Tomo (O.M	rrier Height:	0.0 feet				Heavy Tr	ucks:	85.3%	2.0	% 1	2.7%	0.69%
Contorlino D	ist to Parrier:	0.0 68.0 foot										
Centerline Dist	to Observer	68.0 feet		Ν	oise So	ource El	evation	s (in f	eet)			
Barrier Distance	to Observer:	0.0 feet				Autos	s: 0.	000				
Observer Height	(Above Pad):	5.0 feet			Mediu	m Trucks	s: 2.:	297				
P	ad Elevation:	0.0 feet			Heav	/y Trucks	s: 8.	004	Grade	Adjust	ment:	0.0
, Ro	ad Elevation:	0.0 feet		L	ane Ea	uivalent	Distan	ce (in	feet)			
10	Road Grade:	0.0%		F		Auto	52	505				
	Left View	-90 0 degree			Mediu	m Truck	52	336				
	Right View:	90.0 degrees	5		Heav	y Truck	52.	352				
FHWA Noise Mod	lel Calculations	5										
VehicleType	REMEL	Traffic Flow	Distand	ce	Finite	Road	Fresr	nel	Barrier	Atten	Ben	m Atten
Autos:	71.78	0.00	-	0.42		-1.20		-4.71		0.000		0.000
Medium Trucks:	82.40	-17.03	-	0.40		-1.20		-4.88		0.000		0.000
Heavy Trucks:	86.40	-21.53	-	0.40		-1.20		-5.29		0.000		0.000
Unmitigated Nois	e Levels (with	out Topo and b	arrier at	tenu	ation)							
VehicleType	Leq Peak Hou	r Leq Day	Le	q Ev	ening	Leq	Night		Ldn		CI	IEL
Autos:	70	.2 6	9.9		67.5		63.9	9	7	1.7		72.
Medium Trucks:	63	.8 6	3.9		59.1		56.6	3	6	4.8		65.1
Heavy Trucks:	63	.3 6	3.6		53.2		56.6	6	6	4.6		64.
Vehicle Noise:	71	.7 7	1.6		68.2		65.2	2	7	3.1		73.5
Centerline Distan	ce to Noise Co	ntour (in feet)						1		-		
				70 d	BA	65 (	3BA		50 dBA		55	dBA
		L	dn:		110		238		5	12		1,103
		CN	EL:		117		251		5	41		1,165

	FHWA-R	D-77-108 HIGHV	VAY NOI	SE PREDIO	CTION MO	ODEL (S	9/12/2	021)		
Scenai Road Nan Road Segme	rio: ECP (2032 ne: Avenue M ent: w/o Sierra	!) Hwy.			Project I Job Nu	Name: / ımber: '	Antelo 14267	pe Valley C	Commer	C
SITE	SPECIFIC I	NPUT DATA			N	OISEN	IODE		s	
Highway Data				Site Cor	ditions (	'Hard =	10, Se	oft = 15)		
Average Daily	Traffic (Adt):	44,695 vehicles	;			,	Autos:	15		
Peak Hour	Percentage:	6.63%		Me	edium Tru	cks (2 A	Axles):	15		
Peak H	our Volume:	2,963 vehicles		He	avy Truc	ks (3+ A	Axles):	15		
Ve	ehicle Speed:	55 mph		Vohiclo	Mix					
Near/Far La	ane Distance:	87 feet		Vehicle	icleType		Dav	Evenina	Night	Daily
Site Data					A	utos:	75.2%	10.7%	14.0%	92.87%
Pa	rrior Hoight:	0.0 foot		м	edium Tri	ucks:	81.9%	6.8%	11.3%	2.12%
Da Barrier Tyne (0-V	Vall 1-Berm)	0.0 1001			Heavy Tri	ucks:	85.3%	2.0%	12.7%	5.01%
Centerline D	ist. to Barrier:	68.0 feet		Noise O			- (in \$	41		
Centerline Dist.	to Observer:	68.0 feet		Noise S	ource Ele	evations	5 (IN T	eet)		
Barrier Distance	to Observer:	0.0 feet			Autos	. 0.0	000			
Observer Height	(Above Pad):	5.0 feet		Mediu	m Trucks	. 2.4	297	Grade Ad	iustmon	+ 0.0
P	ad Elevation:	0.0 feet		неа	vy Trucks	. 8.0	004	Grade Au	usunen	1. 0.0
Ro	ad Elevation:	0.0 feet		Lane Eq	uivalent	Distand	ce (in	feet)		
	Road Grade:	0.0%			Autos	52.	505			
	Left View:	-90.0 degrees	5	Mediu	m Trucks	52.	336			
	Right View:	90.0 degrees	5	Hea	vy Trucks	52.3	352			
FHWA Noise Mod	el Calculation	s								
VehicleType	REMEL	Traffic Flow	Distanc	e Finite	Road	Fresn	el	Barrier Att	en Be	rm Atten
Autos:	71.78	1.69	-(	0.42	-1.20		-4.71	0.0	000	0.000
Medium Trucks:	82.40	-14.73	-(	0.40	-1.20		-4.88	0.0	000	0.000
Heavy Trucks:	86.40	-10.99	-(	0.40	-1.20		-5.29	0.0	000	0.000
Unmitigated Nois	e Levels (with	out Topo and b	arrier at	tenuation)						
VehicleType	Leq Peak Ho	ur Leq Day	Leq	Evening	Leq I	Vight		Ldn	С	NEL
Autos:	7.	1.8 7	1.6	69.2		65.6	6	73.4	1	73.8
Medium Trucks:	66	6.1 6	6.2	61.4		58.9	)	67.1	1	67.4
Heavy Trucks:	73	3.8 7	4.1	63.7		67.1		75.1	1	75.2
Vehicle Noise:	76	5.4 7	6.5	70.8		69.8	3	77.3	7	78.0
Centerline Distan	ce to Noise C	ontour (in feet)								
			7	'0 dBA	65 a	IBA	(	50 dBA	55	i dBA
		L	dn:	223		480		1,034		2,227
		CN	EL:	231		497		1,071		2,308

	FHWA-R	D-77-108 HIGH	WAY NO	ISE P	REDIC	TION MO	ODEL (	9/12/2	:021)		
Scenar Road Nan Road Segme	io: E ne: Avenue M nt: e/o Sierra I	Hwy.				Project I Job Nu	Name: Imber:	Antelo 14267	pe Valley	Comme	rc
SITE	SPECIFIC I	PUT DATA				N	OISE	MODE	EL INPUT	s	
Highway Data		-		Si	te Con	ditions (	Hard =	10, S	oft = 15)		
Average Daily	Traffic (Adt):	29,575 vehicle	es					Autos	15		
Peak Hour	Percentage:	6.63%			Me	dium Tru	cks (2	Axles)	: 15		
Peak H	lour Volume:	1,961 vehicle	5		He	avy Truci	ks (3+.	Axles)	: 15		
Ve	hicle Speed:	55 mph		Ve	ehicle I	Лix					
Near/Far La	ne Distance:	87 feet			Vehi	cleType		Day	Evening	Night	Daily
Site Data						A	utos:	75.2%	6 10.7%	14.09	6 97.39%
Ba	rrier Height:	0.0 feet			Me	edium Tru	ucks:	81.9%	6.8%	11.39	6 1.93%
Barrier Type (0-W	/all, 1-Berm):	0.0			F	leavy Tru	ucks:	85.3%	6 2.0%	12.79	6 0.69%
Centerline Di	st. to Barrier:	68.0 feet		No	oise So	urce Ele	vation	s (in f	eet)		
Centerline Dist.	to Observer:	68.0 feet				Autos	: 0.	.000			
Barrier Distance	to Observer:	0.0 feet			Mediur	n Trucks	: 2	297			
Observer Height	(Above Pad):	5.0 feet			Heav	y Trucks	: 8	.004	Grade Ad	djustmer	nt: 0.0
P	ad Elevation:	0.0 feet					Distan	//	f 41		
Ro	ad Elevation:	0.0 feet		La	ine Equ	livalent	Distan	ce (In	reet)		
	Road Grade:	0.0%				Autos.	: 52	.505			
	Len View:	-90.0 degree	es		Heav	v Trucks	. 52 · 52	352			
	Right view.	90.0 degree			near	y mucho.	. 52	.002			
FHWA Noise Mod	el Calculation	s									
VehicleType	REMEL	Traffic Flow	Distan	ce	Finite	Road	Fres	nel	Barrier At	ten Be	erm Atten
Autos:	71.78	0.10		0.42		-1.20		-4.71	0.	.000	0.000
Medium Trucks:	82.40	-16.93		0.40		-1.20		-4.88	0.	.000	0.000
Heavy Trucks:	86.40	-21.43	-	0.40		-1.20		-5.29	0.	.000	0.000
Unmitigated Nois	e Levels (with	out Topo and	barrier a	tenu	ation)			-			
VehicleType	Leq Peak Ho	ur Leq Day	Le	q Eve	ening	Leq N	light	_	Ldn	0	SNEL
Autos:	70	).3	70.0		67.6		64.	-	/1	.8	72.2
Medium Trucks:	63	3.9	64.0		59.2		56.	7	64	.9	65.2
Heavy Trucks:	0.	5.4	03.7		03.3		50. 65	2	04	2	04.8
venicie Noise:	1	1.8	/1./		68.3		65.	3	73	.2	73.0
Centerline Distan	ce to Noise C	ontour (in feet	)	70 dF	RΔ	65 d	RΔ		60 dBA	5	5 dBA
			I dn'	, 0 UL	112	00 0	2/1	1	50 GDA 50	n 5	1 110
		C	VEL:		112		24		54	a a	1 183
		0.			110		200		04	-	1,100

	THWAN	5-11-100 migh	III/AI	NOIDE	TREDIC		ODEE (	// T <b>L</b> /L	<b>52</b> 1)		
Scenari	o: EP					Project	Name: /	Antelo	pe Valley C	ommerc	4
Road Nam	e: Avenue M					Job N	umber: *	4267			
Road Segmer	nt: e/o Sierra I	Hwy.									
SITE S	SPECIFIC IN	IPUT DATA				N	OISE N	IODE	L INPUT	5	
Highway Data					Site Cond	ditions	(Hard =	10, Sc	oft = 15)		
Average Daily	Traffic (Adt):	52,444 vehicle	es				,	Autos:	15		
Peak Hour	Percentage:	6.63%			Med	dium Tru	ucks (2 A	xles):	15		
Peak H	our Volume:	3,477 vehicle	s		Hea	avy Truc	cks (3+ A	xles):	15		
Vel	hicle Speed:	55 mph		1	Vehicle N	<i>lix</i>					-
Near/Far Lar	ne Distance:	87 feet		-	Vehi	cleTvpe		Dav	Evenina	Niaht	Dailv
Site Data						-	Autos:	75.2%	10.7%	14.0%	91.91%
Bar	rier Height	0.0 feet			Me	edium Ti	ucks:	81.9%	6.8%	11.3%	2.15%
Barrier Type (0-W	all. 1-Berm):	0.0			H	leavy Ti	ucks:	85.3%	2.0%	12.7%	5.95%
Centerline Dis	t. to Barrier:	68.0 feet		H	Naina Sa	uree El	ovetion	lin fe	ant)		
Centerline Dist.	to Observer:	68.0 feet		4	voise So	urce El	evations		eel)		
Barrier Distance	o Observer:	0.0 feet			Madium	AUIO	s: 0.0	007			
Observer Height (J	Above Pad):	5.0 feet			Healun	Truck	5. Z.4 5. Q.(	297	Grade Ad	iustmont	
Pa	d Elevation:	0.0 feet			neav.	y mucks	5. 0.0	/04	Orade Auj	usunon	0.0
Roa	d Elevation:	0.0 feet		1	Lane Equ	iivalent	Distanc	e (in i	feet)		
F	Road Grade:	0.0%				Autos	s: 52.	505			
	Left View:	-90.0 degree	es		Mediun	n Truck:	s: 52.3	336			
	Right View:	90.0 degre	es		Heav	y Truck:	s: 52.3	352			
FHWA Noise Mode	l Calculation	s									
VehicleType	REMEL	Traffic Flow	Dis	stance	Finite	Road	Fresn	el	Barrier Att	en Ber	m Atten
Autos:	71.78	2.34		-0.4	2	-1.20		-4.71	0.0	000	0.00
Medium Trucks:	82.40	-13.98		-0.4	0	-1.20		-4.88	0.0	000	0.00
Heavy Trucks:	86.40	-9.55		-0.4	0	-1.20		-5.29	0.0	000	0.00
Unmitigated Noise	Levels (with	out Topo and	barrie	er atten	uation)						
VehicleType	Leq Peak Ho	ur Leq Day	/	Leg E	vening	Leq	Night		Ldn	C	VEL
Autos:	72	2.5	72.3		69.8		66.2		74.0	)	74.
Medium Trucks:	66	3.8	66.9		62.2		59.6		67.9	9	68.
Heavy Trucks:	75	5.2	75.5		65.2		68.5		76.5	5	76.
Vehicle Noise:	77	7.5	77.6		71.6		70.9		78.8	3	79.
Centerline Distanc	e to Noise C	ontour (in feet	)		(0.4			_			
			L	70 0	JBA	65	aBA 500	6	O aBA	55	aBA
		0	Lan:		264		569		1,225		2,639
		C	NEL:		273		588		1.267		2.729

Saturday, October 14, 2023

	FHWA-RD	-77-108 HIGHW	AY NOIS	E PREDIC	TION MO	DDEL (	9/12/20	)21)		
Scenari Road Nam Road Segmer	io: EC (2025) ie: Avenue M nt: e/o Sierra Hi	wy.			Project I Job Nu	Name: I Imber:	Antelop 14267	e Valley C	Commer	D
SITE	SPECIFIC IN				N	OISE I	IODE		s	
Highway Data				Site Con	ditions (	Hard =	10, So	ft = 15)	-	
Average Daily	Traffic (Adt):	30,332 vehicles					Autos:	15		
Peak Hour	Percentage:	6.63%		Me	dium Tru	cks (2 /	Axles):	15		
Peak H	lour Volume:	2,011 vehicles		He	avy Truci	ks (3+ /	Axles):	15		
Ve	hicle Speed:	55 mph		Vehicle	Mix					
Near/Far La	ne Distance:	87 feet		Veh	icleType		Day	Evening	Night	Daily
Site Data					A	utos:	75.2%	10.7%	14.0%	97.39%
Bai	rrier Height:	0.0 feet		М	edium Tru	ucks:	81.9%	6.8%	11.3%	1.93%
Barrier Type (0-W	all, 1-Berm):	0.0		1	Heavy Tru	ucks:	85.3%	2.0%	12.7%	0.69%
Centerline Dis	st. to Barrier:	68.0 feet		Noise So	ource Fle	vation	s (in fe	ef)		
Centerline Dist.	to Observer:	68.0 feet			Autos	· 0	000			
Barrier Distance	to Observer:	0.0 feet		Modiu	m Trucke	. 0.	207			
Observer Height (	Above Pad):	5.0 feet		Heat	n Trucks		004	Grade Ad	iustmen	t: 0.0
Pa	ad Elevation:	0.0 feet		neur	ry mucho.	. 0.	004			
Roa	ad Elevation:	0.0 feet		Lane Eq	uivalent	Distan	ce (in f	eet)		
I	Road Grade:	0.0%			Autos	: 52.	505			
	Left View:	-90.0 degrees		Mediu	m Trucks	52.	336			
	Right View:	90.0 degrees		Heav	vy Trucks	52.	352			
FHWA Noise Mode	el Calculations			1						
VehicleType	REMEL	Traffic Flow	Distance	Finite	Road	Fresr	iel i	Barrier Att	en Be	rm Atten
Autos:	71.78	0.21	-0	.42	-1.20		-4.71	0.0	000	0.000
Medium Trucks:	82.40	-16.82	-0	.40	-1.20		-4.88	0.0	000	0.000
Heavy Trucks:	86.40	-21.32	-0	.40	-1.20		-5.29	0.0	000	0.000
Unmitigated Noise	e Levels (witho	ut Topo and ba	nrrier atte	enuation)						
VehicleType	Leq Peak Hour	r Leq Day	Leq	Evening	Leq N	light		Ldn	C	NEL
Autos:	70.	4 70	).1	67.7		64.1		71.9	9	72.3
Medium Trucks:	64.	0 64	.1	59.3		56.8	3	65.0	D	65.3
Heavy Trucks:	63.	5 63	1.8	53.4		56.8	3	64.6	3	64.9
Vehicle Noise:	71.	9 71	.8	68.4		65.5	5	73.4	4	73.7
Centerline Distanc	e to Noise Co	ntour (in feet)							1	
			7	0 dBA	65 d	BA	6	0 dBA	55	dBA
		Lo	in:	114		245		528		1,138
		CNE	:L:	120		259		558		1,203

	FHWA-RI	D-77-108 HIGH	IWAY N	OISE F	PREDIC	TION MO	DEL (9	/12/2	021)		
Scenar Road Nan Road Segme	io: ECP (2025 ne: Avenue M nt: e/o Sierra I	) Hwy.				Project I Job Nu	lame: A mber: 1	ntelo 4267	pe Valley C	ommero	0
SITE	SPECIFIC IN	IPUT DATA				N	DISE M	ODE		3	
Highway Data				S	ite Con	ditions (l	Hard =	10, So	oft = 15)	-	
Average Daily	Traffic (Adt):	37,482 vehicl	es				A	utos:	15		
Peak Hour	Percentage:	6.63%			Me	dium Tru	cks (2 A	xles):	15		
Peak H	lour Volume:	2,485 vehicle	s		He	avy Truck	(3+ A	xles):	15		
Ve	hicle Speed:	55 mph		V	ehicle l	Mix					
Near/Far La	ne Distance:	87 feet			Veh	icleType	l	Day	Evening	Night	Daily
Site Data						A	itos:	75.2%	10.7%	14.0%	95.56%
Ba	rrier Heiaht:	0.0 feet			Me	edium Tru	icks: 8	31.9%	6.8%	11.3%	1.93%
Barrier Type (0-W	Vall, 1-Berm):	0.0			ŀ	leavy Tru	icks: 8	35.3%	2.0%	12.7%	2.50%
Centerline Di	ist. to Barrier:	68.0 feet		N	oise Sc	ource Ele	vations	(in f	eet)	-	
Centerline Dist.	to Observer:	68.0 feet				Autos	0.0	00		-	
Barrier Distance	to Observer:	0.0 feet			Mediu	m Trucks	2.2	97			
Observer Height	(Above Pad):	5.0 feet			Heav	v Trucks	8.0	04	Grade Adi	ustment	t: 0.0
P	ad Elevation:	0.0 feet			mour	, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	0.0	•••			
Ro	ad Elevation:	0.0 feet		Li	ane Eq	uivalent l	Distanc	e (in	feet)		
	Road Grade:	0.0%				Autos.	52.5	05			
	Left View:	-90.0 degre	es		Mediui	m Trucks.	52.3	36			
	Right View:	90.0 degre	es		Heav	y Trucks.	52.3	52			
FHWA Noise Mod	el Calculation	s									
VehicleType	REMEL	Traffic Flow	Dista	nce	Finite	Road	Fresne	e/	Barrier Atte	n Ber	rm Atten
Autos:	71.78	1.05		-0.42		-1.20	-	4.71	0.0	00	0.000
Medium Trucks:	82.40	-15.90		-0.40		-1.20	-	4.88	0.0	00	0.000
Heavy Trucks:	86.40	-14.77		-0.40		-1.20	-	5.29	0.0	00	0.000
Unmitigated Nois	e Levels (with	out Topo and	barrier	attenu	ation)						
VehicleType	Leq Peak Hou	ur Leq Da	/ L	.eq Eve	ening	Leq N	light		Ldn	C	NEL
Autos:	71	1.2	71.0		68.5		64.9		72.7		73.2
Medium Trucks:	64	1.9	65.0		60.2		57.7		65.9		66.2
Heavy Trucks:	70	).0	70.3		60.0		63.3		71.3		71.4
Vehicle Noise:	74	1.2	74.2		69.6		67.7		75.6		75.9
Centerline Distan	ce to Noise C	ontour (in feet	)								
				70 dl	BA	65 d	BA	(	60 dBA	55	dBA
			Ldn:		161		346		745	-	1,605
		С	NEL:		168		361		779		1,678

	FHWA-R	D-77-108 HIGH	WAY NC	DISE F	REDIC	TION MC	DDEL (	9/12/20	021)		
Scenai Road Nan Road Segme	rio: EC (2032) ne: Avenue M nt: e/o Sierra I	Hwy.				Project I Job Nu	Vame: / mber: `	Anteloj 14267	pe Valley C	Commerc	;
SITE	SPECIFIC IN	NPUT DATA				N	DISE N	IODE	L INPUT	S	
Highway Data				S	ite Con	ditions (l	Hard =	10, Sc	oft = 15)		
Average Daily	Traffic (Adt):	30,837 vehicl	es				,	Autos:	15		
Peak Hour	Percentage:	6.63%			Me	dium Truc	cks (2 A	Axles):	15		
Peak H	lour Volume:	2,044 vehicle	s		He	avy Truck	ks (3+ A	Axles):	15		
Ve	hicle Speed:	55 mph		V	ohiclo I	Mix					
Near/Far La	ne Distance:	87 feet		-	Veh	icleTyne		Dav	Evenina	Niaht	Daily
Site Data						A	utos:	75.2%	10.7%	14.0%	97.39%
Ba	rrier Height	0.0 feet			Me	edium Tru	icks:	81.9%	6.8%	11.3%	1.93%
Barrier Type (0-V	Vall, 1-Berm):	0.0			ŀ	Heavy Tru	icks:	85.3%	2.0%	12.7%	0.69%
Centerline D	ist. to Barrier:	68.0 feet		N	oise Sc	ource Fle	vation	s (in fe	pet)		
Centerline Dist.	to Observer:	68.0 feet			0136 00	Autos	- 01	000			
Barrier Distance	to Observer:	0.0 feet			Mediu	m Trucks	. 21	297			
Observer Height	(Above Pad):	5.0 feet			Heav	v Trucks	. 81	004	Grade Ad	iustment	0.0
P	ad Elevation:	0.0 feet			11001	<i>y maono</i> .	. 0.				
Ro	ad Elevation:	0.0 feet		Li	ane Equ	uivalent l	Distand	ce (in i	feet)		
	Road Grade:	0.0%				Autos:	52.	505			
	Left View:	-90.0 degre	es		Mediui	m Trucks:	52.	336			
	Right View:	90.0 degre	es		Heav	ry Trucks:	52.	352			
FHWA Noise Mod	el Calculation	S		-							
VehicleType	REMEL	Traffic Flow	Distan	се	Finite	Road	Fresn	iel	Barrier Att	en Ber	m Atten
Autos:	71.78	0.28		-0.42		-1.20		-4.71	0.0	000	0.000
Medium Trucks:	82.40	-16.75		-0.40		-1.20		-4.88	0.0	000	0.000
Heavy Trucks:	86.40	-21.25		-0.40		-1.20		-5.29	0.0	000	0.000
Unmitigated Nois	e Levels (with	out Topo and	barrier a	ttenu	ation)						
VehicleType	Leq Peak Ho	ur Leq Day	/ Le	eq Eve	ening	Leq N	light		Ldn	C	NEL
Autos:	70	0.4	70.2		67.8		64.2	2	72.0	)	72.4
Medium Trucks:	64	4.1	64.2		59.4		56.8	3	65.1	1	65.4
Heavy Trucks:	63	3.5	63.8		53.5		56.8	3	64.8	3	64.9
Vehicle Noise:	72	2.0	71.9		68.5		65.5	5	73.4	1	73.8
Centerline Distan	ce to Noise C	ontour (in feet	)								
				70 dE	BA	65 d	BA	6	60 dBA	55	dBA
			Ldn:		115		248		534		1,151
		C	NEL:		122		262		565		1,217

	FHWA-KL	D-77-108 HIGH	WAI	NOISE	PREDIC			<i>, , , , , , , , , , , , , , , , , , , </i>	<u>52</u> 1)		
Scenari	o: ECP (2032	)				Projec	t Name: I	Antelo	pe Valley C	ommero	•
Road Nam	e: Avenue M					Job I	Vumber:	14267			
Road Segmer	nt: e/o Sierra H	lwy.									
SITE S	SPECIFIC IN	IPUT DATA				I	NOISE N	IODE	L INPUT	5	
Highway Data					Site Cond	litions	: (Hard =	10, So	oft = 15)		
Average Daily	Traffic (Adt):	53,706 vehicle	es					Autos:	15		
Peak Hour	Percentage:	6.63%			Med	lium T	rucks (2 A	Axles):	15		
Peak H	our Volume:	3,561 vehicle	s		Hea	avy Tru	icks (3+ A	Axles):	15		
Vel	hicle Speed:	55 mph		-	Vehicle N	lix					
Near/Far Lar	ne Distance:	87 feet		-	Vehi	cleTvp	e	Dav	Evenina	Niaht	Dailv
Site Data							Autos:	75.2%	10.7%	14.0%	92.03%
Bar	rier Heiaht:	0.0 feet			Me	dium 1	rucks:	81.9%	6.8%	11.3%	2.14%
Barrier Type (0-W	all, 1-Berm):	0.0			н	leavy 1	Trucks:	85.3%	2.0%	12.7%	5.82%
Centerline Dis	t. to Barrier:	68.0 feet		-	Naisa Sa	urco F	lovation	e (in fi	aat)		
Centerline Dist.	to Observer:	68.0 feet		-	10/30 00	Δutr		000			
Barrier Distance t	to Observer:	0.0 feet			Mediun	n Truck	ks: 2	297			
Observer Height (J	Above Pad):	5.0 feet			Heav	v Truci	ks: 8.0	004	Grade Ad	ustment	: 0.0
Pa	d Elevation:	0.0 feet		L		,					
Roa	d Elevation:	0.0 feet		-	Lane Equ	ivalen	t Distand	ce (in i	feet)		
F	Road Grade:	0.0%				Auto	os: 52.	505			
	Left View:	-90.0 degre	es		Mediun	1 Truck	ks: 52.	336			
	Right View:	90.0 degree	es		Heavy	y Truci	(S: 52.	352			
FHWA Noise Mode	Calculation	s									
VehicleType	REMEL	Traffic Flow	Dis	tance	Finite I	Road	Fresh	el	Barrier Atte	en Ber	m Atten
Autos:	71.78	2.45		-0.4	2	-1.20		-4.71	0.0	00	0.00
Medium Trucks:	82.40	-13.89		-0.4	0	-1.20		-4.88	0.0	00	0.00
Heavy Trucks:	86.40	-9.54		-0.4	0	-1.20		-5.29	0.0	00	0.00
Unmitigated Noise	Levels (with	out Topo and	barrie	er atter	uation)						
VehicleType	Leq Peak Hoi	ir Leq Day	/	Leq E	vening	Leq	Night		Ldn	С	NEL
Autos:	72	.6	72.4		69.9		66.3	3	74.1		74.
Medium Trucks:	66	.9	67.0		62.3		59.7	7	68.0	)	68.
Heavy Trucks:	75	.3	75.6		65.2		68.5	5	76.6	5	76.
Vehicle Noise:	77	.5	77.7		71.7		70.9	)	78.9	)	79.
Centerline Distanc	e to Noise Co	ontour (in feet	)	-		-					
			L	70	dBA	65	dBA	6	60 dBA	55	dBA
			Ldn:		266		573		1,235		2,660

Saturday, October 14, 2023

	FHWA-RD	-77-108 HIGHW	AY NOIS	E PREDIO	TION MOI	DEL (9/12/	2021)		
Scena Road Nan Road Segme	rio: E ne: Avenue M ent: e/o 4th St.				Project Na Job Nurr	ame: Antel aber: 1426	ope Valley ( 7	Commer	D
SITE	SPECIFIC IN	PUT DATA			NO	ISE MOD	EL INPUT	S	
Highway Data				Site Con	ditions (H	ard = 10, S	Soft = 15)		
Average Daily	Traffic (Adt):	30,721 vehicles				Autos	s: 15		
Peak Hou	Percentage:	6.63%		Me	dium Truck	s (2 Axles	): 15		
Peak I	Hour Volume:	2,037 vehicles		He	avy Trucks	(3+ Axles	): 15		
Ve	ehicle Speed:	55 mph		Vehicle	Mix				
Near/Far La	ane Distance:	87 feet		Veh	icleTvpe	Dav	Evenina	Niaht	Daily
Site Data					Aut	os: 75.2	% 10.7%	14.0%	97.39%
Pa	rrior Hoight:	0.0 foot		м	edium Truc	ks: 81.9	% 6.8%	11.3%	1.93%
Barrier Type (0-V	Vall 1-Berm)	0.0 1001			Heavy Truc	ks: 85.3	% 2.0%	12.7%	0.69%
Centerline D	ist. to Barrier:	68.0 feet			-				
Centerline Dist.	to Observer:	68.0 feet		Noise Se	ource Elev	ations (in	reet)		
Barrier Distance	to Observer:	0.0 feet			Autos:	0.000			
Observer Height	(Above Pad):	5.0 feet		Meaiu	m Trucks:	2.297	Crada Ad	livetmen	+ 0.0
F	ad Elevation:	0.0 feet		Hea	/y Trucks:	8.004	Grade Ad	Jusuneni	. 0.0
Ro	ad Elevation:	0.0 feet		Lane Eq	uivalent Di	istance (ir	n feet)		
	Road Grade:	0.0%			Autos:	52.505			
	Left View:	-90.0 degrees		Mediu	m Trucks:	52.336			
	Right View:	90.0 degrees		Hear	/y Trucks:	52.352			
FHWA Noise Mod	el Calculations	5							
VehicleType	REMEL	Traffic Flow	Distance	Finite	Road	Fresnel	Barrier Att	en Ber	rm Atten
Autos:	71.78	0.27	-0.	.42	-1.20	-4.7	1 0.0	000	0.000
Medium Trucks:	82.40	-16.77	-0.	.40	-1.20	-4.88	3 0.0	000	0.000
Heavy Trucks:	86.40	-21.26	-0.	.40	-1.20	-5.29	9 0.0	000	0.00
Unmitigated Nois	e Levels (with	out Topo and ba	arrier atte	enuation)					
VehicleType	Leq Peak Hou	r Leq Day	Leq	Evening	Leq Nig	ght	Ldn	C	NEL
Autos:	70	.4 70	0.2	67.7		64.1	72.0	C	72.4
Medium Trucks:	64	.0 64	1.2	59.4		56.8	65.	1	65.4
Heavy Trucks:	63	.5 63	3.8	53.5		56.8	64.6	3	64.9
Vehicle Noise:	72	.0 71	1.9	68.5		65.5	73.4	4	73.8
Centerline Distan	ce to Noise Co	ntour (in feet)							
			70	) dBA	65 dB.	A	60 dBA	55	dBA
		Lo	in:	115		247	533	1	1,148
		CNE	:L:	121		261	563	1	1,213

	FHWA-RI	D-77-108 HIGH\	VAY NO	ISE F	PREDIC		DDEL (S	9/12/2	021)					
Scenari Road Nam Road Segmer	io: EP e: Avenue M nt: e/o 4th St.			Project Name: Antelope Valley Commerc Job Number: 14267										
SITE	SPECIFIC IN	IPUT DATA				N	DISE N	IODE	L INPUTS	5				
Highway Data				S	ite Con	ditions (	Hard =	10, S	oft = 15)					
Average Daily	Traffic (Adt):	42,614 vehicle	6					Autos.	15					
Peak Hour	Percentage:	6.63%			Me	dium Tru	cks (2 A	xles).	15					
Peak H	our Volume:	2,825 vehicles			He	avy Truci	ks (3+ A	xles).	15					
Ve	hicle Speed:	55 mph		14	ohiclo I	Mix								
Near/Far La	ne Distance:	87 feet			Veh	icleTvne		Dav	Evening	Night	Daily			
Site Data				+	VCIII	A	utos:	75.2%	6 10.7%	14.0%	6 98 12%			
one pata		0.0.6		-	M	edium Tri	icks:	81.99	6.8%	11.3%	6 1.39%			
Bar Barrier Tures (0.14)	rier Height:	0.0 feet			ŀ	leavy Tri	icks:	85.39	6 2.0%	12.7%	6 0.49%			
Centerline Di	dil, 1-Delli).	0.0 68.0 foot				,								
Centerline Dis	to Observer:	68.0 foot		N	loise Sc	ource Ele	vations	s (in f	eet)					
Parrier Distance	to Observer:	0.0 feet				Autos	: 0.0	000						
Observer Height (	About Dodi:	0.0 feet			Mediui	m Trucks	: 2.2	297						
Observer Height (	ADOVE Fau).	5.0 feet			Heav	y Trucks	: 8.0	004	Grade Adj	ustmen	t: 0.0			
Fa	ad Elevation:	0.0 feet		1	ano Fa	uivalent	Distanc	o (in	foot)					
Rua	au Elevation. Bood Crodo:	0.0 teet			une Ly	Autos	· 52.6	505	1000					
r	Loft View	0.0%			Modiu	m Trucks	. 52.0	226						
	Dight View.	-90.0 degree	5		Heav	n Trucks	. 52.0	200						
	Right view.	90.0 degree	5		Ticav	y mucks	. 52.0	552						
FHWA Noise Mode	el Calculation	s									-			
VehicleType	REMEL	Traffic Flow	Distand	e	Finite	Road	Fresn	el	Barrier Atte	en Be	rm Atten			
Autos:	71.78	1.72	-	0.42		-1.20		-4.71	0.0	000	0.000			
Medium Trucks:	82.40	-16.77	-	0.40		-1.20		-4.88	0.0	000	0.000			
Heavy Trucks:	86.40	-21.26	-	0.40		-1.20		-5.29	0.0	100	0.000			
Unmitigated Noise	Levels (with	out Topo and L	arrier at	tenu	ation)									
VehicleType	Leq Peak Hou	Ir Leq Day	Le	q Eve	ening	Leq N	light		Ldn	C	NEL			
Autos:	71	.9 7	1.6		69.2		65.6		73.4	ţ.	73.8			
Medium Trucks:	64	.0 θ	4.2		59.4		56.8		65.1	í .	65.4			
Heavy Trucks:	63	.5 6	3.8		53.5		56.8		64.8	3	64.9			
Vehicle Noise:	73	.1 7	2.9		69.7		66.6		74.5	;	74.9			
Centerline Distanc	e to Noise Co	ontour (in feet)												
				70 dl	BA	65 d	BA		60 dBA	55	5 dBA			
		L	dn:		136		292		630		1,356			
		CN	EL:		144		310		667		1,437			

