

# Arroyo Vista

# NOISE IMPACT ANALYSIS COUNTY OF RIVERSIDE

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MAY 4, 2023

14577-06 Noise Study.docx

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# LIST OF ABBREVIATED TERMS

(1)	Reference
ADT	Average Daily Traffic
Calveno	California Vehicle Noise
CEQA	California Environmental Quality Act
CNEL	Community Noise Equivalent Level
dBA	A-weighted decibels
EPA	Environmental Protection Agency
FHWA	Federal Highway Administration
FTA	Federal Transit Administration
INCE	Institute of Noise Control Engineering
L <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
NR	Noise Reduction
Project	Arroyo Vista
REMEL	Reference Energy Mean Emission Level
STC	Sound Transmission Class



# **EXECUTIVE SUMMARY**

Urban Crossroads, Inc. has prepared this noise study to determine the noise exposure and the necessary noise abatement measures for the proposed residential development Arroyo Vista ("Project"). The Project site is located on the northwest corner of Chicago Avenue and Iris Avenue in the Woodcrest area of unincorporated County of Riverside. This analysis conservatively assesses the development of 233 single-family residential dwelling units, while the Project proposes a slightly smaller development of 231 single-family dwelling units. This noise impact analysis was prepared to satisfy the County of Riverside noise level standards and ensure that adequate noise abatement measures are incorporated into the Project's development. In addition, recommendations for exterior and interior noise abatement are identified based on the latest Project site and grading plans.

#### **EXTERIOR NOISE ABATEMENT**

According to the County of Riverside 65 dBA CNEL exterior noise level standard for residential land uses, the on-site unmitigated exterior noise levels are considered normally acceptable for the proposed dwelling units. The on-site traffic noise level impacts indicate that the outdoor living areas adjacent to Chicago Avenue and Iris Avenue will experience unshielded exterior noise levels ranging from 61.3 to 64.2 dBA CNEL. Therefore, no mitigation would be required, and exterior noise impacts would be *less than significant*.

#### INTERIOR NOISE ABATEMENT

The interior noise level analysis shows that this interior areas would require a 16.3 to 20.9 dBA CNEL reduction to comply with the County of Riverside 45 dBA CNEL standard, which is greater than the minimum 12 dBA reduction with windows open and will require a windows-closed condition and mechanical ventilation (e.g., air conditioning). The Project intends to provide each unit in the development with mechanical ventilation, thus the windows can be kept in a closed position as required. Based on standard construction techniques, interior noise standards can be satisfied using standard windows and construction techniques. Therefore, no mitigation would be required to satisfy the County of Riverside 45 dBA CNEL interior noise level standards, and interior noise impacts would be *less than significant*.

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

Traffic generated by the operation of the proposed Project will influence the traffic noise levels in surrounding off-site areas. To quantify the traffic noise increases on the surrounding off-site areas, the changes in traffic noise levels on twenty-three roadway segments surrounding the Project site were calculated based on the change in the average daily traffic (ADT) volumes. The traffic noise levels provided in this analysis are based on the traffic forecasts found in *Arroyo Vista Traffic Impact Analysis*. (21) To assess the off-site noise level impacts associated with the proposed Project, noise contour boundaries were developed for Existing and Existing Plus Project, Opening Year (2027) Project Buildout, and Horizon Year (2045) traffic conditions.



The Existing without Project exterior noise levels are expected to range from 41.0 to 76.6 dBA CNEL. The Existing plus Project conditions will range from 41.0 to 76.6 dBA CNEL. The Project off-site traffic noise level increases will range from 0.0 to 8.2 dBA CNEL. Land uses adjacent to the study area roadway segment 8 (Gamble Avenue s/o Iris Avenue) would experience *significant* noise level increases due to unmitigated Project-related traffic noise levels. However, the overall noise level would be less the 53 dBA CNEL. Based on the existing measured noise level in the vicinity of Gamble Avenue, the ambient noise level is approximately 55-56 dBA CNEL, thus the Project traffic increase would be less than 1 dBA. In addition, the existing plus project condition would not actually occur since the Project would not generate traffic until the opening year 2027. Therefore, traffic noise increases would be *less than significant*.

The EAP Year 2027 without Project exterior noise levels are expected to range from 41.5 to 77.0 dBA CNEL. The EAPC Year 2027 with Project conditions will range from 41.0 to 77.8 dBA CNEL. Under this scenario the Project off-site traffic noise level increases will range from -0.5 to 0.8 dBA CNEL. All noise sensitive land uses adjacent to the study area roadways would experience *less than significant* noise level increases due to unmitigated Project-related traffic noise levels.

The Horizon Year 2045 without Project exterior noise levels are expected to range from 41.5 to 78.4 dBA CNEL. The Horizon Year 2045 with Project conditions will range from 41.0 to 78.6 dBA CNEL. The Project off-site traffic noise level increases will range from -0.5 to 6.1 dBA CNEL. Land uses adjacent to the study area roadway segment 8 (Gamble Avenue s/o Iris Avenue) would experience *significant* noise level increases due to unmitigated Project-related traffic noise levels. However, the overall noise level would be approximately 53 dBA CNEL. Based on the existing measured noise level in the vicinity of Gamble Avenue, the ambient noise level is approximately 55-56 dBA CNEL, thus the Project traffic increase would be less than 1 dBA. Therefore, traffic noise increases would be *less than significant*.

Therefore, the analysis shows that the Project-related traffic noise level increases would be less than significant.

# **OPERATIONAL NOISE ANALYSIS**

The Arroyo Vista residential development is not expected to include any specific type of operational noise levels beyond the typical noise sources associated with similar residential land uses in the Project study area, such as people and children, parking lot activity, garage doors, small air conditioners, and trash collection, and is considered a noise-sensitive receiving land use. However, there is the potential for operational noise impacts due to ground mounted air conditioners (HVAC) at adjacent residential land uses.

To assess the noise impacts of potential air conditioners, Urban Crossroads modeled typical 1- to 5-ton air conditioners on each lot at the approximate location of the units. Based on modeling, the daytime hourly noise levels at the off-site receiver locations are expected to range from 29.6 to 35.5 dBA L<sub>eq</sub>. The nighttime hourly noise levels at the off-site receiver locations are expected to range from 26.8 to 32.8 dBA L<sub>eq</sub>. The operational noise levels associated with Arroyo Vista Project will not exceed the County of Riverside 55 dBA L<sub>ed</sub> daytime and 45 dBA L<sub>eq</sub> nighttime exterior noise level standards at all nearby receiver locations. Additionally, the Project will

generate a daytime and nighttime operational noise level increases ranging from 0.0 to 04 dBA  $L_{eq}$  at the nearest receiver locations. Therefore, operational noise impacts of the Project are considered *less than significant*.

### CONSTRUCTION AND ROCK CRUSHING NOISE ANALYSIS

Using sample reference noise levels to represent the planned construction and rock crushing activities at the Arroyo Vista site, this analysis estimates the Project-related construction noise levels at nearby sensitive receiver locations. Since the County of Riverside General Plan and County Code of Ordinances do not identify specific construction noise level thresholds, an hourly average L<sub>eq</sub> threshold is identified based on the Federal Transit Administration (FTA) *Transit Noise and Vibration Impact Assessment Manual* for noise sensitive residential use. The Project-related construction and rock crushing activities noise levels are expected to range from 56.4 to 61.3 dBA L<sub>eq</sub> and will satisfy the 80 dBA L<sub>eq</sub> construction noise level threshold at all receiver locations. Additionally, construction activities are planned to typically occur between 7:00 a.m. and 5:00 p.m. and would comply with the County of Riverside limitation on allowable hours of construction per Section 9.52.020. Therefore, based on the results of this analysis, all nearby sensitive receiver locations will experience *less than significant* impacts due to Project construction noise levels.

### CONSTRUCTION AND ROCK CRUSHING VIBRATION

Construction and rock crushing activities can result in varying degrees of ground vibration, depending on the equipment and methods used, distance to the affected structures and soil type. It is expected that ground-borne vibration from Project construction activities would cause only intermittent, localized intrusion. Ground-borne vibration levels resulting from typical construction activities occurring within the Project site were estimated by data published by the Federal Transit Administration (FTA). At the nearest receivers Project construction vibration velocity levels are estimated to reach up to 0.02 in/sec PPV. Based on maximum acceptable continuous vibration threshold of 0.04 PPV (in/sec), the typical Project construction vibration levels will not exceed the County of Riverside thresholds at properties located adjacent to the Project site and vibration impacts would be *less than significant*.

### **BLASTING NOISE ANALYSIS**

Blasting associated with Project construction would occur on-site and near residential homes. While some blasting noise will be noticeable by nearby residents, the recommended construction noise and vibration recommendations identified in this report will reduce the worst-case noise levels calculated using RCNM. RCNM reference noise level for explosive blasting equipment is 94 dBA L<sub>max</sub> at a distance of 50 feet. (1) Since the County of Riverside General Plan and County Code of Ordinances do not identify specific construction noise level limits for blasting activities, the Office of Surface Mining Reclamation and Enforcement (OSMRE) and the Code of Federal Regulations (CFR) Airblast Limits (30 CFR 816.67(b)) (2) are used to represents an appropriate threshold for determining potential impacts due to blasting-related noise levels. The noise levels at the individual receiver locations, will approach 70.2 dBA L<sub>max</sub> and will not exceed the CFR



maximum noise level of 129 dBA  $L_{max}$  noise level threshold and blasting noise impacts would be *less than significant.* 

#### BLASTING VIBRATION ANALYSIS

Blasting operations can have unacceptable noise and vibration impacts if not conducted correctly. Excessive levels of structural vibration due to ground vibration from blasting can cause substantial damage to structures. Therefore, Noise-1 is required to mitigate potential vibration impacts. With the implementation of the identified controls vibration levels from blasting activities at sensitive receivers would be *less than significant*.

### **CONSTRUCTION BLASTING NOISE AND VIBRATION ABATEMENT MEASURES**

Though blasting noise and vibration is temporary, intermittent and of short duration, and will not present any long-term impacts, the following practices would reduce any noise and vibration level increases produced by blasting activities to the nearby noise-sensitive residential land uses:

The following practices would reduce any noise and vibration level impacts produced by the proposed blasting activities at the nearby noise-sensitive residential land uses:

#### MM Noise-1: Blasting Limitations.

Prior to approval of any grading permits that require blasting activities and a blasting permit, the Project Applicant shall prepare and submit for County review and approval of a Blasting Noise and Vibration Monitoring and Abatement Plan ("Noise and Vibration Abatement Plan"). The required Noise and Vibration Abatement Plan shall include the name and qualifications of the person(s) responsible for monitoring and reporting blast vibrations. In addition, the Noise and Vibration Abatement Plan shall require a minimum of three seismographs for monitoring peak ground vibration and air-overpressure. The Noise and Vibration Abatement Plan also shall require that equipment and its use shall conform fully to the standards developed by the Vibration Section of the International Society of Explosive Engineers (ISEE). For all blasts, the Noise and Vibration Abatement Plan shall require monitoring of ground motion and air-overpressure at the nearest residential properties or other structure of concern. The Noise and Vibration Abatement Plan also shall specify a minimum trigger level for monitoring of 0.05 in/s for ground motion and 120 dB for air-overpressure. Additionally, the Noise and Vibration Abatement Plan shall require regular reporting of blasting and measurements to Riverside County, and shall include a copy of the instrument/software-generated blast monitoring report at each instrument location that includes measured peak particle velocity in inches per second, peak air-overpressure in linearscale decibels, and vibration and air-overpressure event plots, with date and time of event recording. In addition, the Noise and Vibration Abatement Plan shall include the following requirements:

• Prior to commencement of any blasting, a pre-blast survey of the conditions of all existing property and aboveground utilities located within 300 feet of any potential blasting areas shall be conducted. The pre-blast survey shall include a photographic record of all visible and accessible structures, facilities, utilities, or other improvements. The survey shall document the interior and exterior conditions of all residential property and associated structures located within 500 feet of



blasting areas. If property owners refuse surveys, provide copies of certified-mail letters documenting attempts to provide the survey by a third-party professional survey company. The required surveys shall include a description of the interior and exterior condition of the various structures examined. Descriptions shall include the locations of any cracks, damage, or other existing defects and shall include information needed to identify and describe the defect, if any, and to evaluate the construction operations on the defect. Survey records shall include photos of all cracks and other damaged, weathered, or otherwise deteriorated structural conditions. If necessary, macro lenses and flash illumination shall be used to ensure defects are shown clearly in the photographs. Photos shall contain an accurate date stamp. No blasting shall occur prior to completion of surveys of surrounding residential properties. Surveys also shall be repeated at facilities or properties where damage concerns have been expressed by individual residents, property owners, or other concerned parties. Details of any observed changes to surveyed structures and documenting photos shall be reported and submitted to Riverside County.

- Blasting only shall be allowed Monday through Friday only between the hours of 8:00 a.m. and 5:00 p.m.
- No blasting shall occur closer than 100 feet from residential structures. In the event that nonrippable materials are encountered within 100 feet from any residential structure, alternative methods shall be employed to reduce blasting-related noise and vibration impacts. Alternative rock blasting within 100 feet of residential homes may include methods such as the drilling of holes in the largest area of rock, inserting expansive grout or small charges into each whole to fragment the rock into smaller pieces, and then crushing the pieces for transport or other use.
- No more than a total of 2,000 pounds of explosive shall be detonated each day, excluding detonators.
- All blasts located within 500 feet of any structures or above ground utilities shall be covered with woven steel cable or steel-cable and rubber-tire blasting mats with a minimum weight of 30 pounds per square foot. Woven polypropylene or similar weed-barrier fabric, covered with at least 6 inches of soil or sand shall be placed over blast areas to protect initiators before mats are placed. Mats shall be overlapped at least 3 feet and shall completely cover the blast area and extend at least three feet beyond the blast area in all directions. If any flyrock or blasted material is thrown more than 10 feet or half the distance to the nearest structure, whichever is less, blasting shall be suspended until the County's has approved a revised blasting plan showing revisions to assure adequate ground movement control.
- Before blasts are covered, all loose soils above the blast shall be removed where feasible. Remaining ground located within 20 feet of the blast shall be thoroughly wetted with water to suppress airborne dust. Sand or soils placed over weed-barrier fabric shall be similarly wetted before placing blast mats.
- If specified vibration limits are exceeded, blasting operations shall cease immediately and a revised blasting plan shall be submitted to the County. Blasting shall not resume until a revised blasting plan has been reviewed and the Contractor has expressed in writing the conditions that will be applied to further blasting work.

Project grading and blasting contractors shall be required to ensure compliance with the Noise and Vibration Abatement Plan requirements and shall permit periodic inspection of the construction site by County of Riverside staff or its designee to confirm compliance. The requirements of the Noise and Vibration Abatement Plan also shall be specified in bid documents issued to prospective construction contractors. Riverside County shall review all monitoring



reports to ensure compliance with the Noise and Vibration Abatement Plan and shall have the authority to stop all blasting activities on site if it is determined that blasting activities are not being conducted in conformance with Noise and Vibration Abatement Plan and/or the above-listed requirements.

#### SUMMARY OF CEQA SIGNIFICANCE FINDINGS

The results of this Arroyo Vista Noise Impact Analysis are summarized below based on the significance criteria in Section 4 of this report consistent with Appendix G of the California Environmental Quality Act (CEQA) Guidelines. (3). 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.

Analysis	Report	Significance Findings		
Analysis	Section	Unmitigated	Mitigated	
On-Site Traffic Noise	7	Less Than Significant	-	
Off-Site Traffic Noise	8	Less Than Significant	-	
Operational Noise	10	Less Than Significant	-	
Construction & Rock Crushing Noise		Less Than Significant	-	
Construction & Rock Crushing Vibration	11	Less Than Significant	-	
Blasting Noise		Less Than Significant	-	
Blasting Vibration		Significant	Less Than Significant	

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



# 1 INTRODUCTION

This noise analysis has been completed to determine the noise impacts associated with the development of the proposed Arroyo Vista ("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 noise analysis, evaluates the potential noise impacts from operation and construction of the Project, and as necessary, identifies mitigation measures to reduce impacts.

# **1.1** SITE LOCATION

The Project site is located on the northwest corner of Chicago Avenue and Iris Avenue in the Woodcrest area of unincorporated County of Riverside, as shown on Exhibit 1-A. The closest major airport is the Riverside Municipal Airport located roughly 9.8 miles northwest of the Project site.

### **1.2 PROJECT DESCRIPTION**

The Project consists of the development of 231 single family detached residential dwelling units and associated improvements. The Project is anticipated to be developed in two phases with a Project buildout in 2027, as shown on Exhibit 1-B. This analysis conservatively assesses the development of 233 single-family residential dwelling units.





EXHIBIT 1-A: LOCATION MAP



EXHIBIT 1-B: SITE PLAN



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# 2 FUNDAMENTALS

Noise has been simply defined as "unwanted sound." Sound becomes unwanted when it interferes with normal activities, when it causes actual physical harm or when it has adverse effects on health (4). 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	1	NEARING LOCK	
NEAR JET ENGINE		130	INTIGLERABLE OR		
		120	DEAFENING		
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		SPEECH	
HEAVY TRAFFIC AT 90m (300 ft)	NORMAL SPEECH AT 1m (3 ft)	60		in the first state	
QUIET URBAN DAYTIME	LARGE BUSINESS OFFICE	50	MODERATE		
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	20 FAINT		
	BROADCAST/RECORDING STUDIO	10	WERV FAINT	NO EFFECT	
LOWEST THRESHOLD OF HUMAN HEARING	LOWEST THRESHOLD OF HUMAN HEARING	0	VERT FAINT		

#### 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. (5) The most common sounds vary between 40 dBA (very quiet) to 100 dBA (very loud). Normal conversation at three feet is roughly at 60 dBA, while loud jet engine noises equate to 110 dBA



at approximately 100 feet, which can cause serious discomfort. (6) Another important aspect of noise is the duration of the sound and the way it is described and distributed in time.

# 2.2 NOISE DESCRIPTORS

Environmental noise descriptors are generally based on averages, rather than instantaneous, noise levels. The most commonly used figure is the equivalent level ( $L_{eq}$ ). Equivalent sound levels are not measured directly but are calculated from sound pressure levels typically measured in 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.

To describe the time-varying character of environmental noise, the statistical or percentile noise descriptors  $L_{50}$ ,  $L_{25}$ ,  $L_8$  and  $L_2$ , are commonly used. The percentile noise descriptors are the noise levels equaled or exceeded during 50 percent, 25 percent, 8 percent, and 2 percent of a stated time. Sound levels associated with the  $L_2$  and  $L_8$  typically describe transient or short-term events, while levels associated with the  $L_{50}$  describe the steady state (or median) noise conditions. While the  $L_{50}$  describes the median noise levels occurring 50 percent of the time, the  $L_{eq}$  accounts for the total energy (average) observed for the entire hour. Therefore, the  $L_{eq}$  noise descriptor is generally 1-2 dBA higher than the  $L_{50}$  noise level.

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

#### **2.3.2 GROUND ABSORPTION**

The propagation path of noise from a highway to a receptor is usually very close to the ground. Noise attenuation from ground absorption and reflective wave canceling adds to the attenuation associated with geometric spreading. Traditionally, the excess attenuation has also been expressed in terms of attenuation per doubling of distance. This approximation is usually sufficiently accurate for distances of less than 200 ft. For acoustically hard sites (i.e., sites with a reflective surface between the source and the receptor, such as a parking lot or body of water), no excess ground attenuation is assumed. For acoustically absorptive or soft sites (i.e., those sites with an absorptive ground surface between the source and the receptor such as soft dirt, grass, or scattered bushes and trees), an excess ground attenuation value of 1.5 dB per doubling of distance is normally assumed. When added to the cylindrical spreading, the excess ground attenuation results in an overall drop-off rate of 4.5 dB per doubling of distance from a line source. (7)

#### **2.3.3** Atmospheric Effects

Receptors located downwind from a source can be exposed to increased noise levels relative to calm conditions, whereas locations upwind can have lowered noise levels. Sound levels can be increased at large distances (e.g., more than 500 feet) due to atmospheric temperature inversion (i.e., increasing temperature with elevation). Other factors such as air temperature, humidity, and turbulence can also have significant effects. (5)

#### 2.3.4 SHIELDING

A large object or barrier in the path between a noise source and a receptor can substantially attenuate noise levels at the receptor. The amount of attenuation provided by shielding depends on the size of the object and the frequency content of the noise source. Shielding by trees and other such vegetation typically only has an "out of sight, out of mind" effect. That is, the perception of noise impact tends to decrease when vegetation blocks the line-of-sight to nearby resident. However, for vegetation to provide a substantial, or even noticeable, noise reduction, the vegetation area must be at least 15 feet in height, 100 feet wide and dense enough to completely obstruct the line-of sight between the source and the receiver. This size of vegetation may provide up to 5 dBA of noise reduction. The FHWA does not consider the planting of vegetation to be a noise abatement measure. (7)

### 2.4 NOISE CONTROL

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



# **2.5** Noise Barrier Attenuation

Effective noise barriers can reduce noise levels by 10 to 15 dBA, cutting the loudness of traffic noise in half. A noise barrier is most effective when placed close to the noise source or receptor. Noise barriers, however, do have limitations. For a noise barrier to work, it must be high enough and long enough to block the path of the noise source. (7)

# 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. (8)

### 2.8 COMMUNITY RESPONSE TO NOISE

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

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

Approximately ten percent of the population has a very low tolerance for noise and will object to any noise not of their making. Consequently, even in the quietest environment, some complaints will occur. Another twenty-five percent of the population will not complain even in very severe noise environments. Thus, a variety of reactions can be expected from people exposed to any given noise environment. (9) Surveys have shown that about ten percent of the people exposed to traffic noise of 60 dBA will report being highly annoyed with the noise, and each increase of one dBA is associated with approximately two percent more people being highly annoyed. When traffic noise exceeds 60 dBA or aircraft noise exceeds 55 dBA, people may begin to complain. (9)

Despite this variability in behavior on an individual level, the population can be expected to exhibit the following responses to changes in noise levels as shown on Exhibit 2-B. An increase or decrease of 1 dBA cannot be perceived except in carefully controlled laboratory experiments, a change of 3 dBA is considered *barely perceptible*, and changes of 5 dBA are considered *readily perceptible*. (10)





EXHIBIT 2-B: NOISE LEVEL INCREASE PERCEPTION

# 2.9 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 (3). 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 (3). 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 (3). 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 (3). 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 (11). Thus, either can be used on 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 (12). 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.







\* 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.



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# **3 REGULATORY SETTING**

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

# 3.1 STATE OF CALIFORNIA NOISE REQUIREMENTS

The State of California regulates freeway noise, sets standards for sound transmission, provides occupational noise control criteria, identifies noise standards, and provides guidance for local land use compatibility. State law requires that each county and city adopt a General Plan that includes a Noise Element which is to be prepared per guidelines adopted by the Governor's Office of Planning and Research (OPR). (13) The purpose of the Noise Element is to *limit the exposure of the community to excessive noise levels*. In addition, the California Environmental Quality Act (CEQA) requires that all known environmental effects of a project be analyzed, including environmental noise impacts.

# 3.2 STATE OF CALIFORNIA BUILDING CODE

The State of California's noise insulation standards for all residential units are codified in the California Code of Regulations (CCR), Title 24, Building Standards Administrative Code, Chapter 12, Section 1206. These noise standards are applied to new construction that contains dwelling units or sleeping units, such as residential and hotel or motel uses, in California for controlling interior noise levels resulting from exterior noise sources. For new buildings, the acceptable interior noise limit is 45 dBA CNEL in habitable rooms (14).

# 3.3 COUNTY OF RIVERSIDE GENERAL PLAN NOISE ELEMENT

The County of Riverside has adopted a Noise Element of the General Plan to control and abate environmental noise, and to protect the citizens of the County of Riverside from excessive exposure to noise. (15) The Noise Element specifies the maximum allowable exterior noise levels for new developments impacted by transportation noise sources such as arterial roads, freeways, airports and railroads. In addition, the Noise Element identifies several polices to minimize the impacts of excessive noise levels throughout the community and establishes noise level requirements for all land uses. To protect County of Riverside residents from excessive noise, the Noise Element contains the following policies related to the Project:

N 1.1 Protect noise-sensitive land uses from high levels of noise by restricting noise-producing land uses from these areas. If the noise-producing land use cannot be relocated, then noise buffers such as setbacks, landscaping, or block walls shall be used.

- N 1.3 Consider the following uses noise-sensitive and discourage these uses in areas in excess of 65 CNEL:
  - Schools
  - Hospitals
  - Rest Homes
  - Long Term Care Facilities
  - Mental Care Facilities
  - Residential Uses
  - Libraries
  - Passive Recreation Uses
  - Places of Worship
- N 1.5 Prevent and mitigate the adverse impacts of excessive noise exposure on the residents, employees, visitors, and noise-sensitive uses of Riverside County.
- *N* 4.1 *Prohibit facility-related noise, received by any sensitive use, from exceeding the following worst-case noise levels:* 
  - a. 45 dBA 10-minute L<sub>eq</sub> between 10:00 p.m. and 7:00 a.m.;
  - b. 65 dBA 10-minute L<sub>eq</sub> between 7:00 a.m. and 10:00 p.m.
- N 13.1 Minimize the impacts of construction noise on adjacent uses within acceptable standards.
- N 13.2 Ensure that construction activities are regulated to establish hours of operation in order to prevent and/or mitigate the generation of excessive or adverse impacts on surrounding areas.
- N 13.3 Condition subdivision approval adjacent to developed/occupied noise-sensitive land uses (see policy N 1.3) by requiring the developer to submit a construction-related noise mitigation plan to the [County] for review and approval prior to issuance of a grading permit. The plan must depict the location of construction equipment and how the noise from this equipment will be mitigated during construction of this project, through the use of such methods as:
  - *i.* Temporary noise attenuation fences;
  - ii. Preferential location and equipment; and
  - *iii.* Use of current noise suppression technology and equipment.
- N 14.1 Enforce the California Building Standards that sets standards for building construction to mitigate interior noise levels to the tolerable 45 CNEL limit. These standards are utilized in conjunction with the Uniform Building Code by the County's Building Department to ensure that noise protection is provided to the public. Some design features may include extra-dense insulation, double-paned windows, and dense construction materials.
- N 16.3 Prohibit exposure of residential dwellings to perceptible ground vibration from passing trains as perceived at the ground or second floor. Perceptible motion shall be presumed to be a motion velocity of 0.01 inches/second over a range of 1 to 100 Hz.

To ensure noise-sensitive land uses are protected from high levels of noise (N 1.1), Table N-1 of the Noise Element identifies guidelines to evaluate proposed developments based on exterior and interior noise level limits for land uses and requires a noise analysis to determine needed mitigation measures if necessary. The Noise Element identifies residential use as a noise-sensitive land use (N 1.3) and discourages new development in areas with transportation related levels of 65 dBA CNEL or greater existing ambient noise levels. To prevent and mitigate noise impacts for its residents (N 1.5), County of Riverside requires exterior noise attenuation measures

for sensitive land use exposed to transportation related noise levels higher than 65 dBA CNEL. In addition, the County of Riverside had adopted an interior noise level limit of 45 dBA CNEL (N 14.1).

Policy N 4.1 of the Noise Element sets a stationary-source exterior noise limit to not to be exceeded for a cumulative period of more than ten minutes in any hour of 65 dBA  $L_{eq}$  for daytime hours of 7:00 a.m. to 10:00 p.m., and 45 dBA  $L_{eq}$  during the noise-sensitive nighttime hours of 10:00 p.m. to 7:00 a.m. To prevent high levels of construction noise from impacting noise-sensitive land uses, policies N 13.1 through 13.3 identify construction noise mitigation requirements for new development located near existing noise-sensitive land uses. Policy 16.3 establishes the vibration perception threshold for rail-related vibration levels, used in this analysis as a threshold for determining potential vibration impacts due to Project construction. (15)

### 3.2.1 LAND USE COMPATIBILITY GUIDELINES

The noise criteria identified in the County of Riverside Noise Element (Table N-1) are guidelines to evaluate the land use compatibility of transportation related noise. The compatibility criteria, shown on Exhibit 3-A, provides the County with a planning tool to gauge the compatibility of land uses relative to existing and future exterior noise levels. The *Land Use Compatibility for Community Noise Exposure* matrix describes categories of compatibility and not specific noise standards. The Arroyo Vista land use is considered *normally acceptable* with unmitigated exterior noise levels of less than 60 dBA CNEL. For *conditionally acceptable* exterior noise levels, approaching 70 dBA CNEL for residential land uses, *new construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and the needed noise insulation features are included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning will normally suffice. (15)* 

#### 3.2.2 COUNTY OF RIVERSIDE STATIONARY NOISE STANDARDS

The County of Riverside has set hourly average  $L_{eq}$  exterior noise limits to control the stationarysource noise associated with the development of the proposed Arroyo Vista. The County considers noise generated using motor vehicles to be a stationary noise source when operated on private property such as at a loading dock. These facility-related noises, as projected to any portion of any surrounding property containing a *habitable dwelling, hospital, school, library or nursing home*, must not exceed the following worst-case noise levels. Policy N 4.1 of the County of Riverside General Plan Noise Element sets a stationary-source average  $L_{eq}$  exterior noise limit not to be exceeded for a cumulative period of more than ten minutes in any hour of 65 dBA  $L_{eq}$ for daytime hours of 7:00 a.m. to 10:00 p.m., and 45 dBA  $L_{eq}$  during the noise-sensitive nighttime hours of 10:00 p.m. to 7:00 a.m. (15)



LAND USE CATEGORY	COMMUNITY	/ NO	ISE EX	POSURE	LEVE	L Ldn or	CNEL, dBA
	5	55	60	65	70	75	80
Residential I ow Density		1	-1		1	1	1
Single Family, Dupley, Mobile Homes	1	1	-	-			
Single Family, Duplex, Moone Homes					-		-
Residential-Multiple Family	-			-			
, and the second se				1	1	_	1.
Transient Lodging-Motels, Hotels		-	-		-		
				1			
Sakaala Tihaanina Chumban Harritala	-				_		1.000
Nursing Homes		1					_
						1	Concession in which the
							· · · · · · · · · · · · · · · · · · ·
Auditoriums, Concert Halls, Amphithea	iters	r	1	1	-	-	
Sports Arena, Outdoor Spectator Sports						_	
charment on most photomet photo		1	1	1	-	T	-
Playgrounds, Neighborhood Parks						-	
				110	T	-	
Calf Courses Diding Stables Water De	and the second		_	_			10 1007
Cemeteries	creation,		1			-	
Office Buildings, Businesses, Commerci	al,	-	1	1			
and Professional							
Industrial, Manufacturing, Utilities,						_	
Agriculture			-	1	-	1	_
Legend:		1	1	1	1	1	1
Normally Acceptable: Specified land use is satisfactory based upon the assumption that any buildings involved are indexisting and	Ily Acceptable:	No	v construction or o	ceptable: development should w construction or d	generally	Clearly L	Inacceptable: ction or development should be undertaken. Construction
of normal conventional construction, without the poise reduct any special poise invalation requirements. needed noise in	tion requirements is made and sulation features included in	doe	s proceed, a detail action requirement	ed analysis of the n is must be made with res included in the	b needed	costs to make	the indoor environment ould be prohibitive and the
Source: California Office of Noise Control with closed win systems on air of successful of the systems on air of systems on air of systems on air of successful of the systems of air of systems on air of systems of air of systems	adows and fresh air supply ouditioning will normally in environment will seem noise	Qui	door areas most b	e shielded		outdoor cityr	ryannen would not by usable

#### EXHIBIT 3-A: LAND USE COMPATIBILITY FOR COMMUNITY NOISE EXPOSURE

Source: County of Riverside General Plan Noise Element, Table N-1.



The County of Riverside County Code of Ordinances Section 9.52.040 *General sound level standards* identify lower, more restrictive exterior noise level standards, which for the purpose of this report, are used to evaluate potential Project-related operational noise level limits instead of the higher General Plan exterior noise level standards previously identified. The County of Riverside County Code of Ordinances identifies exterior noise level limits of 55 dBA L<sub>eq</sub> during the daytime hours of 7:00 a.m. to 10:00 p.m., and 45 dBA L<sub>eq</sub> during the noise-sensitive nighttime hours of 10:00 p.m. to 7:00 a.m. for noise-sensitive uses. (16) The County of Riverside County Code of Ordinance is included in Appendix 3.1.

Based on several discussions with the County of Riverside Department of Environmental Health (DEH), Office of Industrial Hygiene (OIH), it is important to recognize that the County of Riverside County Code of Ordinances noise level standards, incorrectly identify maximum noise level (L<sub>max</sub>) standards that should instead reflect the maximum hourly average noise levels (L<sub>eq</sub>). Moreover, the County of Riverside DEH OIH's April 15<sup>th</sup>, 2015 *Requirements for determining and mitigating, non-transportation noise source impacts to residential properties* also identifies operational (stationary-source) noise level limits using the L<sub>eq</sub> metric, consistent with the direction of the County of Riverside General Plan guidelines and standards provided in the Noise Element. Therefore, this report has been prepared consistent with direction of the County of Riverside DEH OIH guidelines and standards using the average L<sub>eq</sub> noise level metric for stationary-source (operational) noise level evaluation.

### **3.3 CONSTRUCTION NOISE STANDARDS**

To control noise impacts associated with the construction of the proposed Project, the County of Riverside has established limits to the hours of operation. Section 9.52.020 of the County's Noise Regulation ordinance indicates that noise associated with any private construction activity located within one-quarter of a mile from an inhabited dwelling is considered exempt between the hours of 6:00 a.m. and 6:00 p.m., during the months of June through September, and 7:00 a.m. and 6:00 p.m., during the months of October through May. (16) Neither the County's General Plan nor County Code of Ordinances establish numeric maximum acceptable construction source noise levels at potentially affected receivers for CEQA analysis purposes. 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 Leq as a reasonable threshold for noise sensitive residential land use. (17 p. 179)



# **3.4 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. Occasionally large bulldozers and loaded trucks can cause perceptible vibration levels at close proximity.

The County of Riverside does not have vibration standards, but the County's General Plan Noise Element does contain the human reaction to typical vibration levels. Typical vibration levels between 10 and 30 Hertz with peak particle velocity of 0.0787 inches per second are considered readily perceptible and above 0.1968 in/sec are considered annoying to people in buildings. Further, County of Riverside General Plan Policy N 16.3 identifies a motion velocity perception threshold for vibration due to passing trains of 0.01 inches per second (in/sec) over the range of one to 100 Hz (15).

### 3.7 CONSTRUCTION BLASTING STANDARDS

The construction of the proposed Project will include blasting of hard rock areas, which is a major source of potential noise and vibration impacts to nearby residential receivers. Since the County of Riverside General Plan and County Code of Ordinances do not identify specific construction noise level limits for blasting activities, the Office of Surface Mining Reclamation and Enforcement (OSMRE) and the Code of Federal Regulations (CFR) Airblast Limits (30 CFR 816.67(b)) are used. Section 816.2 of Title 30 of the CFR indicates that the blasting regulations are intended to ensure that all surface mining activities are conducted in a manner which preserves and enhances environmental and other values in accordance with the Act. (2) While the OSMRE regulates mining activities, the blasting activities at the Project site represent surface mining activities which, to satisfy California Environmental Quality Act (CEQA) guidelines, must demonstrate that they do not adversely affect the existing environment. Therefore, the OSMRE blasting regulations are applied to the blasting activities anticipated at the Project site. For mining operations, which require larger blasts than that of the Project, the lowest noise level threshold identified in the CFR is a maximum noise level 129 dBA Lmax for blasting activity measured at the location of any dwelling, public building, school, church, or community or institutional building outside the permit area. (2) The  $L_{max}$  threshold used in the noise analysis is suitable for singleevent noise levels, such as blasting activities, since other noise regulations in Leg (energy average), for example, average out a reference noise level over a given time period which reduces the single-event noise level over a longer period of time. The Lmax, therefore, allows for the shorterduration single-event noise levels to be evaluated against an appropriate threshold.



# 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. (18) 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 the noise impact significant*. (19) This is primarily because of the wide variation in individual thresholds of annoyance and differing individual experiences with noise. Thus, an important way of determining a person's subjective reaction to a new noise is the comparison of it to the existing environment to which one has adapted—the so-called *ambient* environment.

In general, the more a new noise exceeds the previously existing ambient noise level, the less acceptable the new noise will typically be judged. The Federal Interagency Committee on Noise (FICON) (20) developed guidance to be used for the assessment of project-generated increases in noise levels that consider the ambient noise level. The FICON recommendations are based on studies that relate aircraft noise levels to the percentage of persons highly annoyed by aircraft noise. Although the FICON recommendations were specifically developed to assess aircraft noise impacts, these recommendations are often used in environmental noise impact assessments involving the use of cumulative noise exposure metrics, such as the average-daily noise level (CNEL) and equivalent continuous noise level ( $L_{eq}$ ).

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 are consistent with guidance provided by both the Federal Highway Administration (21 p. 9) and Caltrans (10 p. 2\_48).

# 4.2 VIBRATION (THRESHOLD B)

As described in Section 3.5, the vibration impacts originating from the construction of the Project, vibration-generating activities are appropriately evaluated against the thresholds of significance outlined in the County of Riverside General Plan. (15) These guidelines identify a motion velocity perception threshold for vibration due to passing trains of 0.01 inches per second (in/sec) over the range of one to 100 Hz, which is used in this noise study to assess potential impacts due to Project construction vibration levels. As the policy is based on human perception, the 0.01 in/sec limit is assumed to be a root means squared (RMS) value. An RMS value of 0.01 in/sec is equivalent to a PPV value of 0.04 in/sec. For purposes of clarity and to reduce the number of terms used in the analysis of vibration impacts, the vibration analysis uses PPV for all sources and calculation. Thus, the impact threshold would be 0.04 in/sec PPV.

# 4.3 CEQA GUIDELINES NOT FURTHER ANALYZED (THRESHOLD C)

CEQA Noise Threshold C applies when there are nearby public and private airports and/or air strips and focuses on land use compatibility of the Project to nearby airports and airstrips. The Project site is not located within two miles of an airport or airstrip. The closest major airport is March Air Force Base located roughly 4.2 miles east of the Project site. The noise level contours of March Airforce Base are shown in Exhibit 4-1. As shown, the Project site would be outside the 60 dBA CNEL noise level contour and thus would not be exposed to excessive noise levels from airport operations, and therefore, impacts are considered *less than significant*, and no further noise analysis is conducted in relation to Appendix G to the CEQA Guidelines, Noise Threshold C.

# 4.4 SIGNIFICANCE CRITERIA SUMMARY

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



Analysia	Condition(c)	Significance Criteria			
Analysis	Condition(s)	Daytime	Nighttime		
On-Site	Exterior Noise Level Criteria	65 dBA CNEL			
Traffic <sup>1</sup>	Interior Noise Level Standard	45 dBA CNEL			
0(( 6))	If ambient is < 60 dBA CNEL	≥ 5 dBA CNEL Project increase			
Off-Site Traffic <sup>2</sup>	If ambient is 60 - 65 dBA CNEL	≥ 3 dBA CNEL Project increase			
Traffic	If ambient is > 65 dBA CNEL	≥ 1.5 dBA CNEL Project increase			
	Exterior Noise Level Standards <sup>3</sup>	55 dBA L <sub>eq</sub>	45 dBA L <sub>eq</sub>		
Operational	If ambient is < 60 dBA Leq <sup>1</sup>	≥ 5 dBA L <sub>eq</sub> Project increase			
Operational	If ambient is 60 - 65 dBA Leq <sup>1</sup>	≥ 3 dBA L <sub>eq</sub> Project increase			
	If ambient is > 65 dBA Leq <sup>1</sup>	≥ 1.5 dBA L <sub>eq</sub> Project increase			
Construction	Noise Level Threshold <sup>4</sup>	80 dBA L <sub>eq</sub>			
Construction	Vibration Level Threshold <sup>5</sup>	0.04 in/sec PPV			

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

<sup>1</sup>County of Riverside General Plan Noise Element.

<sup>2</sup> FICON, 1992.

<sup>3</sup> County of Riverside County Code of Ordinances, Section 9.52.040.

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

<sup>5</sup> County of Riverside General Plan Noise Element, Policy N 16.3.

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



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# 5 EXISTING NOISE LEVEL MEASUREMENTS

To assess the existing noise level environment, 24-hour noise level measurements were taken at five 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 shows the Project site and the noise level measurement locations. To fully describe the existing noise conditions, noise level measurements were collected by Urban Crossroads, Inc. on Wednesday, March 23, 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 daytime and nighttime hourly noise levels and calculate the 24-hour CNEL. The long-term noise readings were recorded using Piccolo Type 2 integrating sound level meter and dataloggers. The Piccolo sound level meters were calibrated using a Larson-Davis calibrator, Model CAL 150. All noise meters were programmed in "slow" mode to record noise levels in "A" weighted form. The sound level meters and microphones were equipped with a windscreen during all measurements. All noise level measurement equipment satisfies the American National Standards Institute (ANSI) standard specifications for sound level meters ANSI S1.4-2014/IEC 61672-1:2013. (22)

# 5.2 NOISE MEASUREMENT LOCATIONS

The long-term noise level measurements were positioned as close to the nearest sensitive receiver locations as possible to assess the existing ambient hourly noise levels surrounding the Project site. Both Caltrans and the FTA recognize that it is not reasonable to collect noise level measurements that can fully represent every part of a private yard, patio, deck, or balcony normally used for human activity when estimating impacts for new development projects. This is demonstrated in the Caltrans general site location guidelines which indicate that, *sites must be free of noise contamination by sources other than sources of interest. Avoid sites located near sources such as barking dogs, lawnmowers, pool pumps, and air conditioners unless it is the express intent of the analyst to measure these sources. (5) 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. (23)* 

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



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

LEGEND: N A Measurement Locations
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. Appendix 5.2 provides a summary of the existing hourly ambient noise levels.

Location <sup>1</sup>	Description	Energy Average Noise Level (dBA Leq) <sup>2</sup>		
		Daytime	Nighttime	
L1	Located northeast on the Project site near existing residence at 17975 Twin Lakes Drive.	61.2	56.1	
L2	Located northeast of the Project site near existing residence at 18019 Twin Lakes Drive.	62.7	56.6	
L3	Located east on the Project site near existing residence at 15795 Cartwright Street.	53.5	49.6	
L4	Located southeast corner of the Project site near existing residence at 18010 Iris Avenue	60.7	59.1	
L5	Located south of the Project site near existing residence at 16016 Gamble Avenue	58.9	56.1	

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. The background ambient noise levels in the Project study area are dominated by the transportation-related noise associated with nearby surface streets. This includes the auto and heavy truck activities on study area roadway segments near the noise level measurement locations.



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# 6 METHODS AND PROCEDURES

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

## 6.1 FHWA TRAFFIC NOISE PREDICTION MODEL

The estimated roadway noise impacts from vehicular traffic were calculated using a computer program that replicates the Federal Highway Administration (FHWA) Traffic Noise Prediction Model- FHWA-RD-77-108. (24) 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. (25) 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.

# 6.2 ON-SITE TRAFFIC NOISE PREDICTION MODEL INPUTS

The on-site roadway parameters including the average daily traffic (ADT) volumes used for this study are presented on Table 6-1. Based on the County of Riverside General Plan Circulation Element Map, Chicago Avenue and Iris Avenue are classified as one (1) lane Collectors. Future average daily traffic volumes, shown on Table 6-1, were obtained from the Arroyo Vista Traffic Analysis prepared by Urban Crossroads on January 30, 2023. (26) Consistent with the County of Riverside Office of Industrial Hygiene noise study requirements, (27) soft site conditions were used to analyze the potential on-site traffic noise impacts for the Project study area.

Table 6-2 presents the time-of-day vehicle splits by vehicle type and roadway classification, and Table 6-3 presents the total traffic flow distributions (vehicle mixes) used for this analysis which were obtained from the County of Riverside Office of Industrial Hygiene noise study requirements. The vehicle mix provides the hourly distribution percentages of automobiles for input into the FHWA Model based on roadway types. The vehicle splits are shown on Tables 6-2 are reported as a percentage of the overall percentage.

Roadway	Lanes	Classification <sup>1</sup>	Maximum Daily Traffic Volume <sup>2</sup>	Posted Speed Limit (mph) <sup>3</sup>	Site Conditions
Chicago Av.	2	Collector	8,000	25	Soft
Iris Av.	2	Collector	8,000	30	Soft

### TABLE 6-1: ON-SITE ROADWAY PARAMETERS

 $^{\rm 1}$  County of Riverside Circulation Element Table C-1 July 2020

<sup>2</sup> County of Riverside Circulation Element Figure C-3, 2013

<sup>3</sup> Posted speed limit.