	FHWA-RI	D-77-108 HIGH	WAY N	OISE F	REDIC		DDEL (	9/12/2	021)						
Scenar Road Nan Road Segme	no: EC (2025) ne: Avenue M nt: e/o 4th St.				Project Name: Antelope Valley Commerc Job Number: 14267										
SITE	SPECIFIC IN	NPUT DATA				N	DISE N	IODE	L INPUT	S					
Highway Data				S	ite Con	ditions (l	Hard =	10, So	oft = 15)						
Average Daily	Traffic (Adt):	31,424 vehicl	es				,	Autos:	15						
Peak Hour	Percentage:	6.63%			Me	dium True	cks (2 A	(xles	15						
Peak H	lour Volume:	2,083 vehicle	s		He	avy Truck	ks (3+ A	Axles):	15						
Ve	hicle Speed:	55 mph		V	ehicle I	Aix									
Near/Far La	ne Distance:	87 feet		-	Vehi	cleTvpe		Dav	Evenina	Niaht	Dailv				
Site Data						A	utos:	75.2%	6 10.7%	14.0%	97.39%				
Ba	rrier Heiaht:	0.0 feet			Me	edium Tru	icks:	81.9%	6.8%	11.3%	1.93%				
Barrier Type (0-V	/all, 1-Berm):	0.0			ŀ	leavy Tru	icks:	85.3%	6 2.0%	12.7%	0.69%				
Centerline D	st. to Barrier:	68.0 feet		N	oise So	urce Ele	vation	s (in f	eet)						
Centerline Dist.	to Observer:	68.0 feet				Autos	0.0	000							
Barrier Distance	to Observer:	0.0 feet			Mediur	n Trucks	2	297							
Observer Height (Above Pad): 5.0 feet					Heav	v Trucks	8.0	004	Grade Ad	iustment	: 0.0				
P	Pad Elevation: 0.0 feet					,									
Ro	ad Elevation:	0.0 feet		Li	ane Equ	ivalent l	Distand	ce (in	feet)						
	Road Grade:	0.0%				Autos:	52.	505							
	Left View:	-90.0 degre	es		Mediur	n Trucks:	52.	336							
	Right View:	90.0 degre	es		Heav	y Trucks.	52.	352							
FHWA Noise Mod	el Calculation	S													
VehicleType	REMEL	Traffic Flow	Dista	nce	Finite	Road	Fresn	el	Barrier Att	en Ber	rm Atten				
Autos:	71.78	0.36		-0.42		-1.20		-4.71	0.0	000	0.000				
Medium Trucks:	82.40	-16.67		-0.40		-1.20		-4.88	0.0	000	0.000				
Heavy Trucks:	86.40	-21.16		-0.40		-1.20		-5.29	0.0	000	0.000				
Unmitigated Nois	e Levels (with	out Topo and	barrier	attenu	ation)										
VehicleType	Leq Peak Hou	ur Leq Daj	/ L	.eq Eve	ening	Leq N	light		Ldn	C	NEL				
Autos:	70	0.5	70.3		67.8		64.2	2	72.1	1	72.5				
Medium Trucks:	64	1.1	64.3		59.5		56.9	)	65.2	2	65.5				
Heavy Trucks:	63	3.6	63.9		53.6		56.9	)	64.9	9	65.0				
Vehicle Noise:	72	2.1	72.0		68.6		65.6	6	73.5	5	73.9				
Centerline Distan	ce to Noise C	ontour (in feet	)												
				70 dE	BA	65 d	BA	6	60 dBA	55	dBA				
			Ldn:		117		251		541		1,165				
		С	NEL:		123		265		572		1,232				

	FHWA-KL		IVVAT	NOISE	PREDIC			9/12/2	021)						
Scenario Road Name	o: ECP (2025) e: Avenue M	)				Project Job Ni	Name: / umber: *	Antelo 4267	pe Valley C	Commerc					
Road Segmen	t: e/o 4th St.														
SITE S	SPECIFIC IN	PUT DATA				N	OISE N	IODE		s					
Highway Data				;	Site Conditions (Hard = 10, Soft = 15)										
Average Daily 1	Traffic (Adt):	35,349 vehicle	es		Autos: 15										
Peak Hour I	Percentage:	6.63%			Medium Trucks (2 Axles): 15										
Peak Ho	our Volume:	2,344 vehicle	s		Heavy Trucks (3+ Axles): 15										
Veh	nicle Speed:	55 mph		1	Vehicle Mix										
Near/Far Lar	ne Distance:	87 feet		F	VehicleType Day Evening Night Di										
Site Data					Autos: 75.2% 10.7% 14.0%										
Bar	rier Heiaht:	0.0 feet			Medium Trucks: 81.9% 6.8% 11.3%										
Barrier Type (0-Wa	all, 1-Berm):	0.0			Heavy Trucks: 85.3% 2.0% 12.7% 0.6										
Centerline Dis	t. to Barrier:	68.0 feet		1	Noise Sc	ource Ele	evations	in f	eet)						
Centerline Dist. t	o Observer:	68.0 feet				Autos	. 0.0	000	,						
Barrier Distance t	o Observer:	0.0 feet			Medium Trucks: 2.297										
Observer Height (/	Dbserver Height (Above Pad): 5.0 feet					y Trucks	: 8.0	004	Grade Ad	justment	: 0.0				
Pa	Pad Elevation: 0.0 feet						Distanc	e (in	faati						
Roa	d Elevation:	0.0 teet		Ľ.	Lane Eq	Autor	Distant	e (III	ieel)						
F	coad Grade:	0.0%			Modiu	Autos m Trucks	. 52.	226							
	Right View:	90.0 degree	es es		Heavy Trucks: 52.352										
EUMA Naisa Mada		-													
VehicleType	REMEI	Traffic Flow	Dis	stance	Finite	Road	Freen	<u>0</u>	Rarrier Att	en Rei	m ∆tten				
Autos	71 78	0.89	DIC	-0.4	2	-1 20	110311	-4 71	0.0	000	0.00				
Medium Trucks:	82.40	-16.67		-0.4	0	-1.20		-4.88	0.0	000	0.00				
Heavy Trucks:	86.40	-21.16		-0.4	0	-1.20		-5.29	0.0	000	0.00				
Unmitigated Noise	Levels (with	out Topo and	barri	er atten	uation)										
VehicleType	Leq Peak Hou	r Leq Day	/	Leg E	vening	Leq I	Vight		Ldn	С	NEL				
Autos:	71	.0	70.8		68.4		64.8		72.6	3	73.				
Medium Trucks:	64	.1	64.3		59.5		56.9		65.2	2	65				
Heavy Trucks:	63	.6	63.9		53.6		56.9		64.9	9	65.				
Vehicle Noise:	72	.5	72.3		69.0		66.0		73.9	9	74.				
Centerline Distanc	e to Noise Co	ontour (in feet	)	70	10.4	65.	10.4				-10.4				
			Latar	/00	IBA	65 (	IBA 000		DU ABA	55	aBA				
		~	Lan:		124		266		574		1,236				
		C	VEL.		131		282		607		1,307				

Saturday, October 14, 2023

	FHWA-RI	D-77-108 HIGH	WAY NO	ISE	PREDIC		IODEL (	9/12/2	021)			
Scenar Road Narr Road Segme	io: EC (2032) ne: Avenue M nt: e/o 4th St.					Project Job N	Name: / lumber:	Antelo 14267	pe Valley	Comm	ierc	
SITE	SPECIFIC IN	IPUT DATA				N	IOISE N	IODE	L INPUT	S		
Highway Data				S	ite Con	ditions	(Hard =	10, S	oft = 15)			
Average Daily	Traffic (Adt):	31,893 vehicle	s				,	Autos:	15			
Peak Hour	Percentage:	6.63%			Me	dium Tr	ucks (2 A	Axles).	15			
Peak H	lour Volume:	2,115 vehicles	;		He	avy Tru	cks (3+ A	Axles).	15			
Ve	hicle Speed:	55 mph			(ahiala	Mise						
Near/Far La	ne Distance:	87 feet		v	Veh	WIX		Dev	Evening	Nia	ht	Dailu
Sito Data				_	ven	icie i ype	Autos	Day 75.2%	Evening	14	0%	07 30%
					м	, edium T	rucks:	81 0%	6.8%	14.	3%	1 03%
Ba	rrier Height:	0.0 feet			IVI	Heavy T	rucks:	95 30	2 0.0%	12	70/	0.60%
Barrier Type (0-W	(all, 1-Berm):	0.0				leavy I	uchs.	00.07	0 2.070	12.	1 70	0.097
Centerline Di	st. to Barrier:	68.0 feet		٨	loise So	ource El	evation	s (in f	eet)			
Centerline Dist.	to Observer:	68.0 feet				Auto	s: 0.0	000				
Barrier Distance	to Observer:	0.0 feet			Mediu	m Truck	s: 2.1	297				
Observer Height	Above Pad):	5.0 teet			Heav	/y Truck	s: 8.0	004	Grade Ad	ljustm	ent:	0.0
Pi	ad Elevation:	0.0 feet			ono Ea	uivelen	Distant	o (in	faati			
Ro	ad Elevation:	0.0 feet		1	ane Eq	uivaiein	Distant		ieelj			
	Road Grade:	0.0%			A da alia	Auto	S: 52.	505				
	Left View: Right View:	-90.0 degree 90.0 degree	is is		Heav	m Truck /y Truck	s: 52. s: 52.	336 352				
FHWA Noise Mod	el Calculation	s										
VehicleType	REMEL	Traffic Flow	Distan	се	Finite	Road	Fresn	el	Barrier At	ten	Berm	Atten
Autos:	71.78	0.43		-0.42	2	-1.20		-4.71	0.	000		0.00
Medium Trucks:	82.40	-16.61		-0.40	)	-1.20		-4.88	0.	.000		0.00
Heavy Trucks:	86.40	-21.10		-0.40	)	-1.20		-5.29	0.	000		0.00
Unmitigated Noise	e Levels (with	out Topo and	barrier a	ttenı	uation)					-		-
VehicleType	Leq Peak Hou	ır Leq Day	Le	q Ev	ening	Leq	Night		Ldn		CN	EL
Autos:	70	.6	70.3		67.9		64.3	3	72.	.1		72.
Medium Trucks:	64	.2	64.3		59.5		57.0	)	65.	2		65.
Heavy Trucks:	63	.7	64.0		53.6		57.0	)	65.	0		65.
Vehicle Noise:	72	.2	72.1		68.6		65.7	,	73.	6		73.9
Centerline Distan	ce to Noise Co	ontour (in feet)		70 /	0.4	07	-10.4		CO -10 A			
				ru d	BA	65	aBA 05.	<u> </u>	ou aba		55 d	BA
			Lan:		118		254		546	5		1,177
		CI	VEL:		124		268		57	r		1,244

	FHWA-RE	D-77-108 HIGH	VAY NO	ISE F	PREDIC	TION M	ODEL (	9/12/2	021)					
Scenar Road Nam Road Segme	io: ECP (2032) ne: Avenue M nt: e/o 4th St.		Project Name: Antelope Valley Commerc Job Number: 14267											
SITE	SPECIFIC IN	IPUT DATA				N	IOISE I	NODE		s				
Highway Data				S	ite Con	ditions	(Hard =	10, So	oft = 15)					
Average Daily	Traffic (Adt):	43,786 vehicle	5					Autos:	15					
Peak Hour	Percentage:	6.63%			Me	dium Tri	ucks (2 /	Axles):	15					
Peak H	lour Volume:	2,903 vehicles			Hei	avy Tru	cks (3+ /	Axles):	15					
Ve	hicle Speed:	55 mph		V	ehicle A	Nix								
Near/Far La	ne Distance:	87 feet		-	Vehi	cleTvpe		Dav	Evenina	Niaht	Dailv			
Site Data				-			Autos:	75.2%	10.7%	14.0%	98.10%			
Ba	rrier Height	0.0 feet			Me	dium Ti	rucks:	81.9%	6.8%	11.3%	1.40%			
Barrier Type (0-M	/all_1_Rerm):	0.0 feet		Heavy Trucks: 85.3% 2.0% 12.7% 0.5										
Centerline Di	st to Barrier:	68.0 feet												
Centerline Dist	to Observer:	68.0 feet		N	oise So	urce El	evation	s (in fe	eet)					
Barrier Distance	to Observer:	0.0 feet				Auto	s: 0.	000						
Observer Height (	(Above Pad):	5.0 feet			Mediur	n Truck	s: 2.	297						
Pad Elevation: 0.0 feet					Heav	y Truck	s: 8.	004	Grade Ad	ustment.	0.0			
Roa	ad Elevation:	0.0 feet		Li	ane Equ	iivalent	Distan	ce (in i	feet)					
	Road Grade:	0.0%				Auto	s: 52.	505						
	Left View:	-90.0 degree	5		Mediur	n Truck	s: 52.	336						
	Right View:	90.0 degree	6		Heav	y Truck	s: 52.	352						
FHWA Noise Mode	el Calculation:	s		_										
VehicleType	REMEL	Traffic Flow	Distant	ce	Finite	Road	Fresr	nel	Barrier Att	en Ber	m Atten			
Autos:	71.78	1.84		0.42		-1.20		-4.71	0.0	000	0.000			
Medium Trucks:	82.40	-16.61	-	0.40		-1.20		-4.88	0.0	000	0.000			
Heavy Trucks:	86.40	-21.10		-0.40		-1.20		-5.29	0.0	000	0.000			
Unmitigated Noise	e Levels (with	out Topo and L	arrier at	ttenu	ation)									
VehicleType	Leq Peak Hou	ir Leq Day	Le	q Eve	ening	Leq	Night		Ldn	CI	VEL			
Autos:	72	.0 7	1.8		69.3		65.7	7	73.5	5	73.9			
Medium Trucks:	64	.2 6	4.3		59.5		57.0	)	65.2	2	65.5			
Heavy Trucks:	63	.7 6	4.0		53.6		57.0	)	65.0	)	65.1			
Vehicle Noise:	73	.2 7	3.1		69.9		66.7	(	74.6	j	75.0			
Centerline Distant	ce to Noise Co	ontour (in feet)		70 -4	24	05			0 -0 4		-10.4			
				70 al	5A 400	65	abA 000		DU BBA	55	abA 4 000			
			an:		138		298		642		1,383			
		CN	EL:		140		316		080		1,405			

	FHWA-R	D-77-108 HIGH	IWAY N	OISE F	REDIC	TION MC	DDEL (	9/12/20	021)					
Scenar Road Nan Road Segme	rio: E ne: Avenue M ent: e/o Challer			Project Name: Antelope Valley Commerc Job Number: 14267										
SITE	SPECIFIC II	PUT DATA				N	DISE	IODE	L INPUT	s				
Highway Data				Si	te Con	ditions (I	Hard =	10, So	oft = 15)					
Average Daily	Traffic (Adt):	26,272 vehicl	es				,	Autos:	15					
Peak Hour	Percentage:	6.63%			Medium Trucks (2 Axles): 15									
Peak H	Hour Volume:	1,742 vehicle	s		Heavy Trucks (3+ Axles): 15									
Ve	ehicle Speed:	60 mph		V	hicle l	Mix								
Near/Far La	ane Distance:	87 feet		-	Veh	icleType		Day	Evening	Night	Daily			
Site Data						AL	utos:	75.2%	10.7%	14.0%	97.39%			
Ba	rrier Heiaht:	0.0 feet			М	edium Tru	icks:	81.9%	6.8%	11.3%	1.93%			
Barrier Type (0-V	Vall, 1-Berm):	0.0			I	Heavy Tru	icks:	85.3%	2.0%	12.7%	0.69%			
Centerline D	ist. to Barrier:	68.0 feet		N	oise So	ource Ele	vation	s (in fe	et)					
Centerline Dist.	to Observer:	68.0 feet				Autos:	0.0	000	.,					
Barrier Distance	Barrier Distance to Observer: 0.0 feet					Medium Trucks: 2.297								
Observer Height (Above Pad): 5.0 feet					Heav	v Trucks:	8.0	004	Grade Ad	iustment	: 0.0			
Pad Elevation: 0.0 feet				_										
Ro	ad Elevation:	0.0 feet		Lá	ane Eq	uivalent I	Distanc	:e (in 1	'eet)					
	Road Grade:	0.0%				Autos:	52.	505						
	Left View:	-90.0 degre	es		Heavy Trucks: 52,330									
	Right View:	90.0 degre	es		Heav	y Trucks:	52.	352						
FHWA Noise Mod	lel Calculation	s												
VehicleType	REMEL	Traffic Flow	Dista	nce	Finite	Road	Fresn	el	Barrier Att	en Ber	m Atten			
Autos:	73.22	-0.79		-0.42		-1.20		-4.71	0.0	000	0.000			
Medium Trucks:	83.68	-17.83		-0.40		-1.20		-4.88	0.0	000	0.000			
Heavy Trucks:	87.33	-22.32		-0.40		-1.20		-5.29	0.0	000	0.000			
Unmitigated Nois	e Levels (with	out Topo and	barrier	attenu	ation)									
VehicleType	Leq Peak Ho	ur Leq Da	/ L	.eq Eve	ening	Leq N	light		Ldn	C	NEL			
Autos:	70	).8	70.6		68.1		64.5	5	72.3	3	72.8			
Medium Trucks:	64	1.3	64.4		59.6		57.0	)	65.3	3	65.6			
Heavy Trucks:	63	3.4	63.7		53.3		56.7	<u> </u>	64.7	7	64.8			
Vehicle Noise:	72	2.3	72.2		68.8		65.8	3	73.7	7	74.1			
Centerline Distan	ce to Noise C	ontour (in feet	)	_	_	-	_							
				70 dE	ЗA	65 di	ВA	6	i0 dBA	55	dBA			
		-	Ldn:		120		259		557		1,201			
		127 274 589					1,270							

	THUANE			NOIGE				// TL/L	<u>52</u> 1)					
Scenario	: EP					Project	Name: I	Antelo	pe Valley C	Commerc	>			
Road Name	e: Avenue M					Job N	lumber:	14267						
Road Segmen	t: e/o Challen	ger Wy.												
SITE S	PECIFIC IN	PUT DATA				1	IOISE N	IODE	L INPUT	S				
Highway Data					Site Conditions (Hard = 10, Soft = 15)									
Average Daily 1	raffic (Adt):	27,523 vehicle	es		Autos: 15									
Peak Hour I	Percentage:	6.63%			Mee	dium Tr	ucks (2 A	(xles)	15					
Peak Ho	our Volume:	1,825 vehicle	s		Heavy Trucks (3+ Axles): 15									
Veh	icle Speed:	60 mph		F	Vehicle Mix									
Near/Far Lar	e Distance:	87 feet		F	VehicleType Day Evening Night									
Site Data					Autos: 75.2% 10.7% 14.0%									
Bar	rier Heiaht:	0.0 feet			Medium Trucks: 81.9% 6.8% 11.3%									
Barrier Type (0-Wa	all, 1-Berm):	0.0			Heavy Trucks: 85.3% 2.0% 12.7% 0.6									
Centerline Dis	t. to Barrier:	68.0 feet		-	Noiso So	urco E	ovation	in f	nof)					
Centerline Dist. t	o Observer:	68.0 feet		-	10130 00	Auto	evalion.	000						
Barrier Distance t	o Observer:	0.0 feet			Medium Trucks: 2 297									
Observer Height (A	Observer Height (Above Pad): 5.0 feet						Heavy Trucks: 8.004 Grade Adjustment: 0.0							
Pa	Pad Elevation: 0.0 feet						0. 0.			,				
Roa	d Elevation:	0.0 feet		4	Lane Equ	iivalen	t Distand	e (in	feet)					
F	oad Grade:	0.0%				Auto	s: 52.	505						
	Left View:	-90.0 degree	es		Mediur	n Truck	s: 52.	336						
	Right View:	90.0 degre	es		Heav	y Truck	s: 52.	352						
FHWA Noise Mode	Calculations	5												
VehicleType	REMEL	Traffic Flow	Dis	tance	Finite	Road	Fresn	el	Barrier Att	en Ber	m Atten			
Autos:	73.22	-0.58		-0.4	2	-1.20		-4.71	0.0	000	0.00			
Medium Trucks:	83.68	-17.83		-0.4	0	-1.20		-4.88	0.0	000	0.00			
Heavy Trucks:	87.33	-22.32		-0.4	0	-1.20		-5.29	0.0	000	0.00			
Unmitigated Noise	Levels (with	out Topo and	barrie	er atter	uation)									
VehicleType	Leq Peak Hou	r Leq Day	/	Leq E	vening	Leq	Night		Ldn	C	NEL			
Autos:	71	.0	70.8		68.3		64.7		72.5	5	73.			
Medium Trucks:	64	.3	64.4		59.6		57.0	)	65.3	3	65.			
Heavy Trucks:	63	.4	63.7		53.3		56.7		64.7	7	64.			
Vehicle Noise:	72	.4	72.3		69.0		66.0	)	73.9	9	74.			
Centerline Distance	e to Noise Co	ntour (in feet	)											
			L	70	dBA	65	dBA	6	50 dBA	55	dBA			
			Ldn:		123		265		570		1,229			
		C	NEL:		130		280		604		1.300			

Saturday, October 14, 2023

I	HWA-RD	-77-108 HIGHV	VAY NO	ISE	PREDIC		IODEL	(9/12/2	2021)			
Scenario: El Road Name: A Road Segment: el	C (2025) /enue M o Challeng	ger Wy.				Projec Job N	t Name: lumber:	Antelo 14267	ope Valle 7	ey Co	mmerc	:
SITE SPE	CIFIC IN	PUT DATA				I	NOISE	MOD	EL INP	UTS		
Highway Data				5	Site Con	ditions	(Hard :	= 10, S	oft = 15	)		
Average Daily Traffi	ic (Adt):	26,841 vehicles	6					Autos	: 15			
Peak Hour Perc	entage:	6.63%			Me	dium Ti	rucks (2	Axles)	: 15			
Peak Hour V	/olume:	1,780 vehicles			He	avy Tru	cks (3+	Axles)	: 15			
Vehicle	Speed:	60 mph		1	/ohiclo	Mix						
Near/Far Lane Di	stance:	87 feet		F	Veh	icleType	9	Day	Evenii	ng I	Vight	Daily
Site Data							Autos:	75.29	% 10.7	7%	14.0%	97.39%
Barrier	Heiaht:	0.0 feet			М	edium 1	rucks:	81.99	6.8	3%	11.3%	1.93%
Barrier Type (0-Wall, 1	-Berm):	0.0			1	Heavy 1	rucks:	85.39	% 2.0	0%	12.7%	0.69%
Centerline Dist. to	Barrier:	68.0 feet		,	Voise So	ource E	levatio	ıs (in i	feet)			
Centerline Dist. to Ot	server:	68.0 feet		Ē		Auto	ns' 0	000				
Barrier Distance to Ot	server:	0.0 feet			Mediu	m Truck	(s: 2	.297				
Observer Height (Abov	e Pad):	5.0 feet			Heav	/v Truck	(s: 8	004	Grade	Adiu	stment:	0.0
Pad Ele	evation:	0.0 feet			77041	,	.0. 0					
Road Ele	evation:	0.0 feet		1	.ane Eq	uivalen	t Distar	ice (in	feet)			
Road	Grade:	0.0%				Auto	os: 52	.505				
Le	ft View:	-90.0 degrees	6		Mediu	m Truck	(s: 52	.336				
Rigi	nt View:	90.0 degrees	6		Heav	/y Truck	(s: 52	.352				
FHWA Noise Model Ca	lculations	;										
VehicleType RI	EMEL	Traffic Flow	Distan	се	Finite	Road	Fres	nel	Barrier	Atter	n Ben	m Atten
Autos:	73.22	-0.70		0.42	2	-1.20		-4.71		0.00	0	0.00
Medium Trucks:	83.68	-17.73		-0.40	0	-1.20		-4.88		0.00	0	0.00
Heavy Trucks:	87.33	-22.23		-0.40	D	-1.20		-5.29		0.00	0	0.00
Unmitigated Noise Lev	els (witho	out Topo and b	arrier a	tten	uation)							
VehicleType Leq	Peak Hou	r Leq Day	Le	q Ev	/ening	Leq	Night		Ldn		CI	VEL
Autos:	70.	9 7	0.7		68.2		64	6		72.4		72.
Medium Trucks:	64.	4 6	4.5		59.7		57	.1		65.4		65.
Heavy Trucks:	63.	5 6	3.8		53.4		56	.8		64.8		64.
Vehicle Noise:	72.	4 7	2.3		68.9		65	9		73.8		74.
Centerline Distance to	Noise Co	ntour (in feet)										
				70 c	1BA	65	dBA		60 dBA		55	dBA
		L	.dn:		122		26	2		565		1,218
		CN	EL:		129		27	8		598		1,288

	FHWA-RI	D-77-108 HIGH	WAYN	IOISEI	PREDIC	TION MO	DEL (	9/12/20	J21)						
Scenar	io: ECP (2025	)				Project N	ame: I	Antelo	pe Valley (	Comme	erc				
Road Narr	ne: Avenue M					Job Nur	nber: '	14267							
Road Segme	nt: e/o Challen	iger Wy.													
SITE	SPECIFIC IN	IPUT DATA				NO	ISE N	IODE	L INPUT	s					
Highway Data				S	Site Conditions (Hard = 10, Soft = 15)										
Average Daily	Traffic (Adt):	27,198 vehicle	s		Autos: 15										
Peak Hour	Percentage:	6.63%			Medium Trucks (2 Axles): 15										
Peak H	lour Volume:	1,803 vehicles	5	Heavy Trucks (3+ Axles): 15											
Ve	hicle Speed:	60 mph		v	/ehicle I	Mix									
Near/Far La	ne Distance:	87 feet		-	Vehi	Night	Daily								
Site Data					Autos: 75.2% 10.7% 14.0%										
Ba	rrier Height	0.0 feet			Me	edium True	cks:	81.9%	6.8%	11.3	% 1.90%				
Barrier Type (0-W	/all. 1-Berm):	0.0			Heavy Trucks: 85.3% 2.0% 12.7% 0.4										
Centerline Di	st. to Barrier:	68.0 feet			loiso Sa	urco Elos	ation	in fr	nof)						
Centerline Dist.	to Observer:	68.0 feet		~	10/36 30	Autos	auona	200	eel)						
Barrier Distance	to Observer:	0.0 feet			Modiu	m Trucks:	2.0	200							
Observer Height	Observer Height (Above Pad): 5.0 feet					TTTUCKS.	2.4	201	Grade Ar	liustma	nt: 0.0				
Pad Elevation: 0.0 feet					Heav	y mucks.	0.0	JU4	Orade Ad	justino	<i>m.</i> 0.0				
Ro	ad Elevation:	0.0 feet		L	ane Equ	uivalent D	istand	e (in i	feet)						
	Road Grade:	0.0%				Autos:	52.	505							
	Left View:	-90.0 degree	s		Mediur	m Trucks:	52.3	336							
	Right View:	90.0 degree	s		Heav	y Trucks:	52.3	352							
FHWA Noise Mod	el Calculation	s													
VehicleType	REMEL	Traffic Flow	Dista	ance	Finite	Road	Fresn	el	Barrier At	ten B	erm Atten				
Autos:	73.22	-0.64		-0.42	2	-1.20		-4.71	0.	000	0.000				
Medium Trucks:	83.68	-17.73		-0.40	)	-1.20		-4.88	0.	000	0.000				
Heavy Trucks:	87.33	-22.23		-0.40	)	-1.20		-5.29	0.	000	0.000				
Unmitigated Noise	e Levels (with	out Topo and	barrier	attenu	uation)										
VehicleType	Leq Peak Hou	ır Leq Day	1	Leq Ev	ening	Leq Ni	ght		Ldn		CNEL				
Autos:	71	.0	70.7		68.3		64.7		72.	5	72.9				
Medium Trucks:	64	.4	64.5		59.7		57.1		65.	4	65.7				
Heavy Trucks:	63	1.5	63.8		53.4		56.8	1	64.	.8	64.9				
Vehicle Noise:	72	2.4	72.3		69.0		65.9	)	73.	8	74.2				
Centerline Distant	ce to Noise Co	ontour (in feet)													
				70 d	BA	65 dE	BA	6	60 dBA	5	55 dBA				
			Ldn:		123		264		569	3	1,226				
		CI	VEL:		130		279		602	2	1,297				
	FHWA-RI	D-77-108 HIGH	WAY NO	DISE F	PREDIC	TION MO	ODEL (	9/12/2	021)						
------------------------------------	--	-----------------	----------	--------	------------	---------------	-----------------	-----------------	-------------	----------	----------				
Scenari Road Nam Road Segmer	Scenario: EC (2032) Road Name: Avenue M Road Segment: e/o Challenger Wy.						Vame: imber:	Antelo 14267	pe Valley (	Commer	c				
SITE	SPECIFIC IN	IPUT DATA				N	OISE	NODE	L INPUT	S					
Highway Data				S	ite Con	ditions (	Hard =	10, S	oft = 15)						
Average Daily	Traffic (Adt):	27,220 vehicl	es					Autos	15						
Peak Hour	Percentage:	6.63%			Med	dium Tru	cks (2 )	Axles).	15						
Peak H	lour Volume:	1,805 vehicle	s		Hea	avy Truc	ks (3+ )	Axles).	15						
Ve	hicle Speed:	60 mph		V	ehicle N	Aix									
Near/Far La	ne Distance:	87 feet		-	Vehi	cleTvpe		Dav	Evenina	Niaht	Dailv				
Site Data						A	utos:	75.2%	6 10.7%	14.09	6 97.39%				
Bai	rrier Heiaht:	0.0 feet			Me	edium Tru	ucks:	81.9%	6.8%	11.3%	6 1.93%				
Barrier Type (0-W	all, 1-Berm):	0.0			H	leavy Tru	ucks:	85.3%	6 2.0%	12.7%	6 0.69%				
Centerline Dis	st. to Barrier:	68.0 feet		N	oise So	urce Ele	vation	s (in f	eet)						
Centerline Dist.	to Observer:	68.0 feet				Autos	: 0.	000	1						
Barrier Distance	to Observer:	0.0 feet			Mediur	n Trucks	: 2.	297							
Observer Height (	bserver Height (Above Pad): 5.0 feet					y Trucks	: 8.	004	Grade Ad	ljustmen	t: 0.0				
Pa	ad Elevation:	0.0 feet					Distan	//	6						
Roa	ad Elevation:	0.0 feet		L	ane Equ	Ivalent	Distan	ce (In	reet)						
	Road Grade:	0.0%			Modium	Autos	: 52. . 52	202							
	Len View: Right View:	-90.0 degre	25 26		Heav	v Trucks	· 52	352							
	rught thom.	50.0 dogio				,									
FHWA Noise Mode	el Calculation	s T (T T	8.4		<b>-</b>		_								
Venicle I ype	REMEL 72.00	I raffic Flow	Distar	1CE	Finite	Road	Fresi	1 ei	Barrier At	ten Be	rm Atten				
Autos. Medium Trucks:	13.22	-0.04		-0.42		-1.20		-4.71	0.	000	0.000				
Heavy Trucks:	87.33	-22.17		-0.40		-1.20		-5.29	0.	000	0.000				
Unmitigated Naios	Lavala (with	out Tono and	horrior	ttonu	(official)										
VehicleType	Lea Peak Ho	ur Leg Day		ea Evi	enina	l ea N	liaht	1	l dn	0	NEI				
Autos:	71	.0	70.7	04 211	68.3	2047	64.	7	72.	5	72.9				
Medium Trucks:	64	.4	64.5		59.7		57.	2	65.	4	65.8				
Heavy Trucks:	63	3.6	63.9		53.5		56.	Э	64.	9	64.9				
Vehicle Noise:	72	2.4	72.3		69.0		66.	C	73.	9	74.2				
Centerline Distance	e to Noise Co	ontour (in feet	)												
				70 dl	BA	65 d	BA		60 dBA	5	5 dBA				
	Ldn:				123		265		571	1	1,229				
	CNEL:					130 280 604 1					1,300				