#### TABLE 6-2: TIME OF DAY VEHICLE SPLITS (SECONDARY, COLLECTOR)

Time Deried	Vehicle Type				
Time Period	Autos	Medium Trucks	Heavy Trucks		
Daytime (7am-7pm)	77.5%	84.8%	86.5%		
Evening (7pm-10pm)	12.9%	4.9%	2.7%		
Nighttime (10pm-7am)	9.6%	10.3%	10.8%		
Total:	100.0%	100.0%	100.0%		

Source: County of Riverside Office of Industrial Hygiene - Secondary, Collector

### TABLE 6-3: DISTRIBUTION OF TRAFFIC FLOW BY VEHICLE TYPE (VEHICLE MIX)

Roadway		Total % Traffic Flow	1	Total
Classification	Autos	Medium Trucks	Heavy Trucks	TOLAI
All Roadways	97.42%	1.84%	0.74%	100.00%

<sup>1</sup> Source: County of Riverside Office of Industrial Hygiene - Secondary, Collector

To predict the future noise environment at each lot within the Project site, coordinate information was collected to identify the noise transmission path between the noise source and receiver. The coordinate information is based on the Project site plan showing the plotting of each lot, as shown in Exhibit 1-B. The site plan is used to identify the relationship between the roadway centerline elevation, the pad elevation and the centerline distance to the noise barrier, and the building façade. The first-floor exterior noise level receivers were placed five feet above the pad elevation, or three feet above the pad elevation when the barrier height exceeds six feet per County of Riverside Office of Industrial Hygiene noise study guidelines. Second-floor receivers were placed 14 feet above the pad elevation.

# 6.3 OFF-SITE TRAFFIC NOISE PREDICTION MODEL INPUTS

Table 6-4 identifies the eighteen off-site study area roadway segments, the distance from the centerline to adjacent land use based on the functional roadway classifications per the County of Riverside General Plan Circulation Element, and the posted vehicle speeds. Consistent with the Traffic Analysis prepared by Urban Crossroads, Inc. for the Project, (28) the off-site traffic noise analysis includes the following traffic scenarios.

- Existing Conditions Without Project: This scenario refers to the existing present-day noise conditions (as of May 2022) without the proposed Project.
- Existing plus Project Conditions Project Buildout: This scenario refers to the existing present-day noise conditions with the proposed Project. It should be noted that this scenario would not actually occur, as full occupancy of Phase 1 of the proposed Project is not expected to occur until November 2025 while the "Existing" conditions evaluated in the NIA reflects existing traffic as of May 2022, when traffic count data was collected.
- Existing plus Ambient Growth plus Cumulative (EAC) 2027 Conditions Without Project: This scenario includes near-term noise conditions from ambient growth and cumulative developments without traffic from the proposed Project.
- Existing plus Ambient Growth plus Project plus Cumulative (EAPC) (2027) Conditions Project Buildout: This scenario includes Project-related traffic, ambient growth, and all cumulative projects identified in the Project's traffic analysis.
- Horizon Year (2045) Conditions Without Project: This scenario refers to cumulative horizon year noise conditions without traffic from the proposed Project.
- Horizon Year (2045) Conditions With Project: This scenario includes all horizon year noise conditions including traffic from the proposed Project.

The average daily traffic (ADT) volumes used for this study are presented on Table 6-5. Table 6-2 and Table 6-3 provide the time of day (daytime, evening, and nighttime) vehicle splits used for calculating CNEL values.



ID	Roadway	Segment	Receiving Land Use <sup>1</sup>	Classification <sup>2</sup>	Right Of Way	Vehicle Speed (mph)
1	Van Buren Bl.	n/o Victoria Av.	Sensitive	Urban Arterial	152'	45
2	Van Buren Bl.	s/o Victoria Av.	Sensitive	Urban Arterial	152'	55
3	Mockingbird Canyon Rd.	s/o Van Buren Bl.	Sensitive	Secondary	100'	55
4	Washington St.	n/o Van Buren Bl.	Sensitive	Arterial	88'	45
5	Washington St.	s/o Van Buren Bl.	Sensitive	Arterial	88'	35
6	Chicago Av./Alta Cresta Av.	n/o Van Buren Bl.	Sensitive	Local	60'	25
7	Chicago Av./Alta Cresta Av.	s/o Van Buren Bl.	Sensitive	Local	60'	25
8	Gamble Av.	s/o Iris Av.	Sensitive	Local	60'	25
9	Wood Rd.	n/o Van Buren Bl.	Sensitive	Secondary	100'	40
10	Wood Rd.	s/o Van Buren Bl.	Sensitive	Secondary	100'	40
11	Trautwein Rd./Cole Av.	n/o Van Buren Bl.	Sensitive	Secondary	100'	50
12	Trautwein Rd./Cole Av.	s/o Van Buren Bl.	Sensitive	Secondary	100'	50
13	Victoria Av.	w/o Van Buren Bl.	Sensitive	Collector	74'	45
14	Victoria Av.	e/o Van Buren Bl.	Non-Sensitive	Collector	74'	40
15	Van Buren Bl.	w/o Washington St.	Non-Sensitive	Urban Arterial	152'	50
16	Van Buren Bl.	e/o Washington St.	Non-Sensitive	Urban Arterial	152'	50
17	Van Buren Bl.	w/o Chicago Av./Alta Cresta Av.	Sensitive	Urban Arterial	152'	50
18	Van Buren Bl.	e/o Chicago Av./Alta Cresta Av.	Sensitive	Urban Arterial	152'	50
19	Van Buren Bl.	e/o Wood Rd.	Non-Sensitive	Urban Arterial	152'	50
20	Van Buren Bl.	e/o Trautwein Rd./Cole Av.	Sensitive	Urban Arterial	152'	50
21	Iris Av.	w/o Gamble Av.	Sensitive	Local	60'	30
22	Iris Av.	w/o Chicago Av./Alta Cresta Av.	Sensitive	Local	60'	30
23	Iris Av.	e/o Chicago Av./Alta Cresta Av.	Sensitive	Local	60'	30

#### TABLE 6-4: OFF-SITE ROADWAY PARAMETERS

<sup>1</sup> Based on a review of existing aerial imagery.

				Aver	age Daily T	raffic Volur	nes <sup>1</sup>	
п	Poodway	Segment	Exis	ting	EACP	(2027)	Horizon	(2045)
	Noauway	Jegment	Without	With	Without	With	Without	With
			Project	Project	Project	Project	Project	Project
1	Van Buren Bl.	n/o Victoria Av.	30,281	30,787	33,838	34,344	41,126	41,632
2	Van Buren Bl.	s/o Victoria Av.	39,758	40,484	47,454	48,180	51,843	52,569
3	Mockingbird Canyon Rd.	s/o Van Buren Bl.	26,488	27,236	32,803	33,551	35,727	36,475
4	Washington St.	n/o Van Buren Bl.	15,725	15,879	20,811	20,965	24,184	25,338
5	Washington St.	s/o Van Buren Bl.	9,192	9,280	11,032	11,120	12,047	12,135
6	Chicago Av./Alta Cresta Av.	n/o Van Buren Bl.	1,122	2,662	1,122	2,662	1,363	2,903
7	Chicago Av./Alta Cresta Av.	s/o Van Buren Bl.	2,835	2,945	3,131	3,241	3,444	3,554
8	Gamble Av.	s/o Iris Av.	117	777	196	856	215	875
9	Wood Rd.	n/o Van Buren Bl.	9,239	9,349	9,239	9,349	12,618	12,728
10	Wood Rd.	s/o Van Buren Bl.	12,370	12,590	13,657	13,877	17,833	18,053
11	Trautwein Rd./Cole Av.	n/o Van Buren Bl.	19,588	19,764	19,588	19,764	28,156	28,332
12	Trautwein Rd./Cole Av.	s/o Van Buren BI.	12,051	12,117	13,305	13,371	17,456	17,522
13	Victoria Av.	w/o Van Buren Bl.	10,090	10,200	10,090	10,200	12,254	12,364
14	Victoria Av.	e/o Van Buren Bl.	5,757	5,867	5,757	5,867	6,992	7,102
15	Van Buren Bl.	w/o Washington St.	28,697	29,445	32,255	33,003	38,410	39,158
16	Van Buren Bl.	e/o Washington St.	35,562	36,552	40,485	41,475	48,133	49,103
17	Van Buren Bl.	w/o Chicago Av./Alta Cresta Av.	35,550	35,880	35,550	35,880	43,175	43,505
18	Van Buren Bl.	e/o Chicago Av./Alta Cresta Av.	33,813	34,913	33,813	34,913	41,066	42,166
19	Van Buren Bl.	e/o Wood Rd.	31,982	32,752	31,982	32,752	40,274	41,044
20	Van Buren Bl.	e/o Trautwein Rd./Cole Av.	29,513	30,041	29,513	30,041	35,843	36,371
21	Iris Av.	w/o Gamble Av.	35	35	35	35	43	43
22	Iris Av.	w/o Chicago Av./Alta Cresta Av.	177	397	177	397	215	435
23	Iris Av.	e/o Chicago Av./Alta Cresta Av.	154	154	154	154	187	187

### TABLE 6-5: AVERAGE DAILY TRAFFIC VOLUMES

<sup>1</sup> Arroyo Vista Traffic Analysis, Urban Crossroads, Inc.



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# 7 ON-SITE TRAFFIC NOISE IMPACTS

This on-site exterior noise impact analysis has been completed to determine the traffic noise exposure and to identify potential necessary noise abatement measures for the Project. The primary source of noise impacts to the Project site will be traffic noise from Chicago Avenue and Iris Avenue. The Project will also experience some background traffic noise from the Project's internal local streets, however, due to low traffic volume/speed, traffic noise from these roads will not make a significant contribution to the noise environment.

## 7.1 ON-SITE EXTERIOR NOISE ANALYSIS

Using the FHWA traffic noise prediction model and the parameters outlined in Tables 6-1 to 6-4, the expected future exterior noise levels for individual lots were calculated. Table 7-1 presents a summary of future exterior noise levels in the outdoor living areas (backyards) within the Project site. The on-site traffic noise level impacts indicate that the outdoor living areas adjacent to Chicago Avenue and Iris Avenue will experience unshielded exterior noise levels ranging from 61.3 to 64.2 dBA CNEL. This noise analysis shows that the Project will satisfy the County of Riverside 65 dBA CNEL exterior noise level standards for residential land uses. The on-site traffic noise analysis calculations are provided in Appendix 7.1.

## 7.2 ON-SITE INTERIOR NOISE ANALYSIS

Since exterior noise levels will exceed 60 dBA CNEL, the Project is considered "conditionally acceptable", which requires new construction or development to conduct a detailed analysis of the noise reduction requirements and include the needed noise insulation features in the Project design. According to the County of Riverside, conventional construction, with closed windows and fresh air supply systems or air conditioning will normally suffice to reduce exterior noise levels up to 70 dBA CNEL to comply with the 45 dBA CNEL interior standard. Therefore, to verify the future interior noise levels will comply, the exterior noise levels were calculated at the first - and second-floor building façades and the interior noise levels were calculated based on standard construction techniques with windows closed.

## 7.2.1 NOISE REDUCTION METHODOLOGY

The interior noise level is the difference between the predicted exterior noise level at the building façade and the noise reduction of the structure. Typical building construction will provide a Noise Reduction (NR) of approximately 12 dBA with "windows open" and a minimum 25 dBA noise reduction with "windows closed." (29) (30) However, sound leaks, cracks and openings within the window assembly can greatly diminish its effectiveness in reducing noise. Several methods are used to improve interior noise reduction, including: [1] weather-stripped solid core exterior doors; [2] upgraded dual glazed windows; [3] mechanical ventilation/air conditioning; and [4] exterior wall/roof assembles free of cut outs or openings.



Lot	Unmitigated Exterior Noise Leve Roadway				
-91		1st Floor	2nd Floor	3rd Floor	4th Floor
11	Chicago Av.	61.3	62.3	61.9	61.3
227		64.2	64.0	63.6	63.0
200	Iris Aveue	64.2	64.1	63.7	63.2
165		62.9	62.7	62.3	61.9

### TABLE 7-1: FUTURE EXTERIOR NOISE LEVELS (CNEL)

<sup>1</sup> Exterior noise level calculations are included Appendix 5.1.

### 7.2.2 INTERIOR NOISE LEVEL ASSESSMENT

Tables 7-2 and 7-3 show that the lots facing Chicago Avenue and Iris Avenue, will experience future unmitigated noise levels ranging from 63.2 to 65.9 dBA CNEL at the first-floor building façade, and 61.3 to 64.2 dBA CNEL at the second-floor building façade. The interior noise level analysis shows that the interior noise areas would require a 16.3 to 20.9 dBA CNEL reduction to comply with the County of Riverside 45 dBA CNEL interior noise level standard, which is greater than the minimum 12 dBA reduction with windows open and will require a windows-closed condition and mechanical ventilation (e.g., air conditioning). The Project Applicant intends to provide each unit in the development with mechanical ventilation, thus the windows can be kept in a closed position. Based on standard construction techniques, interior noise standards can be satisfied using standard windows and construction techniques. Therefore, the Project will satisfy the County of Riverside 45 dBA CNEL interior noise level standards for residential development.

TABLE 7-2. FINJI FLOOR INTERIOR NOIJE INIPACIJ (CNEL)	<b>TABLE 7-2:</b>	<b>FIRST FLOOR IN</b>	<b>ITERIOR NOISE</b>	<b>IMPACTS (CNEL)</b>
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Building	Noise Level at Façade <sup>1</sup>	Required Interior Noise Reduction <sup>2</sup>	Interior Noise Reduction <sup>3</sup>	Upgraded Windows⁴	Interior Noise Level⁵	Threshold	Threshold Exceeded?
11	63.2	18.2	25.0	No	38.2	45	No
227	65.9	20.9	25.0	No	40.9	45	No
200	65.9	20.9	25.0	No	40.9	45	No
165	64.2	19.2	25.0	No	39.2	45	No

<sup>1</sup> Exterior noise level at the facade with a windows closed condition requiring a means of mechanical ventilation (e.g. air conditioning).

<sup>2</sup> Noise reduction required to satisfy the 45 dBA CNEL interior noise standards.

<sup>3</sup> Minimum interior noise reduction based upon 25 dBA CNEL reduction from standard construction.

<sup>4</sup> Does the required interior noise reduction trigger upgraded windows?

<sup>5</sup> Estimated interior noise level with standard construction.



Building	Noise Level at Façade <sup>1</sup>	Required Interior Noise Reduction <sup>2</sup>	Interior Noise Reduction <sup>3</sup>	Upgraded Windows⁴	Interior Noise Level⁵	Threshold	Threshold Exceeded?
11	61.3	16.3	25.0	No	36.3	45	No
227	64.2	19.2	25.0	No	39.2	45	No
200	64.2	19.2	25.0	No	39.2	45	No
165	62.9	17.9	25.0	No	37.9	45	No

### TABLE 7-3: SECOND FLOOR INTERIOR NOISE IMPACTS (CNEL)

<sup>1</sup> Exterior noise level at the facade with a windows closed condition requiring a means of mechanical ventilation (e.g. air conditioning).

<sup>2</sup> Noise reduction required to satisfy the 45 dBA CNEL interior noise standards.

<sup>3</sup> Minimum interior noise reduction based upon 25 dBA CNEL reduction from standard construction.

<sup>4</sup> Does the required interior noise reduction trigger upgraded windows?

<sup>5</sup> Estimated interior noise level with standard construction.



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# 8 OFF-SITE TRANSPORTATION NOISE IMPACTS

To assess the off-site transportation CNEL noise level impacts associated with the proposed Project, noise contours were developed based on the *Arroyo Vista Traffic Analysis* (28). Noise contour boundaries represent the equal levels of noise exposure and are measured in CNEL from the center of the roadway. Noise contours were developed for the following traffic scenarios:

- Existing Conditions Without Project: This scenario refers to the existing present-day noise conditions (as of May 2022) without the proposed Project.
- Existing plus Project Conditions Project Buildout: This scenario refers to the existing present-day
  noise conditions with the proposed Project. It should be noted that this scenario would not
  actually occur, as full occupancy of Phase 1 of the proposed Project is not expected to occur until
  November 2025 while the "Existing" conditions evaluated in the NIA reflects existing traffic as of
  May 2022, when traffic count data was collected.
- Existing plus Ambient Growth plus Cumulative (EAC) 2027 Conditions Without Project: This scenario includes near-term noise conditions from ambient growth and cumulative developments without traffic from the proposed Project.
- Existing plus Ambient Growth plus Project plus Cumulative (EAPC) (2027) Conditions Project Buildout: This scenario includes Project-related traffic, ambient growth, and all cumulative projects identified in the Project's traffic analysis.
- Horizon Year (2045) Conditions Without Project: This scenario refers to cumulative horizon year noise conditions without traffic from the proposed Project.
- Horizon Year (2045) Conditions With Project: This scenario includes all horizon year noise conditions including traffic from the proposed Project.

# 8.1 TRAFFIC NOISE CONTOURS

Noise contours were used to assess the Project's incremental 24-hour dBA CNEL traffic-related noise impacts at land uses adjacent to roadways conveying Project traffic. The noise contours represent the distance to noise levels of a constant value and are measured from the center of the roadway for the 70, 65, and 60 dBA 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 8-1 through 8-4 present a summary of the exterior dBA CNEL traffic noise levels. Roadway segments are analyzed in each of the following timeframes: Existing without and with Project conditions, Cumulative 2027 without and with Project conditions, and Horizon Year 2045 without and with Project conditions. Appendix 8.1 includes a summary of the dBA CNEL traffic noise level contours for each of the traffic scenarios.



10	Dead	Command	Receiving	Distand Cer	Distance to Contour from Centerline (Feet)		
U	Koad	Segment	Land Use <sup>1</sup>	(dBA) <sup>2</sup>	70 dBA CNEL	65 dBA CNEL	60 dBA CNEL
1	Van Buren Bl.	n/o Victoria Av.	Sensitive	71.0	RW	190	410
2	Van Buren Bl.	s/o Victoria Av.	Sensitive	74.2	RW	312	671
3	Mockingbird Canyon Rd.	s/o Van Buren Bl.	Sensitive	74.8	104	223	481
4	Washington St.	n/o Van Buren Bl.	Sensitive	76.6	120	260	559
5	Washington St.	s/o Van Buren Bl.	Sensitive	72.3	RW	135	292
6	Chicago Av./Alta Cresta Av.	n/o Van Buren BI.	Sensitive	54.2	RW	RW	RW
7	Chicago Av./Alta Cresta Av.	s/o Van Buren Bl.	Sensitive	58.2	RW	RW	RW
8	Gamble Av.	s/o Iris Av.	Sensitive	44.4	RW	RW	RW
9	Wood Rd.	n/o Van Buren Bl.	Sensitive	67.4	RW	RW	156
10	Wood Rd.	s/o Van Buren Bl.	Sensitive	68.7	RW	RW	189
11	Trautwein Rd./Cole Av.	n/o Van Buren Bl.	Sensitive	72.9	RW	167	361
12	Trautwein Rd./Cole Av.	s/o Van Buren Bl.	Sensitive	70.8	RW	121	261
13	Victoria Av.	w/o Van Buren Bl.	Sensitive	70.5	RW	86	186
14	Victoria Av.	e/o Van Buren Bl.	Non-Sensitive	66.9	RW	RW	107
15	Van Buren Bl.	w/o Washington St.	Non-Sensitive	71.8	RW	216	465
16	Van Buren Bl.	e/o Washington St.	Non-Sensitive	72.7	RW	249	537
17	Van Buren Bl.	w/o Chicago Av./Alta Cresta Av.	Sensitive	72.7	RW	249	537
18	Van Buren Bl.	e/o Chicago Av./Alta Cresta Av.	Sensitive	72.5	RW	241	519
19	Van Buren Bl.	e/o Wood Rd.	Non-Sensitive	72.3	RW	232	500
20	Van Buren Bl.	e/o Trautwein Rd./Cole Av.	Sensitive	71.9	RW	220	474
21	Iris Av.	w/o Gamble Av.	Sensitive	41.0	RW	RW	RW
22	Iris Av.	w/o Chicago Av./Alta Cresta Av.	Sensitive	48.0	RW	RW	RW
23	Iris Av.	e/o Chicago Av./Alta Cresta Av.	Sensitive	47.4	RW	RW	RW

### TABLE 8-1: EXISTING WITHOUT PROJECT NOISE CONTOURS

<sup>1</sup> Based on a review of existing aerial imagery.
 <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-o<sup>f-way of the road.</sup>

			Receiving	CNEL at Nearest	Distanc Cer	e to Conto nterline (Fe	ur from et)
ם	Road	Segment	Land Use <sup>1</sup>	Land Use <sup>1</sup> (dBA) <sup>2</sup>		65 dBA CNEL	60 dBA CNEL
1	Van Buren Bl.	n/o Victoria Av.	Sensitive	71.1	RW	193	415
2	Van Buren Bl.	s/o Victoria Av.	Sensitive	74.3	RW	315	679
3	Mockingbird Canyon Rd.	s/o Van Buren Bl.	Sensitive	74.9	106	228	490
4	Washington St.	n/o Van Buren Bl.	Sensitive	76.6	121	261	563
5	Washington St.	s/o Van Buren Bl.	Sensitive	72.4	RW	136	293
6	Chicago Av./Alta Cresta Av.	n/o Van Buren Bl.	Sensitive	58.0	RW	RW	RW
7	Chicago Av./Alta Cresta Av.	s/o Van Buren Bl.	Sensitive	58.4	RW	RW	RW
8	Gamble Av.	s/o Iris Av.	Sensitive	52.6	RW	RW	RW
9	Wood Rd.	n/o Van Buren Bl.	Sensitive	67.4	RW	RW	157
10	Wood Rd.	s/o Van Buren Bl.	Sensitive	68.7	RW	RW	191
11	Trautwein Rd./Cole Av.	n/o Van Buren Bl.	Sensitive	72.9	RW	168	363
12	Trautwein Rd./Cole Av.	s/o Van Buren Bl.	Sensitive	70.8	RW	122	262
13	Victoria Av.	w/o Van Buren Bl.	Sensitive	70.6	RW	87	187
14	Victoria Av.	e/o Van Buren Bl.	Non-Sensitive	67.0	RW	RW	108
15	Van Buren Bl.	w/o Washington St.	Non-Sensitive	71.9	RW	220	473
16	Van Buren Bl.	e/o Washington St.	Non-Sensitive	72.9	RW	254	547
17	Van Buren Bl.	w/o Chicago Av./Alta Cresta Av.	Sensitive	72.8	RW	251	540
18	Van Buren Bl.	e/o Chicago Av./Alta Cresta Av.	Sensitive	72.7	RW	246	530
19	Van Buren Bl.	e/o Wood Rd.	Non-Sensitive	72.4	RW	236	508
20	Van Buren Bl.	e/o Trautwein Rd./Cole Av.	Sensitive	72.0	RW	223	480
21	Iris Av.	w/o Gamble Av.	Sensitive	41.0	RW	RW	RW
22	Iris Av.	w/o Chicago Av./Alta Cresta Av.	Sensitive	51.6	RW	RW	RW
23	Iris Av.	e/o Chicago Av./Alta Cresta Av.	Sensitive	47.4	RW	RW	RW

### TABLE 8-2: EXISTING WITH PROJECT NOISE CONTOURS

<sup>1</sup> Based on a review of existing aerial imagery.
 <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-o<sup>f-way of the road.</sup>

		- · ·	Receiving	CNEL at Nearest	Distance to Contour from Centerline (Feet)		
D	Road	Segment	Land Use <sup>1</sup>	(dBA) <sup>2</sup>	70 dBA CNEL	65 dBA CNEL	60 dBA CNEL
1	Van Buren Bl.	n/o Victoria Av.	Sensitive	71.5	RW	205	443
2	Van Buren Bl.	s/o Victoria Av.	Sensitive	74.7	156	336	725
3	Mockingbird Canyon Rd.	s/o Van Buren Bl.	Sensitive	75.3	113	243	523
4	Washington St.	n/o Van Buren Bl.	Sensitive	77.0	129	279	601
5	Washington St.	s/o Van Buren Bl.	Sensitive	72.8	RW	145	313
6	Chicago Av./Alta Cresta Av.	n/o Van Buren Bl.	Sensitive	58.1	RW	RW	RW
7	Chicago Av./Alta Cresta Av.	s/o Van Buren Bl.	Sensitive	58.8	RW	RW	RW
8	Gamble Av.	s/o Iris Av.	Sensitive	53.0	RW	RW	RW
9	Wood Rd.	n/o Van Buren Bl.	Sensitive	67.9	RW	RW	167
10	Wood Rd.	s/o Van Buren Bl.	Sensitive	69.2	RW	RW	204
11	Trautwein Rd./Cole Av.	n/o Van Buren Bl.	Sensitive	73.3	RW	180	387
12	Trautwein Rd./Cole Av.	s/o Van Buren Bl.	Sensitive	71.2	RW	130	280
13	Victoria Av.	w/o Van Buren Bl.	Sensitive	71.0	RW	93	200
14	Victoria Av.	e/o Van Buren Bl.	Non-Sensitive	67.4	RW	RW	115
15	Van Buren Bl.	w/o Washington St.	Non-Sensitive	72.3	RW	234	505
16	Van Buren Bl.	e/o Washington St.	Non-Sensitive	73.3	RW	271	583
17	Van Buren Bl.	w/o Chicago Av./Alta Cresta Av.	Sensitive	73.2	RW	268	577
18	Van Buren Bl.	e/o Chicago Av./Alta Cresta Av.	Sensitive	73.1	RW	265	570
19	Van Buren Bl.	e/o Wood Rd.	Non-Sensitive	72.8	RW	252	542
20	Van Buren Bl.	e/o Trautwein Rd./Cole Av.	Sensitive	72.4	RW	238	512
21	Iris Av.	w/o Gamble Av.	Sensitive	41.5	RW	RW	RW
22	Iris Av.	w/o Chicago Av./Alta Cresta Av.	Sensitive	51.8	RW	RW	RW
23	Iris Av.	e/o Chicago Av./Alta Cresta Av.	Sensitive	47.9	RW	RW	RW

### TABLE 8-3: EAPC (2027) WITHOUT PROJECT NOISE CONTOURS

<sup>1</sup> Based on a review of existing aerial imagery.
 <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-o<sup>f-way of the road.</sup>

15		<u> </u>	Receiving	CNEL at Nearest	Distance to Contour from Centerline (Feet)		
U	Road	Segment	Land Use <sup>1</sup>	(dBA) <sup>2</sup>	70 dBA CNEL	65 dBA CNEL	60 dBA CNEL
1	Van Buren Bl.	n/o Victoria Av.	Sensitive	71.5	RW	207	446
2	Van Buren Bl.	s/o Victoria Av.	Sensitive	75.0	164	354	763
3	Mockingbird Canyon Rd.	s/o Van Buren Bl.	Sensitive	75.8	121	262	563
4	Washington St.	n/o Van Buren Bl.	Sensitive	77.8	146	314	677
5	Washington St.	s/o Van Buren Bl.	Sensitive	73.1	RW	154	331
6	Chicago Av./Alta Cresta Av.	n/o Van Buren Bl.	Sensitive	58.0	RW	RW	RW
7	Chicago Av./Alta Cresta Av.	s/o Van Buren Bl.	Sensitive	58.8	RW	RW	RW
8	Gamble Av.	s/o Iris Av.	Sensitive	53.0	RW	RW	RW
9	Wood Rd.	n/o Van Buren Bl.	Sensitive	67.4	RW	RW	157
10	Wood Rd.	s/o Van Buren Bl.	Sensitive	69.2	RW	RW	204
11	Trautwein Rd./Cole Av.	n/o Van Buren Bl.	Sensitive	72.9	RW	168	363
12	Trautwein Rd./Cole Av.	s/o Van Buren Bl.	Sensitive	71.2	RW	130	280
13	Victoria Av.	w/o Van Buren Bl.	Sensitive	70.6	RW	87	187
14	Victoria Av.	e/o Van Buren Bl.	Non-Sensitive	67.0	RW	RW	108
15	Van Buren Bl.	w/o Washington St.	Non-Sensitive	72.4	RW	237	511
16	Van Buren Bl.	e/o Washington St.	Non-Sensitive	73.4	RW	276	595
17	Van Buren Bl.	w/o Chicago Av./Alta Cresta Av.	Sensitive	72.8	RW	251	540
18	Van Buren Bl.	e/o Chicago Av./Alta Cresta Av.	Sensitive	72.7	RW	246	530
19	Van Buren Bl.	e/o Wood Rd.	Non-Sensitive	72.4	RW	236	508
20	Van Buren Bl.	e/o Trautwein Rd./Cole Av.	Sensitive	72.0	RW	223	480
21	Iris Av.	w/o Gamble Av.	Sensitive	41.0	RW	RW	RW
22	Iris Av.	w/o Chicago Av./Alta Cresta Av.	Sensitive	51.6	RW	RW	RW
23	Iris Av.	e/o Chicago Av./Alta Cresta Av.	Sensitive	47.4	RW	RW	RW

### TABLE 8-4: EAPC (2027) WITH PROJECT NOISE CONTOURS

<sup>1</sup> Based on a review of existing aerial imagery. <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.

			Receiving	CNEL at Nearest	Distance to Contour from Centerline (Feet)		
ID	Road	Segment	Land Use <sup>1</sup>	(dBA) <sup>2</sup>	70 dBA CNEL	65 dBA CNEL	60 dBA CNEL
1	Van Buren Bl.	n/o Victoria Av.	Sensitive	72.3	RW	233	503
2	Van Buren Bl.	s/o Victoria Av.	Sensitive	75.3	173	372	801
3	Mockingbird Canyon Rd.	s/o Van Buren Bl.	Sensitive	76.1	127	273	588
4	Washington St.	n/o Van Buren Bl.	Sensitive	78.4	161	346	745
5	Washington St.	s/o Van Buren Bl.	Sensitive	73.5	RW	162	349
6	Chicago Av./Alta Cresta Av.	n/o Van Buren Bl.	Sensitive	55.1	RW	RW	RW
7	Chicago Av./Alta Cresta Av.	s/o Van Buren Bl.	Sensitive	59.1	RW	RW	RW
8	Gamble Av.	s/o Iris Av.	Sensitive	47.0	RW	RW	RW
9	Wood Rd.	n/o Van Buren Bl.	Sensitive	68.7	RW	RW	191
10	Wood Rd.	s/o Van Buren Bl.	Sensitive	70.2	RW	112	241
11	Trautwein Rd./Cole Av.	n/o Van Buren Bl.	Sensitive	74.4	RW	213	459
12	Trautwein Rd./Cole Av.	s/o Van Buren Bl.	Sensitive	72.4	RW	155	334
13	Victoria Av.	w/o Van Buren Bl.	Sensitive	71.4	RW	98	212
14	Victoria Av.	e/o Van Buren Bl.	Non-Sensitive	67.8	RW	RW	122
15	Van Buren Bl.	w/o Washington St.	Non-Sensitive	73.1	RW	262	565
16	Van Buren Bl.	e/o Washington St.	Non-Sensitive	74.1	RW	305	657
17	Van Buren Bl.	w/o Chicago Av./Alta Cresta Av.	Sensitive	73.6	RW	284	611
18	Van Buren Bl.	e/o Chicago Av./Alta Cresta Av.	Sensitive	73.4	RW	274	591
19	Van Buren Bl.	e/o Wood Rd.	Non-Sensitive	73.3	RW	271	583
20	Van Buren Bl.	e/o Trautwein Rd./Cole Av.	Sensitive	72.8	RW	251	540
21	Iris Av.	w/o Gamble Av.	Sensitive	41.9	RW	RW	RW
22	Iris Av.	w/o Chicago Av./Alta Cresta Av.	Sensitive	48.9	RW	RW	RW
23	Iris Av.	e/o Chicago Av./Alta Cresta Av.	Sensitive	48.3	RW	RW	RW

### TABLE 8-5: HORIZON (2045) WITHOUT PROJECT NOISE CONTOURS

<sup>1</sup> Based on a review of existing aerial imagery. <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.

15		- · ·	Receiving	CNEL at Nearest	Distance to Contour from Centerline (Feet)		
U	Road	Segment	Land Use <sup>1</sup>	(dBA) <sup>2</sup>	70 dBA CNEL	65 dBA CNEL	60 dBA CNEL
1	Van Buren Bl.	n/o Victoria Av.	Sensitive	72.4	RW	235	507
2	Van Buren Bl.	s/o Victoria Av.	Sensitive	75.4	174	375	809
3	Mockingbird Canyon Rd.	s/o Van Buren Bl.	Sensitive	76.1	128	276	596
4	Washington St.	n/o Van Buren Bl.	Sensitive	78.6	166	357	769
5	Washington St.	s/o Van Buren Bl.	Sensitive	73.5	RW	163	351
6	Chicago Av./Alta Cresta Av.	n/o Van Buren Bl.	Sensitive	58.3	RW	RW	RW
7	Chicago Av./Alta Cresta Av.	s/o Van Buren Bl.	Sensitive	59.2	RW	RW	RW
8	Gamble Av.	s/o Iris Av.	Sensitive	53.1	RW	RW	RW
9	Wood Rd.	n/o Van Buren Bl.	Sensitive	68.8	RW	RW	193
10	Wood Rd.	s/o Van Buren Bl.	Sensitive	70.3	RW	113	243
11	Trautwein Rd./Cole Av.	n/o Van Buren Bl.	Sensitive	74.5	RW	214	461
12	Trautwein Rd./Cole Av.	s/o Van Buren Bl.	Sensitive	72.4	RW	155	335
13	Victoria Av.	w/o Van Buren Bl.	Sensitive	71.4	RW	99	213
14	Victoria Av.	e/o Van Buren Bl.	Non-Sensitive	67.8	RW	RW	123
15	Van Buren Bl.	w/o Washington St.	Non-Sensitive	73.2	RW	266	573
16	Van Buren Bl.	e/o Washington St.	Non-Sensitive	74.1	RW	309	666
17	Van Buren Bl.	w/o Chicago Av./Alta Cresta Av.	Sensitive	73.6	RW	285	614
18	Van Buren Bl.	e/o Chicago Av./Alta Cresta Av.	Sensitive	73.5	RW	279	602
19	Van Buren Bl.	e/o Wood Rd.	Non-Sensitive	73.4	RW	274	591
20	Van Buren Bl.	e/o Trautwein Rd./Cole Av.	Sensitive	72.8	RW	253	545
21	Iris Av.	w/o Gamble Av.	Sensitive	41.9	RW	RW	RW
22	Iris Av.	w/o Chicago Av./Alta Cresta Av.	Sensitive	51.9	RW	RW	RW
23	Iris Av.	e/o Chicago Av./Alta Cresta Av.	Sensitive	48.3	RW	RW	RW

### TABLE 8-6: HORIZON (2045) WITH PROJECT NOISE CONTOURS

<sup>1</sup> Based on a review of existing aerial imagery. <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.

# 8.2 EXISTING TRAFFIC NOISE LEVEL INCREASES

Table 8-1 shows the Existing without Project conditions CNEL noise levels. The Existing without Project exterior noise levels are expected to range from 41.0 to 76.6 dBA CNEL, without accounting for any noise attenuation features such as noise barriers or topography. Table 8-2 shows the Existing plus Project conditions will range from 41.0 to 76.6 dBA CNEL. Table 8-7 shows that the Project off-site traffic noise level increases will range from 0.0 to 8.2 dBA CNEL.

Based on the significance criteria for off-site traffic noise presented in subsection 4.2, land uses adjacent to the roadway segment of Gamble Avenue south of Iris Avenue would experience significant noise level increases due to unmitigated Project-related traffic noise levels. However, the data presented in Table 8-2 shows that with the addition of Project traffic, sensitive receptors along this roadway segment only would be exposed to traffic-related noise of 52.6 dBA. As indicated in Table N-1 of the General Plan Noise Element, residential uses are considered "Normally Acceptable" at noise levels up to 60 dBA CNEL; thus, the Project's traffic-related noise increases along this segment of Gamble Avenue would not expose nearby sensitive receptors to a substantial permanent increase in noise levels. In addition, it should be noted that the "No Project" noise levels presented in Table 8-1 show lower noise levels along Gamble Avenue than the noise measurements that were collected by Urban Crossroads. As previously shown in Table 5-1, the existing noise measurements collected by Urban Crossroads near the intersection of Iris Avenue and Gamble Avenue (Location L5) shows an existing ambient noise level of 58.9 dBA Leq during daytime hours and 56.1 dBA Leq during nighttime hours, whereas the data presented in Table 8-1 shows that traffic-related noise along this segment of Gamble without the addition of Project traffic would be 44.4 dBA. Thus, if the analysis were to assume the actual measured ambient noise levels in estimating Project-related traffic noise increases, noise increases due to Project traffic along this roadway segment would be less than 1 dBA, which would be below the significance criteria. Furthermore, the scenario in which Project traffic is added to existing traffic volumes would not actually occur, as Phase 1 of the Project would not be fully constructed and operated until November 2025, while the "Existing" conditions evaluated in the NIA reflects existing traffic as of May 2022, when traffic count data was collected. Thus, this scenario is provided for information purposes only in order to fully analyze all of the traffic scenarios identified in the Project's Traffic Study. Finally, and as shown in Table 8-8 and discussed below, under EAPC 2027 conditions the Project would not result in any noise increases along this segment of Gamble Avenue. Accordingly, and for the reasons noted above, Project-related traffic increases under Existing plus Project conditions would be less than significant.

# 8.3 EAPC (2027) TRAFFIC NOISE LEVEL INCREASES

Table 8-3 presents the EAPC Year 2027 without Project conditions CNEL noise levels. The EAPC Year 2027 without Project exterior noise levels are expected to range from 41.5 to 77.0 dBA CNEL, without accounting for any noise attenuation features such as noise barriers or topography. Table 8-4 shows the EAPC Year 2027 with Project conditions will range from 41.0 to 77.8 dBA CNEL. Table 8-8 shows that the Project off-site traffic noise level increases will range from -0.5 to 0.8 dBA CNEL. The decreases in noise levels shown in Table 8-3 are due to other projects and improvements redirecting project and regional traffic. Based on the significance criteria for off-



site traffic noise presented in Section 4.2, land uses adjacent to the study area roadway segments would experience *less than significant* noise level increases due to unmitigated Project-related traffic noise levels.

## 8.4 HORIZON (2045) TRAFFIC NOISE LEVEL INCREASES

Table 8-5 presents the Horizon Year 2045 without Project conditions CNEL noise levels. The Horizon Year 2045 without Project exterior noise levels are expected to range from 41.5 to 78.4 dBA CNEL, without accounting for any noise attenuation features such as noise barriers or topography. Table 8-6 shows the Horizon Year 2045 with Project conditions will range from 41.0 to 78.6 dBA CNEL. Table 8-9 shows that the Project off-site traffic noise level increases will range from -0.5 to 6.1 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 of Gamble Avenue south of Iris Avenue (Segment #8) would experience significant noise level increases due to unmitigated Project-related traffic noise level increases. Traffic noise increases along all other segments would be less than significant. Although Project-related traffic noise increases would exceed the identified threshold of significance, the data presented in Table 8-6 shows that with the addition of Project traffic, sensitive receptors along this roadway segment only would be exposed to traffic-related noise of 53.1 dBA. As indicated in Table N-1 of the General Plan Noise Element, residential uses are considered "Normally Acceptable" at noise levels up to 60 dBA CNEL; thus, the Project's trafficrelated noise increases along this segment of Gamble Avenue would not expose nearby sensitive receptors to a substantial permanent increase in noise levels. In addition, it should be noted that the "No Project" noise levels presented in Table 8-5 show lower noise levels along Gamble Avenue than the noise measurements that were collected by Urban Crossroads. As previously shown in Table 5-1, the existing noise measurements collected by Urban Crossroads near the intersection of Iris Avenue and Gamble Avenue (Location L5) shows an existing ambient noise level of 58.9 dBA Leg during daytime hours and 56.1 dBA Leg during nighttime hours, whereas the data presented in Table 8-5 shows that traffic-related noise along this segment of Gamble without the addition of Project traffic only would be 47.0 dBA. Thus, if the analysis were to assume the actual measured ambient noise levels in estimating Project-related traffic noise increases, noise increases due to Project traffic along this roadway segment would be less than 1 dBA, which would be below the significance criteria. Therefore, Project-related traffic noise increases under Horizon Year 2045 conditions would be less than significant. (Urban Crossroads, 2023d, p. 50)



п	Poad	Road     Segment     CNEL at Receiving       Land Use (dBA) <sup>2</sup>		/ing A) <sup>2</sup>	Noise- Sensitive	Incremental Noise Level Increase Threshold <sup>3</sup>			
	Noau	Segment	Land Use <sup>1</sup>	No Project	With Project	Project Addition	Land Use?	Limit	Exceeded?
1	Van Buren Bl.	n/o Victoria Av.	Sensitive	71.0	71.1	0.1	Yes	1.5	No
2	Van Buren Bl.	s/o Victoria Av.	Sensitive	74.2	74.3	0.1	Yes	1.5	No
3	Mockingbird Canyon Rd.	s/o Van Buren Bl.	Sensitive	74.8	74.9	0.1	Yes	1.5	No
4	Washington St.	n/o Van Buren Bl.	Sensitive	76.6	76.6	0.0	Yes	1.5	No
5	Washington St.	s/o Van Buren Bl.	Sensitive	72.3	72.4	0.0	Yes	1.5	No
6	Chicago Av./Alta Cresta Av.	n/o Van Buren Bl.	Sensitive	54.2	58.0	3.8	Yes	5.0	No
7	Chicago Av./Alta Cresta Av.	s/o Van Buren Bl.	Sensitive	58.2	58.4	0.2	Yes	5.0	No
8	Gamble Av.	s/o Iris Av.	Sensitive	44.4	52.6	8.2	Yes	5.0	Yes
9	Wood Rd.	n/o Van Buren Bl.	Sensitive	67.4	67.4	0.1	Yes	1.5	No
10	Wood Rd.	s/o Van Buren Bl.	Sensitive	68.7	68.7	0.1	Yes	1.5	No
11	Trautwein Rd./Cole Av.	n/o Van Buren Bl.	Sensitive	72.9	72.9	0.0	Yes	1.5	No
12	Trautwein Rd./Cole Av.	s/o Van Buren Bl.	Sensitive	70.8	70.8	0.0	Yes	1.5	No
13	Victoria Av.	w/o Van Buren Bl.	Sensitive	70.5	70.6	0.0	Yes	1.5	No
14	Victoria Av.	e/o Van Buren Bl.	Non-Sensitive	66.9	67.0	0.1	Yes	1.5	No
15	Van Buren Bl.	w/o Washington St.	Non-Sensitive	71.8	71.9	0.1	Yes	1.5	No
16	Van Buren Bl.	e/o Washington St.	Non-Sensitive	72.7	72.9	0.1	Yes	1.5	No
17	Van Buren Bl.	w/o Chicago Av./Alta Cresta Av.	Sensitive	72.7	72.8	0.0	Yes	1.5	No
18	Van Buren Bl.	e/o Chicago Av./Alta Cresta Av.	Sensitive	72.5	72.7	0.1	Yes	1.5	No
19	Van Buren Bl.	e/o Wood Rd.	Non-Sensitive	72.3	72.4	0.1	Yes	1.5	No
20	Van Buren Bl.	e/o Trautwein Rd./Cole Av.	Sensitive	71.9	72.0	0.1	Yes	1.5	No
21	Iris Av.	w/o Gamble Av.	Sensitive	41.0	41.0	0.0	Yes	5.0	No
22	Iris Av.	w/o Chicago Av./Alta Cresta Av.	Sensitive	48.0	51.6	3.5	Yes	5.0	No
23	Iris Av.	e/o Chicago Av./Alta Cresta Av.	Sensitive	47.4	47.4	0.0	Yes	5.0	No

#### TABLE 8-7: EXISTING WITH PROJECT TRAFFIC NOISE INCREASES

<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 receiving land use.

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

ID	Road	Segment	Receiving	CNEL at Receiving Land Use (dBA) <sup>2</sup>			Noise- Sensitive	Increme Level I Thre	Incremental Noise Level Increase Threshold <sup>3</sup>	
			Land Ose-	No Project	With Project	Project Addition	Use?	Limit	Exceeded?	
1	Van Buren Bl.	n/o Victoria Av.	Sensitive	71.5	71.5	0.0	Yes	1.5	No	
2	Van Buren Bl.	s/o Victoria Av.	Sensitive	74.7	75.0	0.3	Yes	1.5	No	
3	Mockingbird Canyon Rd.	s/o Van Buren Bl.	Sensitive	75.3	75.8	0.5	Yes	1.5	No	
4	Washington St.	n/o Van Buren Bl.	Sensitive	77.0	77.8	0.8	Yes	1.5	No	
5	Washington St.	s/o Van Buren Bl.	Sensitive	72.8	73.1	0.3	Yes	1.5	No	
6	Chicago Av./Alta Cresta Av.	n/o Van Buren Bl.	Sensitive	58.1	58.0	-0.1	Yes	5.0	No	
7	Chicago Av./Alta Cresta Av.	s/o Van Buren Bl.	Sensitive	58.8	58.8	0.0	Yes	5.0	No	
8	Gamble Av.	s/o Iris Av.	Sensitive	53.0	53.0	0.0	Yes	5.0	No	
9	Wood Rd.	n/o Van Buren Bl.	Sensitive	67.9	67.4	-0.5	Yes	1.5	No	
10	Wood Rd.	s/o Van Buren Bl.	Sensitive	69.2	69.2	0.0	Yes	1.5	No	
11	Trautwein Rd./Cole Av.	n/o Van Buren Bl.	Sensitive	73.3	72.9	-0.4	Yes	1.5	No	
12	Trautwein Rd./Cole Av.	s/o Van Buren Bl.	Sensitive	71.2	71.2	0.0	Yes	1.5	No	
13	Victoria Av.	w/o Van Buren Bl.	Sensitive	71.0	70.6	-0.4	Yes	1.5	No	
14	Victoria Av.	e/o Van Buren Bl.	Non-Sensitive	67.4	67.0	-0.4	No	n/a	No	
15	Van Buren Bl.	w/o Washington St.	Non-Sensitive	72.3	72.4	0.1	No	3.0	No	
16	Van Buren Bl.	e/o Washington St.	Non-Sensitive	73.3	73.4	0.1	No	3.0	No	
17	Van Buren Bl.	w/o Chicago Av./Alta Cresta Av.	Sensitive	73.2	72.8	-0.4	Yes	1.5	No	
18	Van Buren Bl.	e/o Chicago Av./Alta Cresta Av.	Sensitive	73.1	72.7	-0.4	Yes	1.5	No	
19	Van Buren Bl.	e/o Wood Rd.	Non-Sensitive	72.8	72.4	-0.4	No	3.0	No	
20	Van Buren Bl.	e/o Trautwein Rd./Cole Av.	Sensitive	72.4	72.0	-0.4	Yes	1.5	No	
21	Iris Av.	w/o Gamble Av.	Sensitive	41.5	41.0	-0.5	Yes	5.0	No	
22	Iris Av.	w/o Chicago Av./Alta Cresta Av.	Sensitive	51.8	51.6	-0.2	Yes	5.0	No	
23	Iris Av.	e/o Chicago Av./Alta Cresta Av.	Sensitive	47.9	47.4	-0.5	Yes	5.0	No	

### TABLE 8-8: EAPC 2027 WITH PROJECT TRAFFIC NOISE INCREASES

<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 receiving land use.

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

ID	Road	Segment	Receiving	CNEL at Receiving Land Use (dBA) <sup>2</sup>			Noise- Sensitive	Increme Level I Thre	ntal Noise Increase shold <sup>3</sup>
			Land Ose-	No Project	With Project	Project Addition	Use?	Limit	Exceeded?
1	Van Buren Bl.	n/o Victoria Av.	Sensitive	72.3	72.4	0.1	Yes	1.5	No
2	Van Buren Bl.	s/o Victoria Av.	Sensitive	75.3	75.4	0.1	Yes	1.5	No
3	Mockingbird Canyon Rd.	s/o Van Buren Bl.	Sensitive	76.1	76.1	0.0	Yes	1.5	No
4	Washington St.	n/o Van Buren Bl.	Sensitive	78.4	78.6	0.2	Yes	1.5	No
5	Washington St.	s/o Van Buren Bl.	Sensitive	73.5	73.5	0.0	Yes	1.5	No
6	Chicago Av./Alta Cresta Av.	n/o Van Buren Bl.	Sensitive	55.1	58.3	3.2	Yes	5.0	No
7	Chicago Av./Alta Cresta Av.	s/o Van Buren Bl.	Sensitive	59.1	59.2	0.1	Yes	5.0	No
8	Gamble Av.	s/o Iris Av.	Sensitive	47.0	53.1	6.1	Yes	5.0	Yes
9	Wood Rd.	n/o Van Buren Bl.	Sensitive	67.9	67.4	-0.5	Yes	1.5	No
10	Wood Rd.	s/o Van Buren Bl.	Sensitive	69.2	69.2	0.0	Yes	1.5	No
11	Trautwein Rd./Cole Av.	n/o Van Buren Bl.	Sensitive	73.3	72.9	-0.4	Yes	1.5	No
12	Trautwein Rd./Cole Av.	s/o Van Buren Bl.	Sensitive	71.2	71.2	0.0	Yes	1.5	No
13	Victoria Av.	w/o Van Buren Bl.	Sensitive	71.0	70.6	-0.4	Yes	1.5	No
14	Victoria Av.	e/o Van Buren Bl.	Non-Sensitive	67.4	67.0	-0.4	No	n/a	No
15	Van Buren Bl.	w/o Washington St.	Non-Sensitive	72.3	72.4	0.1	No	3.0	No
16	Van Buren Bl.	e/o Washington St.	Non-Sensitive	73.3	73.4	0.1	No	3.0	No
17	Van Buren Bl.	w/o Chicago Av./Alta Cresta Av.	Sensitive	73.2	72.8	-0.4	Yes	1.5	No
18	Van Buren Bl.	e/o Chicago Av./Alta Cresta Av.	Sensitive	73.1	72.7	-0.4	Yes	1.5	No
19	Van Buren Bl.	e/o Wood Rd.	Non-Sensitive	72.8	72.4	-0.4	No	3.0	No
20	Van Buren Bl.	e/o Trautwein Rd./Cole Av.	Sensitive	72.4	72.0	-0.4	Yes	1.5	No
21	Iris Av.	w/o Gamble Av.	Sensitive	41.5	41.0	-0.5	Yes	5.0	No
22	Iris Av.	w/o Chicago Av./Alta Cresta Av.	Sensitive	51.8	51.6	-0.2	Yes	5.0	No
23	Iris Av.	e/o Chicago Av./Alta Cresta Av.	Sensitive	47.9	47.4	-0.5	Yes	5.0	No

### TABLE 8-9: HORIZON 2045 WITH PROJECT TRAFFIC NOISE INCREASES

<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 receiving land use.

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

# 9 SENSITIVE 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 9-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. All distances are measured from the Project site boundary to the outdoor living areas (e.g., private backyards) or at the building façade, whichever is closer to the Project site. 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. 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 existing noise sensitive residence at 17795 Twin Lakes Drive., approximately 75 feet north of the Project site. Receiver R1 is placed in the private outdoor living area (backyard) facing the project site. 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 18019 Twin Lakes Drive, approximately 187 feet northeast of the Project site. Receiver R1 is placed in the private outdoor living area (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 15795 Cartwright Street, approximately 77 feet east of the Project site. Receiver R3 is placed in the private outdoor living area (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 existing noise sensitive residence at 17975 Iris Avenue, approximately 79 feet south of the Project site. Receiver R4 is placed in the private outdoor living area (front yard) facing the Project site. A 24-hour noise measurement was taken near this location, L4, to describe the existing ambient noise environment.
- R5: Location R5 represents the existing noise sensitive residence at 16015 Gamble Avenue, approximately 72 feet west of the Project site. Receiver R5 is placed in the private



outdoor living area (backyard) facing the Project site. A 24-hour noise measurement was taken near this location, L5, to describe the existing ambient noise environment.



**EXHIBIT 9-A: RECEIVER LOCATIONS** 



# **10 OPERATIONAL NOISE IMPACTS**

The Project has not been designed beyond lot lines at this stage of Project development. The proposed development is considered a noise-sensitive receiving land use and is not expected to include any specific type of operational noise levels beyond those typically associated with residential land uses in the Project study area, such as people and children, parking lot activity, garage doors, small air conditioners, and trash collection, and is considered a noise-sensitive receiving land use. However, to be conservative, this section analyzes the potential operational noise impacts resulting from the operation of air conditioning units associated with the Project, as shown on Exhibit 10-A.

## **10.1** OPERATIONAL NOISE SOURCES

The County of Riverside has set stationary-source hourly average L<sub>eq</sub> exterior noise limits to control air conditioning units associated with the development of the proposed Arroyo Vista. These air conditioning-related noises, as projected to any portion of any surrounding property containing a *habitable dwelling, hospital, school, library or nursing home*, must not exceed the following worst-case noise levels.

Policy N 4.1 of the County of Riverside General Plan Noise Element sets a stationary-source average  $L_{eq}$  exterior noise limit not to be exceeded for a cumulative period of more than ten minutes in any hour of 65 dBA  $L_{eq}$  for daytime hours of 7:00 a.m. to 10:00 p.m., and 45 dBA  $L_{eq}$  during the noise-sensitive nighttime hours of 10:00 p.m. to 7:00 a.m. (15)

The County of Riverside County Code Section 9.52.040 *General sound level standards* (included in Appendix 3.1) identify lower, more restrictive exterior noise level standards, which for the purpose of this report, are used to evaluate potential Project-related operational noise level limits instead of the higher the General Plan exterior noise level standards previously identified. The County of Riverside County Code identifies exterior noise level limits of 55 dBA L<sub>eq</sub> during the daytime hours of 7:00 a.m. to 10:00 p.m., and 45 dBA L<sub>eq</sub> during the noise-sensitive nighttime hours of 10:00 p.m. to 7:00 a.m. for most noise-sensitive uses. (16)

Based on several discussions with the County of Riverside Department of Environmental Health (DEH), Office of Industrial Hygiene (OIH), it is important to recognize that the County of Riverside County Code noise level standards, incorrectly identify maximum noise level (L<sub>max</sub>) standards that should instead reflect the average L<sub>eq</sub> noise levels. Moreover, the County of Riverside DEH OIH's April 15<sup>th</sup>, 2015, *Requirements for determining and mitigating, non-transportation noise source impacts to residential properties* also identifies operational (stationary-source) noise level limits using the L<sub>eq</sub> metric, consistent with the direction of the County of Riverside General Plan guidelines and standards provided in the Noise Element. Therefore, this report has been prepared consistent with direction of the County of Riverside DEH OIH guidelines and standards using the average L<sub>eq</sub> noise level metric for stationary-source (operational) noise level evaluation.





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

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Site Boundary 🔲 Roof-Top Air Conditioning Unit

# **10.2** REFERENCE NOISE LEVELS

To assess the noise levels created by the air conditioning units, reference noise levels from a Carrier model 25HBC5 were used as representative of the air conditioning units that could be used on the Project and have a range of capacity from 1.5 tons to 5 tons. According to the product data sheet a Carrier model 25HBC5, which produces a maximum sound power level of 76 dBA, see Appendix 10.1, as shown in Table 10-1.

While operating at full power air conditioners operate approximately 15-30 minutes out of an hour in multiple cycles during the nighttime as compared to the daytime where the units typically operate 20-40 minutes in multiple cycles, depending on the ambient temperature. For purposes of this analysis, it was assumed the air conditioners would operate 45 minutes out of an hour during the day and 30 minutes out of an hour at night. The acoustic center of each unit will be located three feet above ground elevation. As the final location of air conditioning units has not been finalized, the units were placed generally located in the side yard of each lot.

Noise Course	Noise Source	Min./Hour <sup>2</sup>		Reference Noise Level (dBA L <sub>eq</sub> )		Sound Power	
Noise Source	Height (Feet)	Day	Night	@ Ref. Dist.	@ 50 Feet	Level (dBA) <sup>6</sup>	
Air Conditioning Units <sup>1</sup>	3'	45	30	77.2	44.4	76.0	

TABLE 10-1: REFERENCE NOISE LEVELS

<sup>1</sup> Carrier 25HBC5 air conditioning unit, Appendix 10.1.

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

"Daytime" = 7:01 a.m. to 10:00 p.m.; "Nighttime" = 10:01 p.m. to 7:00 a.m.

# 10.3 CADNAA NOISE PREDICTION MODEL

To fully describe the exterior operational noise levels from the Project, Urban Crossroads, Inc. developed a noise prediction model using the CadnaA (Computer Aided Noise Abatement) computer program. CadnaA can analyze multiple types of noise sources using the spatially accurate Project site plan, georeferenced Nearmap aerial imagery, topography, buildings, and barriers in its calculations to predict outdoor noise levels. Using the ISO 9613-2 protocol, CadnaA will calculate the distance from each noise source to the noise receiver locations, using the ground absorption, distance, and barrier/building attenuation inputs to provide a summary of noise level at each receiver and the partial noise level contributions by noise source.

Consistent with the ISO 9613-2 protocol, the CadnaA noise prediction model relies on the reference sound power level ( $L_w$ ) to describe individual noise sources. While sound pressure levels (e.g.,  $L_{eq}$ ) quantify in decibels the intensity of given sound sources at a reference distance, sound power levels ( $L_w$ ) are connected to the sound source and are independent of distance. Sound pressure levels vary substantially with distance from the source and diminish because of intervening obstacles and barriers, air absorption, wind, and other factors. Sound power is the acoustical energy emitted by the sound source and is an absolute value that is not affected by the environment. The operational noise level calculations provided in this noise study account



for the distance attenuation provided due to geometric spreading, when sound from a localized stationary source (i.e., a point source) propagates uniformly outward in a spherical pattern. A default ground attenuation factor of 0.5 was used in the noise analysis to account for mixed ground representing a combination of hard and soft surfaces. Appendix 10.1 includes the detailed noise model inputs.

# **10.4 PROJECT OPERATIONAL NOISE LEVELS**

Using the reference noise levels to represent the proposed Project operations that include air condition units, Urban Crossroads, Inc. calculated the operational source noise levels that are expected to be generated at the Project site and the Project-related noise level increases that would be experienced at each of the sensitive receiver locations. Table 10-2 shows the Project operational noise levels during the daytime hours of 7:01 a.m. to 10:00 p.m. The daytime hourly noise levels at the off-site receiver locations are expected to range from 29.6 to 35.5 dBA L<sub>eq</sub>.

Noise Source1	Operational Noise Levels by Receiver Location (dBA $L_{eq}$ )							
Noise Source-	R1	R2	R3	R4	R5			
Air Conditioning Units	33.7	29.6	34.5	32.9	35.5			
Total (All Noise Sources)	33.7	29.6	34.5	32.9	35.5			

## TABLE 10-2: DAYTIME PROJECT OPERATIONAL NOISE LEVELS

<sup>1</sup> See Exhibit 10-A for the noise source locations. CadnaA noise model calculations are included in Appendix 10.2.

Table 10-3 shows the Project operational noise levels during the nighttime hours of 10:01 p.m. to 7:00 a.m. The nighttime hourly noise levels at the off-site receiver locations are expected to range from 26.8 to 32.8 dBA  $L_{eq}$ .

# TABLE 10-3: NIGHTTIME PROJECT OPERATIONAL NOISE LEVELS

Noise Source1	Operational Noise Levels by Receiver Location (dBA $L_{eq}$ )							
	R1	R2	R3	R4	R5			
Air Conditioning Units	31.0	26.8	31.8	30.2	32.8			
Total (All Noise Sources)	31.0	26.8	31.8	30.2	32.8			

<sup>1</sup> See Exhibit 10-A for the noise source locations. CadnaA noise model calculations are included in Appendix 10.2.

# 10.5 PROJECT OPERATIONAL NOISE LEVEL COMPLIANCE

To demonstrate compliance with local noise regulations, the Project-only operational noise levels are evaluated against exterior noise level thresholds based on the County of Riverside exterior noise level standards at nearby noise-sensitive receiver locations. Table 10-4 shows the operational noise levels associated with Arroyo Vista Project will not exceed the County of Riverside 55 dBA L<sub>eq</sub> daytime and 45 dBA L<sub>eq</sub> nighttime exterior noise level standards at all nearby receiver locations. Therefore, the operational noise impacts are considered *less than significant* at the nearby noise-sensitive receiver locations.



Receiver Location <sup>1</sup>	Project O Noise (dBA	perational Levels L <sub>eq</sub> ) <sup>2</sup>	Exterio Level St (dBA	or Noise andards A L <sub>eq</sub> ) <sup>3</sup>	Noise Standards	Level Exceeded? <sup>4</sup>
	Daytime	Nighttime	Daytime	Nighttime	Daytime	Nighttime
R1	33.7	31.0	55	45	No	No
R2	29.6	26.8	55	45	No	No
R3	34.5	31.8	55	45	No	No
R4	32.9	30.2	55	45	No	No
R5	35.5	32.8	55	45	No	No

TABLE 10-4: OPERATIONAL NOISE LEVEL COMPLIANCE

<sup>1</sup> See Exhibit 9-A for the receiver locations.

 $^{\rm 2}$  Proposed Project operational noise levels as shown on Tables 10-2 and 10-3.

<sup>3</sup> Exterior noise level standard for residential land use as shown on Table 4-1.

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

 $^{\scriptscriptstyle 5}$  Non-residential land use with no expected night time occupancy.

"Daytime" = 7:01 a.m. to 10:00 p.m.; "Nighttime" = 10:01 p.m. to 7:00 a.m.

### **10.6 PROJECT OPERATIONAL NOISE LEVEL INCREASES**

To describe the Project operational noise level increases, the Project operational noise levels are combined with the existing ambient noise levels measurements for the nearby receiver locations potentially impacted by Project operational noise sources. Since the units used to measure noise, decibels (dB), are logarithmic units, the Project-operational and existing ambient noise levels cannot be combined using standard arithmetic equations. (5) 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 10-5 and 10-6, respectively. As indicated on Table 10-5, the Project will generate a daytime operational noise level increases ranging from 0.0 to 0.4 dBA L<sub>eq</sub> at the nearest receiver locations. Table 10-6 shows that the Project will generate a nighttime operational noise level increases will satisfy the operational noise level increase significance criteria presented in Table 4-1, and the increases at the sensitive 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 Ambient⁵	Project Increase <sup>6</sup>	Increase Criteria <sup>7</sup>	Increase Criteria Exceeded?
R1	33.7	L1	46.3	46.5	0.2	5	No
R2	29.6	L2	51.0	51.0	0.0	5	No
R3	34.5	L3	44.6	45.0	0.4	5	No
R4	32.9	L4	55.0	55.0	0.0	5	No
R5	35.5	L5	55.0	55.0	0.0	5	No

TABLE 10-5: DAYTIME PROJECT OPERATIONAL NOISE LEVEL INCREASES

<sup>1</sup> See Exhibit 9-A for the receiver locations.

<sup>2</sup> Total Project daytime operational noise levels as shown on Table 10-2.

<sup>3</sup> Reference noise level measurement locations as shown on Exhibit 10-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 10-6: 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 Ambient⁵	Project Increase <sup>6</sup>	Increase Criteria <sup>7</sup>	Increase Criteria Exceeded?
R1	31.0	L1	42.4	42.7	0.3	5	No
R2	26.8	L2	46.8	46.8	0.0	5	No
R3	31.8	L3	42.3	42.7	0.4	5	No
R4	30.2	L4	53.0	53.0	0.0	5	No
R5	32.8	L5	48.2	48.3	0.1	5	No

<sup>1</sup> See Exhibit 9-A for the receiver locations.

<sup>2</sup> Total Project nighttime operational noise levels as shown on Table 10-3.

<sup>3</sup> Reference noise level measurement locations as shown on Exhibit 10-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.



# **11 CONSTRUCTION IMPACTS**

This section analyzes potential impacts resulting from the short-term construction activities associated with the development of the Project. Exhibits 11-A (General Construction), 11-B (Rock Crushing), and 11-C (Blasting) show the noise source locations in relation to the nearest sensitive receiver locations previously described in Section 9.

Section 9.52.020 of the County of Riverside Code, states that construction activities are exempted from the noise ordinance if located ¼ mile or greater from inhabited dwelling units; or if with a quarter mile, it occurs between the hours of 6:00 a.m. to 6:00 p.m. Monday through Friday from June 1<sup>st</sup> to September 30<sup>th</sup>, 7:00 a.m. to 6:00 p.m. Monday through Friday from October 1<sup>st</sup> to May 30<sup>th</sup>. In addition, since the County of Riverside has not established a 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 Leq as a reasonable threshold for noise sensitive residential land use. (17 p. 179)

# **11.1 CONSTRUCTION NOISE LEVELS**

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

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

# **11.2** CONSTRUCTION REFERENCE NOISE LEVELS

To describe construction noise activities, this construction noise analysis was prepared using reference construction equipment noise levels from the Federal Highway Administration (FHWA) published the Roadway Construction Noise Model (RCNM), which includes a national database of construction equipment reference noise emission levels. (1) 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. The reference noise level summary shown in Table 11-1 describes construction activity noise levels with multiple pieces of equipment operating simultaneously. Rock crushing and includes source noise levels for a hoe ram or breaker representing a percussion hammer fitted to an excavator for breaking rock and a rock crushing activity including jaw crushers, a cone crusher, screens, and a conveyor system (31).







EXHIBIT 11-A: CONSTRUCTION NOISE SOURCE AND RECEIVER LOCATIONS

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



EXHIBIT 11-B: ROCK CRUSHING ACTIVITY AND RECEIVER LOCATIONS

# LEGEND: N Preceiver Locations Rock Crushing





EXHIBIT 11-C: BLASTING ACTIVITY AND RECEIVER LOCATIONS

## LEGEND:

Receiver Locations → Distance from receiver to blasting location (in feet) Blasting Locations

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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> )	Reference Power Level (dBA L <sub>w</sub> )	
	Concrete Saw	83			
Demolition	Grapple (on backhoe)	83	86.8	118.4	
	Gradall	79			
<b>C</b> ''	Tractor	80			
Site	Backhoe	74	84.0	115.6	
reparation	Grader	81			
	Scraper	80			
Grading	Excavator	77	83.3	114.9	
	Dozer	78			
	Rock Crusher <sup>2</sup>	89			
Rock Crushing	Front End Loader	75	89.8	121.4	
	Hydra Break Ram	80			
<b>D</b> 1111	Crane	73			
Building	Generator	78	80.6	112.2	
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	
couting	Generator (<25kVA)	70			
	Blasting	94			
Blasting	Rock Drill	74	94.1	125.7	
	Front End Loader	75			

TABLE 11-1: CONSTRUCTION REFERENCE NOISE LEVELS

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

<sup>2</sup> University District Rock Crusher Conditional Use Permit, San Marcos

# **11.3 CONSTRUCTION NOISE ANALYSIS**

Using the reference construction equipment noise levels and the CadnaA noise prediction model, calculations of the Project construction noise level impacts at the nearby sensitive receiver locations were completed. To assess a reasonable worst-case construction scenario Project rock crushing is assumed to be conducted during site preparation and grading stages. However, this analysis conservatively combines rock crushing noise with all construction stages.

To account for the dynamic nature of construction activities, the Project construction noise analysis models the typical construction equipment as combination of the highest reference level as multiple moving points within the construction area (Project site boundary). Rock crushing



activity is modeled simultaneously with general construction activities as a stationary activity. Construction impacts are based on the highest noise level calculated at each receiver location. As shown on Table 11-2, the overall construction noise levels are expected to range from 48.6 to 61.3 dBA  $L_{eq}$ , and the highest construction levels are expected to range from 56.4 to 61.3 dBA  $L_{eq}$  at the nearby receiver locations. Appendix 11.1 includes the detailed CadnaA construction noise model inputs.

Receiver Location <sup>1</sup>		Construction Noise Levels (dBA L <sub>eq</sub> )												
	Site Preparation	Grading	Building Construction	Paving	Architectural Coating	Highest Levels <sup>2</sup>								
R1	61.3	60.6	57.9	55.2	53.5	61.3								
R2	56.4	55.7	53.0	50.3	48.6	56.4								
R3	60.3	59.6	56.9	54.2	52.5	60.3								
R4	59.3	58.6	55.9	53.2	51.5	59.3								
R5	60.4	59.7	57.0	54.3	52.6	60.4								

TABLE 11-2: CONSTRUCTION EQUIPMENT NOISE LEVEL SUMMARY

<sup>1</sup> Construction noise source and receiver locations are shown on Exhibits 11-A and 11-B.

<sup>2</sup> Construction noise level calculations based on distance from the project site boundaries (construction activity area) to nearby receiver locations. CadnaA construction noise model inputs are included in Appendix 11.1.

### **11.4 CONSTRUCTION NOISE LEVEL COMPLIANCE**

To evaluate whether the Project will generate potentially significant short-term noise levels at 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 satisfy the reasonable daytime 80 dBA  $L_{eq}$  significance threshold during Project construction activities as shown on Table 11-3. Therefore, the noise impacts due to Project construction noise are considered *less than significant* at all receiver locations.

Dession	Construction Noise Levels (dBA L <sub>eq</sub> )								
Location <sup>1</sup>	Highest Construction Noise Levels <sup>2</sup>	Threshold <sup>3</sup>	Threshold Exceeded? <sup>4</sup>						
R1	61.3	80	No						
R2	56.4	80	No						
R3	60.3	80	No						
R4	59.3	80	No						
R5	60.4	80	No						

TABLE 11-3: CONSTRUCTION NOISE LEVEL COMPLIANCE

<sup>1</sup>Noise receiver locations are shown on Exhibits 11-A and 11-B.

<sup>2</sup> Highest construction noise level operating at the Project site boundary to nearby receiver locations (Table 11-2).

<sup>3</sup> Federal Transit Administration, Transit Noise and Vibration Impact Assessment Manual.

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



# **11.5 CONSTRUCTION VIBRATION IMPACTS**

Construction activity can result in varying degrees of ground vibration, depending on the equipment and methods used, distance to the affected structures and soil type. It is expected that ground-borne vibration from Project construction activities would cause only intermittent, localized intrusion. Ground-borne vibration levels resulting from typical construction activities occurring within the Project site were estimated by data published by the Federal Transit Administration (FTA). (17) Ground vibration levels associated with various types of construction equipment are summarized on Table 11-4. Based on the representative vibration levels presented for various construction equipment types, it is possible to estimate the potential Project construction vibration levels using the following vibration assessment methods defined by the Caltrans. To calculate the vibration of equipment at distance Caltrans provides the following equation:  $PPV_{equip} = PPV_{ref} \times (25/D)^{1.1}$ 

Equipment	PPV (in/sec) at 25 feet
Small bulldozer	0.003
Crane	0.008
Jackhammer	0.035
Loaded Trucks	0.076
Large bulldozer	0.089

### TABLE 11-4: VIBRATION SOURCE LEVELS FOR CONSTRUCTION EQUIPMENT

Caltrans, Transportation and Construction Vibration Guidance Manual, 2020.

Using the vibration source level of construction equipment provided on Table 11-4 and the construction vibration assessment methodology published by the FTA, it is possible to estimate the Project vibration impacts. Table 11-5 presents the expected Project related vibration levels at the nearby receiver locations. At distances ranging from 72 to 187 feet from Project construction activities, construction vibration velocity levels are estimated to range from less than 0.01 to 0.02 in/sec PPV and will not exceed the County of Riverside threshold of 0.04 in/sec PPV at off-site receivers, as shown on Table 11-5. Therefore, the Project-related vibration impacts are considered *less than significant*.



Receiver Location <sup>1</sup>	Distance to Const.		Typical	Thresholds	Thresholds				
	Activity (Feet) <sup>2</sup>	Small bulldozer	Crane	Jack- hammer	Loaded Trucks	Large Bulldozer	Highest Vibration Level	PPV (in/sec)⁴	Exceeded? <sup>5</sup>
R1	75'	0.00	0.00	0.01	0.01	0.02	0.02	0.04	No
R2	187'	0.00	0.00	0.00	0.00	0.00	0.00	0.04	No
R3	77'	0.00	0.00	0.01	0.01	0.02	0.02	0.04	No
R4	79'	0.00	0.00	0.01	0.01	0.02	0.02	0.04	No
R5	72'	0.00	0.00	0.01	0.02	0.02	0.02	0.04	No

TABLE 11-5: PROJECT CONSTRUCTION VIBRATION LEVELS – UNMITIGATED

<sup>1</sup> Construction receiver locations are shown on Exhibits 11-A and 11-B.

<sup>2</sup> Distance from receiver location to Project construction boundary.

<sup>3</sup> Based on the Vibration Source Levels of Construction Equipment (Table 11-4).

<sup>4</sup> County of Riverside General Plan.

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

"PPV" = Peak Particle Velocity

### **11.6 BLASTING NOISE ANALYSIS**

A blasting contractor would be required to complete all blasting-related activities in compliance with applicable regulations of the Riverside County Sheriff's Department, the U.S. Bureau of Mines, the California Division of Occupational Safety and Health (Cal-OHSA), the Department of Homeland Security, and the Bureau of Alcohol, Tobacco, Firearms, and Explosives (ATF). As required by law a licensed blasting contractor would be responsible for performing and supervising all blasting activities, including the following:

- Drill pattern design;
- Pre-blast inspection;
- Loading of explosives;
- Pre-blast notifications and warning signaling;
- Blasting safety procedures;
- Blasting site security;
- Post-blast inspections and re-entry procedures; and
- Blast log and history.

Explosives used for blasting usually consist of a primer, secondary explosive, and an initiator. The blasting contractor would most likely use a high explosive Ammonia Gelatin as a primer for each shot and ammonium nitrate mixed with fuel oil (ANFO) as the primary blasting agent. Nonelectric blasting caps are typically used to initiate the blasting agent. The charges are time delayed by at least 8-milliseconds. Delays between charges are used to decouple changes and reduce vibration.

Pattern blasting is a common technique used in blasting for construction. This method is used when rock materials occur over a wide area. Pattern blasting involves drilling holes in a pre-



designed pattern. The depth and spacing of holes is controlled to provide the maximum fracture with the minimum amount of ground shaking.

Blasting patterns typically consist of drill holes between two and five inches in diameter. Depth of the drill holes would be determined by the blasting contractor and is specific to each application. Blasting patterns on construction sites typically range from three feet by three feet to 12 feet by 12 feet.

The Blasting Engineer would control blasting-induced vibration and noise. General control measures include:

- Stemming shall be of uniform size in order to ensure consistency between individual shots;
- The weight of explosives used per delay shall be determined by adherence to the Scaled Distance Equation;
- Independent delays shall be used for each blast hole to control vibration; and
- Blasting shall not take place when wind velocity equals or exceeds 15 miles per hour. A licensed blasting contractor will determine wind speed through the use of a recording anemometer located a minimum of ten feet above ground level.

In addition, ground vibrations and air overpressure shall be monitored during each blast for compliance with the limits by the U.S. Bureau of Mines. Following each blast, seismographs shall be checked to ensure that the blasting has not exceeded relevant standards. The relevant standards are as follows:

- Pursuant to 30 CFR Ch. VII, §816.67(b)(1)(i) of U.S. Bureau of Mines publication RI8485, airblasts shall not exceed 133 dB at the location of any dwelling, public building, school, church, or community or institutional building outside the permit area.
- Pursuant to 30 CFR Ch. VII, §816.67(d)(2)(i) of U.S. Bureau of Mines publication RI8508, the maximum ground vibration shall not exceed the limits in said section at the location of any dwelling, public building, school, church, or community or institutional building outside the permit area.

To evaluate the potential noise levels from blasting activities during Project construction, the Federal Highway Administration (FHWA) Roadway Construction Noise Model (RCNM) reference noise level of 94 dBA L<sub>max</sub> is used at a reference distance of 50 feet. (1) Each blast represents a point-source of noise which attenuates at a rate of 6 dB for each doubling of distance from the source. The closest residential homes to the Project construction area are represented by receiver location R1 at a distance of 136 feet. With the distance attenuation from the closest blasting activities, the unmitigated noise levels at nearby receiver locations would range from approximately 70.2 dBA L<sub>max</sub> based on the RCNM reference noise level, as shown in Table 11-6. However, since the type of blasting techniques planned within the Project site were unknown at the time of this analysis, the noise levels presented at the nearby sensitive receiver locations represent the worst-case conditions based on the RCNM reference noise level.

The County of Riverside General Plan and County Code of Ordinances do not identify specific construction noise level limits for blasting activities. Therefore, the OSMRE and CFR lowest maximum Airblast Limit (30 CFR 816.67(b)) of 129 dBA L<sub>max</sub> at nearby sensitive uses is used in this



analysis as discussed in Section 3.7. (2) Based on the reference blasting noise level, the closest residential receiver will experience noise levels approaching 70.2 dBA  $L_{max}$  over the course of the blast, which will likely occur for only a few seconds. While some blasting noise may be noticeable by nearby residents, the single-event, temporary noise levels generated by the blast will not exceed the OSMRE and the CFR standards for airblasts. Therefore, the noise levels due to blasting activities will result in a *less than significant* noise impact.

Receiver Location	Distance To Construction Activity (Feet) <sup>2</sup>	Construction Noise Level (dBA L <sub>max</sub> )
R1	705'	61.1
R2	1,319'	57.1
R3	740'	62.4
R4	136'	70.2
R5	753'	61.8

TABLE 11-6:	BLASTING CONSTRUCTION NOISE LEVELS

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

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

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

# **11.7 BLASTING VIBRATION IMPACTS**

Blasting operations can have unacceptable noise and vibration impacts if not conducted correctly. Excessive levels of structural vibration due to ground vibration from blasting can cause substantial damage to structures. A blasting contractor would be required to complete all blasting-related activities in compliance with applicable regulations of the Riverside County Sheriff's Department, the U.S. Bureau of Mines, the California Division of Occupational Safety and Health (Cal-OHSA), the Department of Homeland Security, and the Bureau of Alcohol, Tobacco, Firearms, and Explosives (ATF), which have many requirements for the safe handling, use, and storage of explosives and recommend various measures and controls, including, but not limited to monitoring and reporting of each blast to verify no damage has occurred at nearby structures, notifications to surrounding neighbors, limitations on the amounts and times blast may occur.

Detonating as little as 25 pounds of explosives may be perceived up to 500 feet from a charge. Therefore, without vibration controls and measures, blasting could exceed thresholds at the areas near existing residential homes surrounding the Project site, shown on Exhibit 11-C. Noise-1 would mitigate potential vibration impacts. With the implementation of the identified vibration controls blasting activities at sensitive receivers would be *less than significant*.

### 11.7.1 BLASTING VIBRATION MITIGATION MEASURES

The following practices would reduce any vibration level impacts produced by the proposed blasting activities at the nearby noise-sensitive residential land uses:



### MM Noise-1: Blasting Limitations

Prior to approval of any grading permits that require blasting activities and a blasting permit, the Project Applicant shall prepare and submit for County review and approval of a Blasting Noise and Vibration Monitoring and Abatement Plan ("Noise and Vibration Abatement Plan"). The required Noise and Vibration Abatement Plan shall include the name and gualifications of the person(s) responsible for monitoring and reporting blast vibrations. In addition, the Noise and Vibration Abatement Plan shall require a minimum of three seismographs for monitoring peak ground vibration and air-overpressure. The Noise and Vibration Abatement Plan also shall require that equipment and its use shall conform fully to the standards developed by the Vibration Section of the International Society of Explosive Engineers (ISEE). For all blasts, the Noise and Vibration Abatement Plan shall require monitoring of ground motion and air-overpressure at the nearest residential properties or other structure of concern. The Noise and Vibration Abatement Plan also shall specify a minimum trigger level for monitoring of 0.05 in/s for ground motion and 120 dB for air-overpressure. Additionally, the Noise and Vibration Abatement Plan shall require regular reporting of blasting and measurements to Riverside County, and shall include a copy of the instrument/software-generated blast monitoring report at each instrument location that includes measured peak particle velocity in inches per second, peak air-overpressure in linearscale decibels, and vibration and air-overpressure event plots, with date and time of event recording. In addition, the Noise and Vibration Abatement Plan shall include the following requirements:

- Prior to commencement of any blasting, a pre-blast survey of the conditions of all existing property and aboveground utilities located within 300 feet of any potential blasting areas shall be conducted. The pre-blast survey shall include a photographic record of all visible and accessible structures, facilities, utilities, or other improvements. The survey shall document the interior and exterior conditions of all residential property and associated structures located within 500 feet of blasting areas. If property owners refuse surveys, provide copies of certified-mail letters documenting attempts to provide the survey by a third-party professional survey company. The required surveys shall include a description of the interior and exterior condition of the various structures examined. Descriptions shall include the locations of any cracks, damage, or other existing defects and shall include information needed to identify and describe the defect, if any, and to evaluate the construction operations on the defect. Survey records shall include photos of all cracks and other damaged, weathered, or otherwise deteriorated structural conditions. If necessary, macro lenses and flash illumination shall be used to ensure defects are shown clearly in the photographs. Photos shall contain an accurate date stamp. No blasting shall occur prior to completion of surveys of surrounding residential properties. Surveys also shall be repeated at facilities or properties where damage concerns have been expressed by individual residents, property owners, or other concerned parties. Details of any observed changes to surveyed structures and documenting photos shall be reported and submitted to Riverside County.
- Blasting only shall be allowed Monday through Friday only between the hours of 8:00 a.m. and 5:00 p.m.
- No blasting shall occur closer than 100 feet from residential structures. In the event that nonrippable materials are encountered within 100 feet from any residential structure, alternative methods shall be employed to reduce blasting-related noise and vibration impacts. Alternative rock blasting within 100 feet of residential homes may include methods such as the drilling of



holes in the largest area of rock, inserting expansive grout or small charges into each whole to fragment the rock into smaller pieces, and then crushing the pieces for transport or other use.

- No more than a total of 2,000 pounds of explosive shall be detonated each day, excluding detonators.
- All blasts located within 500 feet of any structures or above ground utilities shall be covered with woven steel cable or steel-cable and rubber-tire blasting mats with a minimum weight of 30 pounds per square foot. Woven polypropylene or similar weed-barrier fabric, covered with at least 6 inches of soil or sand shall be placed over blast areas to protect initiators before mats are placed. Mats shall be overlapped at least 3 feet and shall completely cover the blast area and extend at least three feet beyond the blast area in all directions. If any flyrock or blasted material is thrown more than 10 feet or half the distance to the nearest structure, whichever is less, blasting shall be suspended until the County's has approved a revised blasting plan showing revisions to assure adequate ground movement control.
- Before blasts are covered, all loose soils above the blast shall be removed where feasible. Remaining ground located within 20 feet of the blast shall be thoroughly wetted with water to suppress airborne dust. Sand or soils placed over weed-barrier fabric shall be similarly wetted before placing blast mats.
- If specified vibration limits are exceeded, blasting operations shall cease immediately and a revised blasting plan shall be submitted to the County. Blasting shall not resume until a revised blasting plan has been reviewed and the Contractor has expressed in writing the conditions that will be applied to further blasting work.

Project grading and blasting contractors shall be required to ensure compliance with the Noise and Vibration Abatement Plan requirements and shall permit periodic inspection of the construction site by County of Riverside staff or its designee to confirm compliance. The requirements of the Noise and Vibration Abatement Plan also shall be specified in bid documents issued to prospective construction contractors. Riverside County shall review all monitoring reports to ensure compliance with the Noise and Vibration Abatement Plan, and shall have the authority to stop all blasting activities on site if it is determined that blasting activities are not being conducted in conformance with Noise and Vibration Abatement Plan and/or the abovelisted requirements.



# **12 REFERENCES**

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# **13 CERTIFICATION**

The contents of this noise study report represent an accurate depiction of the noise environment and impacts associated with the proposed Arroyo Vista 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 (619) 788-1971.

William Maddux Senior Associate URBAN CROSSROADS, INC. (619) 788-1971 bmaddux@urbanxroads.com

# EDUCATION

Bachelor of Science in Urban and Regional Planning California Polytechnic State University, Pomona • June 2000

# **PROFESSIONAL AFFILIATIONS**

ASA – Acoustical Society of America APA – American Planning Association AWMA – Air and Waste Management Association

# **PROFESSIONAL CERTIFICATIONS**

Approved Acoustical Consultant • County of San Diego FHWA Traffic Noise Model of Training • November 2004 CadnaA Basic and Advanced Training Certificate • October 2008.





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APPENDIX 3.1:

COUNTY OF RIVERSIDE OFFICE OF INDUSTRIAL HYGIENE NOISE STUDY REQUIREMENTS



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### Chapter 9.52 - NOISE REGULATION

### Sections:

#### 9.52.010 - Intent.

At certain levels, sound becomes noise and may jeopardize the health, safety or general welfare of Riverside County residents and degrade their quality of life. Pursuant to its police power, the board of supervisors declares that noise shall be regulated in the manner described in this chapter. This chapter is intended to establish county-wide standards regulating noise. This chapter is not intended to establish thresholds of significance for the purpose of any analysis required by the California Environmental Quality Act and no such thresholds are established.

### (Ord. 847 § 1, 2006)

### 9.52.020 - Exemptions.

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

- A. Facilities owned or operated by or for a governmental agency;
- B. Capital improvement projects of a governmental agency;
- C. The maintenance or repair of public properties;
- D. Public safety personnel in the course of executing their official duties, including, but not limited to, sworn peace officers, emergency personnel and public utility personnel. This exemption includes, without limitation, sound emanating from all equipment used by such personnel, whether stationary or mobile;
- E. Public or private schools and school-sponsored activities;
- F. Agricultural operations on land designated "Agriculture" in the Riverside County general plan, or land zoned A-I (light agriculture), A-P (light agriculture with poultry), A-2 (heavy agriculture), A-D (agriculture-dairy) or C/V (citrus/vineyard), provided such operations are carried out in a manner consistent with accepted industry standards. This exemption includes, without limitation, sound emanating from all equipment used during such operations, whether stationary or mobile;
- G. Wind energy conversion systems (WECS), provided such systems comply with the WECS noise provisions of Riverside County Ordinance No. 348;
- H. Private construction projects located one-quarter of a mile or more from an inhabited dwelling;
- I. Private construction projects located within one-quarter of a mile from an inhabited dwelling,

provided that:

- 1. Construction does not occur between the hours of six p.m. and six a.m. during the months of June through September, and
- 2. Construction does not occur between the hours of six p.m. and seven a.m. during the months of October through May;
- J. Property maintenance, including, but not limited to, the operation of lawnmowers, leaf blowers, etc., provided such maintenance occurs between the hours of seven a.m. and eight p.m.;
- K. Motor vehicles, other than off-highway vehicles. This exemption does not include sound emanating from motor vehicle sound systems;
- L. Heating and air conditioning equipment;
- M. Safety, warning and alarm devices, including, but not limited to, house and car alarms, and other warning devices that are designed to protect the public health, safety, and welfare;
- N. The discharge of firearms consistent with all state laws.

(Ord. 847 § 2, 2006)

9.52.030 - Definitions.

As used in this chapter, the following terms shall have the following meanings:

"Audio equipment" means a television, stereo, radio, tape player, compact disc player, mp3 player, I-POD or other similar device.

"Decibel (dB)" means a unit for measuring the relative amplitude of a sound equal approximately to the smallest difference normally detectable by the human ear, the range of which includes approximately one hundred thirty (130) decibels on a scale beginning with zero decibels for the faintest detectable sound. Decibels are measured with a sound level meter using different methodologies as defined below:

- 1. "A-weighting (dBA)" means the standard A-weighted frequency response of a sound level meter, which de-emphasizes low and high frequencies of sound in a manner similar to the human ear for moderate sounds.
- 2. "Maximum sound level (L  $_{max}$ )" means the maximum sound level measured on a sound level meter.

"Governmental agency" means the United States, the state of California, Riverside County, any city within Riverside County, any special district within Riverside County or any combination of these agencies.

"Land use permit" means a discretionary permit issued by Riverside County pursuant to Riverside County Ordinance No. 348. "Motor vehicle" means a vehicle that is self-propelled.

"Motor vehicle sound system" means a stereo, radio, tape player, compact disc player, mp3 player, I-POD or other similar device.

"Noise" means any loud, discordant or disagreeable sound.

"Occupied property" means property upon which is located a residence, business or industrial or manufacturing use.

"Off-highway vehicle" means a motor vehicle designed to travel over any terrain.

"Public or private school" means an institution conducting academic instruction at the preschool, elementary school, junior high school, high school, or college level.

"Public property" means property owned by a governmental agency or held open to the public, including, but not limited to, parks, streets, sidewalks, and alleys.

"Sensitive receptor" means a land use that is identified as sensitive to noise in the noise element of the Riverside County general plan, including, but not limited to, residences, schools, hospitals, churches, rest homes, cemeteries or public libraries.

"Sound-amplifying equipment" means a loudspeaker, microphone, megaphone or other similar device.

"Sound level meter" means an instrument meeting the standards of the American National Standards Institute for Type 1 or Type 2 sound level meters or an instrument that provides equivalent data.

(Ord. 847 § 3, 2006)

9.52.040 - General sound level standards.

No person shall create any sound, or allow the creation of any sound, on any property that causes the exterior sound level on any other occupied property to exceed the sound level standards set forth in Table 1.

### TABLE 1

### Sound Level Standards (Db L<sub>max</sub>)

GENERAL	GENERAL PLAN	GENERAL PLAN LAND	DENSITY	MAXIMUN	1 DECIBEL
PLAN	LAND USE	USE DESIGNATION		LEVEL	
FOUNDATION	DESIGNATION	NAME			
COMPONENT				7 am—	10 pm—
				10 pm	7 am

Community Development	EDR	Estate Density Residential	2 AC	55	45
	VLDR	Very Low Density Residential	1 AC	55	45
	LDR	Low Density Residential	1/2 AC	55	45
	MDR	Medium Density Residential	2—5	55	45
	MHDR	Medium High Density Residential	5—8	55	45
	HDR	High Density Residential	8—14	55	45
	VHDR	Very High Density Residential	14—20	55	45
	H'TDR	Highest Density Residential	20+	55	45
	CR	Retail Commercial		65	55
	СО	Office Commercial		65	55
	СТ	Tourist Commercial		65	55
	СС	Community Center		65	55
	LI Light Industrial			75	55
	НІ	Heavy Industrial		75	75

	BP	Business Park		65	45
	PF	Public Facility		65	45
	SP	Specific Plan- Residential		55	45
		Specific Plan- Commercial		65	55
		Specific Plan-Light Industrial		75	55
		Specific Plan-Heavy Industrial		75	75
Rural Community	EDR	Estate Density Residential	2 AC	55	45
	VLDR	Very Low Density Residential	1 AC	55	45
	LDR	Low Density Residential	1/2 AC	55	45
Rural	RR	Rural Residential	5 AC	45	45
	RM	Rural Mountainous	10 AC	45	45
	RD	Rural Desert	10 AC	45	45
Agriculture	AG	Agriculture	10 AC	45	45
Open Space	С	Conservation		45	45
	СН	Conservation Habitat		45	45

Riverside County, CA Code of Ordinances

REC	Recreation		45	45
RUR	Rural	20 AC	45	45
W	Watershed		45	45
MR	Mineral Resources		75	45

(Ord. 847 § 4, 2006)

9.52.050 - Sound level measurement methodology.