Socnaria	- ECB (2022)					Project	Name	Antolo		ommer	
Scenario Road Marrie	). EGF (2032)					rioject	wante:	14267	pe valley C	Johnmero	
Road Seamen	t olo Challon	aor Wy				JUD IV	umber.	14207			
noud Segmen	. ero onalien	yei vvy.									
SITE S	SPECIFIC IN	PUT DATA				N	IOISE	MODE		S	
Highway Data					Site Con	ditions	(Hard =	10, Se	oft = 15)		
Average Daily 1	raffic (Adt):	28,471 vehicle	es					Autos:	15		
Peak Hour I	Percentage:	6.63%			Me	dium Tru	ucks (2	Axles):	15		
Peak Ho	our Volume:	1,888 vehicle	s		He	avy Truc	cks (3+ .	Axles):	15		
Veh	icle Speed:	60 mph		1	Vehicle I	Mix					
Near/Far Lan	e Distance:	87 feet			Veh	icleType		Day	Evening	Night	Daily
Site Data						A	Autos:	75.2%	10.7%	14.0%	97.50%
Ban	rier Heiaht:	0.0 feet			M	edium Ti	rucks:	81.9%	6.8%	11.3%	1.84%
Barrier Type (0-Wa	all, 1-Berm):	0.0			ŀ	leavy Ti	rucks:	85.3%	2.0%	12.7%	0.65%
Centerline Dis	t. to Barrier:	68.0 feet		-	Noiso Sc	urco El	ovation	e (in fi	nof)		
Centerline Dist. t	o Observer:	68.0 feet		Ľ	10138 30	Auto		000	eey		
Barrier Distance t	o Observer:	0.0 feet			Modiu	m Truck	s. 0.	207			
Observer Height (#	bserver Height (Above Pad): 5.0 feet						з. 2. e <sup>,</sup> Я	004	Grade Ad	iustment	· 0.0
Pa	Pad Elevation: 0.0 feet						3. 0.	004	0,000,10	uounoni	. 0.0
Roa	d Elevation:	0.0 feet		1	Lane Eq	uivalent	Distan	ce (in	feet)		
F	load Grade:	0.0%				Auto:	s: 52	.505			
	Left View:	-90.0 degre	es		Mediui	m Trucks	s: 52	.336			
	Right View:	90.0 degree	es		Heav	y Truck	s: 52	.352			
FHWA Noise Mode	I Calculations	5									
VehicleType	REMEL	Traffic Flow	Di	stance	Finite	Road	Fresi	nel	Barrier Att	en Ber	m Atten
Autos:	73.22	-0.44		-0.4	2	-1.20		-4.71	0.0	000	0.00
Medium Trucks:	83.68	-17.67		-0.4	0	-1.20		-4.88	0.0	000	0.00
Heavy Trucks:	87.33	-22.17		-0.4	0	-1.20		-5.29	0.0	000	0.00
Unmitigated Noise	Levels (with	out Topo and	barri	er atten	uation)						
VehicleType	Leq Peak Hou	r Leq Day	/	Leg E	vening	Leq	Night		Ldn	C	NEL
Autos:	71	.2	70.9		68.5		64.	9	72.7	7	73.
Medium Trucks:	64	.4	64.5		59.7		57.	2	65.4	1	65.
Heavy Trucks:	Heavy Trucks: 63.6 63.9				53.5		56.	9	64.9	9	64.
Vehicle Noise:	72	.6	72.5		69.1		66.	1	74.0	)	74.
Centerline Distanc	e to Noise Co	ntour (in feet	)								
			L	70 0	dBA	65	dBA	1	50 dBA	55	dBA
			Ldn:		126		271		584		1,257
		C	NEL:		133		287		618		1.330

Saturday, October 14, 2023

	FHWA-RD	-77-108 HIGHV	VAY NO	ISE I	PREDIC	TION M	ODEL (	9/12/20	021)			
Scena Road Nan Road Segme	rio: E ne: Avenue M ent: e/o Site 2 R	d.				Project Job N	Name: umber:	Anteloj 14267	pe Valley	Com	merc	
SITE	SPECIFIC IN	PUT DATA				N	OISE I	NODE	L INPU	TS		
Highway Data				S	ite Con	ditions	(Hard =	10, Sc	oft = 15)			
Average Daily	Traffic (Adt):	23,587 vehicles	;					Autos:	15			
Peak Hou	Percentage:	6.63%			Me	dium Tru	icks (2 )	Axles):	15			
Peak I	lour Volume:	1,564 vehicles			He	avy Truc	:ks (3+)	Axles):	15			
Ve	ehicle Speed:	60 mph		V	ohiclo I	Mix						
Near/Far La	ane Distance:	87 feet		-	Veh	icleTvne		Dav	Evening	Nii	aht	Daily
Site Data				-	ven	A	utos:	75.2%	10.79	6 14	4.0%	97.39%
Be	wier Height	0.0 feet			M	edium Tr	ucks:	81.9%	6.8%	6 1 <sup>.</sup>	1.3%	1.93%
Parrier Type (0 V	Vall 1 Perm):	0.0 1001			/	Heavy Tr	ucks:	85.3%	2.09	6 12	2.7%	0.69%
Centerline D	ist to Barrier	68.0 feet										
Centerline Dist	to Observer:	68.0 feet		N	loise Sc	ource El	evation	s (in fe	eet)			
Barrier Distance	to Observer:	0.0 feet				Autos	s: 0.	000				
Observer Height	(Above Pad):	5.0 feet			Mediu	m Trucks	s: 2.	297				
F	ad Elevation:	0.0 feet			Heav	ry Trucks	s: 8.	004	Grade A	.ajusti	ment:	0.0
Ro	ad Elevation:	0.0 feet		L	ane Eq	uivalent	Distan	ce (in i	feet)			
	Road Grade:	0.0%			,	Autos	52.	505	,			
	Left View:	-90.0 degrees			Mediu	m Trucks	52.	336				
	Right View:	90.0 degrees			Heav	y Trucks	52.	352				
FHWA Noise Mod	lel Calculation:	6										
VehicleType	REMEL	Traffic Flow	Distand	ce	Finite	Road	Fresr	nel	Barrier A	tten	Berr	n Atten
Autos:	73.22	-1.26	-	0.42		-1.20		-4.71	(	0.000		0.000
Medium Trucks:	83.68	-18.29	-	0.40	)	-1.20		-4.88	(	).000		0.000
Heavy Trucks:	87.33	-22.79	-	0.40	1	-1.20		-5.29	(	).000		0.000
Unmitigated Nois	e Levels (with	out Topo and b	arrier at	ttenu	uation)					-		
VehicleType	Leq Peak Hou	r Leq Day	Le	q Ev	ening	Leq	Night		Ldn		C٨	IEL
Autos:	70	.3 7	0.1		67.7		64.	1	7	1.9		72.3
Medium Trucks:	63	.8 6	3.9		59.1		56.6	6	64	1.8		65.1
Heavy Trucks:	62	.9 6	3.2		52.9		56.2	2	64	1.2		64.3
Vehicle Noise:	71	.8 7	1.7		68.4		65.3	3	73	3.2		73.6
Centerline Distan	ce to Noise Co	ntour (in feet)	-									
				70 d	BA	65 0	dBA	6	60 dBA		55	dBA
		L	dn:		112		241		5	19		1,117
		CN	EL:		118		255		54	19		1,182

Scenario: EP Road Name: Avenue M Road Segment: elo Sile 2 Rd.         Project Name: Antelope Valley Commerc Job Number: 14267           Highway Data         Site Secret of Sile 2 Rd.         Noise Model LinPUTS           Highway Data         Site Conditions (Hard = 10, Soft = 15)           Average Daily Traffic (Adt):         24,315 vehicles         Medium Trucks: (14,24,kles):         15           Peak Hour Percentage:         6.63%         Medium Trucks (24, kles):         15           Vehicle Speed:         60 mph         Medium Trucks (24, kles):         15           Barrier Height:         0.0 feet         Medium Trucks: (81, 9%         6.8%         11.3%         1.8           Barrier Distance to Observer:         60. feet         Mole Elevation:         0.0 feet         Medium Trucks:         8.04         Grade Adjustment: 0.0           Observer Height (Above Pad):         5.0 feet         Moles         Source Elevations (In feet)         Condegrees           Road Grade:         0.0,0         Generes         Medium Trucks:         8.04         Grade Adjustment: 0.0           Deserver Height (Above Pad):         5.0 feet         Mutos:         52.05         Medium Trucks:         Source Elevations (In feet)           Road Grade:         0.0,0         Elevation:         0.0 feet         Mutos:         Source Elevations (In f		FHWA-RD-	77-108 HIGHW	AY NOISE	E PREDIC	TION MC	DEL (9/	12/20	21)		
Road Name:         Avenue M         Job Number:         14267           Road Segment:         elo Site 2 Rd.         NOISE MODEL         INPUTS           Highway Data         Site Conditions (Hard = 10, Soft = 15)         Autos::         15           Average Daily Traffic (Adi):         24,315 vehicles         Autos::         15           Peak Hour Porentales:         663%         Medium Trucks (24,428):         15           Vehicle Speed:         60 mph         Near/Far Lane Distance:         87 feet         Vehicle Type         Day         Evening         Night         Daily           Site Data         0.0 feet         Autos::         75.2%         10.7%         14.0%         97.41           Barrier Type (O-Wall, 1-Berm):         0.0         Centerline Dist. to Diserver:         68.0 feet         Medium Trucks:         8.19%         6.8%         11.3%         1.8           Barrier Distance to Observer:         0.0 feet         Matos::         52.05         Medium Trucks:         2.297           Observer Height (Above Pad):         5.0 feet         Medium Trucks:         8.004         Grade Adjustment:         0.00           Road Grade:         0.0 feet         Autos:         52.505         Medium Trucks:         52.352           FHWA Noise Model C	Scenar	io: EP				Project N	lame: A	ntelop	e Valley C	ommerc	;
Road Segment: elo Site 2 Rd.           SITE SPECIFIC INPUT DATA         NOISE MODEL INPUTS           Average Daily Traffic (Adt):         24,315 vehicles         Autos:: 15           Peak Hour Porentage:         6.63%         Medium Trucks (2 Axles):: 15           Peak Hour Volume:         1,512 vehicles         Autos:: 15           Vehicle Speed:         60 mph         Medium Trucks (2 Axles):: 15           Barrier Hight:         0.0 feet         Autos:: 75.2% 10.7% 14.0% 97.4           Barrier Type (0-Wall, 1-Berrn):         0.0         Centerline Dist to Dasrver:         68.0 feet           Barrier Type (0-Wall, 1-Berrn):         0.0         Centerline Dist to Dasrver:         68.0 feet           Barrier Type (0-Wall, 1-Berrn):         0.0         Centerline Dist to Dasrver:         Medium Trucks: 85.3% 2.0% 12.7% 0.60           Barrier Type (0-Wall, 1-Berrn):         0.0         Medium Trucks: 85.3% 2.0% 12.7% 0.60           Barrier Type (0-Wall, 1-Berrn):         0.0         Medium Trucks: 85.3% 2.0% 12.7% 0.60           Barrier Type (0-Wall, 1-Berrn):         0.0         Medium Trucks: 22.97           Observer Height (Nove Pad):         0.0 feet         Autos: 52.505	Road Nam	e: Avenue M				Job Nu	mber: 14	4267			
SITE SPECIFIC INPUT DATA         NOISE MODEL INPUTS           Highway Data         Site Conditions (Hard = 10, Soft = 15)           Highway Data         Site Conditions (Hard = 10, Soft = 15)           Average Daily Traffic (Adt):         24,315 vehicles         Red Hour Percentage:         6.63%           Peak Hour Volume:         1.612 vehicles         Medium Trucks (2 Axles):         15           Vehicle Speed:         60 mp         Vehicle Speed:         0 mp         Vehicle Speed:         0 mp           Site Data         Autos:         75.2%         10.7%         14.0%         97.47           Barrier Height:         0.0 feet         Medium Trucks:         8.19.%         6.8.0         16.8           Barrier Type (Or-Wall, -Bermi):         0.0 feet         Medium Trucks:         8.0.9%         1.0.3%         1.0.6           Barrier Type (Or-Wall, -Bermi):         0.0 feet         Mautos:         0.000         Medium Trucks:         8.0.9%         0.8%         1.0.5%           Barrier Type (IAbove Pad):         5.0 feet         Multos:         0.000         Medium Trucks:         8.0.04         Grade Adjustment:         0.0           Barrier Type (IAbove Pad):         5.0 feet         Multos:         52.35         Mediu	Road Segme	nt: e/o Site 2 Rd	l.								
Site Conditions (Hard = 10, Soft = 15)           Average Daily Traffic (Adi):         24,315 vehicles         Autos:         15           Peak Hour Procentage:         6.63%         Medium Trucks (2 Avers):         15           Peak Hour Potematic         1,612 vehicles         Medium Trucks (2 Avers):         15           Vehicle Speed         60 mph         Vehicle Type         Day         Evening         Night         Daily           Site Data         Site Data         Vehicle Type         Day         Evening         Night         Daily           Barrier Height:         0.0         Genetenine Dist. to Diserver:         68.0 feet         Moise Source Elevations (in feet)         Noise         Comments:         8.3%         2.0%         12.7%         0.60           Centerline Dist. to Barrier:         68.0 feet         Moise Source Elevations (in feet)         Moise Source         Rod Grade Adjustment:         0.0           Cobserver Height (Above Pad):         5.0 feet         Madum Trucks:         8.04         Grade Adjustment:         0.0           Road Grade:         0.0, 0 feet         Medium Trucks:         S2.35         Evention         0.00         0.00           Heavy Trucks:         52.35         Medium Trucks:         52.35         Medium Trucks:	SITE	SPECIFIC INF	PUT DATA			NC	DISE M	ODEI		5	
Average Daily Traffic (Ad):         24,315 vehicles         Autos:         15           Peak Hour Percentage:         6.63%         Medium Trucks (2 Axles):         15           Peak Hour Volume:         1,612 vehicles         16         Heavy Trucks (3 A Axles):         15           Vehicle Speed:         60 mph         1612 vehicles         15         Heavy Trucks (3 A Axles):         15           Site Data         Autos:         75.2%         10.7%         14.0%         97.41           Barrier Height:         0.0 feet         Medium Trucks:         85.3%         2.0%         12.7%         0.68           Centerline Dist to Dasrier:         68.0 feet         Medium Trucks:         85.3%         2.0%         12.7%         0.66           Barrier Distance to Observer:         0.0 feet         Autos:         0.0         Medium Trucks:         8.04         Grade Adjustment:         0.0           Centerline Dist to Doserver:         0.0 feet         Autos:         52.505         Heavy Trucks:         8.004         Grade Adjustment:         0.0           Road Elevation:         0.0 feet         Autos:         52.352         Heavy Trucks:         52.352           FHWA Noise Model Calculations         Vehicle Type         REMEL         Traffic Flow <td< th=""><th>Highway Data</th><th></th><th></th><th></th><th>Site Con</th><th>ditions (H</th><th>lard = 1</th><th>0, So</th><th>ft = 15)</th><th></th><th></th></td<>	Highway Data				Site Con	ditions (H	lard = 1	0, So	ft = 15)		
Peak Hour Percentage:         6.63%         Medium Trucks (2 Axles):         15           Peak Hour Volume:         1,612 vehicles         Heavy Trucks (3 Axles):         15           Vehicle Speed:         60 mph         Vehicle Type         Day         Evening         Night         Dail           Site Data         Autos:         75.2%         10.7%         14.3%         1.8%           Barrier Type (0-Wall, 1-Berm):         0.0         Centerline Dist to Barrier:         68.0 feet         Medium Trucks:         85.3%         2.0%         12.7%         0.60           Centerline Dist to Dserver:         0.0 feet         Medium Trucks:         85.3%         2.0%         12.7%         0.60           Barrier Type (0-Wall, 1-Berm):         0.0         feet         Moise Source Elevations (in feet)         0.00           Centerline Dist to Dserver:         0.0 feet         Medium Trucks:         85.3%         2.0%         12.7%         0.60           Road Elevation:         0.0 feet         Heavy Trucks:         8.004         Grade Adjustment:         0.0           Road Elevation:         0.0 feet         Autos:         52.350         Medium Trucks:         52.350           FHMA Noise Model Calculations         Feesnel         Barrier Atten         Berrier Atten<	Average Daily	Traffic (Adt): 2	4,315 vehicles				A	utos:	15		
Peak Hour Volume:         1,612 vehicles Wehicle Speed:         Heavy Trucks (3 + Axles):         15           Vehicle Speed:         60 mph         Vehicle Mix         Day         Evening         Night         Dail           Vehicle Mix           Site Data           Autos:         75.2%         10.7%         1.40%         Or pay         Evening         Night         Day         Cols for the observer:         Observer Height (Above Pad):         S0 feet         Malum         Malum         Trucks:         S0.06         Cols	Peak Hour	Percentage:	6.63%		Me	dium Truc	ks (2 Ax	des):	15		
Vehicle Speed:         60 mph           Near/Far Lane Distance:         87 feet         Vehicle Mix           Site Data         Autos:         75.2%         10.7%         14.0%         97.4%           Barrier Height:         0.0 feet         Medium Trucks:         81.9%         6.8%         11.3%         1.8%           Barrier Type (0-Wall, 1-Berm):         0.0         Medium Trucks:         81.9%         6.8%         1.3%         1.8%           Barrier Type (0-Wall, 1-Berm):         0.0         Medium Trucks:         85.3%         2.0%         12.7%         0.6           Centerline Dist to Dserver:         0.0 feet         Moise Source Elevations (in feet)         Medium Trucks:         2.297           Observer Height (Above Pad):         0.0 feet         Medium Trucks:         8.004         Grade Adjustment:         0.0           Road Clevation:         0.0 feet         Medium Trucks:         8.233         Centre         Barrier Atten         Berre Atten           Road Grade:         0.0%         Medium Trucks:         52.305         Emm Atten         Berre Atten           Rober of Medium Trucks:         83.68         -18.29         -0.40         -1.20         -4.71         0.000         0.00           Medium Trucks:         83.6	Peak H	lour Volume: 1	1,612 vehicles		He	avy Truck	:s (3+ Ax	des):	15		
Near/Far Lane Distance:         87 feet         Vehicle Type         Day         Evening         Night         Day           Site Data         Autos:         75.2%         10.7%         14.0%         97.4           Barrier Type (0-Wall, 1-Berm):         0.0         0         68.0         11.3%         1.8%           Barrier Type (0-Wall, 1-Berm):         0.0         0         0.0         0.0         0.0           Centerline Dist. to Doserver:         68.0 feet         Medium Trucks:         81.3%         2.0%         1.2.7%         0.06           Barrier Type (0-Wall, 1-Berm):         0.0 feet         Medium Trucks:         80.04         Grade Aljustment:         0.0           Barrier Type (0-Wall, 1-Berm):         0.0 feet         Moise Source Elevations (in feet)         0.0           Barrier Atten         Note Source Invest:         8.004         Grade Aljustment:         0.0           Barrier Atten         Autos:         52.356         Medium Trucks:         52.356           FHWA Noise Model Calculations         Finite Road         Fresnel         Barrier Atten         Berm Atten           Autos:         73.3         -22.79         -0.40         -1.20         -4.71         0.000         0.0           Heavy Trucks:	Ve	hicle Speed:	60 mph	ŀ	Vehicle	Mix					
Site Data         Autos:         75.2%         10.7%         14.0%         97.4%           Barrier Height:         0.0 feet         Medium Trucks:         81.9%         6.8%         11.3%         1.8%           Barrier Dist         0.0 Barrier:         68.0 feet         Medium Trucks:         85.3%         2.0%         12.7%         0.6           Centerline Dist. to Barrier:         68.0 feet         Meavy Trucks:         85.3%         2.0%         12.7%         0.6           Barrier Distance to Observer:         0.0 feet         Moise Source Elevations (in feet)         Medium Trucks:         8.004         Grade Adjustment: 0.0           Observer Height (Above Pad):         5.0 feet         Noise Source Elevations (in feet)         Medium Trucks:         8.004         Grade Adjustment: 0.0           Road Grade:         0.0 feet         Autos:         52.505         Medium Trucks:         52.352           FHWA Noise Model Calcutations         VehicleType         REMEL         Traffic Flow         Distance         Finite Road         Fresnel         Barrier Atten         Bernier Atten           Autos:         73.22         -1.12         -0.42         -1.20         -4.71         0.000         0.00           Heavy Trucks:         83.8         -18.29         -	Near/Far La	ne Distance:	87 feet	-	Veh	icleTvpe	D	Dav	Evenina	Niaht	Dailv
Barrier Height:         0.0 feet           Barrier Type (0-Wall, 1-Berm):         0.0           Centerline Dist. to Barrier:         68.0 feet           Barrier Dist. to Dserver:         68.0 feet           Barrier Dist. to Dserver:         68.0 feet           Barrier Dist. to Observer:         68.0 feet           Barrier Dist. to Observer:         68.0 feet           Barrier Distance to Observer:         0.0 feet           Road Elevation:         0.0 feet           Road Grade:         0.0%           Left View:         -90.0 degrees           Right View:         90.0 degrees           PHWA Noise Model Calculations         VenicleType           VenicleType         REMEL           Medium Trucks:         82.30           Medium Trucks:         83.68           -1.12         -0.42           -1.20         -4.71           Medium Trucks:         83.68           -1.20         -4.88           Medium Trucks:         83.79           -1.20         -4.88           Medium Trucks:         63.9           Solar Calculations         -1.20           Vehicle Type         Leq Peak Hour           Leq Day         Leq Evening         Leq	Site Data					AL	itos: 7	5.2%	10.7%	14.0%	97.47%
Barrier Type (0-Wall, 1-Berm):         0.0           Centerline Dist. to Barrier:         68.0 feet           Centerline Dist. to Doserver:         60.0 feet           Barrier Type (0-Wall, 1-Berm):         0.0           Centerline Dist. to Doserver:         68.0 feet           Barrier Type (0-Wall, 1-Berm):         0.0           Barrier Type (0-Wall, 1-Berm):         0.0           Barrier Type (0-Wall, 1-Berm):         0.0 feet           Barrier Type (0-Wall, 1-Berm):         0.0 feet           Barrier Type (0-Wall, 1-Berm):         0.0 feet           Road Elevation:         0.0 feet           Road Grade:         0.0%           Left View:         90.0 degrees           Right View:         90.0 degrees           Welvier Type         REMEL           VehicleType         REMEL           VehicleType         REMEL           Medium Trucks:         83.68           163: 92         -0.40           -1.20         -4.71           Autos:         70.5           70.5         70.2           67.8         64.2           Medium Trucks:         63.8           63.9         59.1           S6.6         64.8           H	Ba	rrier Height:	0.0 feet		М	edium Tru	cks: 8	1.9%	6.8%	11.3%	1.87%
Centerline Dist. to Barrier:         68.0 feet           Centerline Dist. to Dserver:         68.0 feet           Barrier Distance to Dserver:         0.0 feet           Observer Height (Above Pad):         5.0 feet           Pad Elevation:         0.0 feet           Road Grade:         0.0%           Left View:         90.0 degrees           Right View:         90.0 degrees           Right View:         90.0 degrees           WehicleType         REMEL         Traffic Flow           VehicleType         REMEL         Traffic Flow           VehicleType         REMEL         Traffic Flow           VehicleType         REMEL         Traffic Flow           VehicleType         Leq Peak Hour         Leq Oay           Heavy Trucks:         83.8           88         18.29         -0.40           -1.20         -4.88         0.000           Heavy Trucks:         83.8         63.9           59.1         56.6         64.8           Heavy Trucks:         63.2         52.9           Right         Leq Day         Leq Evening         Leq Night           Autos:         70.5         70.2         67.8         64.2         72.0 </td <td>Barrier Type (0-W</td> <td>(all. 1-Berm):</td> <td>0.0</td> <td></td> <td>1</td> <td>Heavy Tru</td> <td>cks: 8</td> <td>5.3%</td> <td>2.0%</td> <td>12.7%</td> <td>0.66%</td>	Barrier Type (0-W	(all. 1-Berm):	0.0		1	Heavy Tru	cks: 8	5.3%	2.0%	12.7%	0.66%
Centerline Dist. to Observer:         68.0 feet         Autos::         0.000           Barrier Distance to Observer:         0.0 feet         Autos::         0.000           Observer Height (Above Pay)         5.0 feet         Medium Trucks:         2.297           Pad Elevation:         0.0 feet         Medium Trucks:         8.004         Grade Adjustment:         0.0           Road Grade:         0.0%         Laft View:         90.0 degrees         Medium Trucks:         52.356           FHWA Noise Model Calculations         VehicleType         REMEL         Traffic Flow         Distance         Finite Road         Fresnel         Barrier Atten         Bern Atte           Autos:         7.32         -1.12         -0.42         -1.20         -4.71         0.000         0.0           Medium Trucks:         83.68         -18.29         -0.40         -1.20         -4.71         0.000         0.0           Medium Trucks:         83.68         -18.29         -0.40         -1.20         -4.71         0.000         0.0           Medium Trucks:         83.68         -18.29         -0.40         -1.20         -5.29         0.000         0.0           Unmitigated Noise Levels (without Topo and barrier attenuation)         VehicleType	Centerline Di	st. to Barrier:	68.0 feet	-	Noine Cr	uree Ele	votiona	lin fa	of)		
Barrier Distance to Observer:         0.0 feet         Mail         0.000           Observer Height (Above Pad):         5.0 feet         Medium Trucks:         2.297           Pad Elevation:         0.0 feet         Heavy Trucks:         8.004         Grade Adjustment:         0.0           Road Grade:         0.0%         Left View:         90.0 degrees         Medium Trucks:         52.505           FHWA Noise Model Calculations         Outgrees         Finite Road         Fresnel         Barrier Atten         Berrer Atten           WeinleType         REMEL         Traffic Flow         Distance         Finite Road         Fresnel         Barrier Atten         Berrer Atten           Medium Trucks:         83.68         -18.29         -0.40         -1.20         -4.71         0.000         0.0           Medium Trucks:         83.68         -18.29         -0.40         -1.20         -5.29         0.000         0.0           Heavy Trucks:         83.33         -22.79         -0.40         -1.20         -5.29         0.000         0.0           Ummitgated Noise Levels (without Topo and barrier attenuation)         Let View         -5.29         0.000         0.0           VehicleType         Leq Deak Hour         Leq Day         Leq Revening	Centerline Dist.	to Observer:	68.0 feet	-	NUISe St	Autoo	valions	(11116	el)		
Observer Height (Above Pad):         5.0 feet         Instance         Last         Instance         Insta	Barrier Distance	to Observer:	0.0 feet		Madiu	Autos.	0.00	UU 07			
Pad Elevation:         0.0 feet         Intervy Trucks:         6.004         Output And Stance         Control And Stance         Co	Observer Height (	Above Pad):	5.0 feet		Wealu	III TTUCKS.	2.23	57 D.4	Grade Adii	ustment	. 0 0
Road Elevation:         0.0 feet         Lane Equivalent Distance (in feet)           Road Grade:         0.0%         Autos:         52.50           Left I/vew:         90.0 degrees         Medium Trucks:         52.336           WehicleType         REMEL         Traffic Flow         Distance         Fresnel         Barrier Atten           Medium Trucks:         52.336         -         -         -         -         -           Medium Trucks:         52.352         - <t< td=""><td>Pa</td><td>ad Elevation:</td><td>0.0 feet</td><td></td><td>neav</td><td>y mucks.</td><td>0.00</td><td>04</td><td>Orade Auje</td><td>Journerit</td><td>. 0.0</td></t<>	Pa	ad Elevation:	0.0 feet		neav	y mucks.	0.00	04	Orade Auje	Journerit	. 0.0
Road Grade:         0.0%         Autos:         52.505           Left View:         -90.0 degrees         Medium Trucks:         52.336           Right View:         90.0 degrees         Medium Trucks:         52.336           FHWA Noise Model Calculations         Fersnel         Barrier Atten         Berrier Atten           Vehicle Type         REMEL         Traffic Flow         Distance         Finite Road         Fresnel         Barrier Atten         Berrier Atten           Medium Trucks:         73.22         -1.12         -0.42         -1.20         -4.71         0.000         0.00           Medium Trucks:         83.88         -18.29         -0.40         -1.20         -4.88         0.000         0.00           Heavy Trucks:         87.33         -22.79         -0.40         -1.20         -5.29         0.000         0.00           Ummitgated Noise Levels (without Topo and barrier attenuation)         Leq Peak Hour         Leq Day         Leq Revening         Leq Night         Ldn         CNEL           Autos:         70.5         70.2         67.8         64.2         72.0         77.           Medium Trucks:         63.8         63.9         59.1         56.6         64.8         66	Roa	ad Elevation:	0.0 feet		Lane Eq	uivalent L	Distance	e (in f	eet)		
Left View:         -90.0 degrees         Medium Trucks:         52.336           FHWA Noise Model Calculations         Heavy Trucks:         52.352           VehicleType         REMEL         Traffic Flow         Distance         Finite Road         Fresnel         Barrier Atten         Bern Atten           Autos:         73.22         -1.12         -0.42         -1.20         -4.71         0.000         0.0           Medium Trucks:         83.68         -18.29         -0.04         -1.20         -4.71         0.000         0.0           Medium Trucks:         87.33         -22.79         -0.40         -1.20         -5.29         0.000         0.0           Unnitigated Noise Levels (without Topo and barrier attenuation)         VehicleType         Leg Day         Leg Evening         Leg Night         Ldn         CNEL           Autos:         70.5         70.2         67.8         64.2         72.0         77.           Medium Trucks:         63.8         63.9         95.1         56.6         64.8         66           Heavy Trucks:         62.9         63.2         52.9         56.2         64.2         64           Vehicle Noise:         71.9         71.8         68.5         65.4	1	Road Grade:	0.0%			Autos:	52.5	05			
Right View:         90.0 degrees         Heavy Trucks:         52.352           FHWA Noise Model Calculations         Vehicle Type         REMEL         Traffic Flow         Distance         Finite Road         Fresnel         Barrier Atten         Berm Atten           Autos:         73.22         -1.12         -0.42         -1.20         -4.71         0.000         0.0           Medium Trucks:         83.68         -18.29         -0.40         -1.20         -4.88         0.000         0.0           Heavy Trucks:         87.33         -22.79         -0.40         -1.20         -5.29         0.000         0.0           Umitigated Noise Levels (without Topo and barrier attenuation)         Vehicle Type         Leq Peak Hour         Leq Evening         Leq Night         Ldn         CNEL           Vehicle Type         Leq Deak         63.9         59.1         56.6         64.8         66           Heavy Trucks:         63.8         63.9         59.1         56.6         64.8         66           Heavy Trucks:         63.2         52.9         56.2         64.2         64           Wehicle Noise:         71.9         71.8         68.5         65.4         73.3         77           Centerline Distanc		Left View:	-90.0 degrees		Mediu	m Trucks:	52.3	36			
FHWA Noise Model Calculations           VehicleType         REMEL         Traffic Flow         Distance         Finite Road         Fresnel         Barrier Atten         Berra Atten           Medium Trucks:         73.22         -1.12         -0.42         -1.20         -4.71         0.000         0.0           Medium Trucks:         83.68         -18.29         -0.40         -1.20         -4.71         0.000         0.0           Heavy Trucks:         87.33         -22.79         -0.40         -1.20         -5.29         0.000         0.0           Umitigated Noise Levels (without Topo and barrier attenuation)         -5.29         0.000         0.0           VehicleType         Leq Peak Hour         Leq Day         Leq Evening         Leq Night         Ldn         CNEL           Autos:         70.5         70.2         67.8         64.2         72.0         7           Medium Trucks:         63.8         63.9         59.1         56.6         64.8         66           Heavy Trucks:         62.9         63.2         52.9         56.2         64.2         64           Vehicle Noise:         71.9         71.8         68.5         65.4         73.3         7           Cen		Right View:	90.0 degrees		Heav	y Trucks:	52.3	52			
VehicleType         REMEL         Traffic Flow         Distance         Finite Road         Fresnel         Barrier Atten         Berm Atten           Autos:         73.22         -1.12         -0.42         -1.20         -4.71         0.000         0.00           Medium Trucks:         83.88         -18.29         -0.40         -1.20         -4.88         0.000         0.00           Heavy Trucks:         87.33         -22.79         -0.40         -1.20         -5.29         0.000         0.00           Ummitigated Noise Levels (without Topo and barrier attenuation)         VehicleType         Leq Peak Hour         Leq Day         Leq Evening         Leq Night         Ldn         CNEL           Autos:         70.5         70.2         67.8         64.2         72.0         77.           Medium Trucks:         63.8         63.9         59.1         56.6         64.8         66           Heavy Trucks:         62.9         63.2         52.9         56.2         64.2         73.3         77           Centerline Distance to Noise Contour (in feet)         Immediate to the set of the set	FHWA Noise Mode	el Calculations		1							
Autos:         73.22         -1.12         -0.42         -1.20         -4.71         0.000         0.0           Medium Trucks:         83.68         -18.29         -0.40         -1.20         -4.88         0.000         0.0           Heavy Trucks:         87.33         -22.79         -0.40         -1.20         -5.29         0.000         0.0           Unnitigated Noise Levels (without Topo and barrier attenuation)         Leq Day         Leq Evening         Leq Night         Ldn         CNEL           Autos:         70.5         70.2         67.8         64.2         72.0         77.           Medium Trucks:         63.8         63.9         59.1         56.6         64.8         66           Heavy Trucks:         62.9         63.2         52.9         56.2         64.2         64           Vehicle Noise:         71.9         71.8         68.5         65.4         73.3         77           Centerline Distance to Noise Contour (in feet)         To dBA         65 dBA         60 dBA         55 dBA           Ldn:         113         244         527         1.1         CNEL:         120         259         557         1.2	VehicleType	REMEL	Traffic Flow	Distance	Finite	Road	Fresne	1 1	Barrier Atte	en Ber	m Atten
Medium Trucks:         83.68         -18.29         -0.40         -1.20         -4.88         0.000         0.00           Heavy Trucks:         87.33         -22.79         -0.40         -1.20         -5.29         0.000         0.00           Umitigated Noise Levels (without Topo and barrier attenuation)         -         -         -         -         -         -         -         -         0.000         0.0	Autos:	73.22	-1.12	-0.4	12	-1.20		4.71	0.0	00	0.000
Heavy Trucks:         87.33         -22.79         -0.40         -1.20         -5.29         0.000         0.00           Unmitgated Noise Levels (without Topo and barrier attenuation)         UesticleType         Led Peak Hour         Led Day         Led Pening         Led Night         Ldn         CNEL           Autos:         70.5         70.2         67.8         64.2         72.0         77.           Medium Trucks:         63.8         63.9         59.1         56.6         64.8         66.6           Heavy Trucks:         62.9         63.2         52.9         56.2         64.2         73.3         77.           Centerline Distance to Noise Contour (in feet)         T0 dBA         65 dBA         60 dBA         55 dBA           Ldn:         113         244         527         1,11           CNEL:         120         259         557         1,21	Medium Trucks:	83.68	-18.29	-0.4	40	-1.20		4.88	0.0	00	0.000
Unmitigated Noise Levels (without Topo and barrier attenuation)         Leq Night         Ldn         CNEL           Vehicle Type         Leq Peak Hour         Leq Day         Leq Evening         Leq Night         Ldn         CNEL           Autos:         70.5         70.2         67.8         64.2         72.0         77.           Medium Trucks:         63.8         63.9         59.1         56.6         64.8         66           Heavy Trucks:         62.9         63.2         52.9         56.2         64.2         66           Vehicle Noise:         71.9         71.8         65.5         65.4         73.3         77           Centerline Distance to Noise Contour (in feet)	Heavy Trucks:	87.33	-22.79	-0.4	10	-1.20	-	5.29	0.0	00	0.000
VehicleType         Leq Peak Hour         Leq Day         Leq Evening         Leq Night         Ldn         CNEL           Autos:         70.5         70.2         67.8         64.2         70.0         77.           Medium Trucks:         63.8         63.9         59.1         56.6         64.8         66           Heavy Trucks:         62.9         63.2         52.9         56.2         64.2         66           Vehicle Noise:         71.9         71.8         68.5         65.4         73.3         77           Centerline Distance to Noise Contour (in feet)	Unmitigated Noise	e Levels (witho	ut Topo and ba	rrier atter	nuation)						
Autos:         70.5         70.2         67.8         64.2         72.0         77.           Medium Trucks:         63.8         63.9         59.1         56.6         64.8         66           Heavy Trucks:         62.9         63.2         52.9         56.2         64.2         6           Vehicle Noise:         71.9         71.8         68.5         65.4         73.3         77           Centerline Distance to Noise Contour (in feet)           Ldn:         170 dBA         65 dBA         60 dBA         55 dBA           Ldn:         113         244         527         1,1           CNEL:         120         259         557         1,2	VehicleType	Leq Peak Hour	Leq Day	Leq E	Evening	Leq N	ight		Ldn	CI	NEL
Medium Trucks:         63.8         63.9         59.1         56.6         64.8         66.           Heavy Trucks:         62.9         63.2         52.9         56.2         64.2         66           Vehicle Noise:         71.9         71.8         68.5         65.4         73.3         77           Centerline Distance to Noise Contour (in feet)           Image: Contour (in feet)         70 dBA         65 dBA         60 dBA         55 dBA           Ldn:         113         244         527         1,11           CNEL:         120         259         557         1,21	Autos:	70.5	5 70	.2	67.8		64.2		72.0		72.4
Heavy Trucks:         62.9         63.2         52.9         56.2         64.2         66           Vehicle Noise:         71.9         71.8         68.5         65.4         73.3         7           Centerline Distance to Noise Contour (in feet)         70 dBA         65 dBA         60 dBA         55 dBA           Ldn:         113         244         527         1,1           CNEL:         120         259         557         1,2	Medium Trucks:	63.8	3 63	.9	59.1		56.6		64.8		65.1
Vehicle Noise:         71.9         71.8         68.5         65.4         73.3         73           Centerline Distance to Noise Contour (in feet)	Heavy Trucks:	62.9	9 63	.2	52.9		56.2		64.2		64.3
Centerline Distance to Noise Contour (in feet)         70 dBA         65 dBA         60 dBA         55 dBA           Ldn:         113         244         527         1,1:           CNEL:         120         259         557         1,2:	Vehicle Noise:	71.9	9 71	.8	68.5		65.4		73.3		73.7
To dBA         65 dBA         60 dBA         55 dBA           Ldn:         113         244         527         1,1           CNEL:         120         259         557         1,2	Centerline Distant	ce to Noise Con	ntour (in feet)	1		0					
Ldn: 113 244 527 1,1: CNEL: 120 259 557 1,2:				70	dBA	65 dl	BA	6	0 dBA	55	dBA
CNEL: 120 259 557 1,20			Ld	ln:	113		244		527		1,135
			CNE	EL:	120		259		557		1,200