Sound level measurements may be made anywhere within the boundaries of an occupied property. The actual location of a sound level measurement shall be at the discretion of the enforcement officials identified in <u>Section 9.52.080</u> of this chapter. Sound level measurements shall be made with a sound level meter. Immediately before a measurement is made, the sound level meter shall be calibrated utilizing an acoustical calibrator meeting the standards of the American National Standards Institute. Following a sound level measurement, the calibration of the sound level meter shall be re-verified. Sound level meters and calibration equipment shall be certified annually.

(Ord. 847 § 5, 2006)

9.52.060 - Special sound sources standards.

The general sound level standards set forth in <u>Section 9.52.040</u> of this chapter apply to sound emanating from all sources, including the following special sound sources, and the person creating, or allowing the creation of, the sound is subject to the requirements of that section. The following special sound sources are also subject to the following additional standards, the failure to comply with which constitutes separate violations of this chapter:

- A. Motor Vehicles.
  - 1. Off-Highway Vehicles.
    - a. No person shall operate an off-highway vehicle unless it is equipped with a USDAqualified spark arrester and a constantly operating and properly maintained muffler.
      A muffler is not considered constantly operating and properly maintained if it is equipped with a cutout, bypass or similar device.
    - b. No person shall operate an off-highway vehicle unless the noise emitted by the vehicle

#### Riverside County, CA Code of Ordinances

is not more than ninety-six (96) dBA if the vehicle was manufactured on or after January 1, 1986 or is not more than one hundred one (101) dBA if the vehicle was manufactured before January 1, 1986. For purposes of this subsection, emitted noise shall be measured a distance of twenty (20) inches from the vehicle tailpipe using test procedures established by the Society of Automotive Engineers under Standard J-1287.

- 2. Sound Systems. No person shall operate a motor vehicle sound system, whether affixed to the vehicle or not, between the hours of ten p.m. and eight a.m., such that the sound system is audible to the human ear inside any inhabited dwelling. No person shall operate a motor vehicle sound system, whether affixed to the vehicle or not, at any other time such that the sound system is audible to the human ear at a distance greater than one hundred (100) feet from the vehicle.
- B. Power Tools and Equipment. No person shall operate any power tools or equipment between the hours of ten p.m. and eight a.m. such that the power tools or equipment are audible to the human ear inside an inhabited dwelling other than a dwelling in which the power tools or equipment may be located. No person shall operate any power tools or equipment at any other time such that the power tools or equipment are audible to the human ear at a distance greater than one hundred (100) feet from the power tools or equipment.
- C. Audio Equipment. No person shall operate any audio equipment, whether portable or not, between the hours of ten p.m. and eight a.m. such that the equipment is audible to the human ear inside an inhabited dwelling other than a dwelling in which the equipment may be located. No person shall operate any audio equipment, whether portable or not, at any other time such that the equipment is audible to the human ear at a distance greater than one hundred (100) feet from the equipment.
- D. Sound-Amplifying Equipment and Live Music. No person shall install, use or operate soundamplifying equipment, or perform, or allow to be performed, live music unless such activities comply with the following requirements. To the extent that these requirements conflict with any conditions of approval attached to an underlying land use permit, these requirements shall control:
  - 1. Sound-amplifying equipment or live music is prohibited between the hours of ten p.m. and eight a.m.
  - 2. Sound emanating from sound-amplifying equipment or live music at any other time shall not be audible to the human ear at a distance greater than two hundred (200) feet from the equipment or music.

(Ord. 847 § 6, 2006)

9.52.070 - Exceptions.

Exceptions may be requested from the standards set forth in <u>Section 9.52.040</u> or <u>9.52.060</u> of this chapter and may be characterized as construction-related, single-event or continuous-events exceptions.

- A. Application and Processing.
  - Construction-Related Exceptions. An application for a construction-related exception shall be made to and considered by the director of building and safety on forms provided by the building and safety department and shall be accompanied by the appropriate filing fee. No public hearing is required.
  - 2. Single-Event Exceptions. An application for a single-event exception shall be made to and considered by the planning director on forms provided by the planning department and shall be accompanied by the appropriate filing fee. No public hearing is required.
  - 3. Continuous-Events Exceptions. An application for a continuous-events exception shall be made to the planning director on forms provided by the planning department and shall be accompanied by the appropriate filing fee. Upon receipt of an application for a continuous-events exception, the planning director shall set the matter for public hearing before the planning commission, notice of which shall be given as provided in Section 18.26c of Riverside County Ordinance No. 348. Notwithstanding the above, an application for a continuous-events exception that is associated with an application for a land use permit shall be processed concurrently with the land use permit in the same manner that the land use permit is required to be processed.
- B. Requirements for Approval. The appropriate decisionmaking body or officer shall not approve an exception application unless the applicant demonstrates that the activities described in the application would not be detrimental to the health, safety or general welfare of the community. In determining whether activities are detrimental to the health, safety or general welfare of the community, the appropriate decisionmaking body or officer shall consider such factors as the proposed duration of the activities and their location in relation to sensitive receptors. If an exception application is approved, reasonable conditions may be imposed to minimize the public detriment, including, but not limited to, restrictions on sound level, sound duration and operating hours.
- C. Appeals. The director of building and safety's decision on an application for a construction-related exception is considered final. The planning director's decision on an application for a single-event exception is considered final. After making a decision on an application for a continuous-events exception, the appropriate decisionmaking body or officer shall mail notice of the decision to the applicant. Within ten (10) calendar days after the mailing of such notice, the applicant or an interested person may appeal the decision to the board of supervisors. Upon receipt of an appeal and payment of the appropriate appeal fee, the clerk of the board

#### Riverside County, CA Code of Ordinances

shall set the matter for hearing not less than five days nor more than thirty (30) days thereafter and shall give written notice of the hearing in the same manner as notice of the hearing was given by the appropriate hearing officer or body. The board of supervisors shall render its decision within thirty (30) days after the appeal hearing is closed.

D. Effect of a Pending Continuous-Events Exception Application. For a period of one hundred eighty (180) days from the effective date of this chapter, no person creating any sound prohibited by this chapter shall be considered in violation of this chapter if the sound is related to a use that is operating pursuant to an approved land use permit, if an application for a continuous-events exception has been filed to sanction the sound and if a decision on the application is pending.

(Ord. 847 § 7, 2006)

### 9.52.080 - Enforcement.

The Riverside County sheriff and code enforcement shall have the primary responsibility for enforcing this chapter; provided, however, the sheriff and code enforcement may be assisted by the public health department. Violations shall be prosecuted as described in <u>Section 9.52.100</u> of this chapter, but nothing in this chapter shall prevent the sheriff, code enforcement or the department of public health from engaging in efforts to obtain voluntary compliance by means of warnings, notices, or educational programs.

(Ord. 847.1 § 1, 2007: Ord. 847 § 8, 2006)

### 9.52.090 - Duty to cooperate.

No person shall refuse to cooperate with, or obstruct, the enforcement officials identified in <u>Section</u> <u>9.52.080</u> of this chapter when they are engaged in the process of enforcing the provisions of this chapter. This duty to cooperate may require a person to extinguish a sound source so that it can be determined whether sound emanating from the source violates the provisions of this chapter.

(Ord. 847 § 9, 2006)

### 9.52.100 - Violations and penalties.

Any person who violates any provision of this chapter once or twice within a one hundred eighty (180) day period shall be guilty of an infraction. Any person who violates any provision of this chapter more than twice within a one hundred eighty (180) day period shall be guilty of a misdemeanor. Each day a violation is committed or permitted to continue shall constitute a separate offense and shall be punishable as such. Penalties shall not exceed the following amounts:

A. For the first violation within a one hundred eighty (180) day period, the minimum mandatory

fine shall be five hundred dollars (\$500.00).

- B. For the second violation within a one hundred eighty (180) day period, the minimum mandatory fine shall be seven hundred fifty dollars (\$750.00).
- C. For any further violations within a one hundred eighty (180) day period, the minimum mandatory fine shall be one thousand dollars (\$1,000.00) or imprisonment in the county jail for a period not exceeding six months, or both.

(Ord. 847 § 10, 2006)

APPENDIX 5.1:

**STUDY AREA PHOTOS** 



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L1\_E 33, 53' 38.250000"117, 20' 57.850000"



L1\_N 33, 53' 38.290000"117, 20' 57.820000"



L1\_S 33, 53' 38.280000"117, 20' 57.820000"



L1\_W 33, 53' 38.240000"117, 20' 57.850000"



L2\_E 33, 53' 43.240000"117, 20' 54.970000"



L2\_N 33, 53' 43.220000"117, 20' 54.970000"



L2\_S 33, 53' 43.270000"117, 20' 54.970000"







L3\_E 33, 53' 25.270000"117, 20' 56.450000"



L3\_N 33, 53' 25.230000"117, 20' 56.400000"



L3\_S 33, 53' 25.320000"117, 20' 56.480000"



L3\_W 33, 53' 25.230000"117, 20' 56.450000"



L4\_E 33, 53' 13.710000"117, 20' 54.780000"



L4\_N 33, 53' 13.730000"117, 20' 54.860000"



L4\_S 33, 53' 13.680000"117, 20' 54.780000"



L4\_W 33, 53' 13.680000"117, 20' 54.860000"



L5\_E 33, 53' 14.000000"117, 21' 10.760000"



L5\_N 33, 53' 14.070000"117, 21' 10.790000"



L5\_S 33, 53' 14.010000"117, 21' 10.760000"



L5\_W 33, 53' 14.030000"117, 21' 10.790000"



APPENDIX 5.2:

**NOISE LEVEL MEASUREMENT WORKSHEETS** 



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	24-Hour Noise Level Measurement Summary															
Date:	Date:       Wednesday, March 23, 2022       Location:       L1 - Located north of the Project site near single-family       Meter:       Piccolo II       JN:       14577															
Project:	Project:       Chicago 139       Source:       residence at 17975 Twin Lakes Drive.       Analyst:       A. Khan												A. Khan			
	Hourly L <sub>eq</sub> dBA Readings (unadjusted)															
	85.0															
- 80.0																
<b>8</b> 75.0 <b>8</b> 70.0																
e 65.0																
<u>−</u> 55.0																
ສ 50.0 ອ 45.0			5.5	8 2 2 3	9.6	8.1 8.1		x x	m r		0 1.5	<b>.</b>	8.2 8.2	T -	3.1 9.6	4
- 40.0 35.0		4 4	4	4 4	- 4	<del>4</del> <del>4</del>	4	<del>4</del> 4	4 4	<del>4</del> 4	4 4	i 4	4 4	4	m m	<u> </u>
	0	1 2	3	4 5	6	7 8	9 1	10 11	12 1	3 14	15 1	6 17	18 19	20	21 22	23
	Hour Beginning															
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	39.2	46.5	34.8	45.9	45.5	44.0	42.8	39.5	37.3	35.4	35.1	34.9	39.2	10.0	49.2
	1	41.1	49.0	34.6	47.9	47.1	45.7	44.9	42.0	39.3	35.9	35.3	34.8	41.1	10.0	51.1
Night	2	41.1	47.2	38.3	40.4	47.3	44.0	44.0	41.5	40.0	39.3	37.3	38.4	41.1	10.0	52.5
Ŭ	4	42.8	49.0	39.0	48.0	47.2	46.1	45.4	43.5	41.9	39.9	39.5	39.1	42.8	10.0	52.8
	5	44.5	50.1	40.8	49.7	49.3	48.2	47.3	45.1	43.6	41.6	41.3	41.0	44.5	10.0	54.5
	6	46.6	51.3	43.8	50.9	50.4	49.4	48.8	47.1	46.1	44.5	44.3	43.9	46.6	10.0	56.6
	8	48.3	53.2 54.0	45.2 44.2	52.7	52.1	51.0	50.5	48.9	47.7	46.0	45.7 44.7	45.3 44.3	48.3 48.1	0.0	48.3 48.1
	9	48.2	56.4	41.6	55.8	55.1	53.6	52.5	48.9	45.4	42.7	42.2	41.7	48.2	0.0	48.2
	10	45.8	53.4	39.6	52.6	51.9	50.4	49.6	46.8	44.3	40.5	40.1	39.7	45.8	0.0	45.8
	11	43.8	51.2	37.1	50.6	50.0	49.0	48.1	45.0	41.5	38.0	37.6	37.2	43.8	0.0	43.8
	12	45.3	55.3	34.5	54.7	54.0	52.2	50.9	44.2	39.5	35.5	35.2	34.8	45.3	0.0	45.3
Dav	15	45.5	59.5	54.0 34.4	58.8	57.4	52.0	54.7	45.4 50.3	39.0	35.6	35.5 35.1	34.5	45.5	0.0	45.5
2017	15	41.5	48.1	33.7	47.6	47.1	46.0	45.5	43.0	40.1	34.5	34.1	33.8	41.5	0.0	41.5
	16	42.9	50.3	34.9	49.5	48.6	47.7	47.1	44.6	41.2	35.5	35.3	35.0	42.9	0.0	42.9
	17	49.1	57.0	36.1	56.7	56.3	55.5	54.2	50.8	43.5	37.2	36.7	36.3	49.1	0.0	49.1
	18	42.1	49.1	35.2	48.5	48.1	47.5	46.7	43.3	39.4	35.9	35.6	35.3	42.1	0.0	42.1
	20	48.2 44 1	50.5	30.0	50.0	55.5 49.9	54.2 49.4	53.8 48.9	49.2	42.2	37.3	30.7	30.2	48.2 44 1	5.0	53.2 49.1
	20	38.1	42.9	34.6	42.7	42.4	41.7	41.2	39.2	36.9	35.1	34.9	34.7	38.1	5.0	43.1
Night	22	39.6	44.9	34.8	44.6	44.3	43.8	43.2	41.0	37.7	35.4	35.2	34.9	39.6	10.0	49.6
Night	23	35.4	40.4	32.7	40.0	39.6	38.6	38.0	35.8	34.5	33.2	33.0	32.8	35.4	10.0	45.4
Timeframe	Hour	L <sub>eq</sub>			L1%	L2%	L5%	L8%	L25%	L50%	L90%	L95%	L99%		L <sub>eq</sub> (dBA)	Nichttime
Day	Max	49.2	42.9 59.5	45.2	58.8	42.4 57.4	41.7 55.5	41.2 54.7	59.2	47.7	54.5 46.0	45.7	45.3	24-Hour	(7am- <u>10pm</u> )	(10pm-7am)
Energy	Average	46.3	Ave	erage:	52.3	51.6	50.5	49.7	46.3	41.9	37.9	37.6	37.2			
Night	Min	35.4	40.4	32.7	40.0	39.6	38.6	38.0	35.8	34.5	33.2	33.0	32.8	45.2	46.3	42.4
Enorgy	Max	46.6	51.3	43.8	50.9	50.4	49.4	48.8	47.1	46.1	44.5	44.3	43.9			
Energy	Average	42.4	AVE	erage:	46.8	46.3	45.1	44.4	42.1	40.2	38.1	37.8	37.4			



24-Hour Noise Level Measurement Summary																
Date: Wednesday, March 23, 2022 Location: L2 - Located northeast of the Project site near single-family											Meter	JN:	14577			
Project:	Chicago 139	9			Source:	residence at	18019 Twin I	akes Drive.					Analyst:	A. Khan		
							Hourly L <sub>eq</sub> (	dBA Readings	(unadjusted)							
	_															
85.0																
<b>Yap</b> 75.0 70.0 65.0	2															
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<b>5</b> 50.0	5 <b>- - -</b>	m u	~ ~	80 N		<b>N</b>		<u>6</u> .	<b>m 1</b>		<b>m</b> 1	0 0	× –	80	<u>ν</u> 4	
우 45.0 40.0	<b>51</b>	42.	43	49.	49.	50. 50.	20.	- <u>5</u>	2 <mark>1.</mark>	• • • • • • • • • • • • • • • • • • •	<mark>. 51.</mark>	48	46.	- <mark>4</mark>	4 4 4 4 7	37
35.0	D ++													+		
	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
-: (			,					HOULDE	eginning	.=00/	1000/		1000/	,		a.1. 1
Timeframe	Hour				L1%	L2%	L5%	L8%	L25%	L50%	L90%	L95%	L99%		Adj.	Aaj. $L_{eq}$
Night	0	51.3 42.3	02.0 49.5	30.8	48.6	<i>b</i> 1.7 <i>A</i> 7 9	46.5	58.8 45.8	44.9	40.1	37.0	37.3	36.9	51.3 42.3	10.0	52.3
	2	42.6	48.7	38.9	47.8	47.1	46.2	45.5	43.4	41.7	39.6	39.4	39.0	42.6	10.0	52.6
	3	43.2	48.3	40.5	47.5	46.9	45.8	45.2	43.8	42.7	41.2	40.9	40.6	43.2	10.0	53.2
	4	44.8	51.5	40.8	50.9	50.2	48.8	47.9	45.2	43.6	41.6	41.3	40.9	44.8	10.0	54.8
	5	49.7	60.9	41.6	60.5	59.9	57.0	53.6	47.2	44.2	42.3	42.0	41.7	49.7	10.0	59.7
	6	49.0	75.9	44.1	75.5	74.8	71.9	67.0	51.2	46.9	44.8	44.6	44.2	49.0	10.0	59.0
	/ 8	49.7 50.3	57.1	46.2	56.8	56.5 57.4	55.1 55.7	53.4 54.4	49.0 50.0	48.1	46.9	46.0 46.2	46.3	49.7 50.3	0.0	49.7 50.3
	9	50.5	58.4	45.3	58.0	57.5	56.1	54.8	51.0	48.6	46.1	45.8	45.4	50.7	0.0	50.7
	10	49.3	58.7	43.5	58.0	57.0	54.6	53.2	49.2	46.9	44.4	44.0	43.6	49.3	0.0	49.3
	11	55.9	69.2	40.6	69.0	68.1	64.2	59.2	49.1	44.8	41.6	41.2	40.7	55.9	0.0	55.9
	12	51.3	62.4	38.0	61.9	61.5	59.5	57.2	48.9	44.0	39.1	38.6	38.1	51.3	0.0	51.3
	13	47.5	57.5	37.7	57.0	56.4	54.5	52.7	47.2	42.2	38.6	38.2	37.8	47.5	0.0	47.5
Day	14	56.7	68.6	37.7	68.3	68.0	65.6	61.6	50.4	43.5	39.2	38.7	37.9	56.7	0.0	56.7
	15	51.3 48 5	58.6	40.8 41.4	58.2	57.6	58.1 55.1	50.7	50.7 47.0	44.7	41.7	41.3	41.0	51.3 48 5	0.0	51.3 48 5
	17	48.9	57.5	41.3	57.0	56.2	54.3	53.4	49.6	45.3	42.1	41.7	41.4	48.9	0.0	48.9
	18	46.8	56.4	39.8	55.9	55.1	53.9	52.8	45.9	43.0	40.6	40.2	39.9	46.8	0.0	46.8
	19	47.1	56.8	38.4	56.3	56.0	54.8	53.1	45.8	42.0	39.1	38.8	38.5	47.1	5.0	52.1
	20	43.8	51.0	36.4	50.8	50.4	49.3	48.3	44.8	41.4	37.4	37.0	36.5	43.8	5.0	48.8
	21	41.5	49.1	37.8	48.7	48.3	46.9	45.5	41.4	39.5	38.3	38.1	37.9	41.5	5.0	46.5
Night	22	44.4	54.5	38.5	54.0	53.4	51.4 20 F	48.2	43.2	40.7	39.2	38.9	38.7	44.4	10.0	54.4
Timeframe	Hour	57.1	41.0	55.0	41.Z	40.7	59.5 15%	18%	125%	50.5 150%	55.5 L90%	55.5 195%	55.1 199%	37.1	L og (dBA)	47.1
B	Min	41.5	49.1	36.4	48.7	48.3	46.9	45.5	41.4	39.5	37.4	37.0	36.5	24.11	Daytime	Nighttime
Day	Max	56.7	69.2	46.2	69.0	68.1	65.6	61.6	51.0	48.6	46.9	46.6	46.3	24-Hour	(7am-10pm)	(10pm-7am)
Energy	Average	51.0	Ave	erage:	58.4	57.8	55.8	54.0	48.0	44.4	41.6	41.2	40.8			
Night	Min	37.1	41.8	35.0	41.2	40.7	39.5	39.0	37.6	36.5	35.5	35.3	35.1	49.8	51.0	46.8
Enorm	Max	51.3	75.9	44.1	75.5	74.8	71.9	67.0	51.2	46.9	44.8	44.6	44.2			
Energy	Average	46.8	Ave	age.	54.2	53.0	52.0	50.1	44.4	41.9	40.0	39.7	39.3			



						24-Ho	ur Noise L	evel Meas	urement S	Summary						
Date: Wednesday, March 23, 2022 Location: L3 - Located east of the Project site near single-family Meter: Piccolo II													JN: 14577			
Project:Chicago 139Source: residence at 15765 Cartwright Street.															Analyst:	A. Khan
							Hourly L <sub>eq</sub>	dBA Readings	(unadjusted	)						
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± 40.0	ž <b>– R</b>	39	<b>4</b>	46	45	46 46	46	<del>4</del>	43	<b>4</b>	- <sup>6</sup>	£ <u> </u>	45 45	43	8 6	30
55.0	0	1 2	3	4 5	6	7 8	9 1	0 11	12	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	39.7	45.3	35.9	44.9	44.5	43.5	42.8	40.5	38.6	36.6	36.3	36.0	39.7	10.0	49.7
Night	1	36.7	40.9	34.2	40.6	40.3	39.4	39.0	37.3	36.2	34.7	34.5	34.3	36.7	10.0	46.7
	2	39.8	44.9	36.6	44.5 44.9	44.0	43.0	42.4	40.5	39.0	37.4	37.0	36.7	39.8	10.0	49.8
	4	41.5	43.2	40.9	44.9	44.5	45.7	45.5	42.0	40.9	41.7	41.4	41.1	41.5	10.0	54.1
	5	46.0	50.2	42.0	49.9	49.7	49.1	48.7	47.0	45.5	43.0	42.6	42.1	46.0	10.0	56.0
	6	45.8	49.6	42.9	49.3	48.9	48.2	47.8	46.5	45.4	43.8	43.4	43.0	45.8	10.0	55.8
	7	46.7	51.1	43.8	50.7	50.3	49.4	48.9	47.2	46.1	44.6	44.3	43.9	46.7	0.0	46.7
	8	46.5	51.5	42.8	51.0	50.6	49.8	49.2	47.3	45.6	43.6	43.3	42.9	46.5	0.0	46.5
	10	44.0	49.8	39.3	49.2	48.6	47.6	47.1	47.3	44.5	40.2	39.9	39.4	44.0	0.0	44.0
	11	43.1	50.6	37.0	49.8	49.0	47.7	46.9	44.0	41.5	38.0	37.6	37.1	43.1	0.0	43.1
	12	43.0	50.9	34.2	50.3	49.7	48.1	47.3	44.0	40.7	35.0	34.6	34.3	43.0	0.0	43.0
	13	42.6	50.0	34.9	49.5	48.9	47.8	47.0	44.0	39.8	35.8	35.5	35.1	42.6	0.0	42.6
Day	14	47.0	53.8	34.8	53.4	53.0	52.3	51.6	49.6	43.8	36.7	36.1	35.1	47.0	0.0	47.0
	15	43.1	40.0 51.4	36.1	40.1 50.7	43.7 50.1	44.7	44.1	41.1	40.2	36.9	36.6	36.3	43.1	0.0	43.1
	17	44.8	52.6	37.1	52.0	51.7	50.5	49.6	45.2	41.6	38.4	37.8	37.3	44.8	0.0	44.8
	18	45.3	53.2	36.0	52.8	52.6	51.9	51.2	46.1	40.5	36.7	36.4	36.1	45.3	0.0	45.3
	19	46.0	54.5	36.2	54.1	53.6	52.7	51.5	45.7	41.3	37.0	36.7	36.3	46.0	5.0	51.0
	20	43.2	49.6	34.5	49.2	48.7	48.1	47.6	45.2	40.7	35.7	35.0	34.6	43.2	5.0	48.2
	21	38.8	43.7	35.4	43.3	43.0	42.4	42.0	40.1	37.5	36.0	35.7	35.5	38.8	5.0	43.8
Night	22	35.4	40.3	33.0	39.9	39.5	43.5 38.4	37.7	35.9	34.5	33.4	33.3	33.1	35.1	10.0	45.4
Timeframe	Hour	L <sub>eq</sub>	L max	L min	L1%	L2%	L5%	L8%	L25%	L50%	L90%	L95%	L99%		L <sub>eq</sub> (dBA)	
Dav	Min	38.8	43.7	33.6	43.3	43.0	42.4	42.0	40.1	37.5	34.2	34.0	33.7	24-Hour	Daytime	Nighttime
Day	Max	47.0	54.5	43.8	54.1	53.6	52.7	51.6	49.6	46.1	44.6	44.3	43.9	2411001	(7am-10pm)	(10pm-7am)
Energy	Average	44.6	Ave 10.2	erage:	50.3	49.8	48.8	48.1	45.1	41.7	38.1	37.7	37.2	120	ллс	12 2
Night	Max	35.4 46.0	40.3	33.0 42 9	39.9 49.9	39.5 49.7	38.4 49 1	37.7 48.7	35.9 47.0	34.5 45.5	33.4 43.8	33.3 43.4	33.1 43.0	45.8	44.0	42.3
Energy	Average	42.3	Ave	erage:	45.2	44.8	43.9	43.4	41.6	40.1	38.3	38.1	37.7			



						24-Ho	ur Noise Le	evel Meas	urement S	ummary						
Date:	Wednesday	/. March 23. 2	2022		Location:	L4 - Located	southeast of	the Proiect s	Piccolo II	colo II /N: 1457						
Proiect:	Chicago 139	9 9			Source:	residence at	17975 Iris Av	enue.		,,	meteri				Analvst:	A. Khan
-,		-					Hourby	IBA Peadinas	(unadjusted)						,	
							Hourry L <sub>eq</sub> C	IBA Keuulliys	(unuujusteu)							
85.0	0															
<b>4 80.0</b> <b>75.0</b> <b>80.0</b> <b>75.0</b> <b>70.0</b>	2															
	ž															
₹ 55.0	<u>5</u> ++			m	6	<b>N</b> 8	- <u>-</u>									
<b>p</b> 50.0 <b>p</b> 45.0	5 <b>4</b>	5.0		3.8	26.	56.	22. 2. 2.	3.9 3.9	4.3	2 <mark> 5.</mark>	6.1 P.1	<b>5.6</b>	<mark>3.9</mark>		5.2 · · · · · · · · · · · · · · · · · · ·	
<b>-</b> 40.0	Ŋ <b>→ ¥</b> →	- 4 4	<u> </u>	_ <b>и</b>				<u>о –                                    </u>			יי <mark>ה הי</mark>	5 <u> </u>	- <mark>''</mark>		<mark>м</mark> —— м –	— <u> </u>
55.0	0	1 2	3	4 5	6	7 8	9 1	0 11	12 1	3 14	15 10	5 17	18 19	20	21 22	23
	Ū		U U		Ū	, ,		Hour Be	ginning	-	10 1		10 10	20		20
Timeframe	Hour	L	L	Luia	11%	12%	15%	18%	125%	150%	190%	195%	199%	<i>L</i>	Adi.	Adi. L
linejranie	0	49.4	- max	- min 42.4	56.9	56.5	55.0	53.7	49.9	47.4	43.6	43.0	42.5	- eq	10.0	59.4
Night	1	46.0	53.1	38.8	52.8	52.5	51.2	50.2	46.7	44.1	40.2	39.6	38.9	46.0	10.0	56.0
	2	48.5	55.9	41.1	55.6	55.3	54.2	53.0	49.3	45.9	42.3	41.8	41.2	48.5	10.0	58.5
	3	50.3	56.2	43.8	55.9	55.5	54.5	53.9	51.3	49.0	45.2	44.6	43.9	50.3	10.0	60.3
	4	53.8	60.6	46.9	60.3	60.0	59.0	58.0	54.4	52.0	48.5	47.8	47.1	53.8	10.0	63.8
	5	56.3	63.6	49.6	63.3	63.1	61.9	60.3	56.5	54.6	51.1	50.5	49.8	56.3	10.0	66.3
	6 7	56.9	65.0	50.1	64.5	63.1	62.1	60.9	58.2	54.5	51.4	50.8	50.2	56.9	10.0	57.2
	8	56.8	65.7	51.1	65.3	64.6	62.4	60.5	56.6	54.7	52.2	51.8	51.3	56.8	0.0	56.8
	9	55.8	65.1	49.5	64.6	63.4	61.1	59.6	55.7	53.6	50.8	50.3	49.7	55.8	0.0	55.8
	10	53.6	60.0	48.4	59.7	59.3	58.1	57.3	54.2	52.3	49.5	49.0	48.6	53.6	0.0	53.6
	11	53.9	62.3	46.8	61.9	61.4	59.9	58.7	53.8	50.9	48.0	47.5	47.0	53.9	0.0	53.9
	12	54.3	64.4	46.0	64.1	63.5	60.8	58.9	53.0	50.3	47.1	46.6	46.2	54.3	0.0	54.3
Davi	13	56.9	68.9	46.9	68.1	67.5	64.4	61.3	53.9	51.1	48.2	47.6	47.1	56.9	0.0	56.9
Day	14	57.6	67.3 50.7	44.6	67.0 50.2	66.3 E8.0	64.5	63.0 E6.7	57.5	51.1	46.2 46 E	45.5	44.8	57.6	0.0	57.6
	16	52.6	60.9	43.4	60.6	60.1	58.5	57.1	53.2	49.0	40.5	40.0	43.0	52.6	0.0	52.6
	17	52.6	61.6	44.9	61.1	60.5	58.8	57.4	52.5	49.5	46.1	45.5	45.0	52.6	0.0	52.6
	18	53.9	65.5	43.4	64.9	63.9	61.3	59.1	52.3	48.1	44.4	43.9	43.5	53.9	0.0	53.9
	19	57.3	68.3	43.4	68.0	67.6	65.4	62.9	55.1	49.7	45.0	44.1	43.5	57.3	5.0	62.3
	20	51.1	59.0	42.4	58.7	58.3	57.2	56.1	51.9	47.8	43.7	43.1	42.5	51.1	5.0	56.1
	21	50.4	59.0	42.5	58.7	58.3	56.9	55.2	50.2	47.3	43.6	43.0	42.6	50.4	5.0	55.4
Night	22	52.2	63.5	43.3 /1 /	62.7	60.8	59.1	55.7	51.8	48.2	44.5	43.9	43.5	52.2	10.0	62.2
Timeframe	Hour	L	L	41.4 L.min	L1%	L2%	L5%	L8%	49.9 L25%	L50%	42.5 L90%	42.2 L95%	41.0 L99%	51.0	L (dBA)	01.0
innejrunie	Min	50.4	59.0	42.4	58.7	58.3	56.9	55.2	50.2	47.3	43.6	43.0	42.5	24.11-	Daytime	Nighttime
Day	Max	57.6	68.9	52.1	68.1	67.6	65.4	63.0	57.5	55.4	53.1	52.7	52.3	24-Hour	(7am-10pm)	(10pm-7am)
Energy	Average	55.0	Ave	rage:	63.1	62.5	60.6	59.0	54.0	50.7	47.3	46.8	46.3			
Night	Min	46.0	53.1	38.8	52.8	52.5	51.2	50.2	46.7	44.1	40.2	39.6	38.9	54.3	55.0	53.0
Enorm	Max	56.9	63.7	50.1	63.4	63.1	62.1	61.3	58.2	54.6	51.4	50.8	50.2			
Energy Average		53.0	Ave	rage:	59.1	58.7	57.2	55.8	52.0	49.2	45.5	44.9	44.3			


						24-Ho	ur Noise L	evel Meas	urement S	Summary						
Date:	Date:       Wednesday, March 23, 2022       Location:       L5 - Located south of the Project site near single-family       Meter:       Piccolo II       JN:       14577															
Project:	Chicago 13	9			Source:	residence at	16016 Gamb	ole Avenue.							Analyst:	A. Khan
							Hourly L <sub>eq</sub>	dBA Readings	(unadjusted	)						
05.0	0															
85.0 - 80.0																
<b>Sec</b> 75.0																
g 65.0	õ –															
ا 60.0 م بح 55.0										<u>e</u> – – –						
<b>b</b> 50.0	<b>ب</b> و 0	<u> </u>	4			<mark>9 6</mark>	28	<b>4</b> – –	<b>4</b>	- <mark> </mark>	<u>.</u>	<u>2</u>	<b>7</b>		<u>м</u> п	- n
± 40.0	ŏ <b>− 4</b> −	- 64 64				- <mark></mark>		- <mark>48</mark> 52	22		- <mark>48</mark> •	<b>1</b>	- <mark>2</mark> 2		<b>4</b> - 4 -	- 42
55.	0	1 2	3	4 5	6	7 8	9	10 11	12	13 14	15 1	6 17	18 19	20	21 22	23
								Hour B	eginning							
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	44.6	54.5	38.4	53.8	52.9	50.2	48.1	44.2	42.1	39.4	39.0	38.6	44.6	10.0	54.6
	1	43.7	53.8	36.6	53.4	52.8	50.2	47.9	42.7	39.9	37.4	37.1	36.7	43.7	10.0	53.7
Night	2	43.3	49.6	38.3	49.2	48.8	47.8	46.8	44.0	41.8	39.2	38.8	38.4	43.3	10.0	53.3
Night	3 4	45.4	51.0	40.3 43.4	50.0	50.1	49.0 52.1	48.4	40.5 49.3	44.4	41.3	40.8	40.4	45.4	10.0	55.4
	5	54.1	63.6	47.7	63.2	62.6	60.4	57.8	53.3	51.3	48.8	48.3	47.8	54.1	10.0	64.1
	6	51.1	57.4	46.5	57.0	56.7	55.3	54.3	51.4	49.9	47.6	47.1	46.7	51.1	10.0	61.1
	7	51.6	56.7	48.0	56.3	55.8	54.9	54.1	52.2	50.8	49.0	48.6	48.1	51.6	0.0	51.6
	8	51.9	60.4	47.1	60.1	59.3	56.9	55.2	51.7	50.1	48.0	47.7	47.3	51.9	0.0	51.9
	9 10	58.6 52.4	61.6	47.6 44.0	60.9 60.8	60.1	64.5 58.7	63.4 57.5	59.3 52.5	54.9 48.8	51.2 45.4	50.4 44.8	48.3	58.0 52.4	0.0	58.6
	10	48.1	57.2	41.0	56.9	56.4	54.2	52.2	47.8	45.3	42.2	41.8	41.2	48.1	0.0	48.1
	12	52.4	64.2	37.4	63.8	62.9	61.0	58.6	48.4	43.2	39.5	38.1	37.5	52.4	0.0	52.4
	13	59.3	71.8	38.1	71.2	70.4	68.1	65.5	52.6	44.8	39.0	38.6	38.2	59.3	0.0	59.3
Day	14	61.2	73.7	37.3	73.4	72.4	69.3	66.4	55.3	47.2	39.4	38.2	37.4	61.2	0.0	61.2
	15	48.5	60.6	37.0	60.3	59.6	56.6	53.3	44.6	41.0	37.8	37.5	37.1	48.5	0.0	48.5
	10	49.9 57.4	70.0	50.9 41 1	69.3	59.0 68.2	57.4	55.4 62.7	40.4 53.1	45.0	59.7 43.6	59.4 42.4	59.0 41 3	49.9 57.4	0.0	49.9 57.4
	18	53.2	65.1	38.9	64.2	63.3	61.8	57.8	51.1	44.2	40.1	39.6	39.0	53.2	0.0	53.2
	19	52.4	60.7	39.9	60.0	59.5	58.6	57.6	52.7	49.1	43.7	42.1	40.5	52.4	5.0	57.4
	20	47.1	57.2	36.6	56.8	56.2	53.7	51.8	47.1	42.5	37.6	37.1	36.7	47.1	5.0	52.1
	21	44.3	56.6	36.9	56.1	54.6	50.9	47.7	41.7	39.2	37.6	37.3	37.1	44.3	5.0	49.3
Night	22	41.5	49.3	36.5	48.9	48.3	46.7	45.4	41.8	39.4	37.2	37.0	36.7	41.5	10.0	51.5
Timeframe	Hour	42.5	53./	55.2 L	53.1 L1%	52.1 12%	48.9	40.5	41.1 125%	38.0 150%	35.9 190%	35.0 195%	35.3 199%	42.5	L og (dBA)	52.5
David	Min	44.3	56.6	36.6	56.1	54.6	50.9	47.7	41.7	39.2	37.6	37.1	36.7	24.11-	Daytime	Nighttime
Day	Max	61.2	73.7	48.0	73.4	72.4	69.3	66.4	59.3	54.9	51.2	50.4	48.3	24-Hour	(7am-10pm)	(10pm-7am)
Energy	Average	55.0	Ave	erage:	62.4	61.6	59.5	57.3	50.6	46.2	42.3	41.6	40.9	<b>FA F</b>		40.0
Night	Min	41.5	49.3	35.2	48.9	48.3	46.7	45.4	41.1	38.6	35.9	35.6	35.3	53.5	55.0	48.2
Energy	Average	48.2	03.0 Ave	47.7 erage:	53.2	53.1	51.2	57.8	46.0	43.9	48.8	48.3	47.8			
- 31	0-			-												



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APPENDIX 7.1:

**ON-SITE TRAFFIC NOISE CALCULATIONS** 



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F	HWA-RD-77-10	8 HIGHWAY	NOISE PR	EDICTION	MODE	L (CALV	ENO) ·	- v10/31/19		
Scenar Road Nan Lot N	<i>io:</i> Backyard No ne: Chicago Av. <i>lo:</i> 11	o Wall			Projec Job	ct Name: Number: Analyst:	Arroyo 14577 B. Mao	) Vista ddux		
SITE	SPECIFIC IN	PUT DATA				NOISE	MODE	EL INPUTS	5	
Highway Data				Site Cor	nditions	s (Hard =	= 10, Se	oft = 15)		
Average Daily Peak Hour Peak H	Traffic (Adt): Percentage: lour Volume:	8,000 vehicle 10% 800 vehicle	s s	Me He	edium T eavy Tri	rucks (2 ucks (3+	Autos. Axles). Axles).	: 15 : 15 : 15		
Ve	hicle Speed:	25 mph		Vehicle	Mix					
Near/Far La	ne Distance:	12 feet		Vel	nicleTyp	e	Day	Evening	Night	Daily
Site Data						Autos:	75.5%	6 14.0%	10.5%	97.42%
Ba	rrier Height:	0.0 feet		N	ledium	Trucks:	48.9%	6 2.2%	48.9%	» 1.84%
Barrier Type (0-W	/all, 1-Berm):	0.0			Heavy	Trucks:	47.3%	6 5.4%	47.3%	0.74%
Centerline Di	st. to Barrier:	20.0 feet		Noise S	ource E	levatior	s (in f	eet)		
Centerline Dist.	to Observer:	40.0 feet			Aut	os: 1.5	28.50			
Barrier Distance	to Observer:	20.0 feet		Mediu	ım Truc	ks: 1,5	30.80			
Observer Height	(Above Pad):	5.0 feet		Hea	vy Truc	<i>ks:</i> 1,5	36.51	Grade Adj	iustment	t: 0.0
P	Pad Elevation: 1,532.2 feet Road Elevation: 1,528.5 feet			Long Eg		t Distan	oo (in	fact		
RO	Road Elevation: 1,528.5 feet Parrier Elevation: 1,532.2 feet			Lane Ly			705	ieel)		
Dall	Barrier Elevation: 1,532.2 feet			Medii	Aut m Truc	US. 33 ks <sup>.</sup> 34	.795			
		0.070		Hea	vy Truc	ks: 33	.474			
FHWA Noise Mod	el Calculations	;								
VehicleType	REMEL	Traffic Flow	Distanc	e Finite	e Road	Fres	nel	Barrier Atte	en Bei	rm Atten
Autos:	59.44	-0.37		2.45	-1.20	1	0.00	-4.9	000	-7.900
Medium Trucks:	71.09	-17.61		2.39	-1.20	1	-0.09	0.0	000	0.000
Heavy Trucks:	77.24	-21.56		2.51	-1.20	)	-1.23	0.0	000	0.000
Unmitigated Noise	e Levels (witho	out Topo and	barrier att	enuation)						
VehicleType	Leq Peak Hou	r Leq Day	/ Leq	l Evening	Leo	n Night		Ldn	С	NEL
Autos:	60.	3	58.3	57.0	)	51.	0	59.4	ŀ	60.0
Medium Trucks:	54.	7	50.8	43.3	3	52.	0	58.2	2	58.2
Heavy Trucks:	57.	0	52.9	49.6	5	54.	2	60.4	ļ	60.5
Vehicle Noise:	62.	7	60.0	57.9	)	57.	4	64.2	2	64.5
Mitigated Noise L	evels (with Top	oo and barrie	r attenuati	on)						
VehicleType	Leq Peak Hou	r Leq Day	/ Leq	Evening	Leo	n Night		Ldn	С	NEL
Autos:	55.	4	53.4	52.1		46.	1	54.5	5	55.1
Medium Trucks:	54.	7	50.8	43.3	3	52.	С	58.2		58.2
Heavy Trucks:	57.	0	52.9	49.6	6	54.	2	60.4		60.5
Vehicle Noise:	60.	6	57.3		54.4 56.7		7	63.1		63.2

F	HWA-RD-77-108	B HIGHWAY I	NOISE PI	REDICT		L (CALV	ENO) -	v10/31/19		
Scenal Road Nan Lot N	rio: Backyard No ne: Iris Av. No: 227	Wall			Projec Job I	ct Name: Number: Analyst:	Arroyo 14577 B. Mac	Vista Idux		
SITE	SPECIFIC INF	PUT DATA				NOISEI	NODE	L INPUTS	S	
Highway Data				Site	Conditions	s (Hard =	: 10, Sc	oft = 15)		
Average Daily Peak Hour Peak H Ve Near/Far La	Traffic (Adt): 8 Percentage: Jour Volume: phicle Speed: ane Distance:	3,000 vehicles 10% 800 vehicles 30 mph 12 feet	5	Vehi	Medium T Heavy Tru <b>cle Mix</b> VehicleTyp	rucks (2 ucks (3+	Autos: Axles): Axles):	15 15 15	Night	Daily
Site Data					venicieryp	Autos	75.5%	14 0%	10.5%	97 42%
Barrier Type (0-V	<b>rrier Height:</b> Vall, 1-Berm):	<b>0.0 feet</b> 0.0			Medium Heavy	Trucks: Trucks: Trucks:	48.9% 47.3%	6     14.070       6     2.2%       6     5.4%	48.9% 47.3%	1.84% 0.74%
Centerline Di	to Observer:	22.0 feet		Nois	e Source E	levation	s (in fe	et)		
Barrier Distance Observer Height P	stance to Observer: 18.0 feet leight (Above Pad): 5.0 feet Pad Elevation: 1,566.0 feet Road Elevation: 1,565.0 feet		M	Aute edium Truc Heavy Truc	os: 1,5 ks: 1,5 ks: 1,5	65.00 67.30 73.01	Grade Ad	iustment	r 0.0	
Ro	ad Elevation: 1	Elevation: 1,565.0 feet			e Equivaler	nt Distan	ce (in i	feet)		
EHWA Noise Mod	Road Grade:	,566.0 feet 0.0%		M	Auto edium Truci Heavy Truci	ks: 33 ks: 33 ks: 33	.000 .671 .526			
VehicleType	REMEL	Traffic Flow	Distan	ce F	inite Road	Fres	nel	Barrier Atte	en Ber	m Atten
Autos:	62.51	-1.16	2.000	2.41	-1.20		-0.18	0.0	000	0.000
Medium Trucks:	73.11	-18.40		2.47	-1.20		-0.52	0.0	000	0.000
Heavy Trucks:	78.76	-22.35		2.50	-1.20		-2.04	0.0	000	0.000
Unmitigated Nois	e Levels (witho	ut Topo and	barrier a	ttenuati	on)					
VehicleType	Leq Peak Hour	Leq Day	′ Le	q Evenii	ng Leq	n Night		Ldn	C	NEL
Autos:	62.6	6	60.6		59.2	53.	2	61.6	5	62.3
Medium Trucks:	56.0	)	52.1		44.6	53.	3	59.5	5	59.6
Heavy Trucks:	57.7	7	53.7		50.3	54.	9	61.1		61.2
Vehicle Noise:	64.5	5	61.8	:	59.9	58.	7	65.6	6	65.9
Mitigated Noise L	evels (with Top	o and barrie	r attenua	tion)						
VehicleType	Leq Peak Hour	Leq Day	' Le	q Evenii	ng Leq	n Night		Ldn	C	NEL
Autos:	62.6	6	60.6		59.2	53.	2	61.6	6	62.3
Medium Trucks:	56.0	)	52.1		44.6	53.	3	59.5		59.6
Heavy Trucks:	57.7	7	53.7		50.3	54.	9	61.1		61.2
Vehicle Noise:	64.5	5	61.8		59.9	58.	7	65.6	6	65.9

FI	HWA-RD-77-108	HIGHWAY N	IOISE PRE	DICTION	MODEL	(CALVE	ENO) -	v10/31/19			
Scenar Road Narr Lot N	<i>io:</i> Backyard No ne: Iris Av. <i>Io:</i> 200	Wall			Project Job N	Name: A lumber: 1 Analyst: E	Arroyo 14577 3. Mac	Vista Idux			
SITE	SPECIFIC INP	UT DATA			Ν	IOISE N	10DE	L INPUTS	5		
Highway Data				Site Con	ditions	(Hard =	10, Sc	oft = 15)			
Average Daily Peak Hour Peak H	Traffic (Adt): 8 Percentage: lour Volume:	,000 vehicles 10% 800 vehicles		Me He	edium Tru eavy Truc	ucks (2 A cks (3+ A	Autos: \xles): \xles):	15 15 15			
Ve Nasr/Farks	hicle Speed:	30 mph		Vehicle I	Mix						
Near/Far La	ne Distance:	12 feet		Veh	icleType	•	Day	Evening	Night	Daily	
Site Data				-	/	Autos:	75.5%	6 14.0%	10.5%	97.42%	
Ba	rrier Height:	0.0 feet		M	ledium T	rucks:	48.9%	2.2%	48.9%	1.84%	
Barrier Type (0-W	/all, 1-Berm):	0.0			Heavy T	rucks:	47.3%	5.4%	47.3%	0.74%	
Centerline Di	st. to Barrier:	20.0 feet		Noise So	ource El	evations	s (in fe	et)			
Centerline Dist.	to Observer:	40.0 feet			Auto	s: 1,52	2.50	,			
Barrier Distance	to Observer:	20.0 feet		Medium Trucks: 1,524.80							
Observer Height	(Above Pad):	5.0 feet		Heav	/y Truck	s: 1,53	0.51	Grade Adj	iustment	t: 0.0	
	Pad Elevation: 1,521.0 feet Road Elevation: 1,522.5 feet			1		Dietema		fa a 4)			
Roa	ad Elevation: 1,	522.5 feet		Lane Eq	Auto		e (111)	ieel)			
Barn	ler Elevation: 1,3	522.5 feet		Modiu	AUIO: m Trucki	S. 33.0	049 100				
	Noau Grade.	0.0 %		Heav	/y Truck	s: 33. s: 33.	768				
FHWA Noise Mode	el Calculations										
VehicleType	REMEL 7	Traffic Flow	Distance	Finite	Road	Fresn	el	Barrier Atte	en Bei	rm Atten	
Autos:	62.51	-1.16	2.	48	-1.20		-0.12	0.0	000	0.000	
Medium Trucks:	73.11	-18.40	2.	51	-1.20		-0.46	0.0	000	0.000	
Heavy Trucks:	78.76	-22.35	2.	45	-1.20		-2.09	0.0	000	0.000	
Unmitigated Noise	e Levels (withou	t Topo and b	barrier atte	nuation)							
VehicleType	Leq Peak Hour	Leq Day	Leq	Evening	Leq	Night		Ldn	С	NEL	
Autos:	62.6	6	60.6	59.3		53.3	6	61.7	7	62.3	
Medium Trucks:	56.0	5	52.1	44.6		53.4		59.5	5	59.6	
Heavy Trucks:	57.7	5	53.6	50.2		54.9		61.1		61.2	
Vehicle Noise:	64.5	6	61.9	59.9		58.7	,	65.6	6	65.9	
Mitigated Noise Le	evels (with Topo	and barrier	attenuatio	n)							
VehicleType	Leq Peak Hour	Leq Day	Leq	, Evening	Leq	Night		Ldn	С	NEL	
Autos:	62.6	6	60.6	59.3		53.3	5	61.7	,	62.3	
Medium Trucks:	56.0	5	52.1	44.6		53.4		59.5		59.6	
Heavy Trucks:	57.7	5	53.6	50.2		54.9	)	61.1		61.2	
Vehicle Noise:	64.5	6	61.9	59.9		58.7	,	65.6	3	65.9	

FI	HWA-RD-77-108	HIGHWAY NO	DISE PRE		MODE	L (CALV	'ENO) ·	- v10/31/19	)	
Scenar Road Nan Lot N	rio: Backyard No ne: Iris Av. Io: 165	Wall			Projec Job I	ct Name: Number: Analyst:	Arroyc 14577 B. Mae	o Vista ddux		
SITE	SPECIFIC INP	UT DATA				NOISE	MODE	EL INPUT	S	
Highway Data				Site Con	ditions	s (Hard =	= 10, S	oft = 15)		
Average Daily Peak Hour Peak F Ve	Traffic (Adt): 8 Percentage: Jour Volume: chicle Speed:	,000 vehicles 10% 800 vehicles 30 mph		Me He	dium T avy Tru	rucks (2 ucks (3+	Autos Axles) Axles)	: 15 : 15 : 15		
Near/Far La	ne Distance:	12 feet		Venicie I		0	Dov	Evoning	Night	Doily
Site Data				ven	ісіе і ур	Autos	75 5%	<i>Evening</i>	10 5%	Dally
Data Pa	rrior Unight:	0.0 foot		M	edium	Trucks:	48.9%	6 14.0 <i>%</i>	48.9%	6 1.84%
Barrier Type (0-W	/all_1-Berm) <sup>.</sup>			I	Heavy	Trucks:	47.3%	6 5.4%	47.3%	6 0.74%
Centerline Di	ist. to Barrier:	30.0 feet		Noise Se		lovatio	no (in f	(act)		
Centerline Dist.	to Observer:	50.0 feet		Noise Su			15 (111 1 07 20	eel)		
Barrier Distance	to Observer:	20.0 feet		Modiu	Auto m Truc	US. 1,0 ko: 15	07.30			
Observer Height	(Above Pad):	5.0 feet		Heav	v Truc	ns. 1,5 ks <sup>.</sup> 1,5	15 31	Grade Ad	liustmen	t: 0.0
P	ad Elevation: 1,8	Elevation: 1,511.0 feet			y muo	. I,C	10.01		,	
Ro	ad Elevation: 1,5	Elevation: 1,507.3 feet			uivalen	nt Distar	nce (in	feet)		
Barr	ier Elevation: 1,5	<i>Elevation:</i> 1,511.0 feet			Auto	os: 44	.449			
	Road Grade:	0.0%		Mediui Heav	m Truci vy Truci	ks: 44 ks: 43	.057 8.595			
FHWA Noise Mod	el Calculations									
VehicleType	REMEL T	raffic Flow	Distance	Finite	Fres	nel	Barrier Att	en Be	rm Atten	
Autos:	62.51	-1.16	0.	66	-1.20	)	-0.05	0.0	000	0.000
Medium Trucks:	73.11	-18.40	0.	72	-1.20	)	-0.19	0.0	000	0.000
Heavy Trucks:	78.76	-22.35	0.	79	-1.20	1	-0.97	0.0	000	0.000
Unmitigated Noise	e Levels (withou	t Topo and ba	rrier atte	nuation)						
VehicleType	Leq Peak Hour	Leq Day	Leq	Evening	Leq	n Night		Ldn	С	NEL
Autos:	60.8	58	.8	57.5		51	.5	59.9	9	60.5
Medium Trucks:	54.2	50	.3	42.8		51	.6	57.8	В	57.8
Heavy Trucks:	56.0	52	2.0	48.6		53	.2	59.4	4	59.5
Vehicle Noise:	62.7	60	).1	58.1		56	.9	63.9	9	64.2
Mitigated Noise L	evels (with Topo	and barrier a	ttenuatio	n)						
VehicleType	Leq Peak Hour	Leq Day Leq Eve		Evening	Leq	n Night		Ldn	C	NEL
Autos:	60.8	58.8		57.5		51	.5	59.9	9	60.5
Medium Trucks:	54.2	50	50.3			51	.6	57.8	3	57.8
Heavy Trucks:	56.0	52	.0	48.6		53	.2	59.4	4	59.5
Vehicle Noise:	62.7	60	).1	58.1	58.1 56.9				63.9	

FI	HWA-RD-77-108	HIGHWAY	NOISE PRI	EDICTION	MODE	L (CALV	ENO) ·	v10/31/19		
Scenar Road Nan Lot N	<i>io:</i> Backyard Wit ne: Chicago Av. <i>Io:</i> 11	h Wall			Projec Job I	ct Name: Number: Analyst:	Arroyc 14577 B. Mae	) Vista ddux		
SITE	SPECIFIC INP	UT DATA				NOISE	MODE	L INPUTS	5	
Highway Data				Site Cor	nditions	s (Hard =	: 10, S	oft = 15)		
Average Daily	Traffic (Adt): 8	3,000 vehicles	S				Autos	15		
Peak Hour	Percentage:	10%		Me	edium T 	rucks (2	Axles)	: 15		
Peak F	lour Volume:	800 vehicles	S	He	eavy Tru	ucks (3+	Axles)	: 15		
Ve	hicle Speed:	25 mph		Vehicle	Mix					
Near/Far La	ne Distance:	12 feet		Vel	hicleTyp	e	Day	Evening	Night	Daily
Site Data				_		Autos:	75.5%	6 14.0%	10.5%	97.42%
Ba	rrier Height:	0.0 feet		N	<i>ledium</i>	Trucks:	48.9%	6 2.2%	48.9%	1.84%
Barrier Type (0-W	/all, 1-Berm):	0.0			Heavy	Trucks:	47.3%	6 5.4%	47.3%	0.74%
Centerline Di	st. to Barrier:	20.0 feet		Noise S	ource E	levation	is (in f	eet)		
Centerline Dist.	to Observer:	40.0 feet			Aut	os: 1,5	28.50			
Barrier Distance	to Observer:	20.0 feet		Mediu	ım Truc	<i>ks:</i> 1,5	30.80			
Observer Height	(Above Pad):	5.0 feet		Hea	vy Truc	<i>ks:</i> 1,5	36.51	Grade Adj	ustment	: 0.0
P	Road Elevation: 1,532.2 feet			Lane Fo	wivaler	nt Distan	ce (in	feet)		
Barr	Road Elevation: 1,528.5 feet Barrier Elevation: 1,532.2 feet			24/10 29	Aut	$0s \cdot 33$	795	1001)		
Dann	Barrier Elevation: 1,532.2 feet			Mediu	ım Truc	ks: 34	.073			
		0.070		Hea	vy Truc	ks: 33	.474			
FHWA Noise Mode	el Calculations									
VehicleType	REMEL	Traffic Flow	Distance	e Finite	Road	Fres	nel	Barrier Atte	en Ber	m Atten
Autos:	59.44	-0.37	2	2.45	-1.20	)	0.00	-4.9	00	-7.900
Medium Trucks:	71.09	-17.61	2	2.39	-1.20	)	-0.09	0.0	00	0.000
Heavy Trucks:	77.24	-21.56	2	2.51	-1.20	)	-1.23	0.0	00	0.000
Unmitigated Noise	e Levels (withou	It Topo and	barrier att	enuation)						
VehicleType	Leq Peak Hour	Leq Day	⁄ Leq	Evening	Lec	n Night		Ldn	C	NEL
Autos:	60.3	}	58.3	57.0	)	51.	0	59.4		60.0
Medium Trucks:	54.7	,	50.8	43.3	3	52.	0	58.2		58.2
Heavy Trucks:	57.0		52.9	49.6	6	54.	2	60.4		60.5
Vehicle Noise:	62.7	•	60.0	57.9	)	57.	4	64.2		64.5
Mitigated Noise Le	evels (with Topo	o and barrie	r attenuati	on)						
VehicleType	Leq Peak Hour	Leq Day	⁄ Leq	Evening	Lec	n Night		Ldn	C	NEL
Autos:	55.4		53.4	52.1		46.	1	54.5		55.1
Medium Trucks:	54.7	,	50.8	43.3	3	52.	С	58.2		58.2
Heavy Trucks:	57.0		52.9	49.6	6	54.	2	60.4		60.5
Vehicle Noise:	60.6	60.6 57.3			54.4 56.7			63.1		63.2

FI	HWA-RD-77-108	HIGHWAY N	OISE PRE	DICTION	MODEL	(CALVE	ENO) -	v10/31/19		
Scenar Road Nam Lot N	<i>io:</i> Backyard Witl ne: Iris Av. <i>Io:</i> 227	h Wall			Project Job Ni A	Name: / umber: ' nalyst:	Arroyo 14577 B. Mac	Vista Idux		
SITE	SPECIFIC INP	UT DATA			Ν	OISE N	ЛОDE	L INPUTS	5	
Highway Data				Site Con	ditions (	'Hard =	10, So	oft = 15)		
Average Daily	Traffic (Adt): 8	,000 vehicles					Autos:	15		
Peak Hour	Percentage:	10%		Me	edium Tru	icks (2 A	Axles):	15		
Peak H	lour Volume:	800 vehicles		He	avy Truc	:ks (3+ A	Axles):	15		
Ve	hicle Speed:	30 mph		Vehicle I	Mix					
Near/Far La	ne Distance:	12 feet		Veh	icleType		Day	Evening	Night	Daily
Site Data				_	/	Autos:	75.5%	6 14.0%	10.5%	97.42%
Ba	rrier Height:	0 0 feet		М	ledium Tr	ucks:	48.9%	6 2.2%	48.9%	1.84%
Barrier Type (0-W	/all. 1-Berm):	0.0			Heavy Tr	ucks:	47.3%	6 5.4%	47.3%	0.74%
Centerline Di	st. to Barrier:	22.0 feet		Noise So	ource Ele	evation	s (in fe	eet)		
Centerline Dist.	to Observer:	40.0 feet			Autos	s: 1,56	65.00			
Barrier Distance	to Observer:	18.0 feet		Mediu	m Trucks	s: 1,56	67.30			
Observer Height (	(Above Pad):	5.0 feet		Heav	/y Trucks	s: 1,57	3.01	Grade Adj	iustment	t: 0.0
Pa	Pad Elevation: 1,566.0 feet Road Elevation: 1,565.0 feet			Lana Fa		Distant		fa a 4)		
Roa	Road Elevation: 1,565.0 feet			Lane Eq	uivaient	Distanc		ieet)		
Barn	Barrier Elevation: 1,566.0 feet			Madiu	Autos	5. 34. N 22	000			
	Road Grade:	0.0%		Heav	/y Trucks	s: 33. s: 33.	526			
FHWA Noise Mode	el Calculations									
VehicleType	REMEL 7	Traffic Flow	Distance	Finite Road Fresnel				Barrier Atte	en Bei	rm Atten
Autos:	62.51	-1.16	2	.41	-1.20		-0.18	0.0	000	0.000
Medium Trucks:	73.11	-18.40	2	.47	-1.20		-0.52	0.0	000	0.000
Heavy Trucks:	78.76	-22.35	2	.50	-1.20		-2.04	0.0	000	0.000
Unmitigated Noise	e Levels (withou	t Topo and b	arrier atte	enuation)					T	
VehicleType	Leq Peak Hour	Leq Day	Leq	Evening	Leq I	Vight		Ldn	C	NEL
Autos:	62.6	6	0.6	59.2		53.2	2	61.6	5	62.3
Medium Trucks:	56.0	5	2.1	44.6		53.3	3	59.5	5	59.6
Heavy Trucks:	57.7	5	3.7	50.3		54.9	)	61.1		61.2
Vehicle Noise:	64.5	6	1.8	59.9		58.7	7	65.6	6	65.9
Mitigated Noise Le	evels (with Topo	and barrier	attenuatio	on)			-			
VehicleType	Leq Peak Hour	Leq Day	Leq	Evening	Leq I	Vight		Ldn	C	NEL
Autos:	62.6	6	0.6	59.2		53.2	2	61.6	5	62.3
Medium Trucks:	cks: 56.0 52.1		44.6		53.3	3	59.5		59.6	
Heavy Trucks:	57.7	5	3.7	50.3		54.9	)	61.1		61.2
Vehicle Noise:	64.5	64.5 61.8		59.9 58.7			65.6	6	65.9	

FI	HWA-RD-77-108	HIGHWAY NO	DISE PRE	DICTION	MODEL (	CALVENO	D) - v10/31/19				
Scenar Road Nan Lot N	rio: Backyard With ne: Iris Av. Io: 200	n Wall			Project N Job Nu Ar	<i>lame:</i> Arro mber: 145 alyst: B. N	oyo Vista 77 ⁄Iaddux				
SITE	SPECIFIC INP	UT DATA			NC	DISE MO	DEL INPUTS	S			
Highway Data				Site Con	ditions (H	Hard = 10,	Soft = 15)				
Average Daily	Traffic (Adt): 8,	,000 vehicles				Aut	os: 15				
Peak Hour	Percentage:	10%		Me	dium Truc	cks (2 Axle	es <i>):</i> 15				
Peak H	lour Volume:	800 vehicles		He	avy Truck	is (3+ Axle	es <i>):</i> 15				
Ve	hicle Speed:	30 mph		Vehicle I	Mix						
Near/Far La	ne Distance:	12 feet		Veh	icleType	Da	y Evening	Night	Daily		
Site Data					Au	utos: 75	.5% 14.0%	10.5%	97.42%		
Ba	rrier Heiaht:	0.0 feet		М	edium Tru	<i>icks:</i> 48	.9% 2.2%	48.9%	1.84%		
Barrier Type (0-W	/all, 1-Berm):	0.0			Heavy Tru	icks: 47	.3% 5.4%	47.3%	0.74%		
Centerline Di	ist. to Barrier:	20.0 feet		Noise Sc	ource Elev	vations (i	n feet)				
Centerline Dist.	to Observer:	40.0 feet		Autos: 1,522.50							
Barrier Distance	to Observer:	20.0 feet		Mediu	m Trucks:	1,524.8	80				
Observer Height	(Above Pad):	5.0 feet		Heav	y Trucks:	1,530.5	51 Grade Ad	iustment	: 0.0		
	Pad Elevation: 1,521.0 feet Road Elevation: 1,522.5 feet				uivalant I	Distance (	(in foot)				
Ro	Road Elevation: 1,522.5 feet					22 640					
Barr	Barrier Elevation: 1,522.5 feet			Modiu	Aulos. m Trucks:	33.048	2				
	Noau Graue.	0.0 %		Heav	y Trucks:	33.768	}				
FHWA Noise Mod	el Calculations										
VehicleType	REMEL T	raffic Flow	Distance	Finite	Road	Fresnel	Barrier Atte	en Ber	m Atten		
Autos:	62.51	-1.16	2.	.48	-1.20	-0.	12 0.0	000	0.000		
Medium Trucks:	73.11	-18.40	2.	.51	-1.20	-0	<i>46</i> 0.0	000	0.000		
Heavy Trucks:	78.76	-22.35	2.	.45	-1.20	-2.	09 0.0	000	0.000		
Unmitigated Noise	e Levels (withou	t Topo and ba	arrier atte	enuation)							
VehicleType	Leq Peak Hour	Leq Day	Leq	Evening	Leq N	ight	Ldn	Cl	NEL		
Autos:	62.6	60	).6	59.3		53.3	61.7	7	62.3		
Medium Trucks:	56.0	52	2.1	44.6		53.4	59.5	5	59.6		
Heavy Trucks:	57.7	53	3.6	50.2		54.9	61.1		61.2		
Vehicle Noise:	64.5	61	1.9	59.9		58.7	65.6	6	65.9		
Mitigated Noise L	evels (with Topo	and barrier a	ottenuatio	on)				1			
VehicleType	Leq Peak Hour	Leq Day	Leq	Evening	Leq N	ight	Ldn	CI	NEL		
Autos:	62.6	60	).6	59.3		53.3	61.7	7	62.3		
Medium Trucks:	56.0	52	2.1	44.6		53.4	59.5		59.6		
Heavy Trucks:	57.7	53	3.6	50.2		54.9	61.1	-	61.2		
Vehicle Noise:	64.5	61	61.9			58.7	65.6	6	65.9		

FI	HWA-RD-77-108	HIGHWAY NO	ISE PRE		NODEL (C	CALVENO)	- v10/31/19				
Scenar Road Nam Lot N	<i>io:</i> Backyard Wit ne: Iris Av. <i>Io:</i> 165	h Wall			Project N Job Nur Ana	ame: Arroyo nber: 14577 alyst: B. Ma	o Vista , ddux				
SITE	SPECIFIC INP	UT DATA			NO	ISE MODE	EL INPUTS	5			
Highway Data				Site Cond	litions (H	ard = 10, S	oft = 15)				
Average Daily Peak Hour Peak H Ve Near/Far La	Traffic (Adt): 8 Percentage: lour Volume: chicle Speed: ne Distance:	,000 vehicles 10% 800 vehicles 30 mph 12 feet		Med Hea Vehicle N	lium Truck avy Trucks <b>lix</b>	Autos ks (2 Axles) s (3+ Axles)	: 15 : 15 : 15				
Sita Data				Venie	cie i ype	Day	Evening	Night	Daily		
Barrier Type (0-W	<b>rrier Height:</b> /all, 1-Berm):	<b>0.0 feet</b> 0.0		Me H	edium True Ieavy True	cks: 48.99 cks: 47.39	% 2.2% % 5.4%	48.9% 47.3%	1.84% 0.74%		
Centerline Di	st. to Barrier:	30.0 feet		Noise So	urce Elev	ations (in f	eet)				
Barrier Distance to Observer: 20.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 1,511.0 feet Road Elevation: 1,507.3 feet Barrier Elevation: 1,511.0 feet Road Grade: 0.0%				Autos:1,507.30Medium Trucks:1,509.60Heavy Trucks:1,515.31Grade Adjustment:0.0Lane Equivalent Distance (in feet)Autos:44.449Medium Trucks:44.057Heavy Trucks:43.595							
FHWA Noise Mode	el Calculations										
VehicleType	REMEL 7	Fraffic Flow	Distance	Finite I	Road	Fresnel	Barrier Atte	en Beri	m Atten		
Autos:	62.51	-1.16	0.	66	-1.20	-0.05	0.0	00	0.000		
Medium Trucks:	73.11	-18.40	0.	72	-1.20	-0.19	0.0	00	0.000		
Heavy Trucks:	78.76	-22.35	0.	79	-1.20	-0.97	0.0	00	0.000		
Unmitigated Noise	e Levels (withou	it Topo and bai	rrier atte	nuation)							
VehicleType	Leq Peak Hour	Leq Day	Leq I	Evening	Leq Ni	ght	Ldn	CN	VEL		
Autos:	60.8	58.	8	57.5		51.5	59.9		60.5		
Medium Trucks:	54.2	50.	3	42.8		51.6	57.8		57.8		
Heavy Trucks:	56.0	52.	0	48.6		53.2	59.4		59.5		
Vehicle Noise:	62.7	60.	1	58.1		56.9	63.9		64.2		
Mitigated Noise Le	evels (with Topo	o and barrier at	tenuatio	n)							
VehicleType	Leq Peak Hour	Leq Day	Leq l	-vening	Leq Ni	ght	Ldn	CN	VEL		
Autos:	60.8	58.	8	57.5		51.5	59.9		60.5		
Meaium Trucks:	54.2	50.	ა ი	42.8		51.6 52.0	57.8		57.8		
Heavy Trucks:	56.0	52.	0	48.6		53.Z	59.4		59.5		
venicie Noise:	62.7	60.	60.1		58.1 56.9		63.9		64.2		

F	HWA-RD-77-108	HIGHWAY	NOISE PI	REDIC		MODEL	_ (CALVE	ENO)	- v10/31/19		
Scenar Road Nan Lot N	<i>io:</i> First Floor Wi ne: Chicago Av. <i>lo:</i> 11	th Wall				Projec Job N	t Name: / Number: Analyst:	Arroyc 14577 B. Mae	o Vista ddux		
SITE	SPECIFIC INP	UT DATA				1	NOISEN	лоde	EL INPUTS	5	
Highway Data				Sit	te Cond	ditions	(Hard =	10, S	oft = 15)		
Average Daily	Traffic (Adt): 8	,000 vehicles	S					Autos	: 15		
Peak Hour	Percentage:	10%			Mee	dium Ti 	rucks (2 /	Axles)	: 15		
Peak F	lour Volume:	800 vehicles	S		Hea	avy Tru	icks (3+ /	Axles)	: 15		
Ve	hicle Speed:	25 mph		Ve	hicle N	lix					
Near/Far La	ne Distance:	12 feet			Vehi	cleTyp	е	Day	Evening	Night	Daily
Site Data							Autos:	75.5%	6 14.0%	10.5%	97.42%
Ba	rrier Height:	0.0 feet			Me	edium T	Trucks:	48.9%	6 2.2%	48.9%	1.84%
Barrier Type (0-W	/all, 1-Berm):	0.0			ŀ	leavy T	Frucks:	47.3%	6 5.4%	47.3%	0.74%
Centerline Di	st. to Barrier:	20.0 feet		No	oise So	urce E	levation	s (in f	eet)		
Centerline Dist.	to Observer:	51.0 feet				Auto	os: 1,52	28.50	,		
Barrier Distance	to Observer:	31.0 feet			Medium Trucks: 1,530.80						
Observer Height	(Above Pad):	5.0 feet			Heav	y Truck	ks: 1,53	36.51	Grade Adj	iustmen	t: 0.0
P	Pad Elevation: 1,532.2 feet Road Elevation: 1,528.5 feet			12	no Eau	uivalan	t Distan	oo (in	foot)		
Ro	ad Elevation: 1,528.5 feet ier Elevation: 1,532.2 feet		La	пе счи	Λυτο		580	1661)			
Ddill	Road Grade:				Mediur	n Truck	73. 44. 75 45	055			
	Noau Grade.	0.078			Heav	y Truck	ks: 44.	604			
FHWA Noise Mod	el Calculations										
VehicleType	REMEL 7	Traffic Flow	Distan	се	Finite	Road	Fresr	nel	Barrier Atte	en Bei	rm Atten
Autos:	59.44	-0.37		0.64		-1.20		0.05	-5.5	500	-8.500
Medium Trucks:	71.09	-17.61		0.57		-1.20		-0.02	0.0	000	0.000
Heavy Trucks:	77.24	-21.56		0.64		-1.20		-1.02	0.0	000	0.000
Unmitigated Noise	e Levels (withou	it Topo and	barrier a	ttenua	ation)						
VehicleType	Leq Peak Hour	Leq Day	ν Le	eq Eve	ning	Leq	Night		Ldn	С	NEL
Autos:	58.5		56.5		55.2		49.2	2	57.6	6	58.2
Medium Trucks:	52.9		49.0		41.5		50.2	2	56.4	ļ	56.4
Heavy Trucks:	55.1		51.1		47.7		52.3	3	58.5	5	58.6
Vehicle Noise:	60.9		58.2		56.1		55.5	5	62.4	1	62.6
Mitigated Noise L	evels (with Topo	o and barrie	r attenua	tion)							
VehicleType	Leq Peak Hour	Leq Day	/ Le	eq Eve	ning	Leq	Night		Ldn	C	NEL
Autos:	53.0		51.0		49.7		43.7	7	52.1		52.7
Medium Trucks:	52.9		49.0		41.5		50.2	2	56.4	_	56.4
Heavy Trucks:	55.1	55.1 51.1			47.7		52.3	3	58.5	Ď	58.6
Vehicle Noise:	58.6	55.2			52.2 54.8		3	61.2		61.3	

FI	HWA-RD-77-108	HIGHWAY NOI	SE PRE		NODEL (	CALVENO)	- v10/31/19				
Scenar Road Nan Lot N	<i>rio:</i> First Floor Wit ne: Iris Av. <i>lo:</i> 227	th Wall			Project N Job Nui An	lame: Arroyo mber: 14577 alyst: B. Ma	o Vista , ddux				
SITE	SPECIFIC INP	UT DATA			NC	ISE MODE	EL INPUTS				
Highway Data				Site Conc	litions (H	<i>lard = 10,</i> S	oft = 15)				
Average Daily Peak Hour Peak H Ve Near/Far La	Traffic (Adt): 8, Percentage: Jour Volume: chicle Speed: ne Distance:	000 vehicles 10% 800 vehicles 30 mph 12 feet		Med Hea Vehicle M	dium Truc avy Truck <b>lix</b>	Autos ks (2 Axles) s (3+ Axles)	:: 15 ): 15 ): 15				
Site Date		12 1000		Vehi	cle I ype		Evening	Night Daily			
Barrier Type (0-W Centerline Di	<b>rrier Height:</b> /all, 1-Berm): ist. to Barrier:	<b>0.0 feet</b> 0.0 22.0 feet		Me H	Al dium Tru leavy Tru	itos: 75.5 icks: 48.9 icks: 47.3	% 14.0% % 2.2% % 5.4%	10.5%         97.42%           48.9%         1.84%           47.3%         0.74%			
Centerline Dist.	to Observer:	50.0 feet		Noise So	urce Elev	ations (in f	reet)				
Barrier Distance Observer Height P	Barrier Distance to Observer:28.0 feetObserver Height (Above Pad):5.0 feetPad Elevation:1,566.0 feetRoad Elevation:1,565.0 feet			Medium Trucks: 1,567.30 Heavy Trucks: 1,573.01 Grade Adjustment: 0.0							
Ro	Road Elevation: 1,565.0 feet			Lane Equ	ivalent E	Distance (in	feet)				
Barr	ier Elevation: 1,5 Road Grade:	566.0 feet 0.0%		Mediun Heavy	Autos: n Trucks: y Trucks:	44.000 43.746 43.635					
FHWA Noise Mod	el Calculations										
VehicleType	REMEL T	raffic Flow D	Distance	Finite I	Road	Fresnel	Barrier Atte	n Berm Atten			
Autos:	62.51	-1.16	0.	73	-1.20	-0.07	0.0	00 0.000			
Medium Trucks:	73.11	-18.40	0.	77	-1.20	-0.33	0.0	0.000			
Heavy Trucks:	78.76	-22.35	0.	78	-1.20	-1.82	0.0	00 0.000			
Unmitigated Noise	e Levels (withou	t Topo and bar	rier atte	nuation)		1					
VehicleType	Leq Peak Hour	Leq Day	Leq E	Evening	Leq N	ight	Ldn	CNEL			
Autos:	60.9	58.9	)	57.6		51.5	60.0	60.6			
Medium Trucks:	54.3	50.4	1	42.9		51.6	57.8	57.8			
Heavy Trucks:	56.0	51.9	)	48.6		53.2	59.4	59.5			
Vehicle Noise:	62.8	60.2	2	58.2		57.0	63.9	64.2			
Mitigated Noise L	evels (with Topo	and barrier att	enuatio	n)							
VehicleType	Leq Peak Hour	Leq Day	Leq E	Evening	Leq N	ight	Ldn	CNEL			
Autos:	60.9	58.9	)	57.6		51.5	60.0	60.6 			
Medium Trucks:	54.3	50.4	ł	42.9		51.6	57.8	57.8			
Heavy Trucks:	56.0	51.9	9	48.6		53.2	59.4	59.5			
Vehicle Noise:	62.8	60.2	60.2		58.2 57.0		63.9	64.2			