	FHWA-R	D-77-108 HIGH	WAY NO	DISE F	PREDIC		ODEL (	9/12/2	021)		
Scena Road Nan Road Segme	rio: EC (2025) ne: Avenue M ent: e/o Site 2 F				Project I Job Nu	Name: I Imber:	Antelo 14267	pe Valley C	Commerc		
SITE	SPECIFIC IN	NPUT DATA				N	OISE N	IODE	L INPUT	s	
Highway Data				S	ite Con	ditions (	Hard =	10, S	oft = 15)		
Average Daily	Traffic (Adt):	24,156 vehicle	es				,	Autos:	15		
Peak Hour	Percentage:	6.63%			Me	dium Tru	cks (2 A	Axles).	15		
Peak I	Hour Volume:	1,602 vehicle	s		He	avy Truc	ks (3+ A	Axles).	15		
Ve	ehicle Speed:	60 mph		V	ehicle I	Nix					
Near/Far La	ane Distance:	87 feet		-	Veh	icleType		Day	Evening	Night	Daily
Site Data						A	utos:	75.2%	6 10.7%	14.0%	97.39%
Ba	rrier Height:	0.0 feet			Me	edium Tru	ucks:	81.9%	6.8%	11.3%	1.93%
Barrier Type (0-V	Vall, 1-Berm):	0.0			ŀ	leavy Tru	ucks:	85.3%	6 2.0%	12.7%	0.69%
Centerline D	ist. to Barrier:	68.0 feet		N	oise So	urce Ele	vation	s (in f	eet)		
Centerline Dist.	to Observer:	68.0 feet				Autos	: 0.0	000	,		
Barrier Distance	to Observer:	0.0 feet			Mediui	n Trucks	2.2	297			
Observer Height	Observer Height (Above Pad): 5.0 feet				Heav	y Trucks	: 8.0	004	Grade Ad	justment	: 0.0
F	ad Elevation:	0.0 feet			_			"			
Ro	ad Elevation:	0.0 feet		Li	ane Equ	livalent	Distand	ce (In	feet)		
	Road Grade:	0.0%				Autos	52.	505			
	Left View:	-90.0 degre	es		Mediui	TI Trucks	52.	330			
	Right view.	90.0 degre	25		Tieav	y mucks	. JZ.	552			
FHWA Noise Mod	el Calculation	s									
VehicleType	REMEL	Traffic Flow	Distan	се	Finite	Road	Fresn	el	Barrier Att	en Bei	rm Atten
Autos:	73.22	-1.16		-0.42		-1.20		-4.71	0.0	000	0.000
Medium Trucks:	83.68	-18.19		-0.40		-1.20		-4.88	0.0	000	0.000
Heavy Trucks:	87.33	-22.68		-0.40		-1.20		-5.29	0.0	000	0.000
Unmitigated Nois	e Levels (with	out Topo and	barrier a	ttenu	ation)						
VehicleType	Leq Peak Ho	ur Leq Day	/ Le	eq Eve	ening	Leq N	Vight		Ldn	C	NEL
Autos:	70	0.4	70.2		67.8		64.2	2	72.0	D	72.4
Medium Trucks:	63	3.9	64.0		59.2		56.7		64.9	9	65.2
Heavy Trucks:	63	3.0	63.3		53.0		56.3	3	64.3	3	64.4
venicie Noise:	1	1.9	71.8		68.5		65.4	ł	73.3	3	73.7
Centerline Distan	ce to Noise C	ontour (in feet	)		1						
			ட	70 dł	BA	65 d	IBA		50 dBA	55	dBA
	Ldn:				114		245		527		1,135
		NEL:		120		259		557		1,201	

Scenario	o: ECP (2025)			Project	Name	Antelo	pe Valley (	Commerc	•		
Road Name	e: Avenue M					Job N	umber	14267			
Road Segmen	nt: e/o Site 2 R	td.									
SITE S	SPECIFIC IN	PUT DATA				N	IOISE	MODE	L INPUT	S	
Highway Data					Site Con	ditions	(Hard	= 10, S	oft = 15)		
Average Daily	Traffic (Adt):	24,370 vehicl	es					Autos.	15		
Peak Hour I	Percentage:	6.63%			Me	dium Tri	ucks (2	Axles).	15		
Peak He	our Volume:	1,616 vehicle	s		He	avy Tru	cks (3+	Axles).	15		
Vel	hicle Speed:	60 mph			Vehicle I	Mix					
Near/Far Lar	ne Distance:	87 feet		F	Veh	icleType		Day	Evening	Night	Daily
Site Data						/	Autos:	75.2%	6 10.7%	14.0%	97.41
Bar	rier Heiaht:	0.0 feet			M	edium T	rucks:	81.9%	6.8%	11.3%	1.91
Barrier Type (0-Wa	all, 1-Berm):	0.0			1	leavy T	rucks:	85.3%	6 2.0%	12.7%	0.68
Centerline Dis	t. to Barrier:	68.0 feet		H	Noiso Sr	urce El	ovatio	ne (in f	oof)		
Centerline Dist. t	to Observer:	68.0 feet		F		Auto	s' (	000			
Barrier Distance t	to Observer:	0.0 feet			Mediu	n Truck	s: 2	297			
Observer Height (/	Above Pad):	5.0 feet			Heav	v Truck	s: 8	3.004	Grade Ad	ljustment	: 0.0
Pa	d Elevation:	0.0 feet		F							
Roa	d Elevation:	0.0 feet		4	Lane Eq	uivalent	Dista	nce (in	feet)		
F	Road Grade:	0.0%			Martin	Auto.	s: 52	2.505			
	Left View:	-90.0 degre	es		Mediu	TT Truck	S: 54	2.330			
	Right view:	90.0 degre	es		neav	y muck	S. 04	2.302			
FHWA Noise Mode	Calculation:	5									
VehicleType	REMEL	Traffic Flow	Di	stance	Finite	Road	Fres	snel	Barrier Att	ten Ber	m Atten
Autos:	73.22	-1.12		-0.4	2	-1.20		-4.71	0.	000	0.00
Medium Trucks:	83.68	-18.19		-0.4	0	-1.20		-4.88	0.	000	0.00
Heavy Trucks:	87.33	-22.68		-0.4	0	-1.20		-5.29	0.	000	0.00
Unmitigated Noise	Levels (with	out Topo and	barri	er atten	uation)						
VehicleType	Leq Peak Hou	r Leq Day	/	Leq E	vening	Leq	Night		Ldn	С	NEL
Autos:	70	.5	70.2		67.8		64	.2	72.	0	72
Medium Trucks:	63	.9	64.0		59.2		56	.7	64.	9	65
Heavy Trucks:	Heavy Trucks: 63.0 63.3				53.0		56	.3	64.	3	64
Vehicle Noise:	71	.9	71.8		68.5		65	.5	73.	4	73
Centerline Distanc	e to Noise Co	ontour (in feet	)								
			L	70 (	dBA	65	dBA		60 dBA	55	dBA
			Ldn:		114		24	6	529	)	1,14
		C	NEL:		121		26	0	560	)	1,206

Saturday, October 14, 2023

	FHWA-RD	-77-108 HIGHV	VAY NOI	SE F	PREDIC	TION M	ODEL (	9/12/2	021)			
Scena Road Nan Road Segme	rio: EC (2032) ne: Avenue M ent: e/o Site 2 R	d.				Project Job N	Name: umber:	Antelo 14267	pe Valley	/ Com	imerc	
SITE	SPECIFIC IN	PUT DATA				N	OISE	MODE	L INPU	TS		
Highway Data				S	ite Con	ditions	(Hard =	10, Sc	oft = 15)			
Average Daily	Traffic (Adt):	24,535 vehicles	5					Autos:	15			
Peak Hou	Percentage:	6.63%			Me	dium Tru	icks (2	Axles):	15			
Peak I	Hour Volume:	1,627 vehicles			He	avy Truc	:ks (3+ )	Axles):	15			
Ve	ehicle Speed:	60 mph		V	ohiclo I	Mix						
Near/Far La	ane Distance:	87 feet		-	Veh	icleTvne		Dav	Evenin	a Ni	iaht	Daily
Site Data				+			utos:	75.2%	10.79	% 1	4.0%	97.39%
Pa	rrior Hoight:	0.0 foot		-	M	edium Tr	ucks:	81.9%	6.89	% 1	1.3%	1.93%
Barrier Type (0-V	Vall 1-Berm)	0.0 1001			1	leavy Tr	ucks:	85.3%	2.09	% 1	2.7%	0.69%
Centerline D	ist to Barrier:	68.0 feet										
Centerline Dist.	to Observer:	68.0 feet		N	oise Sc	burce El	evation	s (in te	eet)			
Barrier Distance	to Observer:	0.0 feet				Autos	s: 0.	000				
Observer Height	(Above Pad):	5.0 feet			Mediu	m Trucks	s: 2.	297	<u> </u>			
F	ad Elevation:	0.0 feet			Heav	y Trucks	s: 8.	004	Grade	Aajust	ment	0.0
Ro	ad Elevation:	0.0 feet		Li	ane Eq	uivalent	Distan	ce (in i	feet)			
	Road Grade:	0.0%				Autos	52	.505				
	Left View:	-90.0 degrees	5		Mediu	m Trucks	52	.336				
	Right View:	90.0 degrees	3		Heav	y Truck	52	352				
FHWA Noise Mod	el Calculations	5		_								
VehicleType	REMEL	Traffic Flow	Distanc	е	Finite	Road	Fresi	nel	Barrier /	Atten	Berr	n Atten
Autos:	73.22	-1.09	-1	0.42		-1.20		-4.71		0.000.C		0.000
Medium Trucks:	83.68	-18.12	-1	0.40		-1.20		-4.88		0.000		0.000
Heavy Trucks:	87.33	-22.62	-1	0.40		-1.20		-5.29		0.000		0.000
Unmitigated Nois	e Levels (with	out Topo and b	arrier at	tenu	ation)							
VehicleType	Leq Peak Hou	r Leq Day	Leo	j Eve	ening	Leq	Night		Ldn		CN	IEL
Autos:	70	.5 7	0.3		67.8		64.	2	7	2.0		72.5
Medium Trucks:	64	.0 6	4.1		59.3		56.	7	6	5.0		65.3
Heavy Trucks:	63	.1 6	3.4		53.0		56.	4	6	4.4		64.
Vehicle Noise:	72	.0 7	1.9		68.5		65.	5	7	3.4		73.
Centerline Distan	ce to Noise Co	ntour (in feet)										
			7	'0 dl	BA	65 (	dBA	6	60 dBA		55	dBA
		L	dn:		115		247		5	32		1,147
		CN	EL:		121		261		5	63		1,213

	FHWA-RI	D-77-108 HIGH	WAY NO	ISE P	REDIC	TION MC	DEL (	9/12/2	021)		
Scenar Road Nan Road Segme	io: ECP (2032 ne: Avenue M nt: e/o Site 2 F				Project N Job Nu	lame: i mber:	Antelo 14267	pe Valley (	Commer	с	
SITE	SPECIFIC IN	IPUT DATA				N	DISE	IODE	L INPUT	S	
Highway Data				Si	te Con	ditions (l	Hard =	10, Sc	oft = 15)		
Average Daily Peak Hour Peak F	Traffic (Adt): Percentage: lour Volume:	25,263 vehicle 6.63% 1,675 vehicle	es S		Me He	dium Truc avy Truck	cks (2 A (s (3+ A	Autos: Axles): Axles):	15 15 15		
Veor/Eor Le	nicie Speed.	60 mpn		Ve	hicle I	Nix					
Nedi/Fdi La	ine Distance.	87 leel			Vehi	cleType		Day	Evening	Night	Daily
Site Data						AL	itos:	75.2%	10.7%	14.0%	97.46%
Ba	rrier Height:	0.0 feet			Me	edium Tru	icks:	81.9%	6.8%	11.3%	5 1.87%
Barrier Type (0-V	Vall, 1-Berm):	0.0			ŀ	leavy Tru	icks:	85.3%	2.0%	12.7%	0.67%
Centerline Di	ist. to Barrier:	68.0 feet		No	oise So	urce Ele	vation	s (in fe	eet)		
Centerline Dist.	to Observer:	68.0 feet				Autos:	0.	000			
Barrier Distance	to Observer:	0.0 feet			Mediur	n Trucks:	2.	297			
Observer Height	(Above Pad):			Heav	y Trucks:	8.	004	Grade Ad	ljustmen	t: 0.0	
P	ad Elevation:	0.0 feet		1.					f 41		
Ro	ad Elevation:	0.0 feet		La	ne Equ	livalent I	Jistand	ce (In i	reet)		
	Road Grade:	0.0%				Autos:	52.	505			
	Left View:	-90.0 degree	es		Meaiur	n Trucks:	52.	336			
	Right View:	90.0 degree	2S		Heav	y Trucks:	52.	352			
FHWA Noise Mod	el Calculation	s									
VehicleType	REMEL	Traffic Flow	Distan	ce	Finite	Road	Fresn	el	Barrier Att	ten Be	rm Atten
Autos:	73.22	-0.96		0.42		-1.20		-4.71	0.	000	0.000
Medium Trucks:	83.68	-18.12		0.40		-1.20		-4.88	0.	000	0.000
Heavy Trucks:	87.33	-22.62		0.40		-1.20		-5.29	0.	000	0.000
Unmitigated Nois	e Levels (with	out Topo and	barrier a	ttenua	ation)						
VehicleType	Leq Peak Hou	ır Leq Day	Le	q Eve	ning	Leq N	light		Ldn	0	NEL
Autos:	70	0.6	70.4		68.0		64.4	Ļ	72.	2	72.6
Medium Trucks:	64	.0	64.1		59.3		56.7	7	65.	0	65.3
Heavy Trucks:	63	5.1	63.4		53.0		56.4	ļ	64.	4	64.5
Vehicle Noise:	72	2.1	72.0		68.6		65.6	6	73.	5	73.9
Centerline Distan	ce to Noise Co	ontour (in feet,	)					1			
				70 dB	BA	65 di	BA	6	60 dBA	55	5 dBA
	Ldn:				116		251		540	)	1,164
		CI	VEL:		123		265		572	2	1,232

	FHWA-R	D-77-108 HIGH	WAY NO	DISE	PREDIC	TION MO	ODEL (	9/12/2	021)		
Scenai Road Nan Road Segme	rio: E ne: Avenue N ent: w/o SR-14	SB Ramps				Project I Job Nu	Name: . Imber:	Antelo 14267	pe Valley (	Commerc	5
SITE	SPECIFIC I					N	OISE I			s	
Highway Data	or conno n	I OI DAIA		s	ite Con	ditions (	Hard =	10. Sc	oft = 15	0	
Average Daily	Traffic (Adt)	22 322 vehicle	29					Autos	15		
Peak Hour	Percentage:	6.63%			Me	dium Tru	cks (2 /	Axles):	15		
Peak H	lour Volume:	1.480 vehicle	s		He	avy Truc	ks (3+ )	Axles):	15		
Ve	hicle Speed:	50 mph			(obiolo I						
Near/Far La	ne Distance:	70 feet		v	Vehi	icle Type		Dav	Evening	Night	Daily
Site Data					veni	cie i ype A	utos:	75.2%	10.7%	14.0%	97.39%
Ba	rrior Hoight	0.0 feet			Me	edium Tri	ucks:	81.9%	6.8%	11.3%	1.93%
Barrier Type (0.1	Vall 1 Borm)	0.0 1001			F	leavy Tru	ucks:	85.3%	2.0%	12.7%	0.69%
Centerline D	ist to Barrier	52.0 feet									
Centerline Dist.	to Observer:	52.0 feet		N	loise So	ource Ele	evation	s (in fe	eet)		
Barrier Distance	to Observer:	0.0 feet			A de alle a	Autos	. 0.	000			
Observer Height	(Above Pad):	5.0 feet			Mediur	TT Trucks	· 2.	297	Crada Ad	livetment	
P	ad Elevation:	0.0 feet			Heav	y Trucks	. 8.	004	Glade Au	Justinent	. 0.0
Ro	ad Elevation:	0.0 feet		L	ane Equ	uivalent	Distan	ce (in i	feet)		
	Road Grade:	0.0%				Autos	38.	781			
	Left View:	-90.0 degre	es		Mediur	n Trucks	: 38.	553			
	Right View:	90.0 degre	es		Heav	ry Trucks	38.	575			
FHWA Noise Mod	el Calculation	s									
VehicleType	REMEL	Traffic Flow	Distar	nce	Finite	Road	Fresr	iel	Barrier Att	en Ber	rm Atten
Autos:	70.20	-0.71		1.55	5	-1.20		-4.66	0.0	000	0.000
Medium Trucks:	81.00	-17.74		1.59	)	-1.20		-4.87	0.0	000	0.000
Heavy Trucks:	85.38	-22.24		1.59	)	-1.20		-5.41	0.0	000	0.000
Unmitigated Nois	e Levels (with	out Topo and	barrier a	nttenu	uation)						
VehicleType	Leq Peak Ho	ur Leq Day	/ Le	eq Ev	ening	Leq N	Vight		Ldn	C	NEL
Autos:	69	9.8	69.6		67.2		63.6	6	71.4	4	71.8
Medium Trucks:	63	3.6	63.8		59.0		56.4	1	64.	7	65.0
Heavy Trucks:	63	3.5	63.8		53.5		56.8	3	64.8	3	64.9
Vehicle Noise:	71	1.5	71.4		67.9		65.0	)	72.9	9	73.3
Centerline Distan	ce to Noise C	ontour (in feet	)							1	
				70 d	BA	65 d	IBA	6	50 dBA	55	dBA
	Ldn:				82		176		379	1	817
	CNEL:					86 186 401					863

	THUA-ND	-11-100 11011	WAI	NOIDE	I KEDIO		ODEE (	9/12/20	521)		
Scenario	: EP					Project	Name:	Antelop	be Valley (	Commerc	•
Road Name	e: Avenue N					Job Ni	umber:	14267			
Road Segmen	t: w/o SR-14 S	SB Ramps									
SITE S	PECIFIC IN	PUT DATA				N	OISE I	IODE	L INPUT	S	
Highway Data				5	Site Con	ditions (	Hard =	10, So	oft = 15)		
Average Daily T	raffic (Adt):	22,436 vehicle	s					Autos:	15		
Peak Hour F	Percentage:	6.63%			Me	dium Tru	icks (2 /	Axles):	15		
Peak Ho	our Volume:	1,487 vehicles	6		He	avy Truc	ks (3+7	Axles):	15		
Veh	icle Speed:	50 mph		١	/ehicle I	Nix					
Near/Far Lan	e Distance:	70 feet			Vehi	cleType		Day	Evening	Night	Daily
Site Data						A	utos:	75.2%	10.7%	14.0%	97.409
Barr	rier Height:	0.0 feet			Me	edium Tr	ucks:	81.9%	6.8%	11.3%	1.929
Barrier Type (0-Wa	all, 1-Berm):	0.0			ŀ	leavy Tr	ucks:	85.3%	2.0%	12.7%	0.689
Centerline Dist	t. to Barrier:	52.0 feet		,	Voise So	urce Ele	evation	s (in fe	et)		
Centerline Dist. to	o Observer:	52.0 feet		_		Autos	. 0.	000			
Barrier Distance to	o Observer:			Mediur	n Trucks	. 2.	297				
Observer Height (A	Above Pad):			Heav	y Trucks	. 8.	004	Grade Ad	ljustment	: 0.0	
Pa	Pad Elevation: 0.0 feet						Distan	o (in t	[a a f]		
Road	d Elevation:	0.0 teet		-	ane Equ	Autor	Distant	704	eel)		
ĸ	loft View	0.0%			Modiu	Autos n Trucks	. 30. . 39	/01 553			
	Right View:	-90.0 degree	:5 xe		Heav	v Trucks	. 30. : 38	575			
	rught view.	50.0 degree	~		//our	, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		0.0			
FHWA Noise Model	Calculations	:									
VehicleType	REMEL	Traffic Flow	Dis	tance	Finite	Road	Fresr	el	Barrier Att	ten Ber	m Atten
Autos:	70.20	-0.68		1.5	5	-1.20		-4.66	0.	000	0.00
Medium Trucks:	81.00	-17.74		1.59	9	-1.20		-4.87	0.	000	0.00
Heavy Trucks:	85.38	-22.24		1.58	9	-1.20		-5.41	0.	000	0.00
Unmitigated Noise	Levels (witho	out Topo and	barrie	er atten	uation)						
VehicleType I	Leq Peak Hou	r Leq Day	·	Leq Ev	ening/	Leq I	Vight		Ldn	C	NEL
Autos:	69.	9	69.6		67.2		63.6	j I	71.	4	71.
Wealum Trucks:	63.	5	03.8		59.0		56.4	•	64.	/ 0	65.
Vehicle Noise	Heavy Trucks: 63.5 6				68.0		00.0 65 ·		04. 73	0	73
venicie ivolse.	71.		11.0		00.0		03.		73.	•	13.
Centerline Distance	e to Noise Co	ntour (in feet)	1	70 0	IRA I	65 /	NRΔ	6	0 dBA	55	dBA
			I dn	700	82	030	177	6	200	1 35	0DA 91
		CI	VEL:		87		186		200	, >	210 888
		01			07		100		+02	-	000

Saturday, October 14, 2023

	FHWA-RD	)-77-108 HIGH	NAY NO	SE I	PREDIC	TION MO	ODEL (9	9/12/2	021)		
Scenar Road Nam Road Segme	io: EC (2025) ne: Avenue N nt: w/o SR-14	SB Ramps				Project I Job Nu	Name: / imber: 1	Antelo 14267	pe Valley C	Commerc	
SITE	SPECIFIC IN	PUT DATA				N	OISE N	IODE	L INPUT	s	
Highway Data				S	ite Con	ditions (	Hard =	10, So	oft = 15)		
Average Daily	Traffic (Adt):	22,322 vehicle	s				,	Autos:	15		
Peak Hour	Percentage:	6.63%			Me	dium Tru	cks (2 A	(xles):	15		
Peak H	lour Volume:	1,480 vehicles			He	avy Truc	ks (3+ A	(xles):	15		
Ve	hicle Speed:	50 mph		v	ehicle I	Mix					
Near/Far La	ne Distance:	70 feet		ŀ	Veh	icleType		Day	Evening	Night	Daily
Site Data						A	utos:	75.2%	5 10.7%	14.0%	97.39%
Ba	rrier Height:	0.0 feet			Me	edium Tru	ucks:	81.9%	6.8%	11.3%	1.93%
Barrier Type (0-W	/all, 1-Berm):	0.0			ŀ	leavy Tru	ucks:	85.3%	2.0%	12.7%	0.69%
Centerline Di	st. to Barrier:	52.0 feet		A	laise Sc	urco Ele	vation	in f	oof)		
Centerline Dist.	to Observer:	52.0 feet		-	0.00 00	Autos	· 0.0	000			
Barrier Distance	to Observer:	0.0 feet			Modiu	m Trucks	. 0.0	000			
Observer Height (	(Above Pad):	5.0 feet			Heav	n Trucks	. 2.4	104	Grade Adi	iustment	0.0
Pa	ad Elevation:	0.0 feet			near	y mucho	. 0.0	,04	,		
Roa	ad Elevation:	0.0 feet		L	ane Eq	uivalent	Distand	e (in	feet)		
	Road Grade:	0.0%				Autos	: 38.	781			
	Left View:	-90.0 degree	s		Mediui	n Trucks	: 38.	553			
	Right View:	90.0 degree	s		Heav	y Trucks	: 38.	575			
FHWA Noise Mode	el Calculation:	5									
VehicleType	REMEL	Traffic Flow	Distand	e	Finite	Road	Fresn	el	Barrier Atte	en Ber	m Atten
Autos:	70.20	-0.71		1.55		-1.20		-4.66	0.0	000	0.000
Medium Trucks:	81.00	-17.74		1.59		-1.20		-4.87	0.0	000	0.000
Heavy Trucks:	85.38	-22.24		1.59		-1.20		-5.41	0.0	000	0.000
Unmitigated Noise	e Levels (with	out Topo and I	oarrier at	tenu	uation)						
VehicleType	Leq Peak Hou	r Leq Day	Le	q Ev	ening	Leq N	light		Ldn	CI	VEL
Autos:	69	.8 6	69.6		67.2		63.6	i	71.4	1	71.8
Medium Trucks:	63	.6 6	63.8		59.0		56.4		64.7	7	65.0
Heavy Trucks:	63	.5 6	33.8		53.5		56.8		64.8	3	64.9
Vehicle Noise:	71	.5	1.4		67.9		65.0		72.9	9	73.3
Centerline Distance	ce to Noise Co	ntour (in feet)		-				_			
				70 d	BA	65 d	BA	(	50 dBA	55	dBA
			_an:		82		176		379		817
		CN	IEL:		86		186		401		863

	FIWA-KL	-//-IU0 HIGH	WAT	NOISE	FREDIC			12/20	<i>i</i> 21)		
Scenar	io: ECP (2025)	)				Project N	ame: A	ntelop	e Valley C	ommer	
Road Nam	e: Avenue N					Job Nu	nber: 14	1267			
Road Segme	nt: w/o SR-14	SB Ramps									
SITE	SPECIFIC IN	PUT DATA				NC	ISE M	ODE		5	
Highway Data				5	Site Cond	ditions (H	lard = 1	0, So	ft = 15)		
Average Daily	Traffic (Adt):	22,322 vehicle	es				A	utos:	15		
Peak Hour	Percentage:	6.63%			Med	dium Truc	ks (2 Ax	(les):	15		
Peak H	lour Volume:	1,480 vehicles	5		Hea	avy Truck	s (3+ Ax	des):	15		
Ve	hicle Speed:	50 mph		1	/ehicle N	lix					
Near/Far La	ne Distance:	70 feet			Vehi	cleType	D	ay	Evening	Night	Daily
Site Data						Au	tos: 7	5.2%	10.7%	14.0%	97.39%
Ba	rrier Height	0.0 feet			Me	dium Tru	cks: 8	1.9%	6.8%	11.3%	1.93%
Barrier Type (0-W	(all, 1-Berm):	0.0			H	leavy Tru	cks: 8	5.3%	2.0%	12.7%	0.69%
Centerline Di	st. to Barrier:	52.0 feet			laise Sa	urco Elos	ations	(in fo	of)		
Centerline Dist.	to Observer:	52.0 feet			0130 00	Autos:	0.00	0	01/		
Barrier Distance	to Observer:	0.0 feet			Modiur	n Trucks:	2.20	50 27			
Observer Height (	Above Pad):	5.0 feet			Heav	v Trucks:	8.00	лл 1	Grade Adi	ustment	0.0
Pa	ad Elevation:	0.0 feet			neav	y macks.	0.00	,4	,		
Roa	ad Elevation:	0.0 feet		L	ane Equ	ivalent E	listance	e (in f	ieet)		
	Road Grade:	0.0%				Autos:	38.7	31			
	Left View:	-90.0 degree	es		Mediun	n Trucks:	38.5	53			
	Right View:	90.0 degree	es		Heav	y Trucks:	38.5	75			
FHWA Noise Mode	el Calculation:	5									
VehicleType	REMEL	Traffic Flow	Dist	tance	Finite	Road	Fresne	I .	Barrier Atte	en Bei	rm Atten
Autos:	70.20	-0.71		1.55	5	-1.20	-1	4.66	0.0	00	0.000
Medium Trucks:	81.00	-17.74		1.59	)	-1.20		4.87	0.0	00	0.000
Heavy Trucks:	85.38	-22.24		1.59	)	-1.20		5.41	0.0	00	0.000
Unmitigated Noise	e Levels (with	out Topo and	barrie	r atteni	uation)						
VehicleType	Leq Peak Hou	r Leq Day	r	Leq Ev	rening	Leq N	ight		Ldn	С	NEL
Autos:	69	.8	69.6		67.2		63.6		71.4	Ļ	71.8
Medium Trucks:	63	.6	63.8		59.0		56.4		64.7	,	65.0
Heavy Trucks:	63	.5	63.8		53.5		56.8		64.8	3	64.9
Vehicle Noise:	71	.5	71.4		67.9		65.0		72.9	)	73.3
Centerline Distant	ce to Noise Co	ontour (in feet,	)								
				70 d	BA	65 dE	3A	6	0 dBA	55	dBA
	Ldn:				82		176		379		817
	CNEL:					86 186 401				863	