Scenario: First Floor With Wall         Project Name: Arroyo Vista           Road Name: Iris Av.         Job Number: 14577           Lot No: 200         Analyst B. Maddux           SITE SPECIFIC INPUT DATA         NOISE MODEL INPUTS           Highway Data         Site Conditions (Hard = 10, Soft = 15)           Average Daily Traffic (Adl):         8,000 vehicles           Peak Hour Volume:         800 vehicles           Vehicle Speed:         30 mph           Near/Far Lane Distance:         12 feet           Site Data         On feet           Barrier Height:         0.0 feet           Barrier Height:         0.0 feet           Barrier Distance to Observer:         50.0 feet           Barrier Distance to Observer:         50.0 feet           Road Elevation:         1,522.5 feet           Road Grade:         0.0%           Heavy Trucks:         43.729           Medium Trucks:         43.821           FHWA Noise Model Calculations         Traffic Flow         Distance           VehicleType         ReMed Values:         71.20         -0.06           Medium Trucks:         73.70         0.000         Heavy Trucks:         43.821           FHWA Noise Model Calculations         Finite Road         Fresn	Fł	HWA-RD-77-108	8 HIGHWAY N	NOISE PF	REDICTION	MODEL	(CALVE	ENO) -	v10/31/19		
SITE SPECIFIC INPUT DATA         NOISE MODEL INPUTS           Highway Data         Site Conditions (Hard = 10, Soft = 15)           Average Daily Traffic (Adt):         8,000 vehicles         Autos:         15           Peak Hour Percentage:         10%         Medium Trucks (2 Axles):         15           Peak Hour Volume:         800 vehicles         Heavy Trucks (3+ Axles):         15           Vehicle Speed:         30 mph         Vehicle Type         Day         Evening         Night           Site Data         0.0 feet         Medium Trucks:         48.9%         2.2%         48.9%           Barrier Height:         0.0 feet         Medium Trucks:         47.3%         5.4%         47.3%           Barrier Distance to Observer:         30.0 feet         Medium Trucks:         1,522.50         Medium Trucks:         1,522.50           Barrier Distance to Observer:         30.0 feet         Autos:         1,522.51         Getet           Barrier Distance to Observer:         1,522.5 feet         Medium Trucks:         1,523.51         Geted Adjustment:           Barrier Elevation:         1,522.5 feet         Autos:         6,51         -1.16         0.77         -1.20         -0.06         0.000           Medium Trucks:         73.11         -18.4	Scenar Road Nam Lot N	<i>io:</i> First Floor W ne: Iris Av. <i>lo:</i> 200	/ith Wall			Project Job N	Name: / lumber: ^ Analyst: [	Arroyo 14577 3. Mad	Vista dux		
Highway Data         Site Conditions (Hard = 10, Soft = 15)           Average Daily Traffic (Adt):         8,000 vehicles         Autos:<	SITE	SPECIFIC INF	PUT DATA			Ν	IOISE N	/ODE	L INPUTS	S	
Average Daily Traffic (Adt):         8,000 vehicles         Autos:         15           Peak Hour Percentage:         10%         Medium Trucks (2 Axles):         15           Peak Hour Volume:         800 vehicles         Medium Trucks (2 Axles):         15           Vehicle Speed:         30 mph         Vehicle Mix         Vehicle Mix           Site Data         Autos:         75.5%         14.0%         10.5%           Barrier Height:         0.0 feet         Autos:         75.5%         14.0%         10.5%           Barrier Type (0-Wall, 1-Berm):         0.0         Centerline Dist. to Barrier:         20.0 feet         Autos:         47.3%         5.4%         47.3%           Centerline Dist. to Observer:         30.0 feet         Moise Source Elevations (in feet)         Autos:         1,522.50           Barrier Elevation:         1,522.5 feet         Autos:         1,522.60         Medium Trucks:         1,524.80           Observer Height (Above Pad):         5.0 feet         Autos:         43.729         Medium Trucks:         43.606           Barrier Elevation:         1,522.5 feet         Autos:         43.606         Heavy Trucks:         43.821           FHWA Noise Model Calculations         Vehicle Type         REMEL         Traffic Flow <td< td=""><td>Highway Data</td><td></td><td></td><td></td><td>Site Con</td><td>ditions</td><td>(Hard =</td><td>10, Sc</td><td>oft = 15)</td><td></td><td></td></td<>	Highway Data				Site Con	ditions	(Hard =	10, Sc	oft = 15)		
Peak Hour Percentage:         10%         Medium Trucks (2 Axles):         15           Peak Hour Volume:         800 vehicles         Medium Trucks (3 + Axles):         15           Vehicle Speed:         30 mph         Vehicle Type         Day         Evening         Night           Site Data         Autos:         75.5%         14.0%         10.5%           Barrier Height:         0.0 feet         Autos:         75.5%         14.0%         10.5%           Barrier Type (0-Wall, 1-Berm):         0.0         Medium Trucks:         48.9%         2.2%         48.9%           Centerline Dist to Diserver:         50.0 feet         Medium Trucks:         15.22.50         Medium Trucks:         15.22.50           Barrier Ibist to Observer:         30.0 feet         Autos:         1,522.50         Medium Trucks:         1,524.80           Observer Height (Above Pad):         5.0 feet         Autos:         1,522.5 feet         Autos:         43.729           Road Elevation:         1,522.5 feet         Autos:         43.606         Heavy Trucks:         43.821           FHWA Noise Model Calculations         Vehicle Type         REMEL         Traffic Flow         Distance         Finite Road         Fresnel         Barrier Atten         Bernier Atten	Average Daily	Traffic (Adt):	8,000 vehicles	3				Autos:	15		
Peak Hour Volume:         800 vehicles           Vehicle Speed:         30 mph           Near/Far Lane Distance:         12 feet           Site Data         Vehicle Type         Day         Evening         Night           Site Data         Quericity         0.0 feet         Medium Trucks:         43.9%         2.2%         48.9%           Barrier Type (0-Wall, 1-Berm):         0.0         Medium Trucks:         43.9%         2.2%         48.9%           Barrier Type (0-Wall, 1-Berm):         0.0         Meavy Trucks:         47.3%         5.4%         47.3%           Centerline Dist. to Barrier:         20.0 feet         Moise Source Elevations (in feet)         Moise Source Elevations (in feet)           Barrier Distance to Observer:         30.0 feet         Medium Trucks:         1,522.50           Barrier Elevation:         1,522.5 feet         Lane Equivalent Distance (in feet)           Barrier Elevation:         1,522.5 feet         Lane Equivalent Distance (in feet)           Barrier X         Xados:         62.51         -1.16         0.77         -1.20         -0.06         0.000           Medium Trucks:         73.11         -18.40         0.79         -1.20         -0.06         0.000           Medium Trucks:         73.76	Peak Hour	Percentage:	10%		Me	edium Tri	ucks (2 A	Axles):	15		
Vehicle Speed:         30 mph Near/Far Lane Distance:         12 feet         Vehicle Mix           Site Data         Vehicle Type         Day         Evening         Night           Site Data         Autos:         75.5%         14.0%         10.5%           Barrier Height:         0.0 feet         Medium Trucks:         48.9%         2.2%         48.9%           Barrier Type (0-Wall, 1-Berm):         0.0         Heavy Trucks:         47.3%         5.4%         47.3%           Centerline Dist. to Dbserver:         50.0 feet         Moise Source Elevations (in feet)         Autos:         1,522.50           Barrier Distance to Observer:         30.0 feet         Medium Trucks:         1,524.80         Heavy Trucks:         1,524.80           Observer Height (Above Pad):         5.0 feet         Autos:         43.729         Medium Trucks:         43.821           FHWA Noise Model Calculations         Issace         Finite Road         Fresnel         Barrier Atten         Berrier Atten         Berrier Atten         Berrier Atten         Berrier Atten         Medium Trucks:         43.821           FHWA Noise Model Calculations         Taffic Flow         Distance         Finite Road         Fresnel         Barrier Atten         Berrier Atten         Berrier Atten         Berrier Atten	Peak H	lour Volume:	800 vehicles	3	He	eavy True	cks (3+ A	Axles):	15		
Near/Far Lane Distance:         12 feet         VehicleType         Day         Evening         Night           Site Data         Autos:         75.5%         14.0%         10.5%           Barrier Height:         0.0         feet         Autos:         75.5%         14.0%         10.5%           Barrier Type (0-Wall, 1-Berm):         0.0         feet         Medium Trucks:         48.9%         2.2%         48.9%           Centerline Dist. to Barrier:         20.0 feet         feet         Autos:         1.522.50         feet         Autos:         1.522.50         feet         Autos:         1.522.50         feedum Trucks:         1.522.50         feedum Trucks:         1.522.50         feedum Trucks:         1.524.80         feedum Trucks:         1.524.80         feedum Trucks:         1.524.80         feedum Trucks:         1.522.50         feedum Trucks:         1.522.50         feedum Trucks:         43.606         feedum Trucks:         43.729         feedum Trucks:         43.821         feedum Trucks:         43.821         feedum Trucks:         43.821         feedum Trucks:         43.606         feedum Trucks:         43.821         feedum Trucks:         43.821         feedum Trucks:         43.821         feedum Trucks:         43.606         feedum Trucks:         63.606	Ve	hicle Speed:	30 mph		Vehicle	Mix					
Autos:         75.5%         14.0%         10.5%           Barrier Height:         0.0         Medium Trucks:         48.9%         2.2%         48.9%           Barrier Type (0-Wall, 1-Berm):         0.0         FURMENTING Section 10.5%         Medium Trucks:         47.3%         5.4%         47.3%           Centerline Dist. to Observer:         30.0 feet         Moise Source Elevations: (in feet)           Barrier Distance to Observer:         30.0 feet         Medium Trucks:         1,522.5           Barrier Elevation:         1,522.5 feet         Medium Trucks:         1,530.51         Grade Adjustment:           PMMA Noise Model Calculation:         1,522.5 feet         Medium Trucks:         43.606           FHWA Noise Model Calculation:         Traffic Flow         Distance         Freevel         Barrier Atten         Barrier           Vehicle Type         REMEL         Traffic Flow         Distance         Finite Road         Freevel         Barrier Atten         Barrier           Vehicle Type         REMEL         Traffic Flow         Distance         Finite Road         Freevel         Bar	Near/Far La	ne Distance:	12 feet		Veh	icleType	)	Day	Evening	Night	Daily
Barrier Height:         0.0 feet         Medium Trucks:         48.9%         2.2%         48.9%           Barrier Type (0-Wall, 1-Berm):         0.0         0.0         Heavy Trucks:         47.3%         5.4%         47.3%           Centerline Dist. to Barrier:         20.0 feet         Moise Source Elevations (in feet)         Autos:         1,522.50           Barrier Distance to Observer:         30.0 feet         Medium Trucks:         1,524.80         Medium Trucks:         1,524.80           Observer Height (Above Pad):         5.0 feet         Medium Trucks:         1,524.80         Medium Trucks:         1,524.80           Barrier Elevation:         1,522.5 feet         Medium Trucks:         1,523.51         Grade Adjustment:           Barrier Elevation:         1,522.5 feet         Autos:         43.729         Image: Addium Trucks:         43.606           Heavy Trucks:         73.11         -1.16         0.77         -1.20         -0.06         0.000           Medium Trucks:         73.11         -18.40         0.79         -1.20         -0.37         0.000           Medium Trucks:         78.76         -22.35         0.76         -1.20         -2.06         0.000           Medium Trucks:         78.76         -22.35         0.76	Site Data						Autos:	75.5%	14.0%	10.5%	97.42%
Barrier Type (0-Wall, 1-Berm):         0.0           Centerline Dist. to Barrier:         20.0 feet           Centerline Dist. to Observer:         50.0 feet           Barrier Distance to Observer:         30.0 feet           Observer Height (Above Pad):         5.0 feet           Pad Elevation:         1,522.5 feet           Barrier Elevation:         1,522.5 feet           Medium Trucks:         43.729           Medium Trucks:         43.821           FHWA Noise Model Calculations         Vehicle Type           Vehicle Type         REMEL         Traffic Flow           Distance         Finite Road           Fresnel         Barrier Atten           Barrier Tucks:         73.11           -11.6         0.77           -1.20         -0.06           0.000         0.000           Medium Trucks:         73.10           Weavy Trucks:         54.3           50.4         42.9           5	Ba	rrier Height:	0.0 feet		M	ledium T	rucks:	48.9%	2.2%	48.9%	1.84%
Centerline Dist. to Barrier:         20.0 feet         Noise Source Elevations (in feet)           Barrier Distance to Observer:         30.0 feet         Autos:         1,522.50           Dbserver Height (Above Pad):         5.0 feet         Medium Trucks:         1,524.80           Pad Elevation:         1,522.5 feet         Heavy Trucks:         1,530.51         Grade Adjustment:           Barrier Elevation:         1,522.5 feet         Lane Equivalent Distance (in feet)         Image: Constance (in feet)           Barrier Elevation:         1,522.5 feet         Autos:         43.729           Road Grade:         0.0%         Medium Trucks:         43.821           FHWA Noise Model Calculations         Image: Constance C	Barrier Type (0-W	/all, 1-Berm):	0.0			Heavy T	rucks:	47.3%	5.4%	47.3%	0.74%
Centerline Dist. to Observer:         50.0 feet           Barrier Distance to Observer:         30.0 feet           Observer Height (Above Pad):         5.0 feet           Pad Elevation:         1,521.0 feet           Road Elevation:         1,522.5 feet           Barrier Elevation:         1,522.5 feet           Barrier Elevation:         1,522.5 feet           Barrier Elevation:         1,522.5 feet           Road Grade:         0.0%           VehicleType         REMEL           VehicleType         REMEL           Autos:         62.51           -1.16         0.77           -1.20         -0.06           Medium Trucks:         73.11           -18.40         0.79           Medium Trucks:         73.11           -18.40         0.79           Medium Trucks:         73.11           -18.40         0.79           Meavy Trucks:         78.76           -22.35         0.76           -1.20         -0.06           0.000         0.000           Medium Trucks:         54.3           56.0         51.6           60.9         58.9           58.2         57.0     <	Centerline Di	st. to Barrier:	20.0 feet		Noise Se	ource El	evations	s (in fe	et)		
Barrier Distance to Observer:         30.0 feet           Observer Height (Above Pad):         5.0 feet           Pad Elevation:         1,521.0 feet           Road Elevation:         1,522.5 feet           Barrier Elevation:         1,522.5 feet           Road Grade:         0.0%           Medium Trucks:         43.729           Medium Trucks:         43.606           Heavy Trucks:         43.606           Heavy Trucks:         43.821           FHWA Noise Model Calculations         Distance         Finite Road         Fresnel         Barrier Atten         Berrier Atten           Autos:         62.51         -1.16         0.77         -1.20         -0.06         0.000           Medium Trucks:         73.11         -18.40         0.79         -1.20         -0.37         0.000           Medium Trucks:         78.76         -22.35         0.76         -1.20         -2.06         0.000           Unmitigated Noise Levels (without Topo and barrier attenuation)         Leq Day         Leq Evening         Leq Night         Ldn         CN           Medium Trucks:         54.3         50.4         42.9         51.7         57.8           Medium Trucks:         56.0         51.9 <t< td=""><td>Centerline Dist.</td><td>to Observer:</td><td>50.0 feet</td><td></td><td></td><td>Auto</td><td>s: 1,52</td><td>2.50</td><td></td><td></td><td></td></t<>	Centerline Dist.	to Observer:	50.0 feet			Auto	s: 1,52	2.50			
Observer Height (Above Pad):         5.0 teet           Pad Elevation:         1,521.0 feet           Road Elevation:         1,522.5 feet           Barrier Elevation:         1,522.5 feet           Road Grade:         0.0%           FHWA Noise Model Calculations         43.729           VehicleType         REMEL         Traffic Flow           Autos:         62.51         -1.16         0.77         -1.20         -0.06         0.000           Medium Trucks:         73.11         -18.40         0.79         -1.20         -0.06         0.000           Medium Trucks:         73.11         -18.40         0.79         -1.20         -0.06         0.000           Medium Trucks:         78.76         -22.35         0.76         -1.20         -2.06         0.000           Unmitigated Noise Levels (without Topo and barrier attenuation)         Leq Evening         Leq Night         Ldn         CN           Vehicle Type         Leq Peak Hour         Leq Day         Leq Evening         Leq Night         Ldn         CN           Medium Trucks:         54.3         50.4         42.9         51.7         57.8         48.5         53.2         59.4         48.5         53.2         59.4         48.	Barrier Distance	to Observer:	30.0 feet		Mediu	m Truck	s: 1,52	4.80			
Pad Elevation:       1,521.0 feet         Road Elevation:       1,522.5 feet       Lane Equivalent Distance (in feet)         Barrier Elevation:       1,522.5 feet       Autos:       43.729         Road Grade:       0.0%       Medium Trucks:       43.606         Heavy Trucks:       43.821         FHWA Noise Model Calculations       Integration       Environmentation       Barrier Atten       Berrier         VehicleType       REMEL       Traffic Flow       Distance       Finite Road       Fresnel       Barrier Atten       Berrier         Autos:       62.51       -1.16       0.77       -1.20       -0.06       0.000         Medium Trucks:       73.11       -18.40       0.79       -1.20       -0.37       0.000         Heavy Trucks:       78.76       -22.35       0.76       -1.20       -2.06       0.000         Ummitigated Noise Levels (without Topo and barrier attenuation)       Leq Pay       Leq Evening       Leq Night       Ldn       CN         VehicleType       Leq Peak Hour       Leq Day       Leq Evening       Leq Night       Ldn       CN         Medium Trucks:       54.3       50.4       42.9       51.7       57.8       9.4         Vehicle Noise:	Observer Height (	Above Pad):	5.0 feet		Hea	vy Truck	s: 1,53	0.51	Grade Ad	justment	: 0.0
Road Elevation:       1,522.5 feet       Autos:       43.729         Barrier Elevation:       1,522.5 feet       Autos:       43.729         Road Grade:       0.0%       Medium Trucks:       43.606         FHWA Noise Model Calculations       Finite Road       Fresnel       Barrier Atten       Berrier Atten         Vehicle Type       REMEL       Traffic Flow       Distance       Finite Road       Fresnel       Barrier Atten       Berrier Atten         Autos:       62.51       -1.16       0.77       -1.20       -0.06       0.000         Medium Trucks:       73.11       -18.40       0.79       -1.20       -0.37       0.000         Medium Trucks:       78.76       -22.35       0.76       -1.20       -2.06       0.000         Unmitigated Noise Levels (without Topo and barrier attenuation)       Leq Peak Hour       Leq Day       Leq Evening       Leq Night       Ldn       CN         Autos:       60.9       58.9       57.6       51.6       60.0       Medium Trucks:       53.2       59.4         Vehicle Type       Leq Peak Hour       Leq Day       1.9       48.5       53.2       59.4       59.4         Medium Trucks:       56.0       51.9       48.5	Pa	Road Elevation: 1,521.0 feet				uivələnt	Distanc	o (in t	(act)		
Damer Lievation:       1,322.3 reet       Hadds:       43.606         Road Grade:       0.0%       Medium Trucks:       43.606         Heavy Trucks:       43.821         FHWA Noise Model Calculations       Entite Road       Fresnel       Barrier Atten       Bern         VehicleType       REMEL       Traffic Flow       Distance       Finite Road       Fresnel       Barrier Atten       Bern         Autos:       62.51       -1.16       0.77       -1.20       -0.06       0.000         Medium Trucks:       73.11       -18.40       0.79       -1.20       -0.37       0.000         Heavy Trucks:       78.76       -22.35       0.76       -1.20       -2.06       0.000         Unmitigated Noise Levels (without Topo and barrier attenuation)       Leq Peak Hour       Leq Day       Leq Evening       Leq Night       Ldn       CN         Medium Trucks:       54.3       50.4       42.9       51.7       57.8       60.0       61.9       63.9         Medium Trucks:       56.0       51.9       48.5       53.2       59.4       59.4       59.4         Vehicle Type       Leq Peak Hour       Leq Day       Leq Evening       Leq Night       Ldn       CN	Rua Barri	Road Elevation: 1,522.5 feet					<u>ο·</u> Δ3·	729	001)		
Module Field Order: 10.000         Heavy Trucks: 43.821         FHWA Noise Model Calculations         VehicleType       REMEL       Traffic Flow       Distance       Finite Road       Fresnel       Barrier Atten       Berrier         Autos:       62.51       -1.16       0.77       -1.20       -0.06       0.000         Medium Trucks:       73.11       -18.40       0.79       -1.20       -0.37       0.000         Heavy Trucks:       78.76       -22.35       0.76       -1.20       -2.06       0.000         Unmitigated Noise Levels (without Topo and barrier attenuation)       Leq Poay       Leq Day       Leq Evening       Leq Night       Ldn       CN         VehicleType       Leq Peak Hour       Leq Day       Leq Evening       Leq Night       Ldn       CN         Medium Trucks:       54.3       50.4       42.9       51.7       57.8       59.4         Medium Trucks:       56.0       51.9       48.5       53.2       59.4       59.4         Vehicle Noise:       62.8       60.2       58.2       57.0       63.9         Mitigated Noise Levels (with Topo and barrier attenuation)       Eeq Peak Hour       Leq Day       Leq Evening       Le	Dain	Barrier Elevation: 1,522.5 feet			Mediu	m Truck	s 43 (	606			
FHWA Noise Model Calculations           VehicleType         REMEL         Traffic Flow         Distance         Finite Road         Fresnel         Barrier Atten         Berrier           Autos:         62.51         -1.16         0.77         -1.20         -0.06         0.000           Medium Trucks:         73.11         -18.40         0.79         -1.20         -0.37         0.000           Heavy Trucks:         78.76         -22.35         0.76         -1.20         -2.06         0.000           Unmitigated Noise Levels (without Topo and barrier attenuation)         Leq Evening         Leq Night         Ldn         CN           VehicleType         Leq Peak Hour         Leq Day         Leq Evening         Leq Night         Ldn         CN           Autos:         60.9         58.9         57.6         51.6         60.0           Medium Trucks:         54.3         50.4         42.9         51.7         57.8           Heavy Trucks:         56.0         51.9         48.5         53.2         59.4           Vehicle Noise:         62.8         60.2         58.2         57.0         63.9           Mitigated Noise Levels (with Topo and barrier attenuation)         Up Distructure attenuation)         <			0.070		Hear	vy Truck	s: 43.	821			
VehicleType         REMEL         Traffic Flow         Distance         Finite Road         Fresnel         Barrier Atten         Bern           Autos:         62.51         -1.16         0.77         -1.20         -0.06         0.000         0.000           Medium Trucks:         73.11         -18.40         0.79         -1.20         -0.37         0.000         0.000           Heavy Trucks:         78.76         -22.35         0.76         -1.20         -2.06         0.000 <td>FHWA Noise Mode</td> <td>el Calculations</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	FHWA Noise Mode	el Calculations									
Autos: $62.51$ $-1.16$ $0.77$ $-1.20$ $-0.06$ $0.000$ Medium Trucks: $73.11$ $-18.40$ $0.79$ $-1.20$ $-0.37$ $0.000$ Heavy Trucks: $78.76$ $-22.35$ $0.76$ $-1.20$ $-2.06$ $0.000$ Unmitigated Noise Levels (without Topo and barrier attenuation)       Leq Peak Hour       Leq Day       Leq Evening       Leq Night       Ldn       CN         VehicleType       Leq Peak Hour       Leq Day       Leq Evening       Leq Night       Ldn       CN         Autos: $60.9$ $58.9$ $57.6$ $51.6$ $60.0$ $60.0$ Medium Trucks: $54.3$ $50.4$ $42.9$ $51.7$ $57.8$ $57.8$ Heavy Trucks: $56.0$ $51.9$ $48.5$ $53.2$ $59.4$ $59.4$ $60.9$ $58.9$ $57.0$ $63.9$ $63.9$ $57.6$ $51.0$ $63.9$ $60.9$ $60.9$ $60.9$ $60.9$ $60.9$ $60.9$ $60.9$ $60.9$ $60.9$ $60.9$ $60.9$ $60.9$ $60.9$ $60.9$ $60.9$ $60.9$	VehicleType	REMEL	Traffic Flow	Distan	ce Finite	Road	Fresn	el	Barrier Atte	en Ber	m Atten
Medium Trucks:       73.11       -18.40       0.79       -1.20       -0.37       0.000         Heavy Trucks:       78.76       -22.35       0.76       -1.20       -2.06       0.000         Unmitigated Noise Levels (without Topo and barrier attenuation)       Leq Peak Hour       Leq Day       Leq Evening       Leq Night       Ldn       CN         VehicleType       Leq Peak Hour       Leq Day       Leq Evening       Leq Night       Ldn       CN         Autos:       60.9       58.9       57.6       51.6       60.0         Medium Trucks:       54.3       50.4       42.9       51.7       57.8         Heavy Trucks:       56.0       51.9       48.5       53.2       59.4         Vehicle Noise:       62.8       60.2       58.2       57.0       63.9         Mitigated Noise Levels (with Topo and barrier attenuation)       Leq Night       Ldn       CN         VehicleType       Leq Peak Hour       Leq Day       Leq Evening       Leq Night       Ldn       CN         Autos:       60.9       58.9       57.6       51.6       60.0       60.0	Autos:	62.51	-1.16		0.77	-1.20		-0.06	0.0	000	0.000
Heavy Trucks:78.76-22.350.76-1.20-2.060.000Unmitigated Noise Levels (without Topo and barrier attenuation)Vehicle TypeLeq Peak HourLeq DayLeq EveningLeq NightLdnCNAutos:60.958.957.651.660.060.0Medium Trucks:54.350.442.951.757.8Heavy Trucks:56.051.948.553.259.4Vehicle Noise:62.860.258.257.063.9Mitigated Noise Levels (with Topo and barrier attenuation)Leq DayLeq EveningLeq NightLdnCNMitigated Noise Levels (with Topo and barrier attenuation)Leq DayLeq EveningLeq NightLdnCNAutos:60.958.957.651.660.0CN	Medium Trucks:	73.11	-18.40		0.79	-1.20		-0.37	0.0	000	0.000
Unmitigated Noise Levels (without Topo and barrier attenuation)VehicleTypeLeq Peak HourLeq DayLeq EveningLeq NightLdnCNAutos: $60.9$ $58.9$ $57.6$ $51.6$ $60.0$ Medium Trucks: $54.3$ $50.4$ $42.9$ $51.7$ $57.8$	Heavy Trucks:	78.76	-22.35		0.76	-1.20		-2.06	0.0	000	0.000
VehicleType         Leq Peak Hour         Leq Day         Leq Evening         Leq Night         Ldn         CN           Autos:         60.9         58.9         57.6         51.6         60.0         60.0           Medium Trucks:         54.3         50.4         42.9         51.7         57.8         57.8           Heavy Trucks:         56.0         51.9         48.5         53.2         59.4         59.4           Vehicle Noise:         62.8         60.2         58.2         57.0         63.9         63.9           Mitigated Noise Levels (with Topo and barrier attenuation)         Leq Day         Leq Evening         Leq Night         Ldn         CN           VehicleType         Leq Peak Hour         Leq Day         Leq Evening         Leq Night         Ldn         CN           Autos:         60.9         58.9         57.6         51.6         60.0         60.0	Unmitigated Noise	e Levels (witho	ut Topo and	barrier a	ttenuation)	1		1		1	
Autos:       60.9       58.9       57.6       51.6       60.0         Medium Trucks:       54.3       50.4       42.9       51.7       57.8         Heavy Trucks:       56.0       51.9       48.5       53.2       59.4         Vehicle Noise:       62.8       60.2       58.2       57.0       63.9         Mitigated Noise Levels (with Topo and barrier attenuation)       Vehicle Type       Leq Peak Hour       Leq Day       Leq Evening       Leq Night       Ldn       CN         Autos:       60.9       58.9       57.6       51.6       60.0	VehicleType	Leq Peak Hour	Leq Day	Le	q Evening	Leq	Night		Ldn	C	NEL
Medium Trucks:         54.3         50.4         42.9         51.7         57.8           Heavy Trucks:         56.0         51.9         48.5         53.2         59.4           Vehicle Noise:         62.8         60.2         58.2         57.0         63.9           Mitigated Noise Levels (with Topo and barrier attenuation)         Leq Day         Leq Evening         Leq Night         Ldn         CN           Autos:         60.9         58.9         57.6         51.6         60.0	Autos:	60.9	9	58.9	57.6		51.6	5	60.0	)	60.6
Heavy Trucks:         56.0         51.9         48.5         53.2         59.4           Vehicle Noise:         62.8         60.2         58.2         57.0         63.9           Mitigated Noise Levels (with Topo and barrier attenuation)         Vehicle Type         Leq Peak Hour         Leq Day         Leq Evening         Leq Night         Ldn         CN           Autos:         60.9         58.9         57.6         51.6         60.0	Medium Trucks:	54.3	.3 50.4		42.9		51.7		57.8	3	57.9
Venicie Noise:62.860.258.257.063.9Mitigated Noise Levels (with Topo and barrier attenuation)VehicleTypeLeq Peak HourLeq DayLeq EveningLeq NightLdnCNAutos:60.958.957.651.660.0	Heavy Trucks:	56.0	0	51.9	48.5		53.2	<u>,                                     </u>	59.4	1	59.5
Mitigated Noise Levels (with Topo and barrier attenuation)VehicleTypeLeq Peak HourLeq DayLeq EveningLeq NightLdnCNAutos:60.958.957.651.660.0	Venicie Noise:	62.8	8	60.2	58.2		57.0	)	63.9	1	64.2
Venicie i ypeLeq Peak HourLeq DayLeq EveningLeq NightLanCivAutos:60.958.957.651.660.0	Mitigated Noise Le	evels (with Top	o and barrier	attenua	tion)		NI - L (	1	1.1.		
Autos. 00.9 58.9 57.6 51.6 60.0	venicie i ype	Leq Peak Hour	Leq Day		y Evening	Leq	ivignt	<u> </u>	Lan		
Modium Trucks: 54.3 50.4 42.0 51.7	AUIOS: Modium Trucks	6U.S	3	50.9 50.4	0.1C		51.0		6U.C	,	60.6 57 0
$\frac{1}{1} \frac{1}{1} \frac{1}$	Heavy Trucks	54.	0	50.4 51 Q	42.9 10 5		52.2	,	57.8 50/	; 1	50 5 50 5
Nobiolo Noiso:         62.9         60.0         51.3         40.0         53.2         59.4	Vobiolo Noiso	00.0	0	60.0	40.0		53.2	- )	09.4	r )	09.0

FI	HWA-RD-77-10	08 HIGHWAY	NOISE F	PRED	DICTION	MODEI		ENO) -	v10/31/19		
Scenar Road Nam Lot N	<i>io:</i> First Floor V ne: Iris Av. <i>Io:</i> 165	With Wall				Projec Job I	et Name: Number: Analyst:	Arroyo 14577 B. Mad	Vista dux		
SITE	SPECIFIC IN	IPUT DATA				ſ	NOISE	MODE	L INPUT	S	
Highway Data					Site Con	ditions	; (Hard =	10, Sc	oft = 15)		
Average Daily	Traffic (Adt):	8,000 vehicles	5					Autos:	15		
Peak Hour	Percentage:	10%			Me	dium T	rucks (2 .	Axles):	15		
Peak F	lour Volume:	800 vehicle	5		He	avy Tru	ıcks (3+ .	Axles):	15		
Ve	hicle Speed:	30 mph		-	Vehicle I	Mix					
Near/Far La	ne Distance:	12 feet		-	Veh	icleTyp	е	Day	Evening	Night	Daily
Site Data							Autos:	75.5%	14.0%	10.5%	97.42%
Ba	rrier Height <sup>.</sup>	0 0 feet			М	edium T	Trucks:	48.9%	2.2%	48.9%	1.84%
Barrier Type (0-W	/all. 1-Berm):	0.0			I	Heavy	Trucks:	47.3%	5.4%	47.3%	0.74%
Centerline Di	st. to Barrier:	30.0 feet		_	Noise Sc	ource E	levation	s (in fe	et)		
Centerline Dist.	to Observer:	60.0 feet				Auto	os: 1,50	, 07.30	,		
Barrier Distance	to Observer:	30.0 feet			Mediu	m Trucl	ks: 1,50	09.60			
Observer Height	(Above Pad):	5.0 feet			Heav	y Trucl	ks: 1,5	15.31	Grade Ad	justment	: 0.0
P	ad Elevation:	1,511.0 feet		_	Long For	,			(a.a.4)		
Ro	ad Elevation:	1,507.3 feet		-	Lane Equ	uivaien			eet)		
Barn	ler Elevation:	1,511.0 feet			Modiu	AUIO m Truol	DS: 54.	.300			
	Road Grade.	0.0%			Heav	y Truck	ks: 53.	.670			
FHWA Noise Mod	el Calculations	S									
VehicleType	REMEL	Traffic Flow	Dista	nce	Finite	Road	Fresi	nel	Barrier Att	en Ber	m Atten
Autos:	62.51	-1.16		-0.6	5	-1.20		0.00	0.0	000	0.000
Medium Trucks:	73.11	-18.40		-0.6	1	-1.20		-0.07	0.0	000	0.000
Heavy Trucks:	78.76	-22.35		-0.5	6	-1.20		-0.78	0.0	000	0.000
Unmitigated Noise	e Levels (with	out Topo and	barrier	atten	uation)						
VehicleType	Leq Peak Hou	ır Leq Day	′ L	.eq E	vening	Leq	ı Night		Ldn	C	NEL
Autos:	59	.5	57.5		56.2		50.2	2	58.6	6	59.2
Medium Trucks:	52	.9	49.0		41.5		50.3	3	56.4	1	56.5
Heavy Trucks:	54	.6	50.6		47.2		51.8	8	58.0	)	58.1
Vehicle Noise:	61	.4	58.8		56.8		55.	6	62.6	6	62.9
Mitigated Noise L	evels (with Top	po and barrie	r attenu	ation	ı)					1	
VehicleType	Leq Peak Hou	Ir Leq Day	′ L	.eq E	vening	Leq	n Night		Ldn	C	NEL
Autos:	59	.5	57.5		56.2		50.2	2	58.6	6	59.2
Medium Trucks:	52	.9	49.0		41.5		50.3	3	56.4	ļ	56.5
Heavy Trucks:	54	.6	50.6		47.2		51.8	8	58.0	)	58.1
Vehicle Noise:	61	.4	58.8		56.8		55.	6	62.6	6	62.9

F	HWA-RD-77-10	08 HIGHWAY	NOISE	E PRED	DICTION	MODEL (	(CALVEN	IO) - v1	0/31/19		
Scenar Road Nan Lot N	<i>io:</i> Second Flo ne: Chicago Av <i>lo:</i> 11	or With Wall				Project I Job Nu Ai	Vame: Ar ımber: 14 nalyst: B.	royo Vis 577 Maddu:	sta x		
SITE	SPECIFIC IN	PUT DATA				N	DISE MO	DDEL I	NPUTS	5	
Highway Data					Site Con	ditions (	Hard = 10	0, Soft =	= 15)		
Average Daily Peak Hour Peak H Ve	Traffic (Adt): Percentage: łour Volume: hicle Speed:	8,000 vehicle 10% 800 vehicle 25 mph	s	_	Me He	edium True eavy Truci Mix	Aı cks (2 Ax ks (3+ Ax	utos: (les): (les):	15 15 15		
Near/Far La	ne Distance:	12 feet			Veh	icleTvpe	D	av E	venina	Niaht	Daily
Site Data						A	utos: 7	<u> </u>	14.0%	10.5%	97.42%
Ba	rrier Height:	0 0 feet			Μ	edium Tru	ucks: 4	8.9%	2.2%	48.9%	1.84%
Barrier Type (0-W	/all. 1-Berm):	0.0				Heavy Tri	ucks: 4	7.3%	5.4%	47.3%	0.74%
Centerline Di	st. to Barrier:	20.0 feet			Noiso Sa	ourco Ele	vations	(in foot)			
Centerline Dist.	to Observer:	51.0 feet		-	10130 30		· 1 528	50			
Barrier Distance Observer Height	to Observer: (Above Pad):	31.0 feet 14.0 feet			Mediu Heav	m Trucks /y Trucks	: 1,530 : 1,536	.30 .80 .51 Gr	rade Adj	iustment	t: 0.0
Po Po	ad Elevation: ad Elevation:	1,532.2 Teet		-	l ane Fo	uivalent	Distance	(in fee	<i>t</i> )		
Barr	ier Elevation:	1,520.5 feet				Autos	: 47.98	32	-/		
	Road Grade:	0.0%			Mediu Heav	m Trucks ⁄y Trucks	: 47.18 : 45.64	33 40			
FHWA Noise Mod	el Calculation	5									
VehicleType	REMEL	Traffic Flow	Disi	tance	Finite	Road	Fresnel	Ba	rrier Atte	en Bei	m Atten
Autos:	59.44	-0.37		0.1	6	-1.20	-(	).14	0.0	000	0.000
Medium Trucks:	71.09	-17.61		0.2	27	-1.20	-(	).51	0.0	000	0.000
Heavy Trucks:	77.24	-21.56		0.4	19	-1.20	-2	2.57	0.0	000	0.000
Unmitigated Noise	e Levels (with	out Topo and	barrie	er atter	nuation)						
VehicleType	Leq Peak Hou	r Leq Day	/	Leq E	vening	Leq N	light	Lc	In	С	NEL
Autos:	58	.0	56.0		54.7		48.7		57.1		57.7
Medium Trucks:	52	.6	48.7		41.2		49.9		56.1		56.1
Heavy Trucks:	55	.0	50.9		47.5		52.2		58.4	•	58.5
Vehicle Noise:	60	.5	57.8		55.6		55.3		62.1		62.3
Mitigated Noise L	evels (with To	po and barrie	r atten	nuatior	ı)					r	
VehicleType	Leq Peak Hou	r Leq Day	/	Leq E	vening	Leq N	light	Lc	In	С	NEL
Autos:	58	.0	56.0		54.7		48.7		57.1		57.7
Medium Trucks:	52	.6	48.7		41.2		49.9		56.1		56.1
Heavy Trucks:	55	.0	50.9		47.5		52.2		58.4		58.5
Vehicle Noise:	60	.5	57.8		55.6		55.3		62.1		62.3

FI	HWA-RD-77-108	B HIGHWAY	NOISE P	RED		MODE	L (CALVE	:NO) -	v10/31/19		
Scenar Road Nan Lot N	rio: Second Floo ne: Iris Av. lo: 227	r With Wall				Projec Job I	et Name: A Number: 1 Analyst: E	Arroyo 4577 3. Mac	Vista Idux		
SITE	SPECIFIC INF	PUT DATA				[	NOISE N	10DE	L INPUTS	3	
Highway Data				S	Site Con	ditions	(Hard =	10, So	oft = 15)		
Average Daily Peak Hour Peak F	Traffic (Adt): 8 Percentage: lour Volume:	3,000 vehicle 10% 800 vehicle 30 mph	s		Me He	dium T. avy Tru	rucks (2 A ucks (3+ A	Autos: \xles): \xles):	15 15 15		
Near/Far La	ne Distance:	12 feet		١	/ehicle N	/ix					
Sito Data		12 1000			Vehi	cleTyp		Day	Evening	Night	Daily
Site Data					٨.٨	dium -	Autos: Trucks:	12.5%	0 14.0%	10.5%	97.42%
Ba	rrier Height:	0.0 feet			ivie F	- Heavy	Trucks:	40.97	5 <u>4%</u>	40.9%	0.74%
Barrier Type (0-M	Vall, 1-Berm):	0.0				leavy	nucks.	-1.57	5.470	47.570	0.7470
Centerline Di	st. to Barner:	22.0 feet		٨	loise So	urce E	levations	s (in fe	eet)		
Barrier Distance Observer Height	to Observer: (Above Pad): ad Elevation: 1	28.0 feet 14.0 feet 566.0 feet			Mediur Heav	Auto n Trucl y Trucl	os: 1,56 ks: 1,56 ks: 1,57	5.00 7.30 3.01	Grade Adj	ustment	t: 0.0
Ro	ad Elevation: 1	,565.0 feet		L	.ane Equ	livalen	t Distanc	e (In 1	reet)		
EHWA Noise Mod	el Calculations	0.0%			Mediur Heav	n Truci y Truci	ks: 45.4 ks: 44.7	402 147			
VehicleType	REMEL	Traffic Flow	Distan	ce	Finite	Road	Fresn	el	Barrier Atte	en Ber	rm Atten
Autos:	62.51	-1.16		0.43	3	-1.20		-0.83	0.0	00	0.000
Medium Trucks:	73.11	-18.40		0.52	2	-1.20		-1.53	0.0	00	0.000
Heavy Trucks:	78.76	-22.35		0.71	1	-1.20		-4.13	0.0	00	0.000
Unmitigated Noise	e Levels (witho	ut Topo and	barrier a	tten	uation)						
VehicleType	Leq Peak Hour	Leq Day	/ Le	eq Ev	/ening	Leq	ı Night		Ldn	C	NEL
Autos:	60.6	6	58.6		57.3		51.2		59.7	•	60.3
Medium Trucks:	54.0	)	50.1		42.6		51.4		57.6	5	57.6
Heavy Trucks:	55.9	)	51.9		48.5		53.1		59.3	6	59.4
Vehicle Noise:	62.5	5	59.9		57.9		56.8		63.7	•	64.0
Mitigated Noise L	evels (with Top	o and barrie	r attenua	tion)	)						
VehicleType	Leq Peak Hour	Leq Day	/ Le	eq Ev	/ening	Leq	ı Night		Ldn	C	NEL
Autos:	60.6	3	58.6		57.3		51.2		59.7	, –	60.3
Medium Trucks:	54.0	)	50.1		42.6		51.4		57.6		57.6
Heavy Trucks:	55.9	)	51.9		48.5		53.1		59.3		59.4
Vehicle Noise:	62.5	5	59.9		57.9		56.8		63.7	,	64.0

F	HWA-RD-77-108	HIGHWAY N	NOISE PRE		MODEI	L (CALVE	ENO)	- v10/31/19		
Scenar Road Nan Lot N	<i>io:</i> Second Floor ne: Iris Av. <i>lo:</i> 200	With Wall			Projec Job I	t Name: / Number: ^ Analyst: [	Arroyc 14577 3. Ma	o Vista ddux		
SITE	SPECIFIC INP	UT DATA			ſ	NOISEN	/ODE	EL INPUTS	ò	
Highway Data				Site Con	ditions	(Hard =	10, S	oft = 15)		
Average Daily Peak Hour Peak H	Traffic (Adt): 8 Percentage: lour Volume:	,000 vehicles 10% 800 vehicles	5	Me He	dium Ti avy Tru	rucks (2 A Icks (3+ A	Autos Axles) Axles)	: 15 : 15 : 15		
Ve	hicle Speed:	30 mph		Vehicle I	Nix					
Near/Far La	ne Distance:	12 feet		Veh	icleTyp	e Autos:	Day 75 5°	Evening	Night	Daily
Data Data		0.0.6		M	edium T	Trucks <sup>.</sup>	48.99	% 2.2%	48.9%	1 84%
Barrior Type (0 M	rrier Height:				Heavv T	Trucks:	47.3%	6 <u>2.2</u> 70 6 5.4%	47.3%	0.74%
Centerline Di	ist to Barrier	0.0 20.0 feet			,					
Centerline Dist	to Observer	50 0 feet		Noise So	ource E	levations	s (in f	eet)		
Barrier Distance	to Observer:	30.0 feet			Auto	os: 1,52	2.50			
Observer Height	(Above Pad):	14.0 feet		Mediu	m Truck	ks: 1,52	24.80			0.0
P	ad Elevation: 1.	521.0 feet		Heav	y Truck	ks: 1,53	80.51	Grade Adji	ustment.	0.0
Ro	ad Elevation: 1.	522.5 feet		Lane Equ	uivalen	t Distand	e (in	feet)		
Barr	ier Elevation: 1,	522.5 feet			Auto	os: 45.	346			
	Road Grade:	0.0%		Mediui Heav	m Truck vy Truck	ks: 44. ks: 43.	767 820			
FHWA Noise Mod	el Calculations									
VehicleType	REMEL 7	raffic Flow	Distance	Finite	Road	Fresn	el	Barrier Atte	en Ber	m Atten
Autos:	62.51	-1.16	0	.53	-1.20		-0.74	0.0	00	0.000
Medium Trucks:	73.11	-18.40	0	.62	-1.20		-1.49	0.0	00	0.000
Heavy Trucks:	78.76	-22.35	0	.76	-1.20		-4.30	0.0	00	0.000
Unmitigated Noise	e Levels (withou	t Topo and I	barrier atte	enuation)			1			
VehicleType	Leq Peak Hour	Leq Day	Leq	Evening	Leq	Night		Ldn	Cl	VEL
Autos:	60.7		58.7	57.4		51.4	ŀ	59.8		60.4
Medium Trucks:	54.1	-	50.2	42.7		51.5	5	57.7		57.7
Heavy Trucks:	56.0		51.9	48.5		53.2	2	59.4		59.5
Vehicle Noise:	62.6		60.0	58.0		56.9	)	63.8		64.1
Mitigated Noise L	evels (with Topo	and barrier	attenuatio	on)						
venicie i ype	Leq Peak Hour	Leq Day	Leq	Evening	Leq			Lan	Cl	
Autos:	60.7		50.7	57.4		51.4	•	59.8		60.4
	54.1		0U.∠ 51.0	42.7		51.5	) >	57.7		51.1
Heavy Trucks:	0.06		01.9	48.5		53.2	<u>.</u>	59.4		59.5
venicie inoise:	62.6		60.0	58.0		56.5	,	63.8		64.1

FI	HWA-RD-77-108	HIGHWAY NO	DISE PRE	DICTION	MODEL	(CALVENO)	- v10/31/19	
Scenar Road Nam Lot N	<i>io:</i> Second Floor ne: Iris Av. <i>Io:</i> 165	With Wall			Project Job Ni A	Name: Arroy umber: 1457 nalyst: B. Ma	o Vista 7 addux	
SITE	SPECIFIC INP	UT DATA			N	OISE MOD	EL INPUTS	
Highway Data				Site Con	ditions (	Hard = $10, S$	<i>foft = 15)</i>	
Average Daily	Traffic (Adt): 8	,000 vehicles				Auto	s: 15	
Peak Hour	Percentage:	10%		Me	dium Tru	icks (2 Axles	): 15	
Peak F	lour Volume:	800 vehicles		He	avy Truc	KS (3+ AXIES	): 15	
Ve Noor/Ear Lo	enicie Speed:	30 mpn		Vehicle l	Mix	T		
	ne Distance.	12 leel		Veh	icleType	Day	Evening	Night Daily
Site Data				-	A	lutos: 75.5	% 14.0%	10.5% 97.42%
Ba	rrier Height:	0.0 feet		M	edium Tr	ucks: 48.9	% 2.2%	48.9% 1.84%
Barrier Type (0-W	/all, 1-Berm):	0.0			Heavy Ir	ucks: 47.3	% 5.4%	47.3% 0.74%
Centerline Di	st. to Barrier:	30.0 feet		Noise Sc	ource Ele	evations (in	feet)	
Centerline Dist.	to Observer:	60.0 feet			Autos	s: 1,507.30		
Barrier Distance	to Observer:	30.0 feet		Mediu	m Trucks	: 1,509.60		
Observer Height	(Above Pad):	14.0 feet		Heav	/y Trucks	a: 1,515.31	Grade Adji	ustment: 0.0
Ro	ad Elevation: 1,	507.3 feet		Lane Eq	uivalent	Distance (ir	feet)	
Barr	ier Elevation: 1,	511.0 feet			Autos	56.509	,	
	Road Grade:	0.0%		Mediu	m Trucks	55.832		
				Heav	/y Trucks	54.534		
FHWA Noise Mode	el Calculations							
VehicleType	REMEL	Traffic Flow	Distance	Finite	Road	Fresnel	Barrier Atte	en Berm Atten
Autos:	62.51	-1.16	-0.	90	-1.20	-0.5	5 0.0	00 0.000
Medium Trucks:	73.11	-18.40	-0.	82	-1.20	-0.97	7 0.0	00 0.000
Heavy Trucks:	78.76	-22.35	-0.	67	-1.20	-2.57	0.0	00 0.000
Unmitigated Noise	e Levels (withou	It Topo and ba	arrier atte	nuation)				
VehicleType	Leq Peak Hour	Leq Day	Leq	Evening	Leq I	Vight	Ldn	CNEL
Autos:	59.3	57	7.2	55.9		49.9	58.3	59.0
Medium Trucks:	52.7	48	3.8	41.3		50.0	56.2	56.3
Heavy Trucks:	54.5	50	).5	47.1		51.7	57.9	58.0
Vehicle Noise:	61.2	58	3.6	56.6		55.4	62.4	62.7
Mitigated Noise Le	evels (with Topo	o and barrier a	ttenuatio	n)				
VehicleType	Leq Peak Hour	Leq Day	Leq	Evening	Leq I	Vight	Ldn	CNEL
Autos:	59.3	57	7.2	55.9		49.9	58.3	59.0
Medium Trucks:	52.7	48	3.8	41.3		50.0	56.2	56.3
Heavy Trucks:	54.5	50	1.5	47.1		1 51.7		58.0
Vehicle Noise:	61.2	58	3.6	56.6 55.4 62.4				62.7

APPENDIX 8.1:

**OFF-SITE TRAFFIC NOISE LEVEL CALCULATIONS** 



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Scenario: Existing Road Name: Van Buren Bl. Road Segment: n/o Victoria Av.

### Project Name: Arroyo Vista Job Number: 14577

nuau Seyme		/.										
SITE	SPECIFIC INPL	JT DATA			N	DISE M	ODEI		S			
Highway Data				Site Con	ditions (	Hard = 1	0, So	ft = 15)				
Average Daily	Traffic (Adt): 30,	281 vehicles				A	utos:	15				
Peak Hour	Percentage: 8	3.46%		Mee	dium True	cks (2 Ax	kles):	15				
Peak H	lour Volume: 2,	562 vehicles		Hea	avy Truc <mark>l</mark>	ks (3+ A)	kles):	15				
Ve	hicle Speed:	45 mph		Vehicle I	Nix							
Near/Far La	ne Distance:	54 feet	-	Vehi	cleType	Ľ	Day	Evening	Night	Daily		
Site Data					A	utos: 7	5.5%	14.0%	10.5%	97.42%		
Ba	rrier Height:	0.0 feet		Me	dium Tru	ıcks: 4	8.9%	2.2%	48.9%	1.84%		
Barrier Type (0-W	/all, 1-Berm):	0.0		ŀ	leavy Tru	icks: 4	7.3%	5.4%	47.3%	0.74%		
Centerline Di	st. to Barrier:	76.0 feet	_	Noise So	urco Elo	vations	(in fo	ot)				
Centerline Dist.	to Observer:	76.0 feet										
Barrier Distance	to Observer:	0.0 feet		Mediur	n Trucks	· 220	30 97					
Observer Height	(Above Pad):	5.0 feet		Heav	v Trucks	8.0	)6	Grade Ad	iustment	0.0		
Pa	ad Elevation:	0.0 feet	_	nouv	y muono.	0.00		,				
Roa	ad Elevation:	0.0 feet	_	Lane Equ	livalent	Distance	e (in f	eet)				
	Road Grade:	0.0%			Autos.	71.2	18					
	Left View:	90.0 degrees		Mediur	n Trucks.	71.0	94					
	Right View:	90.0 degrees		Heav	y Trucks:	71.1	06					
FHWA Noise Mod	el Calculations											
VehicleType	REMEL T	raffic Flow Di	istance	Finite	Road	Fresne		Barrier Atte	en Ber	m Atten		
Autos:	68.46	2.13	-2.4	.1	-1.20		4.73	0.0	000	0.000		
Medium Trucks:	79.45	-15.10	-2.4	0	-1.20		4.88	0.0	000	0.000		
Heavy Trucks:	84.25	-19.06	-2.4	0	-1.20	-,	5.25	0.0	000	0.000		
Unmitigated Noise	e Levels (withou	t Topo and barr	ier atter	nuation)								
VehicleType	Leq Peak Hour	Leq Day	Leq E	vening	Leq N	light		Ldn	Cl	VEL		
Autos:	67.0	65.7		64.4		58.4		66.8	3	67.4		
Medium Trucks:	60.7	57.6		50.1		58.8		65.0	)	65.0		
Heavy Trucks:	61.6	58.3		54.9		59.5		65.7	7	65.8		
Vehicle Noise:	68.8	67.0		65.0		63.7		70.7	7	71.0		
Centerline Distant	ce to Noise Cont	our (in feet)										
			70	dBA	65 d	BA	6	0 dBA	55	dBA		
		Ldn:	8	34	18	2		391	8	43		
		CNEL:	8	38	19	D		410	8	84		

Scenario: Existing Road Name: Van Buren Bl. Road Segment: s/o Victoria Av.

#### Project Name: Arroyo Vista Job Number: 14577

. cour oogino													
SITE	SPECIFIC IN	IPUT DATA				NC	DISE	NODE	L INPUT	S			
Highway Data				S	Site Conc	litions (l	Hard =	10, So	oft = 15)				
Average Daily	Traffic (Adt):	39,758 vehicle	s					Autos:	15				
Peak Hour	Percentage:	8.46%			Mea	lium Truc	cks (2 /	Axles):	15				
Peak H	Hour Volume:	3,364 vehicle	s		Hea	vy Truck	ks (3+ /	Axles):	15				
Ve	ehicle Speed:	55 mph		L.	/ohiclo M	liy							
Near/Far La	ane Distance:	54 feet			Vehic	leType		Day	Evening	Night	Daily		
Site Data						A	utos:	75.5%	5 14.0%	10.5%	97.42%		
Ba	rrier Height:	0.0 feet			Me	dium Tru	icks:	48.9%	2.2%	48.9%	1.84%		
Barrier Type (0-V	Vall, 1-Berm):	0.0			Н	eavy Tru	ıcks:	47.3%	5.4%	47.3%	0.74%		
Centerline D	ist. to Barrier:	76.0 feet			laisa Sa	uraa Ela	votion	o (in f					
Centerline Dist.	to Observer:	76.0 feet		T.	Noise Source Elevations (in feet)								
Barrier Distance	to Observer:	0.0 feet			Autos: 0.000 Modium Trucko: 2.297								
Observer Height	(Above Pad):	5.0 feet			Medium	Trucks.	 	297	Grade Ad	liustmon	+· 0 0		
P	ad Elevation:	0.0 feet			neavy	TTUCKS:	8.	006	Graue Au	jusunen	. 0.0		
Ro	ad Elevation:	0.0 feet		L	.ane Equ	ivalent l	Distan	ce (in	feet)				
	Road Grade:	0.0%				Autos:	71.	218					
	Left View:	-90.0 degree	es		Medium	Trucks:	: 71.	094					
	Right View:	90.0 degree	es		Heavy	rrucks:	71.	106					
EHWA Noise Mod	lel Calculation	c											
VehicleType	REMEI	Traffic Flow	Dis	stance	Finite F	Road	Fresr	nel	Barrier Att	en Be	rm Atten		
Autos:	71.78	2.45	210	-2.41	1 1110 1	-1.20	1100	-4.73	0.0	000	0.000		
Medium Trucks:	82.40	-14.79		-2.40	)	-1.20		-4.88	0.0	000	0.000		
Heavy Trucks:	86.40	-18.75		-2.40	)	-1.20		-5.25	0.0	000	0.000		
Unmitigated Nois	e l evels (with	out Topo and	harrie	er atteni	uation)								
VehicleType	Leg Peak Hou	Ir Leg Day	/	Leg Ev	rening	Leg N	light		Ldn	C	NEL		
Autos:	70	0.6	69.3		68.0		62.0	)	70.4	4	71.1		
Medium Trucks:	64	.0	60.8		53.3		62.1	l	68.3	3	68.3		
Heavy Trucks:	64	.1	60.7		57.3		62.0	)	68.2	2	68.3		
Vehicle Noise:	72	2.2	70.4		68.5		66.8	3	73.9	9	74.2		
Centerline Distan	ce to Noise Co	ontour (in feet	)										
		<u> </u>		70 d	'BA	65 d	BA	6	60 dBA	55	5 dBA		
			Ldn:	13	7	296	6		638	1	,375		
		C	NEL:	14	5	312	2		671	1	,446		

Scenario:	Existing
Road Name:	Mockingbird Canyon Rd.
Road Segment:	s/o Van Buren Bl.