	FHWA-R	D-77-108 HIGH	WAY NC	DISE	PREDIC	TION MO	DDEL (	9/12/2	021)		
Scenai Road Nan Road Segme	io: EC (2032) ne: Avenue N nt: w/o SR-14				Project I Job Nu	Name: . Imber:	Antelo 14267	pe Valley (	Commerc		
SITE	SPECIFIC IN	NPUT DATA				N	OISE I	NODE	L INPUT	s	
Highway Data				S	ite Con	ditions (	Hard =	10, Sc	oft = 15)		
Average Daily	Traffic (Adt):	22,322 vehicl	es					Autos:	15		
Peak Hour	Percentage:	6.63%			Me	dium Tru	cks (2 /	Axles):	15		
Peak H	lour Volume:	1,480 vehicle	5		He	avy Truc	ks (3+ /	Axles):	15		
Ve	hicle Speed:	50 mph		V	ahicle I	Air					
Near/Far La	ne Distance:	70 feet		-	Vehi	cleTvpe		Dav	Evenina	Niaht	Dailv
Site Data					1011	A	utos:	75.2%	5 10.7%	14.0%	97.39%
Ba	rrier Height:	0.0 feet			Me	edium Tru	ucks:	81.9%	6.8%	11.3%	1.93%
Barrier Type (0-V	/all, 1-Berm):	0.0			ŀ	leavy Tru	ucks:	85.3%	2.0%	12.7%	0.69%
Centerline D	st. to Barrier:	52.0 feet		N	loise So	urce Ele	vation	s (in fe	eet)		
Centerline Dist.	to Observer:	52.0 feet		-		Autos	. 0	000			
Barrier Distance	to Observer:	0.0 feet			Mediur	n Trucks	2	297			
Observer Height	(Above Pad):	5.0 feet			Heav	v Trucks	. 8	004	Grade Ad	iustment	: 0.0
P	ad Elevation:	0.0 feet				,					
Ro	ad Elevation:	0.0 feet		L	ane Equ	ivalent	Distan	ce (in i	feet)		
	Road Grade:	0.0%				Autos	: 38.	781			
	Left View:	-90.0 degre	es		Mediur	n Trucks	: 38.	553			
	Right View:	90.0 degre	es		Heav	y Trucks	: 38.	575			
FHWA Noise Mod	el Calculation	S									
VehicleType	REMEL	Traffic Flow	Distan	ice	Finite	Road	Fresr	nel	Barrier Att	en Bei	rm Atten
Autos:	70.20	-0.71		1.55	5	-1.20		-4.66	0.0	000	0.000
Medium Trucks:	81.00	-17.74		1.59	)	-1.20		-4.87	0.0	000	0.000
Heavy Trucks:	85.38	-22.24		1.59	)	-1.20		-5.41	0.0	000	0.000
Unmitigated Nois	e Levels (with	out Topo and	barrier a	ttenu	uation)						
VehicleType	Leq Peak Ho	ur Leq Day	' Le	eq Ev	ening	Leq N	light		Ldn	C	NEL
Autos:	69	9.8	69.6		67.2		63.6	6	71.4	4	71.8
Medium Trucks:	63	3.6	63.8		59.0		56.4	1	64.	7	65.0
Heavy Trucks:	63	3.5	63.8		53.5		56.8	3	64.6	3	64.9
Vehicle Noise:	71	1.5	71.4		67.9		65.0	)	72.9	9	73.3
Centerline Distan	ce to Noise C	ontour (in feet	)								
				70 d	BA	65 d	BA	6	60 dBA	55	dBA
			Ldn:	82 176 3		379	)	817			
	CNEL:					86 186 401				863	

	THURAND			NOIDE	TREDIC			// 1 <b>L</b> /L	<b>52</b> 1)		
Scenario	: ECP (2032)		Project Name: Antelope Valley Commerc								
Road Name	e: Avenue N					Job Ni	imber: 1	4267			
Road Segmen	t: w/o SR-14 \$	SB Ramps									
SITE S	PECIFIC IN	PUT DATA				N	OISE N	IODE	L INPUT	5	
Highway Data				5	Site Con	ditions (	'Hard =	10, Sc	oft = 15)		
Average Daily 1	raffic (Adt):	22,436 vehicle	es				/	Autos:	15		
Peak Hour I	Percentage:	6.63%			Me	dium Tru	cks (2 A	xles):	15		
Peak Ho	our Volume:	1,487 vehicles	5		He	avy Truc	ks (3+ A	xles):	15		
Veh	icle Speed:	50 mph		١	/ehicle l	Nix					
Near/Far Lar	e Distance:	70 feet			Veh	cleType		Day	Evening	Night	Daily
Site Data						A	utos:	75.2%	10.7%	14.0%	97.40%
Bar	rier Heiaht:	0.0 feet			M	edium Tr	ucks:	81.9%	6.8%	11.3%	1.92%
Barrier Type (0-Wa	all, 1-Berm):	0.0			ŀ	leavy Tr	ucks:	85.3%	2.0%	12.7%	0.68%
Centerline Dis	t. to Barrier:	52.0 feet		-	Vaiaa Ca	uree El	vetien	lin fe	ant)		
Centerline Dist. t	o Observer:	52.0 feet		<i>'</i>	10/36 30			00	eel)		
Barrier Distance t	o Observer:	0.0 feet			Mediu	n Trucks	. 0.0	00			
Observer Height (#	Above Pad):		Heav	v Trucks	. 2.2	04	Grade Ad	iustment	· 0.0		
Pa	d Elevation:	0.0 feet			mour	,	. 0.0				
Roa	d Elevation:	0.0 feet		L	ane Eq	uivalent	Distanc	e (in i	feet)		
F	oad Grade:	0.0%				Autos	: 38.7	'81			
	Left View:	-90.0 degree	es		Mediu	n Trucks	: 38.5	553			
	Right View:	90.0 degree	es		Heav	y Trucks	38.5	575			
FHWA Noise Mode	Calculations	;									
VehicleType	REMEL	Traffic Flow	Dis	stance	Finite	Road	Fresn	e/	Barrier Att	en Ber	m Atten
Autos:	70.20	-0.68		1.55	5	-1.20		-4.66	0.0	000	0.00
Medium Trucks:	81.00	-17.74		1.59	9	-1.20		-4.87	0.0	000	0.000
Heavy Trucks:	85.38	-22.24		1.59	9	-1.20		-5.41	0.0	000	0.00
Unmitigated Noise	Levels (witho	out Topo and	barri	er atten	uation)						
VehicleType	Leq Peak Hou	r Leq Day	<i>(</i>	Leq Ev	/ening	Leq I	Vight		Ldn	C	NEL
Autos:	69.	.9	69.6		67.2		63.6		71.4	Ļ	71.8
Medium Trucks:	63.	6	63.8		59.0		56.4		64.1	7	65.0
Heavy Trucks: 63.5 63.8					53.5		56.8		64.8	3	64.
Vehicle Noise:	71.	5	71.5		68.0		65.1		73.0	)	73.
Centerline Distance	e to Noise Co	ntour (in feet,	)	70 -	0	65	ID A	,	O dBA	57	dD A
			L day	70 0	IBA 00	65 0	IBA 477	6	DU OBA	55	aBA 040
Ldn:				82 1// 380 87 196 400			819				
	CNEL:						186		402		866

Saturday, October 14, 2023

	FHWA-RI	0-77-108 HIGH\	NAY NOI	SE I	PREDIC	TION M	IODEL (	9/12/2	:021)			
Scenai Road Nan Road Segme	rio: E ne: Avenue N ent: w/o SR-14	NB Ramps				Project Job N	Name: I lumber:	Antelo 14267	pe Valley	Comr	nerc	
SITE	SPECIFIC IN	IPUT DATA				N	IOISE N	IODE	EL INPUT	S		
Highway Data				S	ite Con	ditions	(Hard =	10, S	oft = 15)			
Average Daily	Traffic (Adt):	19,348 vehicle	s				,	Autos.	: 15			
Peak Hour	Percentage:	6.63%			Me	dium Tri	ucks (2 A	Axles)	: 15			
Peak H	Hour Volume:	1,283 vehicles			He	avy Tru	cks (3+ A	Axles)	: 15			
Ve	ehicle Speed:	50 mph		V	ohiclo	Mix						
Near/Far La	ane Distance:	70 feet			Veh	icleTvpe		Dav	Evenina	Nia	tht	Dailv
Site Data							Autos:	75.29	6 10.7%	14	.0%	97.39%
Ba	rrier Height	0.0 feet			М	edium Ti	rucks:	81.9%	6.8%	11	.3%	1.93%
Barrier Type (0-V	Vall, 1-Berm):	0.0			1	Heavy Ti	rucks:	85.3%	6 2.0%	12	.7%	0.69%
Centerline D	ist. to Barrier:	52.0 feet		N	oise So	ource El	evation	s (in f	eet)			
Centerline Dist.	to Observer:	52.0 feet		-		Auto	s: 0.0	100				
Barrier Distance	to Observer:	0.0 feet			Mediu	m Truck	s 2.5	297				
Observer Height	(Above Pad):	5.0 feet			Heav	/v Truck	s: 8.0	004	Grade Ad	djustn	nent:	0.0
P	ad Elevation:	0.0 feet		_		,						
Ro	ad Elevation:	0.0 feet		L	ane Eq	uivalent	Distanc	e (in	feet)			
	Road Grade:	0.0%				Auto	s: 38.	781				
	Left View:	-90.0 degree	s		Mediu	m Truck	s: 38.	553				
	Right View:	90.0 degree	s		Heav	/y Truck	s: 38.	575				
FHWA Noise Mod	lel Calculation	s										
VehicleType	REMEL	Traffic Flow	Distanc	е	Finite	Road	Fresn	el	Barrier At	ten	Bern	n Atten
Autos:	70.20	-1.33		1.55		-1.20		-4.66	0.	000		0.000
Medium Trucks:	81.00	-18.36		1.59		-1.20		-4.87	0.	000		0.000
Heavy Trucks:	85.38	-22.86		1.59		-1.20		-5.41	0.	000		0.000
Unmitigated Nois	e Levels (with	out Topo and L	oarrier at	tenı	ation)							
VehicleType	Leq Peak Hou	ir Leq Day	Leo	ı Ev	ening	Leq	Night		Ldn		CN	IEL
Autos:	69	.2 6	69.0		66.6		62.9	)	70.	8		71.2
Medium Trucks:	63	.0 6	33.2		58.4		55.8	3	64.	.1		64.4
Heavy Trucks:	62	.9 6	33.2		52.8		56.2	2	64.	2		64.3
Vehicle Noise:	70	.9 7	70.8		67.3		64.4	Ļ	72.	3		72.7
Centerline Distan	ce to Noise Co	ontour (in feet)									-	
			7	70 d	BA	65	dBA		60 dBA		55 d	dBA
		1	dn:		74		160		34	5		743
		CN	IEL:		78		169		364	4		785

	FHWA-RL	0-77-108 HIGHW	AT NUI	SE PRE		JDEL (	9/12/20	J21)		
Scenar	io: EP				Project I	Vame: I	Antelo	pe Valley (	Commer	c
Road Nan	ne: Avenue N				Job Nu	mber: *	14267			
Road Segme	nt: w/o SR-14	NB Ramps								
SITE	SPECIFIC IN	PUT DATA			N	DISE N	IODE	L INPUT	s	
Highway Data				Site C	Conditions (I	Hard =	10, Sc	oft = 15)		
Average Daily	Traffic (Adt):	22,531 vehicles				,	Autos:	15		
Peak Hour	Percentage:	6.63%			Medium Tru	cks (2 A	(xles)	15		
Peak H	lour Volume:	1,494 vehicles			Heavy Truck	ks (3+ A	(xles)	15		
Ve	hicle Speed:	50 mph		Vehic	le Mix					-
Near/Far La	ne Distance:	70 feet		1	/ehicleType		Day	Evening	Night	Daily
Site Data					A	utos:	75.2%	10.7%	14.0%	97.76%
Ba	rrier Height:	0.0 feet			Medium Tru	icks:	81.9%	6.8%	11.3%	. 1.66%
Barrier Type (0-V	/all, 1-Berm):	0.0			Heavy Tru	icks:	85.3%	2.0%	12.7%	0.59%
Centerline Di	st. to Barrier:	52.0 feet		Noise	Source Ele	vation	: (in fa	oof)		
Centerline Dist.	to Observer:	52.0 feet		110/30	Autos	· 00	000			
Barrier Distance	to Observer:	0.0 feet		Me	dium Trucks	. 21	297			
Observer Height	(Above Pad):	5.0 feet		H	aavv Trucks		104	Grade Ad	liustmen	t: 0.0
P	ad Elevation:	0.0 feet			cavy macks.	. 0.0			,	
Ro	ad Elevation:	0.0 feet		Lane	Equivalent	Distand	e (in t	feet)		
	Road Grade:	0.0%			Autos.	: 38.	781			
	Left View:	-90.0 degrees		Me	dium Trucks.	38.	553			
	Right View:	90.0 degrees		н	eavy Trucks.	38.	575			
FHWA Noise Mod	el Calculation	s		-						
VehicleType	REMEL	Traffic Flow	Distanc	e Fir	nite Road	Fresn	el	Barrier Att	en Be	rm Atten
Autos:	70.20	-0.65		1.55	-1.20		-4.66	0.0	000	0.000
Medium Trucks:	81.00	-18.36		1.59	-1.20		-4.87	0.0	000	0.000
Heavy Trucks:	85.38	-22.86		1.59	-1.20		-5.41	0.0	000	0.000
Unmitigated Nois	e Levels (with	out Topo and ba	rrier at	tenuatio	n)					
VehicleType	Leq Peak Hou	r Leq Day	Leo	Evenin	g Leq N	light		Ldn	C	NEL
Autos:	69	.9 69	.7	6	7.2	63.6	;	71.4	4	71.9
Medium Trucks:	63	.0 63	.2	5	8.4	55.8	5	64.	1	64.4
Heavy Trucks:	62	.9 63	.2	5	2.8	56.2	2	64.3	2	64.3
Vehicle Noise:	71	.4 71	.3	6	7.9	64.9	)	72.	8	73.2
Centerline Distan	ce to Noise Co	ontour (in feet)							-	
			7	70 dBA	65 d	BA	e	60 dBA	55	5 dBA
		La	n:		80	172		372	2	800
		CNE	L:		85	182		393	5	846

	FHWA-R	D-77-108 HIGH	WAY NC	DISE F	PREDIC	TION MC	DDEL (S	9/12/20	021)		
Scenar Road Nan Road Segme	rio: EC (2025) ne: Avenue N ent: w/o SR-14				Project I Job Nu	lame: / mber: 1	Antelop 14267	be Valley C	Commerc		
SITE	SPECIFIC I	NPUT DATA				N	DISE N	IODE	L INPUT	s	
Highway Data				S	ite Con	ditions (l	Hard =	10, So	ft = 15)		
Average Daily	Traffic (Adt):	22,697 vehicl	es				,	Autos:	15		
Peak Hour	Percentage:	6.63%			Me	dium True	cks (2 A	Axles):	15		
Peak H	Hour Volume:	1,505 vehicle	s		He	avy Truck	(3+ A	Axles):	15		
Ve	ehicle Speed:	50 mph		V	ohiclo I	Mix					
Near/Far La	ane Distance:	70 feet		-	Veh	icleTvpe		Dav	Evenina	Niaht	Dailv
Site Data						A	utos:	75.2%	10.7%	14.0%	97.39%
Ba	rrier Height:	0.0 feet			Me	edium Tru	icks:	81.9%	6.8%	11.3%	1.93%
Barrier Type (0-V	Vall, 1-Berm):	0.0			ŀ	Heavy Tru	icks:	85.3%	2.0%	12.7%	0.69%
Centerline D	ist. to Barrier:	52.0 feet		N	oise Sc	ource Ele	vations	s (in fe	et)		
Centerline Dist.	to Observer:	52.0 feet		-		Autos	0.0	000			
Barrier Distance	to Observer:	0.0 feet			Mediu	m Trucks	2.3	297			
Observer Height	Observer Height (Above Pad): 5.0 feet					v Trucks	8.0	004	Grade Ad	iustment	: 0.0
P	ad Elevation:	0.0 feet				,					
Ro	ad Elevation:	0.0 feet		Li	ane Equ	uivalent l	Distand	ce (in f	'eet)		
	Road Grade:	0.0%				Autos:	38.	781			
	Left View:	-90.0 degre	es		Mediui	m Trucks:	38.	553			
	Right View:	90.0 degre	es		Heav	y Trucks:	38.	575			
FHWA Noise Mod	lel Calculation	s									
VehicleType	REMEL	Traffic Flow	Distan	се	Finite	Road	Fresn	el	Barrier Att	en Bei	rm Atten
Autos:	70.20	-0.64		1.55		-1.20		-4.66	0.0	000	0.000
Medium Trucks:	81.00	-17.67		1.59		-1.20		-4.87	0.0	000	0.000
Heavy Trucks:	85.38	-22.16		1.59		-1.20		-5.41	0.0	000	0.000
Unmitigated Nois	e Levels (with	out Topo and	barrier a	ttenu	ation)						
VehicleType	Leq Peak Ho	ur Leq Day	/ Le	eq Eve	ening	Leq N	light		Ldn	C	NEL
Autos:	69	9.9	69.7		67.2		63.6	6	71.4	4	71.9
Medium Trucks:	63	3.7	63.8		59.1		56.5	5	64.8	В	65.1
Heavy Trucks:	63	3.6	63.9		53.5		56.9	)	64.9	9	65.0
Vehicle Noise:	71	1.6	71.5		68.0		65.1		73.0	D	73.4
Centerline Distan	ce to Noise C	ontour (in feet	)								
				70 dE	BA	65 d	BA	6	0 dBA	55	dBA
			Ldn:	83 178 384				827			
	CNEL:					87 188 405 8					

Scenario	o: ECP (2025	)				Project	Name: /	Antelo	pe Valley C	ommerc	;
Road Name	e: Avenue N					Job N	lumber: '	14267			
Road Segmen	nt: w/o SR-14	NB Ramps									
SITE S	SPECIFIC IN	IPUT DATA					IOISE N	IODE	L INPUT	5	
Highway Data					Site Con	ditions	(Hard =	10, Sc	oft = 15)		
Average Daily	Traffic (Adt):	23,767 vehicl	es				,	Autos:	15		
Peak Hour I	Percentage:	6.63%			Mee	dium Tr	ucks (2 A	(xles)	15		
Peak He	our Volume:	1,576 vehicle	s		Hei	avy Tru	cks (3+ A	(xles)	15		
Vel	hicle Speed:	50 mph		ŀ	Vehicle N	lix					
Near/Far Lar	ne Distance:	70 feet		F	Vehi	cleType		Day	Evening	Night	Daily
Site Data							Autos:	75.2%	10.7%	14.0%	97.509
Bar	rier Heiaht:	0.0 feet			Me	edium T	rucks:	81.9%	6.8%	11.3%	1.84%
Barrier Type (0-Wa	all. 1-Berm):	0.0			F	leavy T	rucks:	85.3%	2.0%	12.7%	0.65%
Centerline Dis	t. to Barrier:	52.0 feet		-	Noiso So	urco E	ovation	in fr	ootl		
Centerline Dist. t	to Observer:	52.0 feet		-	NUISE 30	Auto		200	eel)		
Barrier Distance t	to Observer:	0.0 feet			Modiur	n Truck	5. 0.0	207			
Observer Height (/	Above Pad):		Heavy Trucks: 8 004 Grade Adjustment: 0.0								
Pa	d Elevation:	0.0 feet			neav	y much	3. 0.0	-04	0/000 / 10	aounoni	. 0.0
Roa	d Elevation:	0.0 feet		-	Lane Equ	iivalen	t Distanc	e (in i	feet)		
F	Road Grade:	0.0%				Auto	s: 38.	781			
	Left View:	-90.0 degre	es		Mediur	n Truck	s: 38.	553			
	Right View:	90.0 degre	es		Heav	y Truck	s: 38.	575			
FHWA Noise Mode	Calculation	s									
VehicleType	REMEL	Traffic Flow	Dis	stance	Finite	Road	Fresn	el	Barrier Att	en Ber	m Atten
Autos:	70.20	-0.43		1.5	55	-1.20		-4.66	0.0	000	0.00
Medium Trucks:	81.00	-17.67		1.5	59	-1.20		-4.87	0.0	000	0.00
Heavy Trucks:	85.38	-22.16		1.5	59	-1.20		-5.41	0.0	000	0.00
Unmitigated Noise	Levels (with	out Topo and	barri	er atter	nuation)						
VehicleType	Leq Peak Hou	ir Leq Day	/	Leq E	vening	Leq	Night		Ldn	C	NEL
Autos:	70	).1	69.9		67.4		63.8		71.	7	72.
Medium Trucks:	63	5.7	63.8		59.1		56.5		64.8	3	65.
Heavy Trucks:	63	1.6	63.9		53.5		56.9	)	64.9	)	65.
Vehicle Noise:	71	.7	71.6		68.2		65.3	1	73.2	2	73.
Centerline Distanc	e to Noise Co	ontour (in feet	)	70	-10.4				0 -10 4		-10.4
			1 day	70	UDA	05	udA 400	6	O OBA	55	UBA
		~	Lan:		85		182		392		845
		6	VEL.		89		192		414		893

Saturday, October 14, 2023

	FHWA-RI	D-77-108 HIGHV	VAY NO	ISE I	PREDIC	TION MC	DDEL (	9/12/2	:021)		
Scenai Road Nan Road Segme	rio: EC (2032) ne: Avenue N nt: w/o SR-14	NB Ramps				Project N Job Nu	lame: . mber:	Antelo 14267	pe Valley (	Commerc	;
SITE	SPECIFIC IN	IPUT DATA				NC	DISE	NODE	EL INPUT	s	
Highway Data				S	ite Con	ditions (I	Hard =	10, S	oft = 15)		
Average Daily	Traffic (Adt):	24,930 vehicles	\$					Autos:	: 15		
Peak Hour	Percentage:	6.63%			Me	dium Truc	cks (2 A	Axles).	: 15		
Peak F	lour Volume:	1,653 vehicles			не	avy Iruck	(S (3+7	axies).	: 15		
Ve	hicle Speed:	50 mph		V	ehicle I	Nix					
Near/Far La	ane Distance:	70 feet			Veh	icleType		Day	Evening	Night	Daily
Site Data						AL	utos:	75.2%	6 10.7%	14.0%	97.39%
Ba	rrier Height:	0.0 feet			Me	edium Tru	icks:	81.9%	6.8%	11.3%	1.93%
Barrier Type (0-V	Vall, 1-Berm):	0.0			ŀ	leavy Tru	icks:	85.3%	6 2.0%	12.7%	0.69%
Centerline Di	ist. to Barrier:	52.0 feet		N	oise So	urce Ele	vation	s (in f	eet)		
Centerline Dist.	to Observer:	52.0 feet		-	0.00 00	Autos	0	000	000		
Barrier Distance	to Observer:	0.0 feet			Mediu	n Trucks:	2	297			
Observer Height	(Above Pad):	5.0 feet			Heav	v Trucks:	8	004	Grade Ad	justment	: 0.0
P	ad Elevation:	0.0 feet				,					
Ro	ad Elevation:	0.0 feet		L	ane Eq	uivalent l	Distan	ce (in	feet)		
	Road Grade:	0.0%				Autos:	38.	781			
	Left View:	-90.0 degrees	6		Mediui	m Trucks:	38.	553			
	Right View:	90.0 degrees	6		Heav	y Trucks:	38.	575			
FHWA Noise Mod	el Calculation	s									
VehicleType	REMEL	Traffic Flow	Distanc	ce	Finite	Road	Fresr	nel	Barrier Att	en Bei	m Atten
Autos:	70.20	-0.23		1.55		-1.20		-4.66	0.0	000	0.000
Medium Trucks:	81.00	-17.26		1.59		-1.20		-4.87	0.0	000	0.000
Heavy Trucks:	85.38	-21.76		1.59		-1.20		-5.41	0.0	000	0.000
Unmitigated Nois	e Levels (with	out Topo and b	arrier at	tenu	ation)			1		-	
VehicleType	Leq Peak Hou	Ir Leq Day	Leo	q Ev	ening	Leq N	light		Ldn	C	NEL
Autos:	70	.3 /	0.1		67.7		64.0	)	/1.	9	72.3
Medium Trucks:	64	.1 0	4.3		59.5		50.5	9	05.	2	05.0
Heavy Trucks:	04	.0 6	4.3		53.9		57.3	-	00.	3	05.4
venicie noise.	12		1.9		00.4		05.0	)	73.4	+	73.0
Centerline Distan	ce to Noise Co	ontour (in feet)		70 d	RA	65 di	RA		60 dBA	55	dBA
		1	dn'	, o u	88	05 01	190	1	408 408	1 33	880
		CN	EL:		93		200		431		929
		011			55		200		401		525

	FHWA-RI	J-77-108 HIGH	WATN	UISEI	PREDIC	TION M	UDEL	(9/12/2	021)		
Scenar	io: ECP (2032	)				Project	Name:	Antelo	pe Valley (	Commer	rc
Road Nam	e: Avenue N					Job Nu	ımber:	14267			
Road Segme	nt: w/o SR-14	NB Ramps									
SITE	SPECIFIC IN	IPUT DATA				N	OISE	MODE	L INPUT	S	
Highway Data				S	ite Con	ditions (	'Hard =	= 10, So	oft = 15)		
Average Daily	Traffic (Adt):	28,113 vehicle	s					Autos:	15		
Peak Hour	Percentage:	6.63%			Mee	dium Tru	cks (2	Axles):	15		
Peak H	lour Volume:	1,864 vehicles	5		Hei	avy Truc	ks (3+	Axles):	15		
Ve	hicle Speed:	50 mph		v	ehicle A	Nix					
Near/Far La	ne Distance:	70 feet		Ē	Vehi	cleType		Day	Evening	Night	Daily
Site Data						A	utos:	75.2%	10.7%	14.0%	6 97.68%
Ba	rrier Height	0.0 feet			Me	edium Tr	ucks:	81.9%	6.8%	11.39	6 1.71%
Barrier Type (0-W	/all, 1-Berm):	0.0			F	leavy Tr	ucks:	85.3%	2.0%	12.79	6 0.61%
Centerline Di	st. to Barrier:	52.0 feet		N	loise So	urce Ele	vatio	ns (in fi	pet)	-	
Centerline Dist.	to Observer:	52.0 feet		Ë	0.00 00	Autos	. 0	000	,	-	
Barrier Distance	to Observer:	0.0 feet			Mediur	n Trucks	. 0	297			
Observer Height	(Above Pad):			Heav	v Trucks		004	Grade Ad	liustmer	nt: 0.0	
P	ad Elevation:	0.0 feet			neav	y macks	. 0	.004		,	
Ro	ad Elevation:	0.0 feet		L	ane Equ	iivalent	Distar	ice (in	feet)		
	Road Grade:	0.0%				Autos	: 38	.781			
	Left View:	-90.0 degree	s		Mediur	n Trucks	: 38	.553			
	Right View:	90.0 degree	es		Heav	y Trucks	: 38	.575			
FHWA Noise Mod	el Calculation	s									-
VehicleType	REMEL	Traffic Flow	Dista	nce	Finite	Road	Fres	nel	Barrier Att	en Be	erm Atten
Autos:	70.20	0.31		1.55		-1.20		-4.66	0.	000	0.000
Medium Trucks:	81.00	-17.26		1.59		-1.20		-4.87	0.	000	0.000
Heavy Trucks:	85.38	-21.76		1.59		-1.20		-5.41	0.	000	0.000
Unmitigated Noise	e Levels (with	out Topo and	barrier a	attenu	ation)					-	
VehicleType	Leq Peak Hou	ır Leq Day	Ľ	eq Ev	ening	Leq I	Vight		Ldn	0	ONEL
Autos:	70	0.9	70.6		68.2		64	.6	72.	4	72.8
Medium Trucks:	64	.1	64.3		59.5		56	.9	65.	2	65.5
Heavy Trucks:	64	.0	64.3		53.9		57.	.3	65.	3	65.4
Vehicle Noise:	72	2.4	72.3		68.9		65.	9	73.	8	74.2
Centerline Distant	ce to Noise Co	ontour (in feet,									
				70 di	BA	65 0	IBA	(	60 dBA	5	5 dBA
			Ldn:		93		20	1	433	\$	933
		CI	VEL:	99 212 458				986			

	FHWA-R	D-77-108 HIGH	IWAY N	OISE	PREDIC	TION MO	DDEL (	9/12/20	021)		
Scenar Road Nan Road Segme	io: E ne: Avenue N nt: e/o 10th St				Project I Job Nu	Name: I Imber:	Anteloj 14267	pe Valley C	Commerc	;	
SITE	SPECIFIC IN	NPUT DATA				N	OISE N	IODE	L INPUT	S	
Highway Data				S	Site Con	ditions (	Hard =	10, Sc	oft = 15)		
Average Daily	Traffic (Adt):	8,451 vehicl	es				,	Autos:	15		
Peak Hour	Percentage:	6.63%			Me	dium Tru	cks (2 A	(xles):	15		
Peak H	lour Volume:	560 vehicle	s		He	avy Truci	ks (3+ A	(xles):	15		
Ve	hicle Speed:	55 mph		v	/ehicle I	Mix					
Near/Far La	ne Distance:	70 feet		-	Vehi	icleTvpe		Dav	Evenina	Niaht	Dailv
Site Data						A	utos:	75.2%	10.7%	14.0%	97.39%
Ba	rrier Heiaht:	0.0 feet			Me	edium Tru	ucks:	81.9%	6.8%	11.3%	1.93%
Barrier Type (0-W	/all, 1-Berm):	0.0			ŀ	leavy Tru	ucks:	85.3%	2.0%	12.7%	0.69%
Centerline Di	st. to Barrier:	52.0 feet		٨	loise So	urce Ele	vation	s (in fe	et)		
Centerline Dist.	to Observer:	52.0 feet				Autos	: 0.0	000	.,		
Barrier Distance	to Observer:	0.0 feet			Mediur	n Trucks	2	97			
Observer Height	(Above Pad):	5.0 feet			Heav	v Trucks	: 8.0	004	Grade Ad	iustment	: 0.0
P	ad Elevation:	0.0 feet		-							
Ro	ad Elevation:	0.0 feet		L	ane Equ	uivalent	Distanc	e (in i	'eet)		
	Road Grade:	0.0%				Autos	: 38.	781			
	Left View:	-90.0 degre	es		Mediur	n Trucks	: 38.	553			
	Right View:	90.0 degre	es		Heav	y Trucks	: 38.	575			
FHWA Noise Mod	el Calculation	s									
VehicleType	REMEL	Traffic Flow	Dista	nce	Finite	Road	Fresn	el	Barrier Att	en Ber	m Atten
Autos:	71.78	-5.34		1.55	5	-1.20		-4.66	0.0	000	0.000
Medium Trucks:	82.40	-22.37		1.59	9	-1.20		-4.87	0.0	000	0.000
Heavy Trucks:	86.40	-26.87		1.59	9	-1.20		-5.41	0.0	000	0.000
Unmitigated Nois	e Levels (with	out Topo and	barrier	attenu	uation)						
VehicleType	Leq Peak Ho	ur Leq Daj	V L	Leq Ev	ening	Leq N	light		Ldn	CI	NEL
Autos:	66	3.8	66.6		64.1		60.5		68.3	3	68.7
Medium Trucks:	60	0.4	60.5		55.8		53.2		61.5	5	61.8
Heavy Trucks:	59	9.9	60.2		49.9		53.2		61.2	2	61.3
Vehicle Noise:	68	3.4	68.3		64.8		61.9		69.8	3	70.1
Centerline Distant	ce to Noise C	ontour (in feet	)								
				70 d	IBA	65 d	BA	6	60 dBA	55	dBA
			Ldn:		50		108		234		503
	CNEL:					53 115 247				532	

Scenario	D: EP					Project	Name:	Antelo	pe Valley C	Commerc	)
Road Name	e: Avenue N					Job N	lumber:	14267			
Road Segmen	t: e/o 10th St.	vv									
SITE S	PECIFIC IN	PUT DATA				N	IOISE	MODE	L INPUT	S	
Highway Data				4	Site Con	ditions	(Hard =	10, Se	oft = 15)		
Average Daily 1	Traffic (Adt):	11,634 vehicle	es					Autos:	15		
Peak Hour I	Percentage:	6.63%			Me	dium Tr	ucks (2	Axles):	15		
Peak Ho	our Volume:	771 vehicle	s		He	avy Tru	cks (3+ .	Axles):	15		
Veh	icle Speed:	55 mph		1	Vehicle I	Mix					
Near/Far Lan	e Distance:	70 feet		F	Veh	icleType		Day	Evening	Night	Daily
Site Data							Autos:	75.2%	10.7%	14.0%	98.10%
Ban	rier Heiaht:	0.0 feet			Medium Trucks: 81.9% 6.8% 11.3% 1						
Barrier Type (0-Wa	all. 1-Berm):	0.0			ŀ	leavy T	rucks:	85.3%	2.0%	12.7%	0.50%
Centerline Dis	t. to Barrier:	52.0 feet		-				- (- *	41		
Centerline Dist. t	o Observer:	52.0 feet		-	voise sc	ource El	evation	S (IN T	eet)		
Barrier Distance t	o Observer:	0.0 feet			Madiu	AUIO Truck	s: 0.	207			
Observer Height (/	Above Pad):		Heavy Trucks: 8 004 Grade Adjustment: 0.0								
Pa	d Elevation:	0.0 feet			neav	y muck	s. o.	004	Grade Au	jusimeni	. 0.0
Roa	d Elevation:	0.0 feet		1	Lane Eq	uivalen	t Distan	ce (in	feet)		
F	oad Grade:	0.0%				Auto	s: 38	781			
	Left View:	-90.0 degree	es		Mediu	m Truck	s: 38	.553			
	Right View:	90.0 degre	es		Heav	ry Truck	s: 38	575			
FHWA Noise Mode	I Calculations	5									
VehicleType	REMEL	Traffic Flow	Di	stance	Finite	Road	Fresi	nel	Barrier Att	ten Ber	m Atten
Autos:	71.78	-3.92		1.5	5	-1.20		-4.66	0.0	000	0.00
Medium Trucks:	82.40	-22.37		1.5	9	-1.20		-4.87	0.0	000	0.00
Heavy Trucks:	86.40	-26.87		1.5	9	-1.20		-5.41	0.0	000	0.00
Unmitigated Noise	Levels (with	out Topo and	barri	er atten	uation)						
VehicleType	Leq Peak Hou	r Leq Day	/	Leg E	vening	Leq	Night		Ldn	C	NEL
Autos:	68	.2	68.0		65.5		61.	9	69.	7	70.
Medium Trucks:	60	.4	60.5		55.8		53.	2	61.	5	61.
Heavy Trucks: 59.9 60.2					49.9		53.	2	61.	2	61.
Vehicle Noise:	69	.4	69.3		66.1		63.	0	70.	8	71.
Centerline Distanc	e to Noise Co	ntour (in feet	)								
			L	70 0	IBA –	65	dBA		50 dBA	55	dBA -
		-	Ldn:		59		128	5	275	) )	592
		C	NEL:		63		135	5	291		627