Project Name: Arroyo Vista Job Number: 14577

SITE		NOISE MODEL INPUTS											
Highway Data				5	Site Con	ditions	6 (Hard =	: 10, So	oft = 15)	0			
Average Daily	Traffic (Adt):	26,488 vehicle	S					Autos:	15				
Peak Hour	Percentage:	8.46%			Mee	dium T	rucks (2	Axles):	15				
Peak H	our Volume:	2,241 vehicle	s		Hea	avy Tru	ucks (3+	Axles):	15				
Ve	hicle Speed:	55 mph			lahiala I	<i>liv</i>							
Near/Far La	ne Distance:	12 feet		,	Venicie N Vehi	n <b>ix</b> cleTvn	0	Dav	Evenina	Niaht	Daily		
Site Data					Vern	сістур	Autos:	75 5%	14.0%	10.5%	97 42%		
		0.0 fact			Me	dium T	Trucks:	48.9%	5 14.070 5 2.2%	48.9%	1.84%		
Barriar Tupe (0.14	rrier Height:				F	leavv T	Trucks:	47.3%	5.4%	47.3%	0.74%		
Contorlino Di	ist to Barrier:	0.0 50.0 foot									011 170		
Centerline Dist	to Observer:	50.0 feet		Λ	Noise Source Elevations (in feet)								
Barrier Distance	to Observer:				Autos: 0.000								
Observer Height	(Above Pad):	5.0 foot			Medium Trucks: 2.297								
	ADOVE Fau).	0.0 feet			Heavy Trucks: 8.006 Grade Adjustment: 0.0								
Ro	ad Elevation.			1	ane Equ	ıivaler	nt Distan	ce (in	feet)				
Road Grade: 0.0%				_		Auto	ns: 49	890					
Left View: -90.0 degrees					Mediur	n Truci	ks: 49	712					
	Right View:	90.0 degre	63 65		Heav	v Truci	ks: 49	730					
	ragin view.	Solo degre	00			,	10						
FHWA Noise Mode	el Calculation	IS		L									
VehicleType	REMEL	Traffic Flow	Dis	tance	Finite	Road	Fres	nel	Barrier Att	en Ber	m Atten		
Autos:	71.78	0.68		-0.09	9	-1.20		-4.65	0.0	000	0.000		
Medium Trucks:	82.40	-16.56		-0.07	7	-1.20		-4.87	0.0	000	0.000		
Heavy Trucks:	86.40	-20.51		-0.07	7	-1.20		-5.43	0.0	000	0.000		
Unmitigated Noise	e Levels (with	out Topo and	barrie	er atten	uation)								
VehicleType	Leq Peak Ho	ur Leq Day	/	Leq Ev	, ening	Leq	Night		Ldn	Cl	NEL		
Autos:	71	1.2	69.9		68.6		62.	6	71.(	)	71.6		
Medium Trucks:	64	1.6	61.4		53.9		62.	7	68.8	3	68.9		
Heavy Trucks:	64	4.6	61.3		57.9		62.	5	68.7	7	68.8		
Vehicle Noise:	72	2.8	71.0		69.1		67.	4	74.4	1	74.8		
Centerline Distant	ce to Noise C	ontour (in feet	)										
		-		70 a	<i>IBA</i>	65	5 dBA	6	60 dBA		dBA		
			Ldn:	99	) 212				458		986		
		С	NEL:	10	4		223		481	1,	037		

Scenario: Existing Road Name: Washington St. Road Segment: n/o Van Buren Bl

### Project Name: Arroyo Vista Job Number: 14577

Noau Seyme													
SITE	SPECIFIC INF	PUT DATA				NC	DISE	MODE	L INPUT	S			
Highway Data				Si	ite Condi	itions (l	Hard =	= 10, Sc	oft = 15)				
Average Daily	Traffic (Adt): 15	5,725 vehicles						Autos:	15				
Peak Hour	Percentage:	8.46%			Medi	um Truc	cks (2	Axles):	15				
Peak F	lour Volume: 🧳	1,330 vehicles			Heav	y Truck	ks (3+	Axles):	15				
Ve	hicle Speed:	45 mph		Ve	ahicla Mi	v							
Near/Far La	ne Distance:	36 feet			Vehicl	<b>e</b> Type		Day	Evening	Night	Daily		
Site Data						Aı	utos:	77.5%	14.0%	10.5%	6 92.00%		
Ba	rrier Height:	0.0 feet			Med	lium Tru	ıcks:	48.0%	2.0%	50.0%	6 3.00%		
Barrier Type (0-N	/all, 1-Berm):	0.0			He	avy Tru	ıcks:	48.0%	2.0%	50.0%	6 5.00%		
Centerline Di	st. to Barrier:	44.0 feet		N	nisa Sau	rco Elo	vation	ns (in fa	aat)				
Centerline Dist.	to Observer:	44.0 feet		/•									
Barrier Distance	to Observer:	0.0 feet			Modium	Trucks	. 0 . 2	207					
Observer Height	(Above Pad):	5.0 feet			Hoavy	Trucks.		006	Grade Ad	iustmer	ot∙ 0 0		
P	ad Elevation:	0.0 feet			Tieavy	TTUCKS.	0	.000	Orado Ma	Juounon	1. 0.0		
Ro	ad Elevation:	0.0 feet		Lá	ane Equi	valent l	Distan	ice (in t	feet)				
	Road Grade:	0.0%				Autos:	40	.460					
	Left View:	-90.0 degrees	S		Medium	Trucks:	: 40	.241					
	Right View:	90.0 degree	S		Heavy	Trucks:	40	.262					
FHWA Noise Mod	el Calculations												
VehicleType	REMEL	Traffic Flow	Distar	nce	Finite R	oad	Fres	nel	Barrier Att	en Be	erm Atten		
Autos:	68.46	-0.96		1.28		-1.20		-4.61	0.0	000	0.000		
Medium Trucks:	79.45	-15.83		1.31		-1.20		-4.87	0.0	000	0.000		
Heavy Trucks:	84.25	-13.61		1.31		-1.20		-5.50	0.0	000	0.000		
Unmitigated Noise	e Levels (witho	ut Topo and k	oarrier a	attenu	ation)					_			
VehicleType	Leq Peak Hour	Leq Day	L	eq Eve	ening	Leq N	light		Ldn	0	CNEL		
Autos:	67.6	6 6	6.4		65.0		59.	0	67.4	1	68.1		
Medium Trucks:	63.7	7 6	0.5		52.7		61.	9	68.′	1	68.1		
Heavy Trucks:	70.8	3 6	57.5		59.7		68.	9	75.′		75.1		
Vehicle Noise:	73.0	) 7	0.5		66.3		70.	1	76.4	1	76.6		
Centerline Distan	ce to Noise Cor	ntour (in feet)						-					
				70 dE	BA	65 d	BA	6	60 dBA	5	5 dBA		
		L	.dn:	118		25	5		550	1	,184		
		CN	IEL:	120		260	0		559	1	,205		

*Scenario:* Existing *Road Name:* Washington St. *Road Segment:* s/o Van Buren Bl.

#### Project Name: Arroyo Vista Job Number: 14577

Road Segme	nt. s/o van Buren	і ВІ.										
SITE	SPECIFIC INPL	JT DATA			Ν	OISE N	10DE	L INPUT	S			
Highway Data				Site Con	ditions (	(Hard =	10, Sc	oft = 15)				
Average Daily	Traffic (Adt): 9,	192 vehicles					Autos:	15				
Peak Hour	Percentage: 8	3.46%		Med	dium Tru	icks (2 A	xles):	15				
Peak H	lour Volume:	778 vehicles		Hea	avy Truc	ks (3+ A	xles):	15				
Ve	hicle Speed:	35 mph		Vahicla I	<i>Ni</i> v							
Near/Far La	ne Distance:	36 feet	_	Venicie i Vehi	cleType		Day	Evening	Night	Daily		
Site Data					A	utos:	77.5%	14.0%	10.5%	92.00%		
Ba	rrier Heiaht:	0.0 feet		Ме	dium Tr	ucks:	48.0%	2.0%	50.0%	3.00%		
Barrier Type (0-W	/all, 1-Berm):	0.0		E	leavy Tr	ucks:	48.0%	2.0%	50.0%	5.00%		
Centerline Di	st. to Barrier:	44.0 feet		Noise So	urce Ele	evations	s (in fe	eet)				
Centerline Dist.	to Observer:	44.0 feet		Autos: 0.000								
Barrier Distance	to Observer:	0.0 feet		Medium Trucks: 2.297								
Observer Height	(Above Pad):	5.0 feet		Heavy Trucks: 8.006 Grade Adjustment: 0.0								
P	ad Elevation:	0.0 feet			,							
Ro	ad Elevation:	0.0 feet	1	Lane Equ	iivalent	Distand	e (in f	feet)				
	Road Grade:	0.0%			Autos	s: 40.4	160					
	Left View:	90.0 degrees		Mediur	n Trucks	s: 40.2	241					
	Right View:	90.0 degrees		Heav	y Trucks	s: 40.2	262					
FHWA Noise Mod	el Calculations											
VehicleType	REMEL T	raffic Flow D	istance	Finite	Road	Fresn	el	Barrier Att	en Bei	rm Atten		
Autos:	64.30	-2.20	1.28	8	-1.20		-4.61	0.0	000	0.000		
Medium Trucks:	75.75	-17.07	1.3	1	-1.20		-4.87	0.0	000	0.000		
Heavy Trucks:	81.57	-14.85	1.3	1	-1.20		-5.50	0.0	000	0.000		
Unmitigated Nois	e Levels (withou	t Topo and barr	rier atten	uation)								
VehicleType	Leq Peak Hour	Leq Day	Leq E	vening	Leq l	Vight		Ldn	C	NEL		
Autos:	62.2	61.0	I	59.6		53.6		62.0	)	62.7		
Medium Trucks:	58.8	55.5		47.8		57.0		63.1		63.2		
Heavy Trucks:	66.8	63.6		55.8		65.0		71.2	2	71.2		
Vehicle Noise:	68.6	65.9	1	61.3		65.9		72.2	2	72.3		
Centerline Distan	ce to Noise Cont	our (in feet)							_			
			70 0	dBA	65 c	dBA	6	60 dBA	55	dBA		
		Ldn:	6	2	13	33		287	6	519		
		CNEL:	6	3	13	85		292	6	528		

Scenario: Existing	
Road Name: Chicago Av./Alta Cresta Av.	
Road Segment: n/o Van Buren Bl.	

Project Name: Arroyo Vista Job Number: 14577

SITE	SPECIFIC INC									S	
Highway Data		UTDATA			Site Con	dition	s (Hard =	10, Sc	ft = 15		
Average Daily	Traffic (Adt):	1.122 vehicles	s				•	, Autos:	15		
Peak Hour	Percentage:	8.46%			Me	dium T	rucks (2 )	Axles):	15		
Peak F	lour Volume:	95 vehicles	S		He	avy Tri	ucks (3+ )	Axles):	15		
Ve	hicle Speed:	25 mph		_		,	,	,			
Near/Far La	ne Distance:	12 feet			Vehicle I			Davis	<b>F</b>	Alienter	Delle
0.4.0					ven	icie i yp		Day	Evening	Night	Daily
Site Data						<i>l'</i>	AUtos:	11.5%	12.9%	9.6%	97.42%
Ba	rrier Height:	0.0 feet			IVI0	eaium Jaouru	Trucks:	84.8%	4.9%	10.3%	1.84%
Barrier Type (0-N	/all, 1-Berm):	0.0			r	leavy	Trucks:	86.5%	2.7%	10.8%	0.74%
Centerline Di	ist. to Barrier:	30.0 feet		1	Noise So	ource E	Elevation	s (in fe	eet)		
Centerline Dist.	to Observer:	30.0 feet				Aut	os: 0.	000			
Barrier Distance	to Observer:	0.0 feet			Mediu	m Truc	ks: 2.	297			
Observer Height	(Above Pad):	5.0 feet			Heav	y Truc	<i>ks:</i> 8.	006	Grade Ad	justment.	0.0
	ad Elevation:	0.0 feet				·		/!	f===4)		
Ro	ad Elevation:	0.0 feet		1	Lane Eq	uivaiei	nt Distan	ce (in i	ieet)		
	Road Grade:	0.0%				Aut	os: 29.	816			
	Left View:	-90.0 degree	es		Mediul	m Iruc	ks: 29.	518			
	Right View:	90.0 degree	es		Heav	y Truc	ks: 29.	547			
FHWA Noise Mod	el Calculations										
VehicleType	REMEL	Traffic Flow	Dis	stance	Finite	Road	Fresi	nel	Barrier Att	en Ber	m Atten
Autos:	58.73	-9.62		3.26	6	-1.20		-4.49	0.0	000	0.000
Medium Trucks:	70.80	-26.86		3.33	3	-1.20	)	-4.86	0.0	000	0.000
Heavy Trucks:	77.97	-30.82		3.32	2	-1.20	)	-5.77	0.0	000	0.000
Unmitigated Noise	e Levels (witho	ut Topo and	barrie	er atten	uation)						
VehicleType	Leq Peak Hour	Leq Day	/	Leq E	vening	Leo	q Night		Ldn	CI	VEL
Autos:	51.2	2	50.0		48.2		42.2	2	50.8	3	51.4
Medium Trucks:	46.2	1	45.3		38.9		37.4	1	45.8	3	46.1
Heavy Trucks:	49.3	3	48.6		39.5		40.8	3	49.2	2	49.3
Vehicle Noise:	54.1	1	53.1		49.2		45.3	3	53.8	3	54.2
Centerline Distan	ce to Noise Cor	ntour (in feet	)								
				70 c	dBA	65	5 dBA	e	60 dBA	55	dBA
			Ldn:	3	3		5		12	2	25
		Cl	NEL:	3	3		6		12	2	27

Scenario:	Existing
Road Name:	Chicago Av./Alta Cresta Av.
Road Segment:	s/o Van Buren Bl.

Project Name: Arroyo Vista Job Number: 14577

				1						
SITE	SPECIFIC INP	UT DATA			Ĩ	NOISE M	IODE	L INPUTS	5	
Highway Data				Site Cor	ditions	s (Hard = '	10, So	oft = 15)		
Average Daily	Traffic (Adt): 2	,835 vehicles				A	lutos:	15		
Peak Hour	Percentage:	8.46%		Me	dium Ti	rucks (2 A	xles):	15		
Peak H	lour Volume:	240 vehicles		He	avy Tru	ıcks (3+ A	xles):	15		
Ve	hicle Speed:	25 mph		Vehicle	Mix					
Near/Far La	ne Distance:	12 feet		Veh	icleTvp	e l	Dav	Evenina	Niaht	Dailv
Site Data						Autos:	77.5%	12.9%	9.6%	97.42%
Ba	rrior Hoight:	0.0 feet		М	edium 1	Trucks: 8	34.8%	4.9%	10.3%	1.84%
Barrier Type (0-W	/all_1-Rerm) <sup>.</sup>	0.0			Heavy T	Trucks: {	36.5%	2.7%	10.8%	0.74%
Centerline Di	st. to Barrier:	30.0 feet					<i>// 6</i>			
Centerline Dist	to Observer:	30.0 feet		Noise S	burce E	levations	(IN TE	et)		
Barrier Distance	to Observer:				Auto	os: 0.0	00			
Observer Height	(Above Pad):	5.0 feet		Mediu	m Truck	ks: 2.2	97			
Doserver Height	ad Elevation:			Hea	/y Trucł	ks: 8.0	06	Grade Ad	iustment.	0.0
Po	ad Elevation:			Lane Fo	uivalen	t Distanc	e (in f	eet)		
	au Elevalion. Pood Grado:			Lano Lq	Διιτα	20 8 20 8	16	000		
		0.0%		Madiu	m Trucl	23.0	18			
	Leit View.	-90.0 degrees	5	Hoa	M Truck	NS. 29.0	.17			
	Right view.	90.0 degrees	)	Tied	ly much	13. 29.0	147			
FHWA Noise Mod	el Calculations									
VehicleType	REMEL 7	raffic Flow	Distance	e Finite	Road	Fresne	ə/	Barrier Atte	en Ber	m Atten
Autos:	58.73	-5.60	3	.26	-1.20	-	4.49	0.0	000	0.000
Medium Trucks:	70.80	-22.84	3	.33	-1.20	-	4.86	0.0	000	0.000
Heavy Trucks:	77.97	-26.79	3	.32	-1.20	-	·5.77	0.0	000	0.000
Unmitigated Noise	e Levels (withou	t Topo and b	arrier atte	enuation)						
VehicleType	Leq Peak Hour	Leq Day	Leq	Evening	Leq	ı Night		Ldn	CI	VEL
Autos:	55.2	54	4.0	52.3		46.2		54.8	3	55.4
Medium Trucks:	50.1	49	9.3	42.9		41.4		49.9	)	50.1
Heavy Trucks:	53.3	52	2.6	43.6		44.8		53.2	2	53.3
Vehicle Noise:	58.1	5	7.2	53.2		49.3		57.8	3	58.2
Centerline Distan	ce to Noise Con	tour (in feet)								
			7	0 dBA	65	dBA	6	0 dBA	55	dBA
		L	dn:	5		10		22	4	16
		CNI	EL:	5		11		23	2	19

Scenario: Existing Road Name: Gamble Av. Road Segment: s/o Iris Av.

#### Project Name: Arroyo Vista Job Number: 14577

SITE	SPECIFIC INPL	JT DATA			N	DISE MO	DDEL	INPUTS	S	
Highway Data				Site Con	ditions (	Hard = 10	0, Soft	= 15)		
Average Daily	Traffic (Adt):	117 vehicles				Aι	utos:	15		
Peak Hour	Percentage: 8	3.46%		Me	dium Tru	cks (2 Ax	les):	15		
Peak F	lour Volume:	10 vehicles		He	avy Trucl	ks (3+ Ax	les):	15		
Ve	hicle Speed:	25 mph		Vehicle I	Mix					
Near/Far La	ne Distance:	12 feet		Veh	icleType	D	ay E	vening	Night	Daily
Site Data					A	utos: 77	7.5%	12.9%	9.6%	97.42%
Ba	rrier Heiaht:	0.0 feet		Me	ədium Tru	icks: 84	4.8%	4.9%	10.3%	1.84%
Barrier Type (0-W	/all, 1-Berm):	0.0		ŀ	leavy Tru	icks: 86	6.5%	2.7%	10.8%	0.74%
Centerline Di	st. to Barrier:	30.0 feet		Noise Sc	urce Fle	vations	(in foot	•)		
Centerline Dist.	to Observer:	30.0 feet		110/36 50				/		
Barrier Distance	to Observer:	0.0 feet		Modiu	n Trucks	· 2.00	70 17			
Observer Height	(Above Pad):	5.0 feet		Heav	n Trucks w Trucks	· 8.00	,, 16 G	rade Adi	iustment <sup>.</sup>	0.0
Pa	ad Elevation:	0.0 feet		Tieav	y Trucks.	0.00	0 0	/440 / 14j	douriont.	0.0
Ro	ad Elevation:	0.0 feet		Lane Eq	uivalent	Distance	(in fee	et)		
	Road Grade:	0.0%			Autos.	29.81	6			
	Left View:	90.0 degrees		Mediu	n Trucks.	29.51	8			
	Right View:	90.0 degrees		Heav	y Trucks.	29.54	17			
FHWA Noise Mod	el Calculations									
VehicleType	REMEL T	raffic Flow	Distance	Finite	Road	Fresnel	l Ba	arrier Atte	en Ber	m Atten
Autos:	58.73	-19.44	3.2	26	-1.20	-4	4.49	0.0	000	0.000
Medium Trucks:	70.80	-36.68	3.3	33	-1.20	-4	4.86	0.0	000	0.000
Heavy Trucks:	77.97	-40.64	3.3	32	-1.20	-5	5.77	0.0	000	0.000
Unmitigated Noise	e Levels (withou	t Topo and ba	arrier atte	nuation)						
VehicleType	Leq Peak Hour	Leq Day	Leq E	Evening	Leq N	light	L	dn	Cl	VEL
Autos:	41.4	40	).2	38.4		32.4		41.0	)	41.6
Medium Trucks:	36.2	35	5.5	29.1		27.6		36.0	)	36.2
Heavy Trucks:	39.5	38	3.8	29.7		31.0		39.3	3	39.5
Vehicle Noise:	44.3	43	3.3	39.4		35.5		44.0	)	44.4
Centerline Distant	ce to Noise Cont	our (in feet)								
			70	dBA	65 d	BA	60	dBA	55	dBA
		Lo	dn:	1	1	<u>.</u>	:	3		6
		CNE	EL:	1	1		:	3		6

*Scenario:* Existing *Road Name:* Wood Rd. *Road Segment:* n/o Van Buren Bl.

### Project Name: Arroyo Vista Job Number: 14577

SITE	SPECIFIC INP	UT DATA			Ν	NOISE N	/ODE	L INPUT	S	
Highway Data				Site Con	ditions	(Hard =	10, So	oft = 15)		
Average Daily	Traffic (Adt): 9	,239 vehicles				/	Autos:	15		
Peak Hour	Percentage:	8.46%		Me	dium Tr	rucks (2 A	Axles):	15		
Peak H	lour Volume:	782 vehicles		He	avy Tru	icks (3+ A	Axles):	15		
Ve	hicle Speed:	40 mph		Vohiclo	Mix					
Near/Far La	ne Distance:	36 feet		Venicie i	icleType	2	Dav	Evenina	Night	Daily
Sito Data				VCII		Autos	75 5%	1/ 0%	10.5%	07 / 2%
	• • • • • •			M	, dium T	rucks <sup>.</sup>	48.9%	2.2%	48.9%	1 84%
Ba	rrier Height:	0.0 feet			Heavy T	rucks:	47 3%	5.4%	47.3%	0.74%
Barrier Type (0-W	/all, 1-Berm):	0.0		1	leavy l	ruono.	47.070	5 5.470	47.570	0.7 4 70
	st. to Barrier:	50.0 feet		Noise So	ource E	levations	s (in fe	eet)		
Centerline Dist.	to Observer:	50.0 feet			Auto	os: 0.0	000			
Barrier Distance	to Observer:	0.0 feet		Mediu	m Truck	ks: 2.2	297			
Observer Height	(Above Pad):	5.0 feet		Heav	y Truck	ks: 8.0	006	Grade Ad	justment	: 0.0
	ad Elevation:	0.0 feet		Lano Ea	uivalan	t Distand	o (in	foot)		
Ro	ad Elevation:			Lane Ly				ieel)		
	Road Grade:	0.0%		Madiu	AUIO m Truck	<i>1</i> 5. 40.3	915 706			
	Left View:	-90.0 degrees		Mediu		(S. 40.)	720			
	Right view:	90.0 degrees		neav	y Truck	<i>IS.</i> 40.	744			
FHWA Noise Mod	el Calculations									
VehicleType	REMEL 1	raffic Flow	Distance	Finite	Road	Fresn	el	Barrier Att	en Ber	m Atten
Autos:	66.51	-2.51	0.	31	-1.20		-4.65	0.0	000	0.000
Medium Trucks:	77.72	-19.75	0.	34	-1.20		-4.87	0.0	000	0.000
Heavy Trucks:	82.99	-23.70	0.	34	-1.20		-5.43	0.0	000	0.000
Unmitigated Noise	e Levels (withou	it Topo and ba	arrier atte	nuation)						
VehicleType	Leq Peak Hour	Leq Day	Leq I	Evening	Leq	Night		Ldn	C	NEL
Autos:	63.1	61	.8	60.5		54.5	5	62.9	9	63.6
Medium Trucks:	57.1	53	.9	46.4		55.2	2	61.4	1	61.4
Heavy Trucks:	58.4	55	5.1	51.7		56.4	ŀ	62.6	6	62.7
Vehicle Noise:	65.1	63	3.2	61.2		60.2	2	67. <i>′</i>	1	67.4
Centerline Distant	ce to Noise Con	tour (in feet)								
			70	dBA	65	dBA	6	60 dBA	55	dBA
		La	In:	32	6	69		149	3	20
		CNE	:L:	34	7	72		156	3	35

Scenario: Existing Road Name: Wood Rd. Road Segment: s/o Van Buren Bl.

### Project Name: Arroyo Vista Job Number: 14577

Road Seyme	nt. S/O van Durei	I DI.								
SITE	SPECIFIC INP	UT DATA			Ν	NOISE N	NODE	L INPUT	S	
Highway Data				Site Cor	ditions	(Hard =	10, Sc	oft = 15)		
Average Daily	Traffic (Adt): 12	,370 vehicles					Autos:	15		
Peak Hour	Percentage:	8.46%		Me	dium Tr	ucks (2 /	Axles):	15		
Peak H	our Volume: 1	,046 vehicles		He	avy Tru	cks (3+ /	Axles):	15		
Ve	hicle Speed:	40 mph		Vehicle	Mix					
Near/Far La	ne Distance:	36 feet		Venicle	icleType	)	Day	Evening	Night	Daily
Site Data					,	Autos:	75.5%	14.0%	10.5%	97.42%
Ba	rrier Heiaht:	0.0 feet		М	edium T	rucks:	48.9%	2.2%	48.9%	1.84%
Barrier Type (0-W	/all, 1-Berm):	0.0			Heavy T	rucks:	47.3%	5.4%	47.3%	0.74%
Centerline Di	st. to Barrier:	50.0 feet		Noise S	ource E	levation	s (in fe	eet)		
Centerline Dist.	to Observer:	50.0 feet			Auto	s: 0.	000			
Barrier Distance	to Observer:	0.0 feet		Mediu	m Truck	s: 2.	297			
Observer Height	(Above Pad):	5.0 feet		Hear	v Truck	s: 8.	006	Grade Ad	iustment	: 0.0
P	ad Elevation:	0.0 feet								
Ro	ad Elevation:	0.0 feet		Lane Eq	uivalen	t Distan	ce (in i	feet)		
	Road Grade:	0.0%			Auto	s: 46.	915			
	Left View:	-90.0 degrees	S	Mediu	m Truck	rs: 46.	726			
	Right View:	90.0 degrees	S	Hear	/y Truck	's: 46.	744			
FHWA Noise Mod	el Calculations									
VehicleType	REMEL 7	Traffic Flow	Distanc	e Finite	Road	Fresr	nel	Barrier Att	en Ber	m Atten
Autos:	66.51	-1.24		0.31	-1.20		-4.65	0.0	000	0.000
Medium Trucks:	77.72	-18.48		0.34	-1.20		-4.87	0.0	000	0.000
Heavy Trucks:	82.99	-22.44		0.34	-1.20		-5.43	0.0	000	0.000
Unmitigated Nois	e Levels (withou	it Topo and b	oarrier at	tenuation)						
VehicleType	Leq Peak Hour	Leq Day	Leo	q Evening	Leq	Night		Ldn	C	NEL
Autos:	64.4	6	3.1	61.8		55.8	3	64.2	2	64.8
Medium Trucks:	58.4	5	5.2	47.7		56.5	5	62.6	6	62.7
Heavy Trucks:	59.7	5	6.4	53.0		57.6	6	63.8	3	63.9
Vehicle Noise:	66.4	6	64.5	62.5		61.5	5	68.4	ļ	68.7
Centerline Distan	ce to Noise Con	tour (in feet)								
				70 dBA	65	dBA	6	60 dBA	55	dBA
		L	.dn:	39	8	34		181	3	89
		CN	IEL:	41	8	38		189	4	07

Scenario: Existing Road Name: Trautwein Rd./Cole Av. Road Segment: n/o Van Buren Bl. Project Name: Arroyo Vista Job Number: 14577

SITE SPECIFIC IN	IPUT DATA		NOISE MODEL INPUTS								
Highway Data			Site Conditions (Hard = 10, Soft = 15)								
Average Daily Traffic (Adt):	19,588 vehicles				Autos	: 15					
Peak Hour Percentage:	8.46%		Med	dium Truc	ks (2 Axles)	: 15					
Peak Hour Volume:	1,657 vehicles		Hea	avy Truck	s (3+ Axles)	: 15					
Vehicle Speed:	50 mph	_	Vahiala A		. ,						
Near/Far Lane Distance:	36 feet	_	Venicie I		Dav	Evoning	Night Doily				
Sito Data			Veni		100: 75.50	Lveriing	10.5% 97.42%				
	0.0.6		Me	dium Tru	$cks^{-}$ 48.9%	6 22%	48.9% 1.84%				
	0.0 feet		F	leavy Tru	cks: 47.3%	6 <u>2.2</u> %	47.3% 0.74%				
Barrier Type (U-Wall, T-Berrin):	0.0 50.0 feet				11.07	0.170	11.070 0.1170				
Centerline Dist. to Barrier.	50.0 feet	1	Noise So	urce Elev	ations (in f	eet)					
Centerline Dist. to Observer.	50.0 feet			Autos:	0.000						
Observer Height (Above Red):	0.0 feet		Mediur	n Trucks:	2.297						
Diserver Height (Above Fau).	5.0 feet		Heav	y Trucks:	8.006	Grade Adju	stment: 0.0				
Pood Elevation:	0.0 feet		Lane Equ	ivalent D	Distance (in	feet)					
Road Grade:	0.0%			Autos:	46 915	1001					
Left View:	-90 0 degrees		Mediur	n Trucks:	46 726						
Right View:	90.0 degrees		Heav	v Trucks:	46 744						
i light view.			, rear	,							
FHWA Noise Model Calculation	s	<u> </u>									
VehicleType REMEL	Traffic Flow	Distance	Finite	Road	Fresnel	Barrier Atter	n Berm Atten				
Autos: 70.20	-0.21	0.3	1	-1.20	-4.65	0.00	0.000				
Medium Trucks: 81.00	-17.45	0.3	4	-1.20	-4.87	0.00	0.000				
Heavy Trucks: 85.38	-21.41	0.3	4	-1.20	-5.43	0.00	0.000				
Unmitigated Noise Levels (with	out Topo and b	arrier atten	uation)								
VehicleType Leq Peak Hou	ır Leq Day	Leq E	vening	Leq Ni	ight	Ldn	CNEL				
Autos: 69	.1 67	7.8	66.5		60.5	68.9	69.5				
Medium Trucks: 62	.7 59	9.5	52.0		60.8	66.9	67.0				
Heavy Trucks: 63	.1 59	9.8	56.4		61.0	67.2	67.3				
Vehicle Noise: 70	.8 69	9.0	67.0		65.5	72.6	72.9				
Centerline Distance to Noise Co	ontour (in feet)										
	- *	70 (	dBA	65 dE	BA	60 dBA	55 dBA				
	Le	dn: 7	4	159	)	344	740				
	CNE	EL: 7	8	167	,	361	777				

Scenario: Existing Road Name: Trautwein Rd./Cole Av. Road Segment: s/o Van Buren Bl. Project Name: Arroyo Vista Job Number: 14577

SITE	SPECIFIC IN	ΙΡΙΙΤ ΠΑΤΑ				1				S			
Highway Data		I UT DATA			Site Conditions (Hard = 10, Soft = 15)								
Average Daily	Traffic (Adt):	12.051 vehicle	s				•	Autos:	15				
Peak Hour	Percentage:	8.46%	•		Me	dium Ti	rucks (2 )	Axles):	15				
Peak F	lour Volume:	1,019 vehicle	s		He	avy Tru	, icks (3+ )	Axles):	15				
Ve	hicle Speed:	50 mph			Vahiala		•	,					
Near/Far La	ne Distance:	36 feet			Venicie i		0	Day	Evoning	Night	Doily		
Sito Data					ven	cieryp	e Autos:	Day 75 5%	14.0%	10.5%	07 12%		
		0.0.6			Me	ədium 1	rucks:	48.9%	2.2%	48.9%	1.84%		
Barrier Tupe (0 M	rrier Height:				ŀ	leavv T	rucks:	47.3%	5.4%	47.3%	0.74%		
Conterlino Di	ist to Barrior:	0.0 50.0 foot							0.170		011 1/0		
Centerline Di	to Observer:	50.0 feet		_	Noise Sc	ource E	levation	s (in fe	et)				
Barrier Distance	to Observer:					Auto	os: 0.	000					
Observer Height	(Above Pad):	5.0 feet			Mediu	m Trucl	ks: 2.	297					
Diserver neight	ad Elevation:				Heav	y Trucl	ks: 8.	006	Grade Ad	justment.	0.0		
Ro	ad Elevation: ad Elevation:			-	Lane Eq	uivalen	t Distan	ce (in i	feet)				
	Road Grade:	0.0%		-		Auto	os: 46.	915	,				
	Left View:	-90 0 deare	es		Mediu	n Truck	ks: 46.	726					
	Riaht View:	90.0 degree	es		Heav	y Truck	ks: 46.	744					
	5	sere angle											
FHWA Noise Mod	el Calculation	S											
VehicleType	REMEL	Traffic Flow	Dis	tance	Finite	Road	Fresr	nel	Barrier Atte	en Ber	m Atten		
Autos:	70.20	-2.32		0.3	31	-1.20		-4.65	0.0	000	0.000		
Medium Trucks:	81.00	-19.56		0.3	34	-1.20		-4.87	0.0	000	0.000		
Heavy Trucks:	85.38	-23.52		0.3	34	-1.20		-5.43	0.0	000	0.000		
Unmitigated Noise	e Levels (with	out Topo and	barrie	er atter	nuation)								
VehicleType	Leq Peak Hou	ır Leq Day	/	Leq E	vening	Leq	Night		Ldn	CI	VEL		
Autos:	67	.0	65.7		64.4		58.4	ł	66.8	3	67.4		
Medium Trucks:	60	.6	57.4		49.9		58.7	7	64.8	3	64.9		
Heavy Trucks:	61	.0	57.7		54.3		58.9	)	65.1		65.2		
Vehicle Noise:	68	.7	66.9		64.9		63.4	1	70.4	1	70.8		
Centerline Distan	ce to Noise Co	ontour (in feet	)										
				70	dBA	65	dBA	E	60 dBA	55	dBA		
			Ldn:	5	54	1	15		249	5	35		
		C	NEL:	5	56	1	21		261	5	62		

Scenario: Existing Road Name: Victoria Av. Road Segment: w/o Van Buren Bl.

#### Project Name: Arroyo Vista Job Number: 14577

Road Segme	nt: w/o van Bure	n BI.								
SITE	SPECIFIC INP	UT DATA				NOISE N	/ODE	L INPUTS	5	
Highway Data				Site	Conditions	; (Hard =	10, Sc	oft = 15)		
Average Daily	Traffic (Adt): 10	,090 vehicles	6			,	Autos:	15		
Peak Hour	Percentage:	8.46%			Medium T	rucks (2 A	Axles):	15		
Peak F	lour Volume:	854 vehicles	6		Heavy Tru	ıcks (3+ A	Axles):	15		
Ve	hicle Speed:	45 mph		Veh	icle Mix					
Near/Far La	ne Distance:	12 feet			VehicleTyp	е	Day	Evening	Night	Daily
Site Data						Autos:	75.5%	14.0%	10.5%	97.42%
Ba	rrier Height:	0.0 feet			Medium T	Trucks:	48.9%	2.2%	48.9%	1.84%
Barrier Type (0-W	/all, 1-Berm):	0.0			Heavy T	Trucks:	47.3%	5.4%	47.3%	0.74%
Centerline Di	st. to Barrier:	37.0 feet		Noi	se Source E	levation	s (in fe	et)		
Centerline Dist.	to Observer:	37.0 feet			Auto	os: 0.0		,		
Barrier Distance	to Observer:	0.0 feet		N	ledium Truci	ks: 2.2	297			
Observer Height	(Above Pad):	5.0 feet			Heavy Truck	ks: 8.0	006	Grade Adj	ustment	: 0.0
P	ad Elevation:	0.0 feet								
Ro	ad Elevation:	Lan	e Equivaler	t Distanc	ce (in i	reet)				
	Road Grade:	0.0%			Auto	os: 36.	851			
	Left View:	-90.0 degree	es	N	ledium Truci	ks: 36.	610			
	Right View:	90.0 degree	es		Heavy Truck	ks: 36.	634			
FHWA Noise Mod	el Calculations									
VehicleType	REMEL 7	raffic Flow	Distar	nce F	Finite Road	Fresn	el	Barrier Atte	en Ber	m Atten
Autos:	68.46	-2.64		1.88	-1.20		-4.56	0.0	00	0.000
Medium Trucks:	79.45	-19.88		1.93	-1.20		-4.87	0.0	00	0.000
Heavy Trucks:	84.25	-23.83		1.92	-1.20		-5.61	0.0	00	0.000
Unmitigated Noise	e Levels (withou	t Topo and	barrier a	attenuat	ion)					
VehicleType	Leq Peak Hour	Leq Day	L	eq Even	ing Leq	ı Night		Ldn	Cl	NEL
Autos:	66.5		65.2		63.9	57.9	)	66.3	3	66.9
Medium Trucks:	60.3		57.1		49.6	58.4	Ļ	64.5	5	64.6
Heavy Trucks:	61.1		57.8		54.4	59.1		65.3	3	65.4
Vehicle Noise:	68.4		66.5		64.5	63.2	2	70.2	2	70.5
Centerline Distant	ce to Noise Con	tour (in feet)								
				70 dBA	65	dBA	6	60 dBA	55	dBA
			Ldn:	38		82		177	3	82
		CI	VEL:	40		86		186	4	01

Scenario: Existing Road Name: Victoria Av. Road Segment: e/o Van Buren Bl.

#### Project Name: Arroyo Vista Job Number: 14577

Road Segme	ni. e/o van Bur	en Bl.									
SITE	SPECIFIC IN	PUT DATA				Ν	IOISE	MODE	L INPUT	S	
Highway Data					Site Con	ditions	(Hard =	= 10, Sc	oft = 15)		
Average Daily	Traffic (Adt):	5,757 vehicle	s					Autos:	15		
Peak Hour	Percentage:	8.46%			Mee	dium Tr	ucks (2	Axles):	15		
Peak F	lour Volume:	487 vehicle	s		Hea	avy Tru	cks (3+	Axles):	15		
Ve	hicle Speed:	40 mph			Vehicle N	<i>lix</i>					
Near/Far La	ne Distance:	12 feet			Vehi	cleType	9	Day	Evening	Night	Daily
Site Data						/	Autos:	75.5%	14.0%	10.5%	97.42%
Ba	rrier Height:	0.0 feet			Me	dium T	rucks:	48.9%	2.2%	48.9%	1.84%
Barrier Type (0-W	/all, 1-Berm):	0.0			H	leavy T	rucks:	47.3%	5.4%	47.3%	0.74%
Centerline Di	st. to Barrier:	37.0 feet			Noise So	urce E	levatior	s (in fe	et)		
Centerline Dist.	to Observer:	37.0 feet		_		Auto	s <sup>.</sup> 0	000	,		
Barrier Distance	to Observer:	0.0 feet			Mediur	n Truck	s: 2	.297			
Observer Height	(Above Pad):	5.0 feet			Heav	v Truck	s: 8	.006	Grade Ad	justmen	t: 0.0
Pa	ad Elevation:	0.0 feet		_		, 					
Ro	ad Elevation:	0.0 feet		1	Lane Equ	livalen	t Distan	ce (in i	teet)		
	Road Grade:	0.0%				Auto	s: 36	.851			
	Left View:	-90.0 degre	es		Mediur	n Truck	s: 36	.610			
	Right View:	90.0 degre	es		Heav	у т гиск	s: 36	.634			
FHWA Noise Mod	el Calculations	5									
VehicleType	REMEL	Traffic Flow	Dis	stance	Finite	Road	Fres	nel	Barrier Att	en Be	rm Atten
Autos:	66.51	-4.56		1.8	8	-1.20		-4.56	0.0	000	0.000
Medium Trucks:	77.72	-21.80		1.9	3	-1.20		-4.87	0.0	000	0.000
Heavy Trucks:	82.99	-25.76		1.9	2	-1.20		-5.61	0.0	000	0.000
Unmitigated Noise	e Levels (witho	out Topo and	barrie	er atten	uation)					<b>T</b>	
VehicleType	Leq Peak Hou	r Leq Day	/	Leq E	vening	Leq	Night		Ldn	C	NEL
Autos:	62.	6	61.3		60.0		54.	0	62.4	1	63.1
Medium Trucks:	56.	6	53.5		46.0		54.	7	60.9	9	60.9
Heavy Trucks:	58.	0	54.6		51.2		55.	9	62.1		62.2
Vehicle Noise:	64.	7	62.7		60.7		59.	7	66.6	6	66.9
Centerline Distant	ce to Noise Co	ntour (in feet	)					1		1	
			L	70 0	dBA	65	dBA	6	60 dBA	55	dBA
			Ldn:	2	2	2	18		102		221
		C	NEL:	2	3	5	50		107	2	231
Scenario: Existing Road Name: Van Buren Bl. Road Segment: w/o Washington St.

Noau Seyme	ni. w/o washingi	un St.									
SITE	SPECIFIC INP	UT DATA		NOISE MODEL INPUTS							
Highway Data				Site Con	ditions (	Hard =	10, Sc	oft = 15)			
Average Daily	Traffic (Adt): 28,	697 vehicles					Autos:	15			
Peak Hour	Percentage:	8.46%		Me	dium Tru	cks (2 A	(xles):	15			
Peak F	lour Volume: 2,	428 vehicles		Hea	avy Truci	ks (3+ A	(xles):	15			
Ve	hicle Speed:	50 mph	-	Vehicle I	Nix						
Near/Far La	ne Distance:	54 feet	-	Vehi	cleType		Day	Evening	Night	Daily	
Site Data					A	utos:	75.5%	14.0%	10.5%	97.42%	
Ba	rrier Height:	0.0 feet		Me	edium Tru	ucks:	48.9%	2.2%	48.9%	1.84%	
Barrier Type (0-W	/all, 1-Berm):	0.0		F	leavy Tru	ucks:	47.3%	5.4%	47.3%	0.74%	
Centerline Di	st. to Barrier:	76.0 feet	-	Noise So	ource Ele	vations	s (in fe	et)			
Centerline Dist.	to Observer:	76.0 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	y Trucks	: 8.0	006	Grade Ad	justment	: 0.0	
Pa	ad Elevation:	0.0 feet	-			<b>D</b> '- (		( ( )			
Ro	ad Elevation:	0.0 feet	_	Lane Equ	livalent	Distanc	e (In 1	reet)			
	Road Grade:	0.0%			Autos	: 71.2	218				
	Left View: -90.0 degrees			Mediur	n Trucks	. 71.0	J94				
	Right View:	90.0 degrees		Heav	y Trucks	: 71.7	106				
FHWA Noise Mod	el Calculations										
VehicleType	REMEL T	raffic Flow	Distance	Finite	Road	Fresn	el	Barrier Att	en Bei	rm Atten	
Autos:	70.20	1.44	-2.4	11	-1.20		-4.73	0.0	000	0.000	
Medium Trucks:	81.00	-15.79	-2.4	10	-1.20		-4.88	0.0	000	0.000	
Heavy Trucks:	85.38	-19.75	-2.4	10	-1.20		-5.25	0.0	000	0.000	
Unmitigated Noise	e Levels (withou	t Topo and ba	rrier atter	nuation)			-				
VehicleType	Leq Peak Hour	Leq Day	Leq E	vening	Leq N	light		Ldn	С	NEL	
Autos:	68.0	66	.8	65.4		59.4		67.9	9	68.5	
Medium Trucks:	61.6	58	.4	50.9		59.7		65.9	9	65.9	
Heavy Trucks:	62.0	58	.7	55.3		60.0		66.2	2	66.3	
Vehicle Noise:	69.7	67	.9	66.0		64.5		71.5	5	71.8	
Centerline Distant	ce to Noise Con	tour (in feet)					1				
			70	dBA	65 d	BA	6	60 dBA	55	dBA	
		Ld	n: 9	95 206		6	443		g	955	
		CNE	<i>L:</i> 1	00	21	6		465	1,	003	

Scenario: Existing Road Name: Van Buren Bl. Road Segment: e/o Washington St.