Saturday, October 14, 2023

	FHWA-RD	-77-108 HIGHV	VAY NO	ISE I	PREDIC	TION M	ODEL (	9/12/2	021)			
Scenar Road Nan Road Segme	rio: EC (2025) ne: Avenue N nt: e/o 10th St.	W				Project Job N	Name: / umber: `	Antelo 14267	pe Valley	/ Con	merc	
SITE	SPECIFIC IN	PUT DATA				N	OISE N	IODE	L INPU	TS		
Highway Data				S	ite Con	ditions	(Hard =	10, So	oft = 15)			
Average Daily	Traffic (Adt):	9,360 vehicles	6				,	Autos:	15			
Peak Hour	Percentage:	6.63%			Me	dium Tru	icks (2 A	(xles)	15			
Peak F	our Volume:	621 vehicles			He	avy Truc	cks (3+ A	(xles)	15			
Ve	hicle Speed:	55 mph			ahiala	Mise						
Near/Far La	ne Distance:	70 feet		v	Veh	icle Type	-	Dav	Evening	~ M	aht	Daily
Site Data					ven	icie i ype	utos:	75.2%	10.79	6 1	4.0%	97 39%
0.10 Dutu D-		0.0.6			м	, edium Tr	ucks:	81.9%	6.8%	61	1.3%	1.93%
Barrier Tune (0.14	rrier Height:	0.0 reet				Heavy Tr	ucks:	85.3%	2.09	6 1	2.7%	0.69%
Centerline Di	ist to Barrier	52.0 feet										
Centerline Dist	to Observer:	52.0 feet		N	loise So	ource El	evation	s (in f	eet)			
Barrier Distance	to Observer:	0.0 feet				Autos	s: 0.0	000				
Observer Height	(Above Pad):	5.0 feet			Mediu	m Trucks	s: 2.1	297				
P	ad Elevation:	0.0 feet			Heav	/y Trucks	s: 8.0	004	Grade A	Adjust	ment:	0.0
Ro	ad Elevation:	0.0 feet		L	ane Eq	uivalent	Distand	e (in	feet)			
110	Road Grade:	0.0%				Auto	s: 38	781	,			
	Left View:	-90.0 degree			Mediu	m Trucks	5: 38	553				
	Right View:	90.0 degrees	3		Heav	y Trucks	s: 38.	575				
FHWA Noise Mod	el Calculations	5										
VehicleType	REMEL	Traffic Flow	Distan	се	Finite	Road	Fresn	e/	Barrier A	Atten	Berr	n Atten
Autos:	71.78	-4.90		1.55	i	-1.20		-4.66	(	0.000		0.000
Medium Trucks:	82.40	-21.93		1.59		-1.20		-4.87	(	0.000		0.000
Heavy Trucks:	86.40	-26.42		1.59		-1.20		-5.41	(	0.000		0.000
Unmitigated Nois	e Levels (with	out Topo and b	arrier a	ttenu	uation)							
VehicleType	Leq Peak Hou	r Leq Day	Le	q Ev	ening	Leq	Night		Ldn		CN	IEL
Autos:	67	.2 6	7.0		64.6		60.9	)	68	8.8		69.2
Medium Trucks:	60	.9 6	1.0		56.2		53.6	6	6	1.9		62.3
Heavy Trucks:	60	.4 6	0.7		50.3		53.7	'	6	1.7		61.7
Vehicle Noise:	68	.8 6	8.7		65.3		62.3	3	70	0.2		70.6
Centerline Distan	ce to Noise Co	ntour (in feet)						1				
				70 d	BA _	65 (	dBA		50 dBA		55	dBA
		L	dn:		54		116		2	50		539
		CN	EL:		57		123		26	64		569

	FHWA-RI	D-77-108 HIGHW	AY NOISE			DEL (9/	12/20	21)		
Scenai Road Nan	rio: ECP (2025	i)			Project N	ame: Ai	ntelop	e Valley Co	ommerc	;
Road Segme	ent: e/o 10th St	. W			JUD MUI	nger. 14	+207			
SITE	SPECIFIC IN	NPUT DATA			NO	ISE M	ODEI	L INPUTS	;	
Highway Data				Site Con	ditions (H	lard = 1	0, So	ft = 15)		
Average Daily	Traffic (Adt):	10,431 vehicles				A	utos:	15		
Peak Hour	Percentage:	6.63%		Me	dium Truc	ks (2 Ax	(les):	15		
Peak I	lour Volume:	692 vehicles		He	avy Truck	s (3+ Ax	(les):	15		
Ve	ehicle Speed:	55 mph		Vehicle	Mix					
Near/Far La	ane Distance:	70 feet		Veh	icleTvpe	D	)av	Evenina	Niaht	Dailv
Site Data					Au	tos: 7	5.2%	10.7%	14.0%	97.66%
Ra	rrier Heiaht	0.0 feet		M	edium Tru	cks: 8	1.9%	6.8%	11.3%	1.73%
Barrier Type (0-V	Vall, 1-Berm):	0.0		1	Heavy Tru	cks: 8	5.3%	2.0%	12.7%	0.61%
Centerline D	ist. to Barrier:	52.0 feet		Noise So	ource Elev	ations	(in fe	et)		
Centerline Dist.	to Observer:	52.0 feet			Autos:	0.00	00			
Barrier Distance	to Observer:	0.0 feet		Mediu	m Trucks:	2.29	97			
Observer Height	Observer Height (Above Pad): 5.0 feet				/v Trucks:	8.00	 14	Grade Adju	ustment	: 0.0
P	ad Elevation:	0.0 feet			,					
Ro	ad Elevation:	0.0 feet		Lane Eq	uivalent D	istance	e (in f	eet)		
	Road Grade:	0.0%			Autos:	38.78	31			
	Left View:	-90.0 degrees		Mediu	m Trucks:	38.55	53			
	Right View:	90.0 degrees		Heav	/y Trucks:	38.57	75			
FHWA Noise Mod	el Calculation	s	1							
VehicleType	REMEL	Traffic Flow	Distance	Finite	Road	Fresne	1 I	Barrier Atte	n Ber	m Atten
Autos:	71.78	-4.41	1.6	55	-1.20	-4	4.66	0.0	00	0.000
Medium Trucks:	82.40	-21.93	1.8	59	-1.20	-4	4.87	0.0	00	0.000
Heavy Trucks:	86.40	-26.42	1.8	59	-1.20	-{	5.41	0.0	00	0.000
Unmitigated Nois	e Levels (with	out Topo and ba	rrier attei	nuation)						
VehicleType	Leq Peak Hou	ur Leq Day	Leq E	vening	Leq Ni	ight		Ldn	C	NEL
Autos:	67	7.7 67	.5	65.0		61.4		69.2		69.7
Medium Trucks:	60	0.9 61	.0	56.2		53.6		61.9		62.2
Heavy Trucks:	60	0.4 60	.7	50.3		53.7		61.7		61.7
Vehicle Noise:	69	9.1 69	.0	65.7		62.7		70.6		70.9
Centerline Distan	ce to Noise C	ontour (in feet)	- 1		r					
			70	dBA	65 dE	BA	6	0 dBA	55	dBA
		Ld	In:	57		122		264		568
		EL:	60 130 279					601		

	FHWA-RD	-77-108 HIGH	WAY N	IOISE	PREDIC	TION M	ODEL (S	/12/2	021)		
Scenar Road Nam Road Segme	io: EC (2032) ne: Avenue N nt: e/o 10th St. 1	w				Project Job N	Name: A umber: 1	ntelo 4267	pe Valley C	ommero	•
SITE	SPECIFIC INI	PUT DATA				N	OISE N	IODE	L INPUTS	6	
Highway Data				1	Site Con	ditions	(Hard =	10, So	oft = 15)		
Average Daily	Traffic (Adt):	9,967 vehicle	s				1	Autos:	15		
Peak Hour	Percentage:	6.63%			Med	dium Tru	icks (2 A	xles):	15		
Peak H	lour Volume:	661 vehicles	;		Hea	avy Truc	:ks (3+ A	xles):	15		
Ve	hicle Speed:	55 mph			Vehicle N	lix					
Near/Far La	ne Distance:	70 feet		F	Vehi	cleType		Day	Evening	Night	Daily
Site Data						A	utos:	75.2%	10.7%	14.0%	97.39%
Ba	rrier Height:	0.0 feet			Me	edium Tr	ucks:	B1.9%	6.8%	11.3%	1.93%
Barrier Type (0-W	/all, 1-Berm):	0.0			H	leavy Tr	ucks:	85.3%	2.0%	12.7%	0.69%
Centerline Di	st. to Barrier:	52.0 feet		1	Noise So	urce El	evations	(in f	eet)		
Centerline Dist.	to Observer:	52.0 feet				Autos	s: 0.0	100			
Barrier Distance	to Observer:	0.0 feet			Mediur	n Trucks	: 2.2	97			
Observer Height	(Above Pad):	5.0 feet			Heav	y Trucks	s: 8.0	04	Grade Adji	ustment	: 0.0
Pi	ad Elevation:	0.0 feet		H							
Ro	ad Elevation:	0.0 feet		1	Lane Equ	iivalent	Distanc	e (in	feet)		
	Road Grade:	0.0%				Autos	5: 38.7	'81			
	Left View:	-90.0 degree	:S		Mediur	n Trucks	38.5	53			
	Right View:	90.0 degree	:S		Heav	y Trucks	38.5	575			
FHWA Noise Mod	el Calculations										
VehicleType	REMEL	Traffic Flow	Dista	ance	Finite	Road	Fresn	e/	Barrier Atte	en Bei	rm Atten
Autos:	71.78	-4.62		1.5	5	-1.20		4.66	0.0	00	0.000
Medium Trucks:	82.40	-21.66		1.5	9	-1.20		4.87	0.0	00	0.000
Heavy Trucks:	86.40	-26.15		1.5	9	-1.20		-5.41	0.0	00	0.000
Unmitigated Noise	e Levels (witho	ut Topo and I	barrier	r atten	uation)						
VehicleType	Leq Peak Hour	Leq Day		Leq E	vening	Leq	Night		Ldn	С	NEL
Autos:	67.	5 (	67.3		64.8		61.2		69.0		69.5
Medium Trucks:	61.	1 (	61.3		56.5		53.9		62.2		62.5
Heavy Trucks:	60.	6 (	60.9		50.6		53.9		61.9		62.0
Vehicle Noise:	69.	1 (	69.0		65.6		62.6		70.5		70.9
Centerline Distant	ce to Noise Col	ntour (in feet)						-			
				70 c	dBA	65 0	dBA		60 dBA	55	dBA
			Ldn:		56		121		261		562
		CI	IEL:		59		128		276		594

		11 100 111011		10102	I ILEBIO		.0822 (0				
Scenari	o: ECP (2032)					Project	Name: A	ntelo	be Valley C	Commerc	>
Road Nam	e: Avenue N					Job N	lumber: 1	4267			
Road Segmen	it: e/o 10th St.	VV									
SITES	SPECIFIC IN	PUT DATA				N	IOISE N	IODE		S	
Highway Data				S	Site Con	ditions	(Hard =	10, Sc	oft = 15)		
Average Daily	Traffic (Adt):	13,150 vehicle	es					Autos:	15		
Peak Hour	Percentage:	6.63%			Me	dium Tr	ucks (2 A	xles):	15		
Peak H	our Volume:	872 vehicles	3		Hea	avy Tru	cks (3+ A	xles):	15		
Ve	hicle Speed:	55 mph		V	ehicle N	lix					
Near/Far La	ne Distance:	70 feet			Vehi	cleType		Day	Evening	Night	Daily
Site Data							Autos:	75.2%	10.7%	14.0%	98.029
Bar	rier Heiaht:	0.0 feet			Me	edium T	rucks:	81.9%	6.8%	11.3%	1.46%
Barrier Type (0-W	all, 1-Berm):	0.0			F	leavy T	rucks:	85.3%	2.0%	12.7%	0.52%
Centerline Dis	t. to Barrier:	52.0 feet			loise So	urco E	ovations	(in fa	of)		
Centerline Dist.	to Observer:	52.0 feet		-	10/30 00	Auto	evalions	00			
Barrier Distance	to Observer:	0.0 feet			Mediur	n Truck	s. 0.0	97			
Observer Height (	Above Pad):	5.0 feet			Heav	v Truck	s' 80	04	Grade Ad	iustment	0.0
Pa	d Elevation:	0.0 feet			mour	,	0. 0.0				
Roa	d Elevation:	0.0 feet		L	ane Equ	iivalen	t Distanc	e (in i	feet)		
F	Road Grade:	0.0%				Auto	s: 38.7	'81			
	Left View:	-90.0 degree	s		Mediur	n Truck	s: 38.5	553			
	Right View:	90.0 degree	es		Heav	y Truck	s: 38.5	575			
FHWA Noise Mode	l Calculations	;									
VehicleType	REMEL	Traffic Flow	Dist	ance	Finite	Road	Fresn	e/	Barrier Att	en Ber	m Atten
Autos:	71.78	-3.39		1.55	5	-1.20		-4.66	0.0	000	0.00
Medium Trucks:	82.40	-21.66		1.59	)	-1.20		-4.87	0.0	000	0.00
Heavy Trucks:	86.40	-26.15		1.59	)	-1.20		-5.41	0.0	000	0.00
Unmitigated Noise	Levels (witho	out Topo and	barrier	r attenu	uation)						
VehicleType	Leq Peak Hou	r Leq Day	r	Leq Ev	ening	Leq	Night		Ldn	C	NEL
Autos:	68.	7	68.5		66.1		62.5		70.3	3	70.
Medium Trucks:	61.	1	61.3		56.5		53.9		62.2	2	62.
Heavy Trucks:	60.	6	60.9		50.6		53.9		61.9		62.
Vehicle Noise:	70.	0	69.8		66.6		63.5		71.4	1	71.
Centerline Distanc	e to Noise Co	ntour (in feet)		=0				_			
				70 d	BA	65	ава	6	и авА	55	aBA
		~	Lan:		65		139		300		646
		CI	VEL:		6.9		747		318		684



APPENDIX 9.1:

CADNAA OPERATIONAL NOISE MODEL INPUTS





# 14267 - AVCC

CadnaA Noise Prediction Model: 14267-02.cna Date: 14.10.23 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)	0.00
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	M.	ID		Level Lr		Lir	nit. Valı	ue		Land	Use	Height	:	C	oordinates	
			Day	Night	CNEL	Day	Night	CNEL	Туре	Auto	Noise Type			Х	Y	Z
			(dBA)	(dBA)	(dBA)	(dBA)	(dBA)	(dBA)				(ft)		(ft)	(ft)	(ft)
RECEIVERS		R1	52.0	51.5	58.2	50.0	45.0	0.0				5.00	a	5998323.52	2547717.57	5.00
RECEIVERS		R2	50.8	50.7	57.4	50.0	45.0	0.0				5.00	а	5998740.19	2548183.72	5.00
RECEIVERS		R3	50.1	50.0	56.7	50.0	45.0	0.0				5.00	a	5999507.67	2548300.53	5.00
RECEIVERS		R4	48.8	48.8	55.5	50.0	45.0	0.0				5.00	a	5996483.88	2548114.54	5.00
RECEIVERS		R5	55.1	55.1	61.8	50.0	45.0	0.0				5.00	a	5996690.91	2545526.12	5.00

## Point Source(s)

Name	М.	ID	R	esult. PW	'L		Lw/L	i	Ope	erating Ti	ime	Heigh	t	Ci	oordinates	
			Day	Evening	Night	Туре	Value	norm.	Day	Special	Night			Х	Y	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	6000015.08	2547440.64	50.00
POINTSOURCE		AC02	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	5.00	g	6000197.22	2547437.98	50.00
POINTSOURCE		AC03	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	5.00	g	6000645.94	2547424.68	50.00
POINTSOURCE		AC04	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	5.00	g	6000838.05	2547421.36	50.00
POINTSOURCE		AC05	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	5.00	g	6001261.51	2547413.38	50.00
POINTSOURCE		AC06	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	5.00	g	6001559.45	2546758.46	50.00
POINTSOURCE		AC07	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	5.00	g	6002204.22	2546747.76	50.00
POINTSOURCE		AC08	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	5.00	g	6002142.93	2545441.96	50.00
POINTSOURCE		AC09	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	5.00	g	6001541.80	2545452.63	50.00
POINTSOURCE		AC10	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	5.00	g	6001563.16	2546110.35	50.00
POINTSOURCE		AC11	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	5.00	g	6002167.49	2546093.27	50.00
POINTSOURCE		AC12	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	5.00	g	5998440.06	2545109.89	50.00
POINTSOURCE		AC13	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	5.00	g	5998459.28	2545782.56	50.00
POINTSOURCE		AC14	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	5.00	g	6001045.31	2545045.83	50.00
POINTSOURCE		AC15	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	5.00	g	6001067.73	2545717.43	50.00

Name	M.	ID	R	esult. PW	'L		Lw/L	i	Ope	erating Ti	me	Height	t	Co	oordinates	
			Day	Evening	Night	Туре	Value	norm.	Day	Special	Night			Х	Y	Z
			(dBA)	(dBA)	(dBA)			dB(A)	(min)	(min)	(min)	(ft)		(ft)	(ft)	(ft)
POINTSOURCE		AC16	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	5.00	g	6001070.22	2546115.88	50.00
POINTSOURCE		AC17	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	5.00	g	5999537.02	2546150.60	50.00
POINTSOURCE		AC18	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	5.00	g	5999563.06	2546821.18	50.00
POINTSOURCE		AC19	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	5.00	g	6001093.01	2546784.28	50.00
POINTSOURCE		AC20	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	5.00	g	5999249.88	2546829.40	50.00
POINTSOURCE		AC21	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	5.00	g	5999226.44	2546170.55	50.00
POINTSOURCE		AC22	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	5.00	g	5998247.28	2546199.19	50.00
POINTSOURCE		AC23	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	5.00	g	5998260.30	2546842.42	50.00
POINTSOURCE		AC24	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	5.00	g	5997794.20	2545225.63	50.00
POINTSOURCE		AC25	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	5.00	g	5997859.30	2546848.02	50.00
POINTSOURCE		AC26	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	5.00	g	5997255.13	2546861.04	50.00
POINTSOURCE		AC27	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	5.00	g	5997287.69	2547480.33	30.00
POINTSOURCE		AC28	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	5.00	g	5997915.29	2547462.11	30.00
POINTSOURCE		AC29	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	5.00	g	5998616.07	2547314.31	30.00
POINTSOURCE		AC30	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	5.00	g	5998477.18	2547319.86	30.00
POINTSOURCE		AC31	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	5.00	g	5998352.87	2547325.42	30.00
POINTSOURCE		AC32	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	5.00	g	5998679.96	2547540.70	30.00
POINTSOURCE		AC33	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	5.00	g	5998418.84	2547547.64	30.00
POINTSOURCE		AC34	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	5.00	g	5998234.12	2547551.81	30.00
POINTSOURCE		DT02	84.0	84.0	84.0	Lw	84					5.00	а	5998743.84	2547519.86	5.00
POINTSOURCE		DT03	84.0	84.0	84.0	Lw	84					5.00	а	5998293.84	2547558.06	5.00
POINTSOURCE		TRASH01	89.0	89.0	89.0	Lw	89		900.00	0.00	270.00	5.00	а	5998327.18	2547470.56	5.00
POINTSOURCE		TRASH02	89.0	89.0	89.0	Lw	89		900.00	0.00	270.00	5.00	а	5998720.93	2547487.92	5.00
POINTSOURCE		TRASH03	89.0	89.0	89.0	Lw	89		900.00	0.00	270.00	5.00	а	5997816.33	2547097.52	5.00
POINTSOURCE		TRASH04	89.0	89.0	89.0	Lw	89		900.00	0.00	270.00	5.00	а	5997344.98	2547110.54	5.00
POINTSOURCE		TRASH05	89.0	89.0	89.0	Lw	89		900.00	0.00	270.00	5.00	а	5997981.65	2546740.86	5.00
POINTSOURCE		TRASH06	89.0	89.0	89.0	Lw	89		900.00	0.00	270.00	5.00	а	5997937.38	2545303.36	5.00
POINTSOURCE		TRASH07	89.0	89.0	89.0	Lw	89		900.00	0.00	270.00	5.00	а	5997111.86	2546764.30	5.00
POINTSOURCE		TRASH08	89.0	89.0	89.0	Lw	89		900.00	0.00	270.00	5.00	а	5998321.50	2546039.04	5.00
POINTSOURCE		TRASH09	89.0	89.0	89.0	Lw	89		900.00	0.00	270.00	5.00	а	5999140.51	2546014.30	5.00
POINTSOURCE		TRASH10	89.0	89.0	89.0	Lw	89		900.00	0.00	270.00	5.00	а	5999169.15	2547039.04	5.00
POINTSOURCE		TRASH11	89.0	89.0	89.0	Lw	89		900.00	0.00	270.00	5.00	а	5998355.35	2547057.27	5.00
POINTSOURCE		TRASH12	89.0	89.0	89.0	Lw	89		900.00	0.00	270.00	5.00	а	5999643.35	2547024.08	5.00
POINTSOURCE		TRASH13	89.0	89.0	89.0	Lw	89		900.00	0.00	270.00	5.00	а	6001028.99	2546992.62	5.00
POINTSOURCE		TRASH14	89.0	89.0	89.0	Lw	89		900.00	0.00	270.00	5.00	а	6000992.10	2545971.57	5.00
POINTSOURCE		TRASH15	89.0	89.0	89.0	Lw	89		900.00	0.00	270.00	5.00	а	5999606.46	2546000.86	5.00
POINTSOURCE		TRASH16	89.0	89.0	89.0	Lw	89		900.00	0.00	270.00	5.00	а	6000967.37	2544897.42	5.00
POINTSOURCE		TRASH17	89.0	89.0	89.0	Lw	89		900.00	0.00	270.00	5.00	а	5998503.06	2544961.48	5.00
POINTSOURCE		TRASH18	89.0	89.0	89.0	Lw	89		900.00	0.00	270.00	5.00	а	6000998.33	2545921.36	5.00
POINTSOURCE		TRASH19	89.0	89.0	89.0	Lw	89		900.00	0.00	270.00	5.00	а	5998536.16	2545983.29	5.00
POINTSOURCE		TRASH20	89.0	89.0	89.0	Lw	89		900.00	0.00	270.00	5.00	а	6001592.74	2544904.89	5.00
POINTSOURCE		TRASH21	89.0	89.0	89.0	Lw	89		900.00	0.00	270.00	5.00	a	6002207.61	2544891.77	5.00
POINTSOURCE		TRASH22	89.0	89.0	89.0	Lw	89		900.00	0.00	270.00	5.00	а	6002235.32	2545545.29	5.00
POINTSOURCE		TRASH23	89.0	89.0	89.0	Lw	89		900.00	0.00	270.00	5.00	а	6001618.27	2545562.79	5.00
POINTSOURCE		TRASH24	89.0	89.0	89.0	Lw	89		900.00	0.00	270.00	5.00	а	6001640.17	2546213.86	5.00
POINTSOURCE		TRASH25	89.0	89.0	89.0	Lw	89		900.00	0.00	270.00	5.00	а	6001181.07	2547064.38	5.00
POINTSOURCE		TRASH26	89.0	89.0	89.0	Lw	89		900.00	0.00	270.00	5.00	а	6000211.85	2547087.65	5.00
POINTSOURCE		TRASH27	89.0	89.0	89.0	Lw	89		900.00	0.00	270.00	5.00	a	5999598.93	2547103.60	5.00

#### Line Source(s)

		-(-/																		
Name	М.	ID	R	esult. PW	'L	R	esult. PW	Ľ		Lw/L	i	Op	erating T	me		Moving	Pt. Src		Heigh	nt
			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	69.3	69.3	69.3	Lw	93.2									8	а
LINESOURCE		TRUCK02	93.2	93.2	93.2	62.8	62.8	62.8	Lw	93.2									8	а
LINESOURCE		TRUCK03	93.2	93.2	93.2	65.7	65.7	65.7	Lw	93.2									8	а
LINESOURCE		TRUCK04	93.2	93.2	93.2	63.2	63.2	63.2	Lw	93.2									8	а
LINESOURCE		TRUCK05	93.2	93.2	93.2	63.3	63.3	63.3	Lw	93.2									8	а
LINESOURCE		TRUCK06	93.2	93.2	93.2	63.2	63.2	63.2	Lw	93.2									8	а
LINESOURCE		TRUCK07	93.2	93.2	93.2	64.0	64.0	64.0	Lw	93.2									8	а
LINESOURCE		TRUCK08	93.2	93.2	93.2	68.5	68.5	68.5	Lw	93.2									8	а
LINESOURCE		TRUCK09	93.2	93.2	93.2	68.4	68.4	68.4	Lw	93.2									8	а
LINESOURCE		TRUCK10	93.2	93.2	93.2	69.0	69.0	69.0	Lw	93.2									8	а
LINESOURCE		TRUCK11	93.2	93.2	93.2	69.4	69.4	69.4	Lw	93.2									8	а
LINESOURCE		TRUCK12	93.2	93.2	93.2	69.1	69.1	69.1	Lw	93.2									8	а
LINESOURCE		TRUCK13	93.2	93.2	93.2	65.6	65.6	65.6	Lw	93.2									8	а

Name	ID	ŀ	lei	ght		Coordinat	es	
		Begin		End	х	У	z	Ground
		(ft)		(ft)	(ft)	(ft)	(ft)	(ft)
LINESOURCE	TRUCK01	8.00	а		5997283.78	2547126.17	8.00	0.00
					5998084.56	2547104.03	8.00	0.00
LINESOURCE	TRUCK02	8.00	а		5998078.05	2546915.73	8.00	0.00
					5997190.03	2546941.77	8.00	0.00
					5997124.92	2545522.50	8.00	0.00
					5997190.03	2545074.59	8.00	0.00

Name	ID	ł	lei	ght		Coordinat	es	
		Begin		End	х	У	z	Ground
		(ft)		(ft)	(ft)	(ft)	(ft)	(ft)
					5998020.76	2545056.36	8.00	0.00
LINESOURCE	TRUCK03	8.00	а		5997929.74	2546920.08	8.00	0.00
					5997872.16	2545059.62	8.00	0.00
LINESOURCE	TRUCK04	8.00	а		6001392.68	2546822.66	8.00	0.00
					6001207.28	2546845.48	8.00	0.00
					6001037.56	2546852.61	8.00	0.00
					5999618.52	2546886.84	8.00	0.00
					5999180.69	2546898.25	8.00	0.00
					5998116.76	2546923.92	8.00	0.00
					5998078.05	2546915.73	8.00	0.00
LINESOURCE	TRUCK05	8.00	а		5998089.66	2546122.41	8.00	0.00
					6001319.95	2546041.11	8.00	0.00
LINESOURCE	TRUCK06	8.00	а		5998082.77	2545873.76	8.00	0.00
					6001328.08	2545788.68	8.00	0.00
LINESOURCE	TRUCK07	8.00	а		5998368.02	2545053.05	8.00	0.00
					6001122.90	2544965.47	8.00	0.00
LINESOURCE	TRUCK08	8.00	а		6001150.81	2545793.33	8.00	0.00
					6001117.86	2544823.62	8.00	0.00
LINESOURCE	TRUCK09	8.00	а		5998378.29	2545866.01	8.00	0.00
					5998347.65	2544880.91	8.00	0.00
LINESOURCE	TRUCK10	8.00	а		6001383.78	2545652.30	8.00	0.00
					6002236.89	2545629.88	8.00	0.00
LINESOURCE	TRUCK11	8.00	а		6002205.42	2544974.91	8.00	0.00
					6001478.23	2544992.42	8.00	0.00
					6001432.28	2544950.85	8.00	0.00
LINESOURCE	TRUCK12	8.00	а		6001411.63	2546304.30	8.00	0.00
					6002254.79	2546282.91	8.00	0.00
LINESOURCE	TRUCK13	8.00	а		6001360.56	2547059.73	8.00	0.00
					6001296.74	2547085.65	8.00	0.00
					6001258.85	2547098.95	8.00	0.00
					5999472.63	2547146.15	8.00	0.00

### Area Source(s)

Name	М.	ID	R	esult. PW	'L	Re	esult. PW	L''		Lw / L	.i	Ор	erating T	ime	Heigh	t
			Day	Evening	Night	Day	Evening	Night	Туре	Value	norm.	Day	Special	Night	(ft)	Γ
			(dBA)	(dBA)	(dBA)	(dBA)	(dBA)	(dBA)			dB(A)	(min)	(min)	(min)		
AREASOURCE		CAR01	81.1	81.1	81.1	53.3	53.3	53.3	Lw	81.1					5	a
AREASOURCE		CAR02	81.1	81.1	81.1	48.2	48.2	48.2	Lw	81.1					5	a
AREASOURCE		CAR03	81.1	81.1	81.1	43.9	43.9	43.9	Lw	81.1					5	a
AREASOURCE		CAR04	81.1	81.1	81.1	49.5	49.5	49.5	Lw	81.1					5	a
AREASOURCE		CAR05	81.1	81.1	81.1	61.4	61.4	61.4	Lw	81.1					5	a
AREASOURCE		CAR06	81.1	81.1	81.1	59.1	59.1	59.1	Lw	81.1					5	a
AREASOURCE		CAR07	81.1	81.1	81.1	52.0	52.0	52.0	Lw	81.1					5	а
AREASOURCE		CAR08	81.1	81.1	81.1	49.0	49.0	49.0	Lw	81.1					5	a
AREASOURCE		CAR09	81.1	81.1	81.1	56.2	56.2	56.2	Lw	81.1					5	а
AREASOURCE		CAR10	81.1	81.1	81.1	48.4	48.4	48.4	Lw	81.1					5	a
AREASOURCE		CAR11	81.1	81.1	81.1	45.0	45.0	45.0	Lw	81.1					5	а
AREASOURCE		CAR12	81.1	81.1	81.1	45.6	45.6	45.6	Lw	81.1					5	а
AREASOURCE		CAR13	81.1	81.1	81.1	47.4	47.4	47.4	Lw	81.1					5	a
AREASOURCE		CAR14	81.1	81.1	81.1	41.4	41.4	41.4	Lw	81.1					5	a
AREASOURCE		CAR15	81.1	81.1	81.1	49.0	49.0	49.0	Lw	81.1					5	a
AREASOURCE		CAR16	81.1	81.1	81.1	41.3	41.3	41.3	Lw	81.1					5	a
AREASOURCE		CAR17	81.1	81.1	81.1	46.3	46.3	46.3	Lw	81.1					5	а
AREASOURCE		CAR18	81.1	81.1	81.1	51.7	51.7	51.7	Lw	81.1					5	a
AREASOURCE		CAR19	81.1	81.1	81.1	45.0	45.0	45.0	Lw	81.1					5	a
AREASOURCE		CAR20	81.1	81.1	81.1	60.0	60.0	60.0	Lw	81.1					5	a
AREASOURCE		CAR21	81.1	81.1	81.1	49.0	49.0	49.0	Lw	81.1					5	а
AREASOURCE		CAR22	81.1	81.1	81.1	47.0	47.0	47.0	Lw	81.1					5	a
AREASOURCE		CAR23	81.1	81.1	81.1	54.0	54.0	54.0	Lw	81.1					5	а
AREASOURCE		CAR24	81.1	81.1	81.1	41.8	41.8	41.8	Lw	81.1					5	a
AREASOURCE		CAR25	81.1	81.1	81.1	46.8	46.8	46.8	Lw	81.1					5	а
AREASOURCE		CAR26	81.1	81.1	81.1	45.0	45.0	45.0	Lw	81.1					5	a
AREASOURCE		CAR27	81.1	81.1	81.1	51.6	51.6	51.6	Lw	81.1					5	a
AREASOURCE		CAR28	81.1	81.1	81.1	44.1	44.1	44.1	Lw	81.1					5	а
AREASOURCE		CAR29	81.1	81.1	81.1	46.1	46.1	46.1	Lw	81.1					5	a
AREASOURCE		CAR30	81.1	81.1	81.1	59.3	59.3	59.3	Lw	81.1					5	a
AREASOURCE		CAR31	81.1	81.1	81.1	48.0	48.0	48.0	Lw	81.1					5	a
AREASOURCE		CAR32	81.1	81.1	81.1	38.0	38.0	38.0	Lw	81.1					5	a
AREASOURCE		CAR33	81.1	81.1	81.1	52.5	52.5	52.5	Lw	81.1					5	а
AREASOURCE		CAR34	81.1	81.1	81.1	54.2	54.2	54.2	Lw	81.1					5	a
AREASOURCE		CAR35	81.1	81.1	81.1	53.7	53.7	53.7	Lw	81.1					5	a
AREASOURCE		CAR36	81.1	81.1	81.1	62.3	62.3	62.3	Lw	81.1					5	а
AREASOURCE		CAR37	81.1	81.1	81.1	61.6	61.6	61.6	Lw	81.1					5	a
AREASOURCE		CAR38	81.1	81.1	81.1	46.3	46.3	46.3	Lw	81.1					5	a
AREASOURCE		CAR39	81.1	81.1	81.1	53.9	53.9	53.9	Lw	81.1					5	a
AREASOURCE		CAR40	81.1	81.1	81.1	49.5	49.5	49.5	Lw	81.1					5	a

Name	М.	ID	R	esult. PW	L.	Re	esult. PW	L''		Lw/L	i	Op	erating T	ime	Height	t
			Dav	Evening	Night	Dav	Evening	Night	Type	, Value	norm.	Dav	Special	Night	(ft)	П
			(dBA)	(dBA)	(dBA)	(dBA)	(dBA)	(dBA)	11-		dB(A)	(min)	(min)	(min)		H
AREASOURCE		CAR41	81.1	81.1	81.1	51.3	51.3	51.3	Lw	81.1	- ( )	, ,	, ,	. ,	5	a
AREASOURCE		CAR42	81.1	81.1	81.1	52.9	52.9	52.9	Lw	81.1					5	a
AREASOURCE		CAR43	81.1	81.1	81.1	54.4	54.4	54.4	Lw	81.1					5	a
AREASOURCE		CAR44	81.1	81.1	81.1	61.1	61.1	61.1	Lw	81.1					5	a
AREASOURCE		CAR45	81.1	81.1	81.1	51.6	51.6	51.6	Lw	81.1					5	a
AREASOURCE		CAR46	81.1	81.1	81.1	53.5	53.5	53.5	Lw	81.1					5	a
AREASOURCE		CAR47	81.1	81.1	81.1	51.3	51.3	51.3	Lw	81.1					5	a
AREASOURCE		CAR48	81.1	81.1	81.1	54.3	54.3	54.3	Lw	81.1					5	a
AREASOURCE		CAR49	81.1	81.1	81.1	44.6	44.6	44.6	Lw	81.1					5	a
AREASOURCE		CAR50	81.1	81.1	81.1	44.3	44.3	44.3	Lw	81.1					5	a
AREASOURCE		CAR51	81.1	81.1	81.1	48.1	48.1	48.1	Lw	81.1					5	a
AREASOURCE		CAR52	81.1	81.1	81.1	47.9	47.9	47.9	Lw	81.1					5	a
AREASOURCE		DOCK01	111.5	111.5	111.5	69.8	69.8	69.8	Lw	111.5					8	a
AREASOURCE		DOCK02	111.5	111.5	111.5	76.6	76.6	76.6	Lw	111.5					8	а
AREASOURCE		DOCK03	111.5	111.5	111.5	71.9	71.9	71.9	Lw	111.5					8	a
AREASOURCE		DOCK04	111.5	111.5	111.5	72.7	72.7	72.7	Lw	111.5					8	a
AREASOURCE		DOCK05	111.5	111.5	111.5	74.5	74.5	74.5	Lw	111.5					8	а
AREASOURCE		DOCK06	111.5	111.5	111.5	73.3	73.3	73.3	Lw	111.5					8	a
AREASOURCE		DOCK07	111.5	111.5	111.5	81.7	81.7	81.7	Lw	111.5					8	а
AREASOURCE		DOCK08	111.5	111.5	111.5	74.7	74.7	74.7	Lw	111.5					8	а
AREASOURCE		DOCK09	111.5	111.5	111.5	74.9	74.9	74.9	Lw	111.5					8	а
AREASOURCE		DOCK10	111.5	111.5	111.5	75.0	75.0	75.0	Lw	111.5					8	а
AREASOURCE		DOCK11	111.5	111.5	111.5	72.3	72.3	72.3	Lw	111.5					8	а
AREASOURCE		DOCK12	111.5	111.5	111.5	72.3	72.3	72.3	Lw	111.5					8	а
AREASOURCE		DOCK13	111.5	111.5	111.5	72.8	72.8	72.8	Lw	111.5					8	а
AREASOURCE		DOCK14	111.5	111.5	111.5	69.8	69.8	69.8	Lw	111.5					8	а
AREASOURCE		DOCK15	111.5	111.5	111.5	70.1	70.1	70.1	Lw	111.5					8	а
AREASOURCE		DOCK16	111.5	111.5	111.5	70.1	70.1	70.1	Lw	111.5					8	а
AREASOURCE		DOCK17	111.5	111.5	111.5	67.4	67.4	67.4	Lw	111.5					8	а
AREASOURCE		DOCK18	111.5	111.5	111.5	76.6	76.6	76.6	Lw	111.5					8	а
AREASOURCE		DOCK19	111.5	111.5	111.5	76.2	76.2	76.2	Lw	111.5					8	а
AREASOURCE		DOCK20	111.5	111.5	111.5	76.1	76.1	76.1	Lw	111.5					8	а
AREASOURCE		DOCK21	111.5	111.5	111.5	76.4	76.4	76.4	Lw	111.5					8	а
AREASOURCE		DOCK22	111.5	111.5	111.5	76.2	76.2	76.2	Lw	111.5					8	а
AREASOURCE		DOCK23	111.5	111.5	111.5	78.9	78.9	78.9	Lw	111.5					8	a
AREASOURCE		DOCK24	111.5	111.5	111.5	82.6	82.6	82.6	Lw	111.5					8	a
AREASOURCE		DOCK25	111.5	111.5	111.5	77.7	77.7	77.7	Lw	111.5					8	a
AREASOURCE		DOCK26	111.5	111.5	111.5	81.7	81.7	81.7	Lw	111.5					8	a
AREASOURCE		DOCK27	111.5	111.5	111.5	78.2	78.2	78.2	Lw	111.5					8	a
AREASOURCE		DOCK28	111.5	111.5	111.5	82.3	82.3	82.3	Lw	111.5					8	а
AREASOURCE		DOCK29	111.5	111.5	111.5	71.6	71.6	71.6	Lw	111.5					8	а
AREASOURCE		DOCK30	111.5	111.5	111.5	76.3	76.3	76.3	Lw	111.5			_		8	a

Name	ID	ŀ	lei	ght		Coordinat	es	
		Begin		End	x	У	z	Ground
		(ft)		(ft)	(ft)	(ft)	(ft)	(ft)
AREASOURCE	CAR01	5.00	а		5997234.30	2547466.01	5.00	0.00
					5997225.19	2547188.67	5.00	0.00
					5997203.05	2547187.37	5.00	0.00
					5997209.56	2547467.31	5.00	0.00
AREASOURCE	CAR02	5.00	а		5997972.58	2547486.84	5.00	0.00
					5998036.39	2547489.45	5.00	0.00
					5998025.97	2547161.32	5.00	0.00
					5997962.17	2547158.72	5.00	0.00
AREASOURCE	CAR03	5.00	а		5997221.28	2547598.82	5.00	0.00
					5998018.16	2547564.97	5.00	0.00
					5998016.85	2547541.53	5.00	0.00
					5998037.69	2547541.53	5.00	0.00
					5998036.39	2547493.36	5.00	0.00
					5997277.27	2547520.70	5.00	0.00
					5997277.27	2547570.18	5.00	0.00
					5997222.58	2547572.78	5.00	0.00
AREASOURCE	CAR04	5.00	а		5998234.12	2547481.67	5.00	0.00
					5998673.71	2547472.64	5.00	0.00
					5998673.71	2547435.83	5.00	0.00
					5998235.51	2547446.95	5.00	0.00
AREASOURCE	CAR05	5.00	а		5998707.73	2547497.64	5.00	0.00
					5998729.26	2547495.56	5.00	0.00
					5998726.48	2547447.64	5.00	0.00
					5998706.34	2547449.72	5.00	0.00
AREASOURCE	CAR06	5.00	а		5998607.73	2547517.78	5.00	0.00
					5998707.04	2547515.00	5.00	0.00
					5998707.73	2547497.64	5.00	0.00
					5998609.12	2547500.42	5.00	0.00
AREASOURCE	CAR07	5.00	а		5997092.59	2546954.58	5.00	0.00
					5997134.91	2546951.32	5.00	0.00
					5997135.99	2546929.62	5.00	0.00

Name	ID	ŀ	lei	ght			Coordinat	es	
		Begin	_	End	_	x	У	z	Ground
		(ft)		(ft)		(ft)	(ft)	(ft)	(ft)
						5997154.44	2546930.70	5.00	0.00
						5997151.18	2546803.75	5.00	0.00
ARFASOURCE	CAROS	5.00	2		$\vdash$	5997526 57	2545159 49	5.00	0.00
ANLAGOUNCE	CANOS	5.00	a			5997746.63	2545153.48	5.00	0.00
						5997742.72	2545138.65	5.00	0.00
						5997822.15	2545137.35	5.00	0.00
						5997819.54	2545086.56	5.00	0.00
						5997525.27	2545098.28	5.00	0.00
AREASOURCE	CAR09	5.00	а			5998471.62	2547572.64	5.00	0.00
						5998536.90	2547572.64	5.00	0.00
						5998532.73	2547519.86	5.00	0.00
						5998473.01	2547519.17	5.00	0.00
AREASOURCE	CAR10	5.00	а			5999471.63	2547042.29	5.00	0.00
						5999594.28	2547039.44	5.00	0.00
						5999591.42	2547018.04	5.00	0.00
						5999617.09	2547018.04	5.00	0.00
						5999617.09	2546933.90	5.00	0.00
						5999592.85	2546935.33	5.00	0.00
						5999591.42	2546909.65	5.00	0.00
						5999463.07	2546916.79	5.00	0.00
			-			5999463.07	2546938.18	5.00	0.00
			-		$\vdash$	5999443.10	2546939.60	5.00	0.00
						5999444.53	2547019.47	5.00	0.00
	CAD11	F 00				5999465.92	254/019.4/	5.00	0.00
ANEASOUKUE	CARII	5.00	d		$\vdash$	222227727722	2546842 62	5.00	0.00
			-		-	5999354 68	25466142.02	5.00	0.00
						5999293 35	2546148.08	5.00	0.00
						5999316.17	2546818.38	5.00	0.00
AREASOURCE	CAR12	5.00	а			5999444.53	2546838.35	5.00	0.00
	-					5999493.02	2546834.07	5.00	0.00
						5999468.77	2546129.54	5.00	0.00
						5999410.30	2546143.80	5.00	0.00
						5999425.99	2546620.14	5.00	0.00
						5999443.10	2546620.14	5.00	0.00
AREASOURCE	CAR13	5.00	а			5999170.70	2546071.06	5.00	0.00
						5999577.16	2546062.51	5.00	0.00
						5999577.16	2545999.76	5.00	0.00
						5999172.13	2546008.31	5.00	0.00
AREASOURCE	CAR14	5.00	а			6001192.66	2545767.61	5.00	0.00
						6001247.11	2545766.54	5.00	0.00
						6001248.18	2545748.39	5.00	0.00
						6001296.22	2545737.72	5.00	0.00
						6001275.94	2545002.05	5.00	0.00
						6001242.84	2544943.33	5.00	0.00
						6001221.48	2544932.65	5.00	0.00
						6001149.95	2544932.65	5.00	0.00
						6001173.44	2545740.20	5.00	0.00
	CAR15	5.00	2		$\vdash$	6001022.00	2545745.05	5.00	0.00
ANLAGUURCE	CANTO	3.00	a			6001300 50	2546018 52	5.00	0.00
			-			6001303.70	2545953.40	5.00	0.00
			-			6001026.09	2545963.01	5.00	0.00
AREASOURCE	CAR16	5.00	а			5997200.45	2547091.01	5.00	0.00
						5998003.83	2547074.08	5.00	0.00
						5998001.23	2547054.55	5.00	0.00
						5998023.36	2547051.95	5.00	0.00
						5998027.27	2546969.92	5.00	0.00
						5997884.04	2546966.01	5.00	0.00
						5997886.65	2546950.39	5.00	0.00
						5997196.54	2546968.62	5.00	0.00
						5997195.24	2546989.45	5.00	0.00
						5997174.41	2546986.84	5.00	0.00
						5997174.41	2547072.78	5.00	0.00
AD5/00/171	CA21-				-	5997201.75	2547068.88	5.00	0.00
AREASOURCE	CAR17	5.00	а		$\vdash$	6001051.72	2545944.85	5.00	0.00
						6001280.21	2545940.58	5.00	0.00
			-		$\vdash$	6001304.77	2545919.23	5.00	0.00
			-		$\vdash$	0001299.43	2545840.22	5.00	0.00
			-		$\vdash$	00012/7.01	2545817.80	5.00	0.00
			-			0001041.04	2545826.34	5.00	0.00
			-		$\vdash$	0001023.95	2545843.42	5.00	0.00
AREASOURCE	CA010	E 00	~		$\vdash$	6001416.80	2545926.70	5.00	0.00
AREASOURCE	CARIS	5.00	d			6001457.00	2545004.25	5.00	0.00
			-			6001500 20	2545622.40	5.00	0.00
1	1	1	1		1 J	0001288./8	2345018.13	5.00	0.00

Name	ID	ŀ	lei	ght			Coordinat	es	
		Begin	_	End		x	У	z	Ground
		(ft)		(ft)		(ft)	(ft)	(ft)	(ft)
						6001590.92	2545559.41	5.00	0.00
AREASOURCE	CA010	E 00	~	$\vdash$		6001431.83	2545564.74	5.00	0.00
ANLAGUURUE	CUUTA	5.00	d			6002225 82	2545579 14	5.00	0.00
			-			6002239.82	2545481 46	5.00	0.00
						6002233.03	2545488.94	5.00	0.00
			⊢			6002120.51	2545467 58	5.00	0.00
						6001557.82	2545482.53	5.00	0.00
						6001557.82	2545498.55	5.00	0.00
						6001474.53	2545503.88	5.00	0.00
AREASOURCE	CAR20	5.00	а			5998379.96	2547521.95	5.00	0.00
			-			5998463.98	2547521.25	5.00	0.00
						5998462.59	2547505.28	5.00	0.00
						5998379.26	2547504.58	5.00	0.00
AREASOURCE	CAR21	5.00	а			5997531.78	2545040.99	5.00	0.00
						5997895.06	2545034.48	5.00	0.00
						5997896.37	2545013.65	5.00	0.00
						5997951.05	2545012.35	5.00	0.00
						5997954.96	2544994.12	5.00	0.00
						5997935.43	2544995.42	5.00	0.00
						5997935.43	2544983.70	5.00	0.00
						5997514.86	2545004.53	5.00	0.00
AREASOURCE	CAR22	5.00	а			6001405.29	2545451.93	5.00	0.00
						6001469.48	2545451.20	5.00	0.00
						6001457.08	2545039.83	5.00	0.00
						6001440.30	2545042.02	5.00	0.00
						6001406.75	2544999.71	5.00	0.00
						6001392.89	2544998.98	5.00	0.00
AREASOURCE	CAR23	5.00	а			6001484.07	2544966.16	5.00	0.00
						6001574.51	2544966.16	5.00	0.00
						6001573.05	2544904.89	5.00	0.00
						6001484.79	2544904.89	5.00	0.00
AREASOURCE	CAR24	5.00	а			6001230.74	2546801.25	5.00	0.00
						6001286.18	2546796.39	5.00	0.00
						6001314.38	2546782.77	5.00	0.00
						6001332.86	2546777.91	5.00	0.00
						6001310.49	2546092.30	5.00	0.00
						6001292.98	2546068.96	5.00	0.00
						6001205.46	2546069.93	5.00	0.00
						6001184.06	2546090.35	5.00	0.00
						6001206.43	2546777.91	5.00	0.00
AREASOURCE	CAR25	5.00	а			6001469.01	2546798.33	5.00	0.00
						6001498.18	2546796.39	5.00	0.00
						6001500.13	2546756.52	5.00	0.00
						6001516.66	2546754.57	5.00	0.00
						6001501.10	2546348.07	5.00	0.00
						6001437.89	2546329.59	5.00	0.00
						6001451.50	2546800.28	5.00	0.00
AREASOURCE	CAR26	5.00	а			6001504.02	2546853.77	5.00	0.00
						6002276.18	2546833.34	5.00	0.00
			-			6002274.24	2546815.84	5.00	0.00
			-			6002245.06	2546787.64	5.00	0.00
						6002165.32	2546/88.61	5.00	0.00
			-		$\vdash$	6001604.42	2546//4.99	5.00	0.00
			-	$\mid$	-	6001604.18	2540/88.01	5.00	0.00
			-			6001505 00	2540805.20	5.00	0.00
AREASOURCE	CAP27	5.00	2	$\vdash$	$\vdash$	6001305.96	2546009.03	5.00	0.00
ANEASOURCE	CARZ/	5.00	d		$\vdash$	6001400.53	2540257.02	5.00	0.00
			-			6001485.54	2546257.62	5.00	0.00
			-	$\vdash$	-	6001600 05	25402/4.10	5.00	0.00
			-			6001609.05	2546202 02	5.00	0.00
			-		$\vdash$	6001461 22	2546211 02	5.00	0.00
						6001458 31	2546230 30	5.00	0.00
			-			6001434 00	2546732 21	5.00	0.00
			⊢		$\vdash$	6001430 11	2546254 71	5.00	0.00
AREASOURCE	CAR28	5.00	a			6001459 28	2546201 22	5.00	0.00
	57	5.00	3			6002256 72	2546183 71	5.00	0.00
			-		$\vdash$	6002256 73	2546131 20	5.00	0.00
			-			6002140.03	2546138.98	5.00	0.00
			-			6002141 00	2546122.45	5.00	0.00
					-	6001578 90	2546135 00	5.00	0.00
			-		$\vdash$	6001577 02	2546152 50	5.00	0.00
			-			6001484 57	2546154 54	5.00	0.00
			-		$\vdash$	6001476 79	2546128.29	5.00	0.00
						6001491 27	2546122 /5	5.00	0.00
			-		$\vdash$	6001492 35	2546050 48	5.00	0.00

Name	ID	ŀ	Hei	ght			Coordinat	es	
		Begin	_	End		x	У	Z	Ground
		(ft)		(ft)		(ft)	(ft)	(ft)	(ft)
						6001428.16	2546062.15	5.00	0.00
			-			6001429.13	2546176.91	5.00	0.00
	o					6001455.39	2546176.91	5.00	0.00
AREASOURCE	CAR29	5.00	а			6001049.86	2546979.22	5.00	0.00
			-			6001070.28	2546979.22	5.00	0.00
						6001069.31	2546999.64	5.00	0.00
					_	6001316.32	2546994.78	5.00	0.00
						6001320.21	2546973.38	5.00	0.00
						6001338.69	2546970.47	5.00	0.00
						6001336.75	2546891.69	5.00	0.00
						6001313.41	2546892.67	5.00	0.00
						6001314.38	2546870.30	5.00	0.00
						6001067.36	2546877.11	5.00	0.00
						6001069.31	2546900.45	5.00	0.00
						6001045.97	2546899.47	5.00	0.00
AREASOURCE	CAR30	5.00	а			5998293.15	2547524.03	5.00	0.00
						5998294.54	2547508.06	5.00	0.00
						5998202.18	2547508.75	5.00	0.00
						5998202.87	2547528.20	5.00	0.00
AREASOURCE	CAR31	5.00	а			6001425.94	2546017.52	5.00	0.00
						6001490.54	2546024.46	5.00	0.00
						6001479.27	2545684.11	5.00	0.00
			Ĺ			6001432.44	2545677.60	5.00	0.00
			L			6001414.23	2545678.90	5.00	0.00
AREASOURCE	CAR32	5.00	а			5998124.23	2545843.07	5.00	0.00
						5998333.87	2545839.17	5.00	0.00
						5998333.87	2545807.92	5.00	0.00
						5998353.40	2545807.92	5.00	0.00
						5998326.05	2544973.28	5.00	0.00
						5998305.22	2544977.19	5.00	0.00
						5998303.92	2544953.75	5.00	0.00
						5998091.68	2544958.96	5.00	0.00
						5998090.38	2544978.49	5.00	0.00
						5998073.45	2544977.19	5.00	0.00
						5998100.79	2545811.82	5.00	0.00
						5998122.93	2545813.13	5.00	0.00
ARFASOURCE	CAR33	5.00	a			6000829.41	2547480 52	5.00	0.00
1112/10001102	0, 1100	5.00	ŭ			6001277.46	2547469 22	5.00	0.00
						6001277.40	2547452.60	5.00	0.00
						6000830 74	2547452.00	5.00	0.00
	CARSA	5.00	2			6001327 32	2547401.51	5.00	0.00
AREAGOURCE	CAR54	3.00	a			6001327.32	2547459.97	5.00	0.00
						6001300.73	2547120.20	5.00	0.00
						6001300.75	2547150.19	5.00	0.00
	CADOF	F 00	-			6001310.04	2547459.97	5.00	0.00
AREASOURCE	CARSS	5.00	d			60007067.59	2547456.59	5.00	0.00
					_	6000786.87	2547455.26	5.00	0.00
						6000778.89	254/144.82	5.00	0.00
						6000760.28	2547145.48	5.00	0.00
AREASOURCE	CAR36	5.00	а			6000818.11	2547086.98	5.00	0.00
						6000871.96	2547084.99	5.00	0.00
						6000873.95	2547070.36	5.00	0.00
						6000820.77	2547071.03	5.00	0.00
AREASOURCE	CAR37	5.00	а			6001201.68	2547078.34	5.00	0.00
						6001262.17	2547077.68	5.00	0.00
						6001261.51	2547061.72	5.00	0.00
						6001202.35	2547062.39	5.00	0.00
AREASOURCE	CAR38	5.00	а			5998198.01	2547414.31	5.00	0.00
						5998251.48	2547410.83	5.00	0.00
						5998251.48	2547390.70	5.00	0.00
						5998273.01	2547388.61	5.00	0.00
						5998268.84	2547155.97	5.00	0.00
						5998243.15	2547155.28	5.00	0.00
						5998241.76	2547135.14	5.00	0.00
						5998163.29	2547137.22	5.00	0.00
						5998163.29	2547160.14	5.00	0.00
						5998139.68	2547159.45	5.00	0.00
						5998148.01	2547395.56	5.00	0.00
						5998196.62	2547394.86	5.00	0.00
AREASOURCE	CAR39	5.00	а			6000711.08	2547459.25	5.00	0.00
						6000729.70	2547459.25	5.00	0.00
			Γ			6000721.06	2547144.82	5.00	0.00
						6000703.77	2547146.81	5.00	0.00
AREASOURCE	CAR40	5.00	а			5998685.64	2547375.84	5.00	0.00
	-		T			5998757.04	2547375.42	5.00	0.00
			F			5998750.09	2547149.03	5.00	0.00
			F			5998683.43	2547150.42	5.00	0.00
AREASOURCE	CAR41	5.00	а			6000177.94	2547496.48	5.00	0.00

Name	ID	ł	lei	ght			Coordinat	es	
		Begin	_	End	_	х	У	z	Ground
		(ft)		(ft)		(ft)	(ft)	(ft)	(ft)
						6000678.51	2547483.85	5.00	0.00
						6000676.52	2547463.91	5.00	0.00
						6000176.61	2547475.87	5.00	0.00
AREASOURCE	CAR42	5.00	а			5998284.82	2547418.47	5.00	0.00
						5998693.15	2547409.45	5.00	0.00
						5998691.76	2547391.39	5.00	0.00
						5998285.51	2547401.81	5.00	0.00
AREASOURCE	CAR43	5.00	а			6000113.46	2547473.21	5.00	0.00
						6000130.74	2547471.22	5.00	0.00
						6000119.44	254/160.//	5.00	0.00
						6000104.15	254/162.10	5.00	0.00
AREASOURCE	CAR44	5.00	а			5998183.43	2547509.45	5.00	0.00
					_	5998202.18	2547508.75	5.00	0.00
						5998200.09	2547455.69	5.00	0.00
	CADAE	E 00	2		-	5998180.05	2547452.50	5.00	0.00
AREASOURCE	CAR45	5.00	a			6000010.42	2547515.10	5.00	0.00
						6000000.00	2547455.80	5.00	0.00
			-		-	5000548 41	2547479.20	5.00	0.00
	CAR46	5.00	a			6000056.29	2547452.45	5.00	0.00
AREASOURCE	CANTO	5.00	ŭ			6000074 90	2547476 54	5.00	0.00
					-	6000065 60	2547161 44	5.00	0.00
			-		$\vdash$	6000044 99	2547163 43	5.00	0.00
AREASOURCE	CAR47	5.00	a			5998124 23	2546096 98	5.00	0.00
	0, 1147	5.00	4		$\vdash$	5998293 50	2546091 77	5.00	0.00
			-			5998290 90	2546031 88	5.00	0.00
						5998126.83	2546034.48	5.00	0.00
AREASOURCE	CAR48	5.00	а			5999491.24	2547480.52	5.00	0.00
						5999509.19	2547478.53	5.00	0.00
						5999501.21	2547196.01	5.00	0.00
						5999483.26	2547196.01	5.00	0.00
AREASOURCE	CAR49	5.00	а			5998125.53	2546018.86	5.00	0.00
						5998487.51	2546013.65	5.00	0.00
						5998486.21	2545995.42	5.00	0.00
						5998512.25	2545992.81	5.00	0.00
						5998512.25	2545908.18	5.00	0.00
						5998486.21	2545906.88	5.00	0.00
						5998488.81	2545889.95	5.00	0.00
						5998129.44	2545897.76	5.00	0.00
						5998129.44	2545915.99	5.00	0.00
						5998107.30	2545918.60	5.00	0.00
						5998108.61	2546001.93	5.00	0.00
						5998125.53	2546003.23	5.00	0.00
AREASOURCE	CAR50	5.00	а			5998134.65	2546892.55	5.00	0.00
						5998204.96	2546889.95	5.00	0.00
						5998177.62	2546156.88	5.00	0.00
						5998108.61	2546162.09	5.00	0.00
AREASOURCE	CAR51	5.00	а			5998158.08	2547074.85	5.00	0.00
						5998311.73	2547070.94	5.00	0.00
						5998311.73	2547050.11	5.00	0.00
						5998328.66	2547050.11	5.00	0.00
			_			5998328.66	2546964.17	5.00	0.00
			-			5998302.62	2546965.47	5.00	0.00
						5998305.22	2546944.64	5.00	0.00
			-			5998186.73	2546948.54	5.00	0.00
			-			2228188.03	2546966./7	5.00	0.00
			-		-	5000142 70	25409/1.98	5.00	0.00
			-		$\vdash$	5556143./6	234/055.31	5.00	0.00
	CADED	F 00				5998158.08	2547052.71	5.00	0.00
AREASOURCE	CAR52	5.00	d		-	5000270 27	2547045.14	5.00	0.00
			-	$\vdash$	$\vdash$	5990360 04	2547042.29	5.00	0.00
			-		$\vdash$	5999390 22	2547022.32	5.00	0.00
			-		$\vdash$	5000388 01	2546939 60	5.00	0.00
						5999367 51	2546939 60	5.00	0.00
			-		$\vdash$	5999364 66	2546916 79	5.00	0.00
			-		$\vdash$	5999212 06	2546921 06	5.00	0.00
			-			5999212.00	2546943 88	5.00	0.00
			-		$\vdash$	5999196 37	2546945 31	5.00	0.00
			-			5999197.80	2547028.03	5.00	0.00
						5999219 19	2547026.60	5.00	0.00
AREASOURCE	DOCK01	8.00	а			5999625 65	2547036 58	8 00	0.00
		0.00	-			6001040 47	2547005 21	8 00	0.00
			-			6001036 14	2546889 69	8 00	0.00
			-			5999623.82	2546925.34	8.00	0.00
AREASOURCE	<b>DOCK0</b> 2	8.00	а			5997328.91	2547234.37	8.00	0.00
			Ē			5997858.82	2547223.56	8.00	0.00
L			<u> </u>					2.00	2.00

Name	ID	ŀ	lei	ight			Coordinat	es	
		Begin	_	End	_	х	у	z	Ground
		(ft)		(ft)		(ft)	(ft)	(ft)	(ft)
						5997858.82	2547160.47	8.00	0.00
						5997332.51	2547171.29	8.00	0.00
AREASOURCE	DOCK03	8.00	а			5997825.45	2546775.11	8.00	0.00
						5997895.76	2546772.50	8.00	0.00
						5997838.47	2545285.52	8.00	0.00
						5997775.97	2545285.52	8.00	0.00
AREASOURCE	DOCK04	8.00	а			5997958.26	2546764.69	8.00	0.00
						5998015.55	2546764.69	8.00	0.00
						5997963.47	2545280.31	8.00	0.00
						5997911.38	2545285.52	8.00	0.00
AREASOURCE	DOCK05	8.00	а			5997085.86	2546790.73	8.00	0.00
						5997150.97	2546790.73	8.00	0.00
						5997117.11	2545933.96	8.00	0.00
						5997057 22	2545936 56	8.00	0.00
	DOCKOG	8.00	a			5997208.26	2546788 13	8.00	0.00
AREAGOURCE	DOCKOU	0.00	u			5007265.55	2546780.13	8.00	0.00
					_	5007205.55	2546780.51	8.00	0.00
						5007100.20	2343343.34	0.00	0.00
	D.O.01/07	0.00				5997169.20	2545543.34	8.00	0.00
AREASOURCE	DOCK07	8.00	а			5997902.88	2545266.25	8.00	0.00
						5997962.77	2545263.65	8.00	0.00
						5997956.26	2545087.87	8.00	0.00
						5997917.20	2545086.56	8.00	0.00
						5997914.59	2545099.59	8.00	0.00
						5997897.67	2545102.19	8.00	0.00
AREASOURCE	DOCK08	8.00	а			5998330.61	2546891.90	8.00	0.00
						5999189.99	2546868.47	8.00	0.00
						5999184.78	2546811.17	8.00	0.00
						5998330.61	2546829.40	8.00	0.00
AREASOURCE	DOCK09	8.00	а			5998312.38	2546204.40	8.00	0.00
						5999163.94	2546193.99	8.00	0.00
						5999158 74	2546131 49	8.00	0.00
						5008312.38	2546152 32	8.00	0.00
	DOCK10	0.00	2		_	5008200.20	2540152.52	8.00	0.00
AREASOURCE	DOCKIO	8.00	d			5998509.29	2546075.34	8.00	0.00
						5999147.88	2546056.80	8.00	0.00
						5999153.59	2545998.33	8.00	0.00
						5998304.05	2546020.00	8.00	0.00
AREASOURCE	DOCK11	8.00	а			5999618.40	2546854.81	8.00	0.00
						6001038.75	2546820.09	8.00	0.00
						6001034.41	2546754.99	8.00	0.00
						5999617.31	2546794.05	8.00	0.00
AREASOURCE	DOCK12	8.00	а			5999595.61	2546180.99	8.00	0.00
						6001015.97	2546143.01	8.00	0.00
						6001013.80	2546082.24	8.00	0.00
						5999596.70	2546116.97	8.00	0.00
AREASOURCE	DOCK13	8.00	а			5999593.44	2546045.35	8.00	0.00
						6001008.37	2546014.97	8.00	0.00
						6001007.29	2545958.55	8.00	0.00
						5999589.10	2545990.01	8.00	0.00
AREASOURCE	DOCK14	8.00	а			5998512.67	2545815.66	8.00	0.00
			-		-	6001011 14	2545750 53	8.00	0.00
						6001013.28	2545688 60	8.00	0.00
			$\vdash$		_	E009E12 72	2545088.00	8.00	0.00
ADEACOURCE	DOCKIE	0 00	~		-	5000100 74	2545/30.55	0.00	0.00
AREASOURCE	DOCK15	8.00	d			5998490.24	2545157.05	8.00	0.00
			-		-	0000980.58	2545076.79	8.00	0.00
			-		-	0000986.58	2545018.07	8.00	0.00
			-			5998490.24	2545077.86	8.00	0.00
AREASOURCE	DOCK16	8.00	а		-	5998490.24	2545006.32	8.00	0.00
						6000982.31	2544947.60	8.00	0.00
						6000982.31	2544884.60	8.00	0.00
						5998488.11	2544950.80	8.00	0.00
AREASOURCE	DOCK17	8.00	а			5998525.48	2545998.24	8.00	0.00
			L		L	6001014.35	2545933.11	8.00	0.00
			L		L	6001010.07	2545823.13	8.00	0.00
						5998521.21	2545886.13	8.00	0.00
AREASOURCE	DOCK18	8.00	а			6001610.14	2545604.25	8.00	0.00
						6002244.36	2545592.51	8.00	0.00
						6002245.43	2545536.98	8.00	0.00
			F			6001606.93	2545555.13	8.00	0.00
AREASOURCE	DOCK19	8,00	а			6001608.00	2545737.72	8.00	0.00
			Ē		-	6002205 93	2545725 97	8 00	0.00
			-		-	6002203.33	2545661 01	8 00	0.00
			ŀ		-	6001609 00	2545670 00	0.00	0.00
	DOCKAS	0.00	6		-	6001506.00	2545078.99	0.00	0.00
AKEASUURCE	DUCK20	8.00	а		-	0001586.91	2545087.97	8.00	0.00
			-		-	6002184.27	2545072.65	8.00	0.00
			_			6002182.81	2545008.47	8.00	0.00
						6001587.64	2545026.70	8.00	0.00
AREASOURCE	DOCK21	8.00	la	ı		6001583.99	2544952.30	8.00	0.00

Name	ID	ŀ	lei	ght			Coordinat	es	
		Begin		End		х	У	z	Ground
		(ft)		(ft)		(ft)	(ft)	(ft)	(ft)
						6002219.28	2544936.99	8.00	0.00
						6002219.28	2544882.28	8.00	0.00
						6001582.53	2544897.60	8.00	0.00
AREASOURCE	DOCK22	8.00	а			6001631.41	2546394.75	8.00	0.00
						6002226.58	2546376.27	8.00	0.00
						6002224.64	2546316.95	8.00	0.00
						6001630.44	2546332.51	8.00	0.00
AREASOURCE	DOCK23	8.00	а			6000880.60	2547201.32	8.00	0.00
						6001196.36	2547194.01	8.00	0.00
						6001195.03	2547130.19	8.00	0.00
						6000881.26	2547139.50	8.00	0.00
AREASOURCE	DOCK24	8.00	а			6000883.26	2547089.64	8.00	0.00
						6001193.04	2547080.34	8.00	0.00
						6001194.37	2547053.75	8.00	0.00
						6000882.59	2547062.39	8.00	0.00
AREASOURCE	DOCK25	8.00	а			6000201.87	2547217.28	8.00	0.00
						6000624.00	2547205.98	8.00	0.00
						6000623.33	2547144.82	8.00	0.00
						6000203.87	2547155.45	8.00	0.00
AREASOURCE	DOCK26	8.00	а			6000200.54	2547104.27	8.00	0.00
						6000617.35	2547095.63	8.00	0.00
						6000618.68	2547069.70	8.00	0.00
						6000199.88	2547081.00	8.00	0.00
AREASOURCE	DOCK27	8.00	а			5999589.63	2547233.90	8.00	0.00
						5999959.90	2547223.93	8.00	0.00
						5999956.58	2547162.10	8.00	0.00
						5999588.30	2547170.08	8.00	0.00
AREASOURCE	DOCK28	8.00	а			5999588.96	2547119.56	8.00	0.00
						5999954.58	2547110.92	8.00	0.00
						5999953.92	2547084.32	8.00	0.00
						5999587.63	2547096.96	8.00	0.00
AREASOURCE	DOCK29	8.00	а			5998337.82	2547073.66	8.00	0.00
						5999192.09	2547050.85	8.00	0.00
						5999180.69	2546926.77	8.00	0.00
						5998337.82	2546949.59	8.00	0.00
AREASOURCE	DOCK30	8.00	а			6001628.50	2546259.57	8.00	0.00
						6002266.46	2546245.95	8.00	0.00
						6002266.46	2546187.60	8.00	0.00
						6001626.55	2546205.11	8.00	0.00

#### Building(s)

Banan	.91.	<u> </u>										
Name	Sel.	М.	ID	RB	Residents	Absorption	Height	:		Coordinat	es	
							Begin		х	У	z	Ground
							(ft)		(ft)	(ft)	(ft)	(ft)
BUILDING			BLDG_11	x	0		25.00	а	5997238.79	2547515.55	25.00	0.00
									5997966.97	2547493.92	25.00	0.00
									5997956.15	2547160.47	25.00	0.00
									5997858.82	2547160.47	25.00	0.00
									5997858.82	2547223.56	25.00	0.00
									5997328.91	2547234.37	25.00	0.00
									5997332.51	2547171.29	25.00	0.00
									5997233.38	2547176.69	25.00	0.00
BUILDING			BLDG_12	x	0		25.00	а	5998280.59	2547394.79	25.00	0.00
									5998686.14	2547383.97	25.00	0.00
									5998677.13	2547237.98	25.00	0.00
									5998275.18	2547246.99	25.00	0.00
BUILDING			BUILDING00003	x	0		25.00	а	5998201.55	2547563.66	25.00	0.00
									5998277.24	2547560.88	25.00	0.00
									5998273.77	2547536.57	25.00	0.00
									5998200.86	2547539.35	25.00	0.00
BUILDING			BUILDING00004	x	0		25.00	а	5998382.80	2547566.43	25.00	0.00
									5998454.33	2547563.66	25.00	0.00
									5998452.24	2547528.24	25.00	0.00
									5998381.41	2547531.71	25.00	0.00
BUILDING			BUILDING00005	x	0		25.00	а	5998634.82	2547552.50	25.00	0.00
									5998716.07	2547551.81	25.00	0.00
									5998718.15	2547524.72	25.00	0.00
									5998632.73	2547529.58	25.00	0.00
BUILDING			BUILDING00006	x	0		45.00	a	5997213.47	2546907.92	45.00	0.00
									5997895.76	2546892.29	45.00	0.00
									5997895.76	2546772.50	45.00	0.00
									5997825.45	2546775.11	45.00	0.00
									5997775.97	2545285.52	45.00	0.00
									5997838.47	2545285.52	45.00	0.00
									5997838.47	2545160.52	45.00	0.00
									5997218 67	2545176 15	45.00	0.00

Name	Sel.	М.	ID	RB	Residents	Absorption	Height	:		Coordinat	es	
							Begin	$\square$	X (f+)	y (ft)	Z (ft)	Ground (ft)
							(11)		5997265 55	2546780 31	45.00	0.00
									5997208.26	2546788.13	45.00	0.00
BUILDING			BUILDING00007	х	0		45.00	а	5998204.96	2546889.95	45.00	0.00
									5998330.61	2546891.90	45.00	0.00
									5998330.61	2546829.40	45.00	0.00
									5999184.78	2546811.17	45.00	0.00
									5999189.99	2546868.47	45.00	0.00
									5999283.74	2546126.28	45.00	0.00
									5999158.74	2546131.49	45.00	0.00
									5999163.94	2546193.99	45.00	0.00
									5998312.38	2546204.40	45.00	0.00
									5998312.38	2546152.32	45.00	0.00
BUILDING			BUILDING00008	x	0		45.00	a	5999500 13	2546856.98	45.00	0.00
								-	5999618.40	2546854.81	45.00	0.00
									5999617.31	2546794.05	45.00	0.00
									6001034.41	2546754.99	45.00	0.00
									6001038.75	2546820.09	45.00	0.00
									6001148.35	2546814.67	45.00	0.00
								Η	6001013.80	2546082.24	45.00	0.00
								Η	6001015.97	2546143.01	45.00	0.00
									5999595.61	2546180.99	45.00	0.00
								Ц	5999596.70	2546116.97	45.00	0.00
					^		AF 00		5999483.85	2546122.39	45.00	0.00
BUILDING		$\vdash$	BUILDING00009	x	0		45.00	a	5998513.73 6001013.79	2545/50.53	45.00 45.00	0.00
									6001011.14	2545750.53	45.00	0.00
									6001116.85	2545748.39	45.00	0.00
									6001092.29	2545010.60	45.00	0.00
									6000986.58	2545018.07	45.00	0.00
									6000986.58	2545076.79	45.00	0.00
									5998490.24	2545137.05	45.00	0.00
									5998383.47	2545078.93	45.00	0.00
									5998406.96	2545815.66	45.00	0.00
									5998512.67	2545815.66	45.00	0.00
BUILDING			BUILDING00010	х	0		45.00	а	6001501.23	2546128.50	45.00	0.00
									6002218.74	2546110.35	45.00	0.00
									6001608.00	2545725.57	45.00	0.00
									6001608.00	2545678.99	45.00	0.00
									6001484.14	2545682.19	45.00	0.00
BUILDING			BUILDING00011	х	0		45.00	а	6001478.96	2545474.54	45.00	0.00
				_					6002197.39	2545459.22	45.00	0.00
									6001586.91	2545087.97	45.00	0.00
									6001587.64	2545026.70	45.00	0.00
									6001465.10	2545031.08	45.00	0.00
BUILDING			BUILDING00012	х	0		45.00	а	6001527.36	2546779.86	45.00	0.00
								Η	6002236.31	2546764.30	45.00	0.00
								Η	6001631 41	2546394 75	45.00	0.00
								Η	6001630.44	2546332.51	45.00	0.00
									6001506.93	2546335.42	45.00	0.00
BUILDING			BUILDING00013	x	0		45.00	а	6000812.13	2547454.60	45.00	0.00
								Ц	6001285.44	2547444.63	45.00	0.00
		$\vdash$		-				Η	6001282.78	2547408.73	45.00 45.00	0.00
								Η	6001293.42	2547126.87	45.00	0.00
								H	6001195.03	2547130.19	45.00	0.00
									6001196.36	2547194.01	45.00	0.00
								Ц	6000880.60	2547201.32	45.00	0.00
				-				Н	6000786 20	2547139.50	45.00	0.00
								Η	6000795.51	2547364.86	45.00	0.00
									6000796.17	2547418.70	45.00	0.00
									6000811.46	2547418.04	45.00	0.00
BUILDING			BUILDING00014	х	0		45.00	a	6000156.67	2547470.55	45.00	0.00
				-				Η	6000685 82	2547457.26	45.00	0.00
								Η	6000703.77	2547423.35	45.00	0.00
									6000695.79	2547144.15	45.00	0.00
								П	6000623.33	2547144.82	45.00	0.00
<u> </u>								Ц	6000624.00	2547205.98	45.00	0.00
									6000201.87	2547217.28	45.00	0.00

Name	Sel.	М.	ID	RB	Residents	Absorption	Height	:		Coordinat	es	
							Begin		х	У	z	Ground
							(ft)		(ft)	(ft)	(ft)	(ft)
									6000203.87	2547155.45	45.00	0.00
									6000128.09	2547158.11	45.00	0.00
									6000139.39	2547437.31	45.00	0.00
									6000156.67	2547436.65	45.00	0.00
BUILDING			BUILDING00015	х	0		45.00	а	5999535.78	2547485.84	45.00	0.00
									6000029.70	2547477.20	45.00	0.00
									6000030.36	2547439.31	45.00	0.00
									6000045.65	2547438.64	45.00	0.00
									6000039.01	2547158.78	45.00	0.00
									5999956.58	2547162.10	45.00	0.00
									5999959.90	2547223.93	45.00	0.00
									5999589.63	2547233.90	45.00	0.00
									5999588.30	2547170.08	45.00	0.00
									5999507.86	2547172.74	45.00	0.00
									5999515.84	2547453.27	45.00	0.00
									5999533.79	2547453.27	45.00	0.00

APPENDIX 10.1:

CADNAA CONSTRUCTION NOISE MODEL INPUTS





# 14267 - AVCC

CadnaA Noise Prediction Model: 14267-02\_Construction.cna Date: 14.10.23 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)	0.00
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		Lii	nit. Valı	ue		Land	Use	Height		Coordinates		
			Day	Night	CNEL	Day	Night	CNEL	Туре	Auto	Noise Type			Х	Y	Z
			(dBA)	(dBA)	(dBA)	(dBA)	(dBA)	(dBA)				(ft)		(ft)	(ft)	(ft)
RECEIVERS		R1	57.8	-49.2	54.8	50.0	45.0	0.0				5.00	a	5998323.52	2547717.57	5.00
RECEIVERS		R2	54.0	-53.0	51.0	50.0	45.0	0.0				5.00	а	5998740.19	2548183.72	5.00
RECEIVERS		R3	53.5	-53.5	50.5	50.0	45.0	0.0				5.00	а	5999507.67	2548300.53	5.00
RECEIVERS		R4	51.2	-55.8	48.2	50.0	45.0	0.0				5.00	a	5996483.88	2548114.54	5.00
RECEIVERS		R5	54.9	-52.1	51.9	50.0	45.0	0.0				5.00	a	5996690.91	2545526.12	5.00

#### Area Source(s)

Name	М.	ID	R	Result. PWL Evening Night		Re	esult. PWI	L''		Lw / Li		Op	me	Height		
			Day	Evening	Night	Day	Evening	Night	Туре	Value	norm.	Day	Special	Night	(ft)	
			(dBA)	(dBA)	(dBA)	(dBA)	(dBA)	(dBA)			dB(A)	(min)	(min)	(min)		
SITEBOUNDARY		Construction01	122.6	15.6	15.6	61.5	-45.5	-45.5	PWL-Pt	115.6					8	а

Name	ID	ŀ	lei	ght		Coordinat	es	
		Begin	Begin		x	У	z	Ground
		(ft)	(ft)		(ft)	(ft)	(ft)	(ft)
SITEBOUNDARY	Construction01	8.00	8.00 a		5996837.44	2547614.92	8.00	0.00
					5998062.42	2547583.95	8.00	0.00
					5998089.07	2547556.60	8.00	0.00
					5998130.14	2547561.08	8.00	0.00
					5998187.26	2547567.32	8.00	0.00
					5998214.61	2547593.98	8.00	0.00
					5998815.18	2547574.31	8.00	0.00
					5998816.66	2547112.61	8.00	0.00
					5999459.05	2547103.19	8.00	0.00
					5999468.74	2547103.05	8.00	0.00

Name	ID	н	eight	Coordinates						
		Begin	End	х	У	z	Ground			
		(ft)	(ft)	(ft)	(ft)	(ft)	(ft)			
				5999469.55	2547554.86	8.00	0.00			
				6001345.80	2547518.61	8.00	0.00			
				6001372.74	2547490.07	8.00	0.00			
				6001410.51	2547494.92	8.00	0.00			
				6001463.83	2547501.78	8.00	0.00			
				6001494.55	2547528.14	8.00	0.00			
				6002303.18	2547522.64	8.00	0.00			
				6002292.37	2546877.00	8.00	0.00			
				6002281.63	2546236.04	8.00	0.00			
				6002279.21	2546143.99	8.00	0.00			
				6002252.49	2545130.70	8.00	0.00			
				6002243.92	2544805.68	8.00	0.00			
				6001356.29	2544818.69	8.00	0.00			
				5998100.71	2544886.01	8.00	0.00			
				5998092.96	2544886.96	8.00	0.00			
				5998085.49	2544889.20	8.00	0.00			
				5998078.51	2544892.67	8.00	0.00			
				5998072.20	2544897.26	8.00	0.00			
				5998066.77	2544902.86	8.00	0.00			
				5998062.35	2544909.29	8.00	0.00			
				5998059.08	2544916.37	8.00	0.00			
				5998057.05	2544923.90	8.00	0.00			
				5998057.05	2544979.08	8.00	0.00			
				5997126.92	2545008.44	8.00	0.00			

APPENDIX 10.2:

CADNAA NIGHTTIME CONCRETE POUR CONSTRUCTION NOISE MODEL INPUTS





# 14267 - AVCC

CadnaA Noise Prediction Model: 14267-02\_Pour.cna Date: 14.10.23 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)	0.00
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		Lii	nit. Valı	ue		Use	Height		Coordinates			
			Day	Night	CNEL	Day	Night	CNEL	Туре	Auto	Noise Type			Х	Y	Z
			(dBA)	(dBA)	(dBA)	(dBA)	(dBA)	(dBA)				(ft)		(ft)	(ft)	(ft)
RECEIVERS		R1	42.5	-64.4	39.5	50.0	45.0	0.0				5.00	a	5998323.52	2547717.57	5.00
RECEIVERS		R2	38.7	-68.0	35.7	50.0	45.0	0.0				5.00	а	5998740.19	2548183.72	5.00
RECEIVERS		R3	38.2	-68.5	35.2	50.0	45.0	0.0				5.00	а	5999507.67	2548300.53	5.00
RECEIVERS		R4	35.9	-70.6	32.9	50.0	45.0	0.0				5.00	a	5996483.88	2548114.54	5.00
RECEIVERS		R5	39.6	-67.2	36.6	50.0	45.0	0.0				5.00	a	5996690.91	2545526.12	5.00

#### Area Source(s)

Name	М.	ID	R	esult. PW	′L	Result. PWL''			Lw / Li			Op	Height			
			Day	Evening	Night	Day	Evening	Night	Туре	Value	norm.	Day	Special	Night	(ft)	
			(dBA)	(dBA)	(dBA)	(dBA)	(dBA)	(dBA)			dB(A)	(min)	(min)	(min)		
SITEBOUNDARY		Construction01	107.3	0.3	0.3	46.2	-60.8	-60.8	PWL-Pt	100.3					8	а

Name	ID	ŀ	lei	ight		Coordinat	es		
		Begin	Begin		х	У	z	Ground	
		(ft)	(ft)		(ft)	(ft)	(ft)	(ft)	
SITEBOUNDARY	Construction01	8.00	8.00 a		5996837.44	2547614.92	8.00	0.00	
					5998062.42	2547583.95	8.00	0.00	
					5998089.07	2547556.60	8.00	0.00	
					5998130.14	2547561.08	8.00	0.00	
					5998187.26	2547567.32	8.00	0.00	
					5998214.61	2547593.98	8.00	0.00	
					5998815.18	2547574.31	8.00	0.00	
					5998816.66	2547112.61	8.00	0.00	
					5999459.05	2547103.19	8.00	0.00	
					5999468.74	2547103.05	8.00	0.00	

Name	ID	н	eight	Coordinates						
		Begin	End	х	У	z	Ground			
		(ft)	(ft)	(ft)	(ft)	(ft)	(ft)			
				5999469.55	2547554.86	8.00	0.00			
				6001345.80	2547518.61	8.00	0.00			
				6001372.74	2547490.07	8.00	0.00			
				6001410.51	2547494.92	8.00	0.00			
				6001463.83	2547501.78	8.00	0.00			
				6001494.55	2547528.14	8.00	0.00			
				6002303.18	2547522.64	8.00	0.00			
				6002292.37	2546877.00	8.00	0.00			
				6002281.63	2546236.04	8.00	0.00			
				6002279.21	2546143.99	8.00	0.00			
				6002252.49	2545130.70	8.00	0.00			
				6002243.92	2544805.68	8.00	0.00			
				6001356.29	2544818.69	8.00	0.00			
				5998100.71	2544886.01	8.00	0.00			
				5998092.96	2544886.96	8.00	0.00			
				5998085.49	2544889.20	8.00	0.00			
				5998078.51	2544892.67	8.00	0.00			
				5998072.20	2544897.26	8.00	0.00			
				5998066.77	2544902.86	8.00	0.00			
				5998062.35	2544909.29	8.00	0.00			
				5998059.08	2544916.37	8.00	0.00			
				5998057.05	2544923.90	8.00	0.00			
				5998057.05	2544979.08	8.00	0.00			
				5997126.92	2545008.44	8.00	0.00			

APPENDIX 11.1:

**RAILROAD INPUTS** 





# **U. S. DOT CROSSING INVENTORY FORM**

# **DEPARTMENT OF TRANSPORTATION**

FEDERAL RAILROAD ADMINISTRATION

Instructions for the initial reporting of Form. For private highway-rail grade of pedestrian station grade crossings), co Parts I and II, and the Submission Inform I, and the Submission Information sect updated data fields. Note: For private of	the following type crossings, comple- mplete the Head- nation section. For tion. For changes rossings only, Part	es of new or te the Header er, Parts I and r grade-separa to existing da t I Item 20 and	previously u -, Parts I and I II, and the s ated highway ata, complet I Part III Item	nreported I II, and th Submission y-rail or pat te the Head 2.K. are re	l crossin ne Subn n Inforn ithway c ider, Pa equired	ngs: For public hig nission Informatio nation section. Fo crossings (including rt I Items 1-3, and unless otherwise I	hway-rail grade n section. For r Private pathw g pedestrian sta d the Submissio noted.	e crossings, com public pathway vay grade crossin ation crossings), on Information s An asterisk *	plete the entire inventory grade crossings (including ngs, complete the Header, complete the Header, Part section, in addition to the denotes an optional field.			
A. Revision Date B. Report	ing Agency	C. Reaso	on for Updat	e (Select o	only one	?) 			D. DOT Crossing			
03 / 21 / 2023	id 🗆 Iran:	Data	ige in ⊡ i Cro	vew ssing		losed	Traffic	Zone Update	Inventory Number			
□ State	🗆 Othe	r 🗌 Re-O	pen 🗆 🛙	Date		hange in Primary	□ Admin.		750642H			
		Part I: Loca	ation and	inge Only I <b>Classifi</b>	icatio	n Informatio	n					
1. Primary Operating Railroad			2. State	Classifi	leatio		3. County					
Southern California Regional Rail A	uthority [SCAX]		CALIF				LOS ANGEL					
	<u>COLU</u>		AVENUE M	nder 		(	6. Highway iy	/pe & No.				
7. Do Other Railroads Operate a Separa	(Street, ate Track at Cross	ing? X Yes	□ No	8. Do Ot	ther Rai	ilroads Operate Ov	/er Your Track	at Crossing?	Yes 🗷 No			
If Yes, Specify RR UP,	,,	,		If Yes,	Specify	/ RR	,		,			
9. Railroad Division or Region	10. Railroad	Subdivision o	or District	11.	. Branch	n or Line Name		12. RR Milepos	st			
Image: Solution of the second secon												
13. Line Segment     14. Nearest RR Timetable     15. Parent RR (if applicable)     16. Crossing Owner (if applicable)       *     Station     *												
* <u>101VY-7302</u> Station * <u>Palmdale</u> <u>N/A</u> SCAX <u>N/A</u> SCAX												
17. Crossing Type     18. Crossing Purpose     19. Crossing Position     20. Public Access     21. Type of Train     22. Average Passenger       Image: State Stat												
Image: Mark Big May       Image: MarkBig May       Image: MarkBig May												
□ Private □ Station, Ped. □ RR Over □ No □ Commuter □ Tourist/Other □ Mumber Per Day 22												
23. Type of Land Use	Posidontial	Commore	ial 🗆	Industrial	Г		- Pocroatio		Vard			
24. Is there an Adjacent Crossing with a	a Separate Numb	er?	25. C	Quiet Zone	(FRA p	provided)			(Talu			
								Data Fatabila				
26. HSR Corridor ID 27.	Latitude in decim	al degrees		28. Long	ir⊔ı gitude ir	n decimal degrees	go Excused	29. La	ned t/Long Source			
		, 34.64	58600	(11/000)		ے 118	3.1279600					
X N/A (W0	584 std: nn.nnn	nnnn) - II-		(WGS84 31./	A. Stat	e Use *		Act	ual 🗆 Estimated			
101VY-73.02				31.1	B. Stat	001B-40	9.10, 101VY-	73.02				
					Di otat							
30.C. Railroad Use *				31.0	.C. State	e Use *						
30.D. Railroad Use *				31.1	.D. Stat	te Use *						
<b>32.A. Narrative</b> (Railroad Use) *				32.1	.B. Narı	rative (State Use)	*					
33. Emergency Notification Telephone	No. (posted)	34. Railroa	ad Contact (	Telephone	No.)		35. State Cor	ntact (Telephone	· No.)			
888-446-9721	_	800-371-	5465				415-703-372	22				
		Pa	art II: Rai	Iroad In	nform	ation						
1. Estimated Number of Daily Train Mov	vements											
1.A. Total Day Thru Trains         1.           (6 AM to 6 PM)         (6           17         5	B. Total Night Th PM to 6 AM)	ru Trains 1	C. Total Swi	tching Traii	ins	1.D. Total Transit	Trains	1.E. Check if Le	ess Than ht Per Day 🛛			
2. Year of Train Count Data (YYYY)		. Speed of Tra	in at Crossin	g				How many trai	ins per week?			
2022	3	.A. Maximum	Timetable S	peed (mph)	) <u>79</u>	60	70					
4. Type and Count of Tracks	3	.B. Typical Spe	eed Range O	ver Crossin	ng ( <i>mph</i> ,	7 From 00	to					
Main <u>1</u> Siding <u>0</u> 5. Train Detection <i>(Main Track only)</i>	Yard	Transit (	U	Industry	0							
Constant Warning Time 🗌 Mo	tion Detection		C DC	Other		one		-				
6. Is Track Signaled? ☑ Yes □ No		7.4	A. Event Rec ☑ Yes □	order No				7.B. Remote	Health Monitoring			
FORM FRA F 6180.71 (Rev. 0	8/03/2016)		OM	3 approv <b>171</b>	val ex	pires 11/30/2	022	•	Page 1 OF 2			

<b>A. Revision Date</b> ( <i>N</i> 03/21/2023	ЛМ/DD/YY	YYY)						P	AGE 2			<b>D</b> . 75	Crossing Inve 0642H	entory Nu	i <b>mber</b> (7 c	har.,	)
			I	Part III	: High	way o	r Pat	hway	Traffic	Control De	evice	Info	rmation				
1. Are there	2. Types	s of Pass	ive Tra	affic Cont	rol Devi	ces asso	ciated	with the	Crossing								
Signs or Signals?	2.A. Cros	ssbuck		2.B. STC	)P Signs (	(R1-1)	2.C. )	YIELD Sig	gns <i>(R1-2)</i>	2.D. Advar	nce Wa	arning S	igns (Check al	l that app	oly; include	ε соι	unt) 🗌 None
🖬 Yes 🛛 No	Assembl 0	lies (cou	nt)	(count) 0			(coui 0	nt)		☑ W10-1 ☑ W10-2	2		□ W10-3 □ W10-4	3 1	_ □w	/10-: /10-:	11 12
2.E. Low Ground Cl	earance Sig	ign	2.F. Pa	vement	Markings	5			2.G. Cha	nnelization			2.H. EXEMP	T Sign	gn 2.I. ENS Sign (I-13)		
(W10-5) Ves (count	)		Sto	n Lines		□Dvna	mic En	velone	Devices/	Medians	🖬 Me	dian	(R15-3)		Display	ed	
I No No	/			Xing Sym	bols		e	velope		Approach		ne	No No		□ No		
2.J. Other MUTCD S	Signs		XY	′es 🗆 N	0				2.K. Priv	ate Crossing	2.L	. LED Er	hanced Signs	(List type	es)		
Specify Type R15	-2P		Cou	nt 7					Signs (IJ	private)							
Specify Type			Cou	nt					🗆 Yes	🗆 No							
Specify Type			Cou	nt													
3. Types of Train A	ctivated W	Varning	Device	es at the	Grade Cr	ossing (	specify	count o	f each dev	vice for all tha	t appl	<u>y)</u>					
3.A. Gate Arms	3.B. Gate	e Config	uratio	n	3.0 Str	C. Cantile	evered	(or Bridg	<i>ged)</i> Flashi	ng Light	3.D	). Mast unt of r	Mounted Flas	hing Light	ts	3.E Fla	E. Total Count of
(county	🗷 2 Qua	ad 🗆	🗆 Full (	(Barrier)	Ov	er Traffi	ic Lane	, 0		ncandescent		Incande	escent	 X LEC	C	110	
Roadway <u>4</u>	🗆 3 Qua	ad R	Resista	nce							X	Back Lig	hts Included	🗆 Sid	le Lights	6	
Pedestrian     0     □     4 Quad     Image: A Qu																	
3.F. Installation Date of Current     3.G. Wayside Horn     3.H. Highway Traffic Signals Controlling     3.I. Bells												3.I. Bells					
Active Warning Devices: (MM/YYYY) / Crossing (count)												(count)					
/ Let Not Required 1 rest instance on (WWW 111) Let Yes Let No 1												1					
3.J. Non-Train Active Warning       3.K. Other Flashing Lights or Warning Devices         □ Flagging/Flagman       □Manually Operated Signals       Watchman       Floodlighting       Image: None         3.K. Other Flashing Lights or Warning Devices       Count       0       Specify type																	
4.A. Does nearby Hwy       4.B. Hwy Traffic Signal       4.C. Hwy Traffic Signal Preemption       5. Highway Traffic Pre-Signals       6. Highway Monitoring Devices												g Devices					
Intersection have	Inte	erconne	ction							🗆 Yes 🛛 🗷	No			(Check	all that ap	ply)	
Traffic Signals?		Not Inte	erconn	ected	Cime	ultanaa				Storage Dist	*				- Photo/Vi	ideo	Recording
🕱 Yes 🛛 No		For War	rning S	igns		ance	us			Stop Line Dist	tance	*	·	□ Tes	e	162	ence Detection
						Ра	rt IV:	: Physi	ical Cha	racteristic	s						
1. Traffic Lanes Cro	ssing Railro	oad 🗆	One-	way Trafl	ic	2	. Is Roa	adway/P	athway	3. Does T	rack R	un Dow	n a Street?	4. Is Cr	ossing Illu	min	ated? (Street
Number of Lanes	6		Two-	-way Trai led Traffi	fic c	Р	aved? או	Yes	□ No	ſ	Yes	X	No	lights w	vithin appi t rail) 🕱 Y	<i>rox.</i> . es	50 feet from □ No
5. Crossing Surface	e (on Main	Track, n	nultiple	e types a	lowed)	Installa	ation D	ate * (M	M/YYYY)	/		Wi	dth * 31		Length *	97	
□ 1 Timber □ □ 8 Unconsolidate	2 Asphalt ed □ 9	: 🗆 3 Compo	Aspha Site	alt and Ti	mber ther <i>(spe</i>	🛛 4 Co ecify)	oncrete	e 🗆 5	Concrete	and Rubber	□ 6	Rubbe	er 🗌 7 Me	tal -			
6. Intersecting Roa	dway with	nin 500 fe	eet?						7. Small	est Crossing A	ngle			8. Is C	ommercia	l Po	wer Available? *
🗶 Yes 🗌 No	If Yes, App	proximat	te Dist	ance (fee	t)				□ 0°-2	.9° 🗆 30°	– 59°	X	60° - 90°		🖬 Yes	;	🗆 No
						Part	V: Pu	ublic H	lighway	/ Informat	ion						
1. Highway System				2.	Function	al Classi	ficatior	n of Road	d at Crossi	ng	3.	Is Cros	sing on State I	Highway	4.1	ligh	way Speed Limit
(01) Inters	tata Highw	NOV Svet	om		(1) Intor	C state	(0) Rur	ral ⊠ (	1) Urban	r Colloctor	Sy	vstem?	No.		60	Post	MPH
(01) Inters	Nat Hwy S	Svstem (	(NHS)		(1) mer (2) Othe	state er Freew	vavs and	d Expres	swavs		5	Linear		vstem // A	RS Route II	יייייי ראר	
🗌 (03) Feder	al AID, Not	t NHS	. ,	X	(3) Othe	er Princi	, pal Arte	erial 🗆	(6) Minc	r Collector				ystem (2)	io noute n	-)	
🗌 (08) Non-F	ederal Aid	k (			(4) Mino	or Arteri	al		] (7) Local		6.	LRS Mi	lepost *		_		
7. Annual Average Year 2021 AA	Daily Traff DT <u>2680</u>	fic <i>(AAD</i> 0	от) —	8. Estin 4	nated Per	rcent Tr	ucks %	9. Reg	gularly Use	ed by School B Average Nu	uses? imber	per Day	·	_ 10	. Emergei Yes 🗌	ncy S No	Services Route
Subm	ission Ir	nform	atior	<b>ı</b> - This	inform	ation i	s used	d for ac	dministro	ative purpo	ses a	nd is r	not availabl	le on th	e public	wel	bsite.
Submitted by					0	rganizat	tion						Phone		C	ate	
Public reporting bu	rden for th	nis inforr	mation	collectio	n is estir	mated to	o avera	ge 30 mi	inutes per	response, inc	luding	the tim	e for reviewir	ng instruc	tions, sea	rchin	g existing data
sources, gathering	and mainta	aining th	ne data	needed	and com	pleting	and rev	viewing t	the collect	ion of informa	ation.	Accord	ing to the Pap	erwork R	eduction A	Act o	f 1995, a federal
agency may not con	nduct or sp	ponsor, a	and a p	person is	not requ	ired to,	nor sha	all a pers	on be sub	ect to a pena	Ity for	tailure	to comply wit	h, a colle	ction of in	torm	nation unless it
other aspect of this	collection	n, includi	ing for	reducing	this bur	den to:	Inform	ation Co	llection O	fficer, Federal	Railro	ad Adm	ninistration. 12	200 New	Jersev Ave	e. SE	, MS-25
Washington, DC 20	590.	,								, . cacia							
	100 71 /	(D	00/0	1/2011	.)					al avening = /	11/2	0/202	12				Deee 2 OF 2

# **U. S. DOT CROSSING INVENTORY FORM**

FORM FRA F 6180.71 (Rev. 08/03/2016)

APPENDIX 11.2:

**RAILROAD FTA NOISE LEVEL CALCULATIONS** 




Project:	14267
<b>Receiver:</b>	Worst-Case Façade

Source			Noise Criteria			
	Distance	Project Leqh	Existing Leqh	Mod. Impact	Sev. Impact	Impact?
1 Diesel Electric Locomotive	270 ft	40.4 dBA	71 dBA	70 dBA	75 dBA	None
2 Rail Car	270 ft	48.2 dBA	71 dBA	70 dBA	75 dBA	None
3 Diesel Multiple Unit (DMU)	270 ft	41.8 dBA	71 dBA	70 dBA	75 dBA	None
4 Rail Car	270 ft	53.5 dBA	71 dBA	70 dBA	75 dBA	None
5	ft		71 dBA	70 dBA	75 dBA	
6	ft		71 dBA	70 dBA	75 dBA	
Combined Sources		55 dBA	71 dBA	70 dBA	75 dBA	None

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