Ruau Seyme	n. e/o washingi	un 3t.								
SITE	SPECIFIC INP	UT DATA			Ν	OISE N	/ODE	L INPUT	S	
Highway Data				Site Con	ditions	(Hard =	10, Sc	oft = 15)		
Average Daily	Traffic (Adt): 35	,562 vehicles				,	Autos:	15		
Peak Hour	Percentage:	8.46%		Me	dium Tru	ıcks (2 A	Axles):	15		
Peak H	Hour Volume: 3	,009 vehicles		He	avy Truc	cks (3+ A	Axles):	15		
Ve	ehicle Speed:	50 mph	-	Vehicle I	Mix					
Near/Far La	ane Distance:	54 feet	-	Veh	icleType		Day	Evening	Night	Daily
Site Data					A	lutos:	75.5%	14.0%	10.5%	6 97.42%
Ва	rrier Heiaht:	0.0 feet		M	ədium Tı	ucks:	48.9%	2.2%	48.9%	6 1.84%
Barrier Type (0-V	Vall, 1-Berm):	0.0		ŀ	leavy Ti	ucks:	47.3%	5.4%	47.3%	6 0.74%
Centerline Di	ist. to Barrier:	76.0 feet	-	Noise Sc	ource Fl	evation	s (in fe	et)		
Centerline Dist.	to Observer:	76.0 feet	-				) ) ) )			
Barrier Distance	to Observer:	0.0 feet		Medium Trucks: 2 297						
Observer Height	(Above Pad):	5.0 feet		Heav	W Truck	s. 2.2 s <sup>.</sup> 8(	106	Grade Ad	iustmer	nt: 0.0
P	ad Elevation:	0.0 feet		- Tiour	y maona	. 0.0				
Ro	ad Elevation:	0.0 feet		Lane Eq	uivalent	Distand	ce (in t	feet)		
	Road Grade:	0.0%			Autos	s: 71.:	218			
	Left View:	-90.0 degrees		Mediu	m Trucks	s: 71.0	094			
	Right View:	90.0 degrees		Heav	y Trucks	s: 71.º	106			
FHWA Noise Mod	el Calculations									
VehicleType	REMEL 7	Traffic Flow D	istance	Finite	Road	Fresn	el	Barrier Att	en Be	erm Atten
Autos:	70.20	2.37	-2.4	1	-1.20		-4.73	0.0	000	0.000
Medium Trucks:	81.00	-14.86	-2.4	0	-1.20		-4.88	0.0	000	0.000
Heavy Trucks:	85.38	-18.82	-2.4	0	-1.20		-5.25	0.0	000	0.000
Unmitigated Nois	e Levels (withou	t Topo and bar	rier atten	uation)						
VehicleType	Leq Peak Hour	Leq Day	Leq E	vening	Leq	Night		Ldn	(	ONEL
Autos:	69.0	67.7	,	66.4		60.4		68.8	3	69.4
Medium Trucks:	62.5	59.4	Ļ	51.9		60.6	;	66.8	3	66.8
Heavy Trucks:	63.0	63.0 59.6		56.2		60.9		67.′		67.2
Vehicle Noise:	70.7	68.8	3	66.9		65.4	ŀ	72.4	1	72.7
Centerline Distan	ce to Noise Con	tour (in feet)								
			70 (	dBA	65 (	dBA	6	60 dBA	5	5 dBA
		Ldn	: 11	110 237		511		1	1,102	
	CNEL:		: 11	116 249 537				1	,157	

Scenario: Existing Road Name: Van Buren Bl. Road Segment: w/o Chicago Av./Alta Cresta Av. Project Name: Arroyo Vista Job Number: 14577

	0											
SITE	SPECIFIC IN	PUT DATA			NOISE MODEL INPUTS							
Highway Data					Site Con	ditions	s (Hard =	= 10, So	oft = 15)			
Average Daily	Traffic (Adt): 3	35,550 vehicles						Autos:	15			
Peak Hour	Percentage:	8.46%			Me	dium T	rucks (2	Axles):	15			
Peak F	lour Volume:	3,008 vehicles			He	avy Tru	ıcks (3+	Axles):	15			
Ve	hicle Speed:	50 mph		-	Vehicle I	Mix						
Near/Far La	ne Distance:	54 feet			Veh	icleTyp	е	Day	Evening	Night	Daily	
Site Data							Autos:	75.5%	5 14.0%	10.5%	97.42%	
Ba	rrier Height:	0.0 feet			M	edium T	Trucks:	48.9%	5 2.2%	48.9%	1.84%	
Barrier Type (0-W	/all, 1-Berm):	0.0			ŀ	leavy	Trucks:	47.3%	5.4%	47.3%	0.74%	
Centerline Di	st. to Barrier:	76.0 feet		-	Noise So	ource E	levatio	ns (in f	eet)			
Centerline Dist.	to Observer:	76.0 feet		-		Auto	os: 0	.000				
Barrier Distance	to Observer:	0.0 feet			Mediu	m Truci	ks <sup>.</sup> 2	.297				
Observer Height	(Above Pad):	5.0 feet			Heav	v Truci	ks: 8	.006	Grade Ad	justment	: 0.0	
P	ad Elevation:	0.0 feet		_								
Ro	ad Elevation:	0.0 feet		_	Lane Eq	uivaler	nt Distar	ice (in	feet)			
	Road Grade:	0.0%				Auto	os: 71	.218				
	Left View:	-90.0 degree	S		Mediu	m Truci	ks: 71	.094				
	Right View:	90.0 degree	S		Heav	y Truci	ks: 71	.106				
FHWA Noise Mod	el Calculations	5										
VehicleType	REMEL	Traffic Flow	Dis	stance	Finite	Road	Fres	nel	Barrier Atte	en Ber	rm Atten	
Autos:	70.20	2.37		-2.4	1	-1.20	L	-4.73	0.0	000	0.000	
Medium Trucks:	81.00	-14.86		-2.4	0	-1.20		-4.88	0.0	000	0.000	
Heavy Trucks:	85.38	-18.82		-2.4	0	-1.20		-5.25	0.0	000	0.000	
Unmitigated Noise	e Levels (with	out Topo and I	barrie	er atter	nuation)							
VehicleType	Leq Peak Hou	r Leq Day		Leq E	vening	Leq	Night		Ldn	C	NEL	
Autos:	69.	.0 6	67.7		66.4		60	4	68.8	3	69.4	
Medium Trucks:	62.	.5 5	59.4		51.9		60.	6	66.8	3	66.8	
Heavy Trucks:	63.	.0 5	59.6		56.2		60.	9	67.1	l	67.2	
Vehicle Noise:	70.	.7 6	6.8		66.9		65	4	72.4	1	72.7	
Centerline Distan	ce to Noise Co	ontour (in feet)										
				70	dBA	65	i dBA	6	60 dBA	55	dBA	
		l	_dn:	1	10	2	237	·	511	1,	101	
		CN	IEL:	1	16	2	249		537	1,	157	

Scenario: Existing Road Name: Van Buren Bl. Road Segment: e/o Chicago Av./Alta Cresta Av. Project Name: Arroyo Vista Job Number: 14577

SITE	SPECIFIC IN	ριιτ ήδτα					
Highway Data			5	Site Condition	s (Hard = 10, S	oft = 15)	
Average Dailv	Traffic (Adt): 3	33.813 vehicles			Autos	, 15	
Peak Hour	Percentaae:	8.46%		Medium 1	rucks (2 Axles)	: 15	
Peak H	lour Volume:	2,861 vehicles		Heavy Tr	ucks (3+ Axles)	: 15	
Ve	hicle Speed:	50 mph		·	,		
Near/Far La	ane Distance:	54 feet	1	Vehicle Mix		<b>E</b> uranina M	
Cita Data				venicie i yp		Evening N	
Site Data				Modium	AUTOS: 10.0%	6 14.0% I	0.5% 97.42%
Ba	rrier Height:	0.0 feet		Hoow	Trucks: 40.97	o 2.2% 4	0.9% 1.04%
Barrier Type (0-W	Vall, 1-Berm):	0.0		Tleavy	TTUCKS. 47.37	0 5.4% 4	7.3% 0.74%
Centerline Di	ist. to Barrier:	76.0 feet	1	Noise Source I	Elevations (in f	eet)	
Centerline Dist.	to Observer:	76.0 feet		Aut	tos: 0.000		
Barrier Distance	to Observer:	0.0 feet		Medium Truc	:ks: 2.297		
Observer Height	(Above Pad):	5.0 feet		Heavy Truc	:ks: 8.006	Grade Adjust	tment: 0.0
	ad Elevation:	0.0 feet	1	ano Equivalo	nt Distanco (in	foot)	
RO	ad Elevation:		-			Teelj	
	Road Grade:	0.0%		Aut Modium Truc	0S. 71.210		
	Leit View.	-90.0 degrees			$-k_{\rm S}$ : 71.094		
	Right view.	90.0 degrees		Tleavy Truc	NS. 71.100		
FHWA Noise Mod	el Calculations	5					
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	2.16	-2.41	1 -1.20	) -4.73	0.000	0.000
Medium Trucks:	81.00	-15.08	-2.40	0 -1.20	) -4.88	0.000	0.000
Heavy Trucks:	85.38	-19.04	-2.40	0 -1.20	) -5.25	0.000	0.000
Unmitigated Nois	e Levels (with	out Topo and bar	rier atten	uation)			
VehicleType	Leq Peak Hou	r Leq Day	Leg Ev	/ening Le	q Night	Ldn	CNEL
Autos:	68.	.8 67.	5	66.2	60.1	68.6	69.2
Medium Trucks:	62.	.3 59.1	2	51.6	60.4	66.6	66.6
Heavy Trucks:	62.	.7 59.4	4	56.0	60.7	66.9	67.0
Vehicle Noise:	70.	.4 68.	6	66.7	65.2	72.2	72.5
Centerline Distan	ce to Noise Co	ontour (in feet)					
L		. ,	70 c	BA 6	5 dBA	60 dBA	55 dBA
		Ldr	n: 10	)7	229	494	1,065
		CNEL	.: 11	2	241	519	1,119

Scenario: Existing Road Name: Van Buren Bl. Road Segment: e/o Wood Rd.

Road Segine		u.										
SITE	SPECIFIC IN	PUT DATA			NOISE MODEL INPUTS							
Highway Data					Site Cond	ditions	: (Hard	= 10, S	oft = 15)			
Average Daily	Traffic (Adt): 3	1,982 vehicle	s					Autos:	15			
Peak Hour	Percentage:	8.46%			Med	dium Ti	rucks (2	Axles).	15			
Peak H	our Volume:	2,706 vehicle	s		Hea	avy Tru	ıcks (3+	Axles).	15			
Ve	hicle Speed:	50 mph		_	Vehicle N	lix						
Near/Far La	ne Distance:	54 feet		-	Vehi	cleType	e	Day	Evening	Night	Daily	
Site Data							Autos:	75.5%	ы́ 14.0%	10.5%	6 97.42%	
Ba	rrier Height:	0.0 feet			Me	dium T	Trucks:	48.9%	ь́ 2.2%	48.9%	6 1.84%	
Barrier Type (0-N	Vall, 1-Berm):	0.0			Н	leavy 7	Frucks:	47.3%	5.4%	47.3%	6 0.74%	
Centerline Di	ist. to Barrier:	76.0 feet		_	Noise So	urce F	levatio	ns (in f	eet)			
Centerline Dist.	to Observer:	76.0 feet		_	110/00 00			000				
Barrier Distance	to Observer:	0.0 feet			Mediun	n Truck	ks:	297				
Observer Height	(Above Pad):	5.0 feet			Heav	v Truck	(s. 1	3 006	Grade Ad	iustmen	<i>t:</i> 0.0	
P	ad Elevation:	0.0 feet			, ricur	,						
Ro	ad Elevation:	0.0 feet	0.0 feet			iivalen	t Dista	nce (in	feet)			
	Road Grade:	e: 0.0%				Auto	os: 7	1.218				
	Left View: -90.0 degrees				Mediun	n Truck	ks: 7	1.094				
	Right View:	90.0 degree	es		Heav	y Truck	ks: 7	1.106				
FHWA Noise Mod	el Calculations											
VehicleType	REMEL	Traffic Flow	Dis	tance	Finite I	Road	Fre	snel	Barrier Att	en Be	erm Atten	
Autos:	70.20	1.91		-2.4	1	-1.20		-4.73	0.0	000	0.000	
Medium Trucks:	81.00	-15.32		-2.4	0	-1.20		-4.88	0.0	000	0.000	
Heavy Trucks:	85.38	-19.28		-2.4	0	-1.20		-5.25	0.0	000	0.000	
Unmitigated Nois	e Levels (witho	ut Topo and	barrie	er atter	nuation)							
VehicleType	Leq Peak Hour	- Leq Day	/	Leq E	vening	Leq	Night		Ldn	C	NEL	
Autos:	68.	5	67.2		65.9		59	.9	68.3	3	68.9	
Medium Trucks:	62.	1	58.9		51.4		60	.2	66.3	3	66.4	
Heavy Trucks:	62.	5	59.2		55.8		60	.4	66.6	6	66.7	
Vehicle Noise:	70.	2	68.4		66.5		64	.9	72.0	)	72.3	
Centerline Distan	ce to Noise Co	ntour (in feet	)									
				70	dBA	65	dBA		60 dBA	55	5 dBA	
			Ldn:	1	03	2	221	476		1	1,026	
		Ci	NEL:	1	08	2	232		500	1	,078	

Scenario: Existing Road Name: Van Buren Bl. Road Segment: e/o Trautwein Rd./Cole Av. Project Name: Arroyo Vista Job Number: 14577

SITE	SPECIFIC IN	IPUT DATA			NOISE MODEL INPUTS								
Highway Data					Site Con	ditions	(Hard	= 10, So	oft = 15)				
Average Daily	Traffic (Adt): 2	29,513 vehicle	s					Autos:	15				
Peak Hour	Percentage:	8.46%			Mee	dium Ti	rucks (2	Axles):	15				
Peak H	lour Volume:	2,497 vehicle	s		Hea	avy Tru	ıcks (3+	Axles):	15				
Ve	hicle Speed:	50 mph			Vahiala	<i>liv</i>							
Near/Far La	ne Distance:	54 feet		-	Venicie N Vehi	r <b>iix</b> cleTvn	<u>م</u>	Dav	Evenina	Niaht	Daily		
Site Data					VCIII	ciciyp	Autos:	75 5%	14.0%	10.5%	97 42%		
		0.0 (			Me	dium T	rucks:	48.9%	2.2%	48.9%	1 84%		
Ba	rrier Height:	0.0 feet			H L	leavy T	Tucks:	47.3%	5.4%	47.3%	0.74%		
Barrier Type (U-M	/all, 1-Berm):	0.0				loary i	ruono.	47.07	0.470	47.070	0.1470		
Centerline Di		76.0 feet		_	Noise Source Elevations (in feet)								
Certierine Dist.	to Observer.	76.0 feet			Autos: 0.000								
Observer Height	(Above Ded):	0.0 feet			Medium Trucks: 2.297								
	(ADOVE FAU).	5.0 feet			Heav	y Trucł	ks: E	.006	Grade Ad	ljustment	: 0.0		
Po Po	ad Elevation.	0.0 feet			l ane Fou	iivalen	t Dista	nce (in i	feet)				
	au Elevalion. Road Grada:				Lano Lqu	Διιτά	ns <sup>.</sup> 71	218					
	Left View:	-90.0 degrees			Mediur	n Truck	ks <sup>.</sup> 71	.210					
	Right View:	aht View: 90.0 degrees			Heav	v Truck	ks: 71	106					
	Night View.	30.0 degre	63		nouv	y maon	10. 1						
FHWA Noise Mod	el Calculation	S											
VehicleType	REMEL	Traffic Flow	Dis	stance	Finite	Road	Fres	snel	Barrier Att	en Ber	rm Atten		
Autos:	70.20	1.57		-2.4	11	-1.20		-4.73	0.0	000	0.000		
Medium Trucks:	81.00	-15.67		-2.4	10	-1.20		-4.88	0.0	000	0.000		
Heavy Trucks:	85.38	-19.63		-2.4	40	-1.20		-5.25	0.0	000	0.000		
Unmitigated Nois	e Levels (with	out Topo and	barri	er attei	nuation)								
VehicleType	Leq Peak Hou	ir Leq Day	/	Leq E	vening	Leq	Night		Ldn	С	NEL		
Autos:	68	.2	66.9		65.6		59	.6	68.0	D D	68.6		
Medium Trucks:	61	.7	58.6		51.1		59	.8	66.0	C	66.0		
Heavy Trucks:	62	.2	58.8		55.4		60	.1	66.3	3	66.4		
Vehicle Noise:	69	.9	68.0		66.1		64	.6	71.0	ô	71.9		
Centerline Distan	ce to Noise Co	ontour (in feet	;)										
				70	dBA	65	dBA	6	60 dBA	55	dBA		
			Ldn:	ç	97	2	210	I	452	g	973		
		CNEL: 10		02 220			474		022				

Scenario: Existing Road Name: Iris Av. Road Segment: w/o Gamble Av.

#### Project Name: Arroyo Vista Job Number: 14577

Noau Seyme										
SITE	SPECIFIC INP	UT DATA			N	OISE N	10DE	LINPUT	S	
Highway Data				Site Cor	ditions (	(Hard =	10, Sc	oft = 15)		
Average Daily	Traffic (Adt):	35 vehicles				ŀ	Autos:	15		
Peak Hour	Percentage: 8	3.46%		Me	dium Tru	icks (2 A	xles):	15		
Peak H	our Volume:	3 vehicles		He	avy Truc	:ks (3+ A	xles):	15		
Ve	ehicle Speed:	30 mph		Vohiclo	Miv					
Near/Far La	ane Distance:	12 feet		Venicie	icleType		Dav	Evenina	Niaht	Daily
Site Data				Von	<u>юю гурс</u> Д	utos:	77 5%	12.9%	9.6%	97 42%
		0.0.6		M	edium Tr	ucks:	84 8%	4.9%	10.3%	1 84%
Ba Derrier Tune (0.1	Voll 1 Dorm)				Heavy Tr	ucks:	86 5%	2.7%	10.8%	0.74%
Barrier Type (0-V	iat to Parriari	0.0			loary n		00.070	2.170	10.070	0.1 170
Centerline Di	to Observer:	30.0 feet		Noise Se	ource Ele	evations	; (in fe	et)		
Cernerinie Dist.	to Observer:				Autos	s: 0.0	000			
Observer Height	(Above Pad):	5.0 foot		Mediu	m Trucks	s: 2.2	97			
	(ADDVE Fau). Pad Elevation:			Hea	/y Trucks	s: 8.0	06	Grade Ad	iustment	: 0.0
- Ro	ad Elevation:			Lane Eo	uivalent	Distanc	e (in f	eet)		
110	Road Grade:	0.0%			Autos	29 E	316	,		
	Left View: -90.0 degrees			Mediu	m Trucks	s: 29.5	518			
	Right View:	90.0 degrees		Hear	/v Trucks	s: 29.5	547			
	i light from				,					
FHWA Noise Mod	el Calculations									
VehicleType	REMEL T	raffic Flow	Distance	ə Finite	Road	Fresn	el	Barrier Att	en Ber	m Atten
Autos:	61.75	-25.48	3	.26	-1.20		-4.49	0.0	000	0.000
Medium Trucks:	73.48	-42.71	3	.33	-1.20		-4.86	0.0	000	0.000
Heavy Trucks:	79.92	-46.67	3	.32	-1.20		-5.77	0.0	000	0.000
Unmitigated Nois	e Levels (withou	t Topo and b	arrier att	enuation)						
VehicleType	Leq Peak Hour	Leq Day	Leq	Evening	Leq I	Vight		Ldn	С	NEL
Autos:	38.3	37	7.2	35.4		29.3		38.0	)	38.6
Medium Trucks:	32.9	32	2.1	25.8		24.2		32.7	7	32.9
Heavy Trucks:	35.4	34	4.7	25.6		26.9		35.2	2	35.4
Vehicle Noise:	40.9	39	9.9	36.2		32.1		40.6	6	41.0
Centerline Distan	ce to Noise Con	tour (in feet)								
			7	0 dBA	65 c	dBA	6	0 dBA	55	dBA
		L	dn:	0	1			2		3
		CNI	EL:	0	1			2		3

Scenari Road Nam Road Segmen	Scenario: Existing Road Name: Iris Av. Road Segment: w/o Chicago Av./Alta Cresta Av.			Project Name: Arroyo Vista Job Number: 14577							
					NC						
Highway Data	SPECIFIC IN	PUIDATA		Site Cor	nditions (H	lard = 10, S	Soft = 15)	3			
Average Dailv	Traffic (Adt):	177 vehicles			· ·	Autos	s: 15				
Peak Hour	Percentage:	8.46%		Me	edium Truc	ks (2 Axles	): 15				
Peak H	our Volume:	15 vehicles		He	avy Truck	s (3+ Axles	): 15				
Ve	hicle Speed:	30 mph		Vahiala	Mix						
Near/Far Lai	ne Distance:	12 feet		Venicie Veh	iviix nicleTvpe	Dav	Evenina	Night Daily			
Site Data					Au	itos: 77.5	% 12.9%	9.6% 97.42%			
Bai	rier Height:	0.0 feet		M	ledium Tru	cks: 84.8	% 4.9%	10.3% 1.84%			
Barrier Type (0-W	all, 1-Berm):	0.0			Heavy Tru	cks: 86.5	% 2.7%	10.8% 0.74%			
Centerline Dis	st. to Barrier:	30.0 feet		Noise S	ource Elev	vations (in	feet)				
Centerline Dist.	to Observer:	30.0 feet			Autos.	0.000					
Barrier Distance	to Observer:	0.0 feet		Mediu	m Trucks:	2 297					
Observer Height (	Above Pad):	5.0 feet		Heat	W Trucks	8.006	Grade Ad	iustment: 0.0			
Pa	ad Elevation:	0.0 feet		nea	vy mucho.	0.000	erade rid				
Roa	ad Elevation:	0.0 feet		Lane Eq	uivalent D	Distance (in	i feet)				
ŀ	Road Grade:	0.0%			Autos:	29.816					
	Left View:	-90.0 degrees		Mediu	m Trucks:	29.518					
	Right View:	90.0 degrees		Hea	vy Trucks:	29.547					
FHWA Noise Mode	el Calculation	S									
VehicleType	REMEL	Traffic Flow	Distanc	e Finite	Road	Fresnel	Barrier Att	en Berm Atten			
Autos:	61.75	-18.44	3	3.26	-1.20	-4.49	0.0	0.000 0.000			
Medium Trucks:	73.48	-35.67	3	3.33	-1.20	-4.86	6 0.0	0.000 0.000			
Heavy Trucks:	79.92	-39.63	3	3.32	-1.20	-5.77	<b>7</b> 0.0	0.000			
Unmitigated Noise	e Levels (with	out Topo and b	arrier att	enuation)							
VehicleType	Leq Peak Hou	r Leq Day	Leq	l Evening	Leq N	ight	Ldn	CNEL			
Autos:	45	.4 44	1.2	42.4		36.4	45.0	) 45.6			
Medium Trucks:	39	.9 39	9.2	32.8		31.2	39.7	7 39.9			
Heavy Trucks:	42	.4 4	.7	32.7		33.9	42.3	3 42.4			
Vehicle Noise:	47	.9 40	5.9	43.3		39.1	47.6	<b>3</b> 48.0			
Centerline Distance	e to Noise Co	ontour (in feet)	1								
			7	10 dBA	65 dE	BA	60 dBA	55 dBA			
		L	dn:	1	2		4	10			
		CNI	EL:	1	2		5	10			

Scenario: Existing				Project Name: Arroyo Vista							
Road Nai Road Segmi	<i>ne:</i> Iris Av. e <i>nt:</i> e/o Chicad	o Av /Alta Cres	ta Av			JOD IN	umper.	14577			
			u /.v.							_	
SITE Highway Data	SPECIFIC IN	IPUT DATA		<b>Ci</b>	to Con	N	IOISE		L INPUT	S	
Highway Dala				31	le Con	unions	(naru	= 10, 30	n(=15)		
Average Daily	/ Traffic (Adt):	154 vehicle	S					Autos:	15		
Peak Hou	r Percentage:	8.46%			ivieaium i rucks (2 Axies): 15						
Peak	Hour Volume:	13 vehicle	S		He	avy Truc	cks (3+	Axles):	15		
V	ehicle Speed:	30 mph		Ve	hicle l	Mix					
Near/Far L	ane Distance:	12 feet			Veh	icleType		Day	Evening	Night	Daily
Site Data						ļ	Autos:	77.5%	12.9%	9.6%	97.42%
Bi	arrier Heiaht:	0.0 feet			Me	ədium Tı	rucks:	84.8%	4.9%	10.3%	1.84%
Barrier Type (0-1	Nall, 1-Berm):	0.0			ŀ	leavy Ti	rucks:	86.5%	2.7%	10.8%	0.74%
Centerline D	ist. to Barrier:	30.0 feet		No	oise Sc	ource El	evatio	ns (in fe	et)		
Centerline Dist	to Observer:	30.0 feet					s <sup>,</sup> (	000			
Barrier Distance	e to Observer:	0.0 feet			Mediu	m Truck	o. 0	297			
Observer Height	(Above Pad):	5.0 feet			Hoay	n Truck	ο. 2 ο. β	2006	Grade Ad	liustment	· 0 0
ŀ	Pad Elevation:	0.0 feet			neav	y much	<i>s.</i> (	.000	Crado / la	jaounone	. 0.0
R	oad Elevation:	0.0 feet		La	ne Eq	uivalent	Dista	nce (in i	feet)		
	Road Grade:	0.0%				Autos	s: 29	9.816			
	Left View:	-90.0 degree	es		Mediui	m Trucks	s: 29	9.518			
	Right View:	90.0 degree	es		Heav	y Trucks	s: 29	9.547			
FHWA Noise Mod	del Calculation	S									
VehicleType	REMEL	Traffic Flow	Dista	ance	Finite	Road	Fres	snel	Barrier Att	en Ber	m Atten
Autos	: 61.75	-19.04		3.26		-1.20		-4.49	0.0	000	0.000
Medium Trucks	: 73.48	-36.28		3.33		-1.20		-4.86	0.0	000	0.000
Heavy Trucks	: 79.92	-40.24		3.32		-1.20		-5.77	0.0	000	0.000
Unmitigated Nois	se Levels (with	out Topo and	barrier	attenua	ation)						
VehicleType	Leq Peak Hou	ur Leq Day	′ L	Leq Eve	ning	Leq	Night		Ldn	Cl	NEL
Autos	: 44	.8	43.6		41.8		35	.8	44.4	4	45.0
Medium Trucks	: 39	).3	38.5		32.2		30	.6	39.1	1	39.3
Heavy Trucks	: 41	.8	41.1		32.1		33	.3	41.7	7	41.8
Vehicle Noise	: 47	7.3	46.3		42.7		38	.5	47.0	C	47.4
Centerline Distar	Centerline Distance to Noise Contour (in feet)										
				70 dE	BA	65 (	dBA	6	60 dBA	55	dBA
			Ldn:	<i>_dn:</i> 1 2 4				9			
		C	NEL:	1		2	2		4		9

Scenario: E+P Road Name: Van Buren Bl. Road Segment: n/o Victoria Av.

eau ooginoi													
SITE	SPECIFIC IN	IPUT DATA				ſ	NOISE	MODE	L INPUT	S			
Highway Data					Site Con	ditions	; (Hard =	= 10, So	oft = 15)				
Average Daily	Traffic (Adt):	30,787 vehicle	s					Autos:	15				
Peak Hour	Percentage:	8.46%			Me	dium Ti	rucks (2	Axles):	15				
Peak H	lour Volume:	2,605 vehicle	S		He	avy Tru	ıcks (3+	Axles):	15				
Ve	hicle Speed:	45 mph		-	Vahiala	<i>liv</i>							
Near/Far La	ne Distance:	54 feet		-	Venicie i	<b>i</b> cleTvn	0	Dav	Evenina	Niaht	Daily		
Sito Data					Ven	сютур	Autos	75 5%	1/ 0%	10.5%	07 / 2%		
	• • • • • •				1.1	dium T	Trucks	48.9%	2 2 2%	48.9%	1 84%		
Ba	rrier Height:	0.0 feet				Jeavy T	Trucks:	47 3%	5 4%	47.3%	0.74%		
Barrier Type (U-W	/all, 1-Berm):	0.0			1	icary i	ruono.	47.57	5 5.470	47.070	0.7 470		
Centerline Di	st. to Barrier:	76.0 feet		-	Noise Source Elevations (in feet)								
Centerline Dist.	to Observer:	76.0 feet			Autos: 0.000								
Barner Distance	to Observer:	0.0 leet			Medium Trucks: 2.297								
Observer Height (	Above Pad):	5.0 feet			Heav	y Trucł	ks: 8	.006	Grade Ad	justment	: 0.0		
	ad Elevation.	0.0 feet		-	l ano Fo	uivalon	nt Distar	nco (in	foot)				
KU	au Elevalion. Pood Crodo:			-	Lanc Ly	Λυτα	21 201 21	218	iccij				
		0.0%	0.0% -90.0 degrees			n Trucl	ke <sup>.</sup> 71	.210					
	Right View:	-90.0 degrees			Heav	v Truck	ks <sup>.</sup> 71	106					
	Right view.	30.0 degre	63		near	y maon	(O. 71	.100					
FHWA Noise Mod	el Calculation	s											
VehicleType	REMEL	Traffic Flow	Dis	stance	Finite	Road	Fres	nel	Barrier Att	en Bei	rm Atten		
Autos:	68.46	2.21		-2.4	41	-1.20		-4.73	0.0	000	0.000		
Medium Trucks:	79.45	-15.03		-2.4	40	-1.20		-4.88	0.0	000	0.000		
Heavy Trucks:	84.25	-18.99		-2.4	40	-1.20		-5.25	0.0	000	0.000		
Unmitigated Noise	e Levels (with	out Topo and	barri	er atte	nuation)								
VehicleType	Leq Peak Hou	ir Leq Day	V	Leq E	vening	Leq	Night		Ldn	С	NEL		
Autos:	67	.1 .1	65.8		64.5		58	5	66.9	9	67.5		
Medium Trucks:	60	.8	57.6		50.1		58	9	65.1	1	65.1		
Heavy Trucks:	61	.7	58.4		55.0		59.	6	65.8	3	65.9		
Vehicle Noise:	68	.9	67.0		65.1		63	8	70.7	7	71.1		
Centerline Distant	ce to Noise Co	ontour (in feet	t)										
		•		70	dBA	65	dBA	(	60 dBA	55	dBA		
			Ldn:	8	85	1	184	I	396	נו	352		
		CNEL:		8	89 193			415 894			394		
			-										

Scenario: E+P Road Name: Van Buren Bl. Road Segment: s/o Victoria Av.

Road Seyme	ni. S/O Viciona A	ν.								
SITE	SPECIFIC INF	PUT DATA			Ν	OISE N	10DE	L INPUT	S	
Highway Data				Site Con	ditions (	(Hard =	10, Sc	oft = 15)		
Average Daily	Traffic (Adt): 40	),484 vehicles				/	Autos:	15		
Peak Hour	Percentage:	8.46%		Me	dium Tru	ıcks (2 A	xles):	15		
Peak H	lour Volume: 3	3,425 vehicles		He	avy Truc	:ks (3+ A	xles):	15		
Ve	hicle Speed:	55 mph	_	Vehicle I	Mix					
Near/Far La	ne Distance:	54 feet	_	Veh	icleType		Day	Evening	Night	Daily
Site Data					A	utos:	75.5%	14.0%	10.5%	6 97.42%
Ba	rrier Height:	0.0 feet		M	ədium Tr	ucks:	48.9%	2.2%	48.9%	6 1.84%
Barrier Type (0-W	/all, 1-Berm):	0.0		ŀ	leavy Tr	ucks:	47.3%	5.4%	47.3%	6 0.74%
Centerline Di	st. to Barrier:	76.0 feet	-	Noise So	ource Ele	evations	s (in fe	et)		
Centerline Dist.	to Observer:	76.0 feet	-		Autos	s: 0.0	000	,		
Barrier Distance	to Observer:	0.0 feet		Mediu	n Trucks	s: 2.2	297			
Observer Height (	(Above Pad):	5.0 feet		Heav	v Trucks	s: 8.0	006	Grade Ad	iustmer	<i>nt:</i> 0.0
Pa	ad Elevation:	0.0 feet	-		, 	<b>D:</b> (				
Roa	ad Elevation:	0.0 feet	-	Lane Eq	uivalent	Distanc	e (in i	teet)		
	Road Grade:	0.0%			Autos	s: /1.2	218			
	Left View: -90.0 degrees			Mediui	n Trucks	s: 71.0	J94			
	Right View:	90.0 degrees		Heav	y Trucks	s: /1.′	106			
FHWA Noise Mod	el Calculations									
VehicleType	REMEL	Traffic Flow D	istance	Finite	Road	Fresn	el	Barrier Att	en Be	erm Atten
Autos:	71.78	2.52	-2.4	11	-1.20		-4.73	0.0	000	0.000
Medium Trucks:	82.40	-14.71	-2.4	10	-1.20		-4.88	0.0	000	0.000
Heavy Trucks:	86.40	-18.67	-2.4	10	-1.20		-5.25	0.0	000	0.000
Unmitigated Noise	e Levels (withou	ut Topo and barr	ier atter	nuation)						
VehicleType	Leq Peak Hour	Leq Day	Leq E	vening	Leq I	Vight		Ldn	C	CNEL
Autos:	70.7	69.4		68.1		62.1		70.5	5	71.1
Medium Trucks:	64.1	60.9		53.4		62.2		68.3	3	68.4
Heavy Trucks:	64.1	64.1 60.8		57.4		62.1		68.3	3	68.4
Vehicle Noise:	72.3	3 70.5		68.6		66.9		73.9	9	74.3
Centerline Distant	ce to Noise Con	ntour (in feet)	r	1						
			70	dBA	65 c	dBA	6	60 dBA	53	5 dBA
		Ldn:	1	39	30	00		646	1	,391
	CNEL:			146 315 679 1,					,464	

Scenario:	E+P
Road Name:	Mockingbird Canyon Rd.
Road Segment:	s/o Van Buren Bl.

Project Name: Arroyo Vista Job Number: 14577

SITE SPECIFIC INPUT DATANOISE MODEL INPUTSHighway DataSite Conditions (Hard = 10, Soft = 15)Average Daily Traffic (Adt): 27,236 vehiclesAutos: 15Peak Hour Percentage:8,46%Medium Trucks (2 Axles): 15								
Highway DataSite Conditions (Hard = 10, Soft = 15)Average Daily Traffic (Adt): 27,236 vehiclesAutos: 15Peak Hour Percentage:8,46%Medium Trucks (2 Axles): 15								
Average Daily Traffic (Adt):27,236 vehiclesAutos:15Peak Hour Percentage:8,46%Medium Trucks (2 Axles):15	Site Conditions (Hard = 10, Soft = 15)							
Peak Hour Percentage: 8.46% Medium Trucks (2 Axles): 15								
Peak Hour Volume:2,304 vehiclesHeavy Trucks (3+ Axles):15	Heavy Trucks (3+ Axles): 15							
Vehicle Speed: 55 mph Vehicle Mix								
Near/Far Lane Distance: 12 feet VehicleType Day Evening Night	Daily							
Site Data Autos: 75.5% 14.0% 10.5%	97.42%							
Barrier Height: 0.0 feet Medium Trucks: 48.9% 2.2% 48.9%	1.84%							
Barrier Type (0-Wall, 1-Berm): 0.0 Heavy Trucks: 47.3% 5.4% 47.3%	0.74%							
Centerline Dist. to Barrier: 50.0 feet Noise Source Elevations (in feet)								
Centerline Dist. to Observer: 50.0 feet								
Barrier Distance to Observer: 0.0 feet Medium Trucks: 2 297								
Observer Height (Above Pad): 5.0 feet Heavy Trucks: 8.006 Grade Adjustment	0.0							
Pad Elevation: 0.0 feet	0.0							
Road Elevation: 0.0 feet Lane Equivalent Distance (in feet)								
Road Grade: 0.0% Autos: 49.890								
Left View: -90.0 degrees Medium Trucks: 49.712								
Right View: 90.0 degrees Heavy Trucks: 49.730								
FHWA Noise Model Calculations								
VehicleType REMEL Traffic Flow Distance Finite Road Fresnel Barrier Atten Ber	n Atten							
Autos: 71.78 0.80 -0.09 -1.20 -4.65 0.000	0.000							
Medium Trucks: 82.40 -16.44 -0.07 -1.20 -4.87 0.000	0.000							
Heavy Trucks: 86.40 -20.39 -0.07 -1.20 -5.43 0.000	0.000							
Unmitigated Noise Levels (without Topo and barrier attenuation)								
VehicleType Leq Peak Hour Leq Day Leq Evening Leq Night Ldn Cl	JEL							
Autos: 71.3 70.0 68.7 62.7 71.1	71.7							
Medium Trucks: 64.7 61.5 54.0 62.8 69.0	69.0							
Heavy Trucks: 64.7 61.4 58.0 62.7 68.9	69.0							
Vehicle Noise: 72.9 71.1 69.2 67.5 74.5	74.9							
Centerline Distance to Noise Contour (in feet)								
70 dBA 65 dBA 60 dBA 55	dBA							
Ldn: 100 216 466 1,0	004							
	)56							

Scenario: E+P Road Name: Washington St. Road Segment: n/o Van Buren Bl.					Project Name: Arroyo Vista Job Number: 14577								
SITE SP	ECIFIC IN	PUT DATA				NOIS	E MODE	EL INPUT	S				
Highway Data				5	Site Conditions (Hard = 10, Soft = 15)								
Average Daily Tra	affic (Adt): 1	5,879 vehicles	S				Autos	: 15					
Peak Hour Pe	rcentage:	8.46%			Medium Trucks (2 Axles): 15								
Peak Hour	r Volume:	1,343 vehicles	5		He	avy Trucks (	3+ Axles)	: 15					
Vehici	le Speed:	45 mph		1	/ehicle	Mix							
Near/Far Lane	Distance:	36 feet		-	Veh	icleType	Day	Evening	Night	Daily			
Site Data						Autos	s: 77.5%	6 14.0%	10.5%	6 92.00%			
Barrie	er Heiaht:	0 0 feet			M	edium Truck	s: 48.0%	6 2.0%	50.0%	6 3.00%			
Barrier Type (0-Wall,	, 1-Berm):	0.0			I	Heavy Truck	s: 48.0%	6 2.0%	50.0%	6 5.00%			
Centerline Dist. t	to Barrier:	44.0 feet			Voise Su	ourco Elovat	ions (in f	ioot)					
Centerline Dist. to (	Observer:	44.0 feet			10/36 30			661)					
Barrier Distance to (	Observer:	0.0 feet			Modiu	m Trucks:	2 207						
Observer Height (Ab	ove Pad):	5.0 feet			Heau	n Trucks:	8 006	Grade Ac	liustmer	<i>nt<sup>.</sup></i> 0.0			
Pad I	Elevation:	0.0 feet			near	ly mucho.	0.000	0/440/14	jaounon				
Road I	Elevation:	0.0 feet			_ane Eq	uivalent Dis	tance (in	feet)					
Roa	ad Grade:	0.0%			Autos: 40.460								
l	Left View:	-90.0 degree	es		Medium Trucks: 40.241								
Ri	ight View:	90.0 degree	es		Heavy Trucks: 40.262								
FHWA Noise Model C	Calculations	;											
VehicleType	REMEL	Traffic Flow	Dis	tance	Finite	Road F	resnel	Barrier At	ten Be	erm Atten			
Autos:	68.46	-0.92		1.28	3	-1.20	-4.61	0.	000	0.000			
Medium Trucks:	79.45	-15.78		1.31	1	-1.20	-4.87	0.	000	0.000			
Heavy Trucks:	84.25	-13.57		1.31	1	-1.20	-5.50	0.	000	0.000			
Unmitigated Noise Le	evels (witho	out Topo and	barrie	er atten	uation)								
VehicleType Le	eq Peak Hour	r Leq Day	'	Leq Ev	/ening	Leq Nigh	t	Ldn	(	ONEL			
Autos:	67.	6	66.4		65.0		59.0	67.	5	68.1			
Medium Trucks:	63.	8	60.5		52.7		61.9	68.	1	68.1			
Heavy Trucks:	70.	8	67.5		59.8		69.0	75.	1	75.2			
Vehicle Noise: 73.0 70.5					66.4		70.1	76.	5	76.6			
Centerline Distance t	to Noise Co	ntour (in feet	)										
				70 a	1BA	65 dBA		60 dBA	5	5 dBA			
			Ldn:	11	9	257		553	1	,192			
		CI	VEL:	12	21	261		563	1	,213			

Scenario: E+P Road Name: Washington St. Road Segment: s/o Van Buren Bl.						Project Job N	Name: lumber:	Arroyo 14577	Vista			
SITE	SPECIFIC IN	PUT DATA				Ν	IOISE I	MODE	L INPUT	S		
Highway Data				S	Site Conditions (Hard = 10, Soft = 15)							
Average Daily	· Traffic (Adt):	9,280 vehicles	6					Autos:	15			
Peak Hou	r Percentage:	8.46%			Me	dium Tru	ucks (2	Axles):	15			
Peak I	Hour Volume:	785 vehicles	6		He	avy Truc	cks (3+ .	Axles):	15			
Ve	ehicle Speed:	35 mph		V	/ehicle	Mix						
Near/Far La	ane Distance:	36 feet			Veh	icleTvpe	,	Dav	Evenina	Niaht	Dailv	
Site Data							Autos:	77.5%	5 14.0%	10.5%	92.00%	
Ba	arrier Height	0.0 feet			M	edium Ti	rucks:	48.0%	2.0%	50.0%	3.00%	
Barrier Type (0-V	Vall, 1-Berm):	0.0			I	Heavy Ti	rucks:	48.0%	2.0%	50.0%	5.00%	
Centerline D	ist. to Barrier:	44.0 feet		٨	loise Su	ource El	ovation	s (in fa	aat)			
Centerline Dist.	to Observer:	44.0 feet			0130 00		evalion e· 0	000				
Barrier Distance	e to Observer:	0.0 feet			Madiu	m Truck	s. 0. s. 2	207				
Observer Height	(Above Pad):	5.0 feet			Heav	w Truck	s. 2. s <sup>.</sup> 8	006	Grade Ad	liustment	t: 0.0	
F	Pad Elevation:	0.0 feet			near		0. 0.			,		
Road Elevation: 0.0 feet			L	.ane Eq	uivalent	t Distan	ce (in i	feet)				
	Road Grade:	0.0%				Auto	s: 40	.460				
	Left View:	-90.0 degree	es		Medium Trucks: 40.241							
	Right View:	90.0 degree	es		Heavy Trucks: 40.262							
FHWA Noise Mod	lel Calculation	5										
VehicleType	REMEL	Traffic Flow	Dist	tance	Finite	Road	Fresi	nel	Barrier Att	en Bei	rm Atten	
Autos:	64.30	-2.16		1.28	3	-1.20		-4.61	0.0	000	0.000	
Medium Trucks.	75.75	-17.03		1.31		-1.20		-4.87	0.0	000	0.000	
Heavy Trucks.	81.57	-14.81		1.31		-1.20		-5.50	0.0	000	0.000	
Unmitigated Nois	e Levels (with	out Topo and	barrie	r atteni	uation)							
VehicleType	Leq Peak Hou	r Leq Day	·	Leq Ev	rening	Leq	Night		Ldn	С	NEL	
Autos.	62	2	61.0		59.6		53.	6	62.1	1	62.7	
Medium Trucks.	58	8	55.6		47.8		57.	0	63.2	2	63.2	
Heavy Trucks	66	9	63.6		55.8		65.	0	71.2	2	71.2	
Vehicle Noise.	: 68	6	65.9		61.3		65.	9	72.3	3	72.4	
Centerline Distan	ce to Noise Co	ntour (in feet	)							-		
				70 d	BA	65	dBA	E	60 dBA	55	dBA	
			Ldn:	62	2	1:	34		289	e	623	
		CI	VEL:	63	3	1:	36		293	6	632	

Scenar Road Nam Road Segmei	Scenario: E+P Road Name: Chicago Av./Alta Cresta Av. Road Segment: n/o Van Buren Bl.						Project Name: Arroyo Vista Job Number: 14577									
SITE	SPECIFIC IN	IPUT DATA				Ν	IOISE	MODE	L INPUT	S						
Highway Data				S	ite Con	ditions	(Hard =	= 10, So	oft = 15)							
Average Daily	Traffic (Adt):	2,662 vehicle	S		Autos: 15											
Peak Hour	Percentage:	8.46%			Medium Trucks (2 Axles): 15											
Peak H	lour Volume:	225 vehicle	S		Heavy Trucks (3+ Axles): 15											
Ve	hicle Speed:	25 mph			abiala			-								
Near/Far La	ne Distance:	12 feet		V	Veh	<b>VIIX</b> icleTyne		Dav	Evenina	Niaht	Daily					
Site Data					Ven	юютуре 4	Autos:	77.5%	12.9%	9.6%	97.42%					
Ba	wiar Usiahti	0.0 feet			M	edium Tr	rucks:	84.8%	4.9%	10.3%	1.84%					
Dar Barriar Type (0 W	All 1 Borm):					-leavv Tr	rucks:	86.5%	2.7%	10.8%	0.74%					
Centerline Di	st to Barrier	0.0 30.0 feet														
Centerline Dist	to Observer:	30.0 feet		N	oise So	ource El	evatior	ns (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	~							
Pa	ad Elevation:	0.0 feet			Heav	y Trucks	s: 8	.006	Grade Ad	justment	: 0.0					
Roa	ad Elevation:	0.0 feet		L	ane Eq	uivalent	Distan	ice (in	feet)							
Road Grade: 0.0%					-	Autos	s: 29	.816								
	Left View:	-90.0 degree	es		Mediu	m Trucks	s: 29	.518								
	Right View:	90.0 degree	es		Heav	y Trucks	s: 29	.547								
FHWA Noise Mode	el Calculation	s														
VehicleType	REMEL	Traffic Flow	Dista	ance	Finite	Road	Fres	nel	Barrier Att	en Bei	rm Atten					
Autos:	58.73	-5.87		3.26		-1.20		-4.49	0.0	000	0.000					
Medium Trucks:	70.80	-23.11		3.33		-1.20		-4.86	0.0	000	0.000					
Heavy Trucks:	77.97	-27.07		3.32		-1.20		-5.77	0.0	000	0.000					
Unmitigated Noise	e Levels (with	out Topo and	barrier	r attenu	ation)											
VehicleType	Leq Peak Hou	ır Leq Day	/	Leq Eve	əning	Leq	Night		Ldn	C	NEL					
Autos:	54	.9	53.8		52.0		45.	9	54.6	6	55.2					
Medium Trucks:	49	.8	49.0		42.7		41.	1	49.6	6	49.8					
Heavy Trucks:	53	.0	52.3	43.3 44.5 52.9 5						53.0						
Vehicle Noise:	57	.8	56.9		53.0		49.	1	57.6	6	58.0					
Centerline Distance	ce to Noise Co	ontour (in feet	)	70 "		~~~										
				70 dl	ЗA	65 (	aBA o	6		55	aBA					
			Lan:	4		1	0		21		40 47					
		Ci	NEL:	5		1	U		22		47					

Scenario Road Name Road Segment	b: E+P b: Chicago Av t: s/o Van Bur	./Alta Cresta A en Bl.	١٧.			Project Job Nu	Name: . ımber:	Arroyo 14577	Vista		
SITE S	PECIFIC IN	PUT DATA				Ν	OISE N	NODE	L INPUT	S	
Highway Data				S	Site Con	ditions (	Hard =	10, Sc	oft = 15)		
Average Daily T	raffic (Adt):	2,945 vehicle	s					Autos:	15		
Peak Hour P	Percentage:	8.46%			Me	dium Tru	cks (2 /	Axles):	15		
Peak Ho	our Volume:	249 vehicle	s		He	avy Truc	ks (3+ /	Axles):	15		
Vehi	icle Speed:	25 mph			(- h: - l-						
Near/Far Lane	e Distance:	12 feet		·	Venicie I Veh	icleTvpe		Dav	Evenina	Niaht	Dailv
Site Data						A	utos:	77.5%	12.9%	9.6%	97.42%
Barr	ier Heiaht <sup>.</sup>	0.0 feet			М	edium Tr	ucks:	84.8%	4.9%	10.3%	1.84%
Barrier Type (0-Wa	ll, 1-Berm):	0.0			I	Heavy Tr	ucks:	86.5%	2.7%	10.8%	0.74%
Centerline Dist	to Barrier:	30.0 feet			laise Si	ource Fle	vation	s (in fa	(act)		
Centerline Dist. to	o Observer:	30.0 feet			10/30 00			000			
Barrier Distance to	o Observer:	0.0 feet			Modiu	n Trucks	· 0.	207			
Observer Height (A	bove Pad):	5.0 feet			Hoa	ni Trucks	. <u> </u>	006	Grade Ad	liustmen	+· 0 0
Pac	d Elevation:	0.0 feet			Tiear	ly muchs	. 0.	000	Orado / la	juounon	. 0.0
Road	Road Elevation: 0.0 feet				.ane Eq	uivalent	Distan	ce (in t	feet)		
Road Grade: 0.0%						Autos	: 29.	816			
	Left View:	-90.0 degre	es		Medium Trucks: 29.518						
	Right View:	90.0 degre	es		Heavy Trucks: 29.547						
FHWA Noise Model	Calculation	S									
VehicleType	REMEL	Traffic Flow	Dis	tance	Finite	Road	Fresr	nel	Barrier Att	ten Be	rm Atten
Autos:	58.73	-5.43		3.26	6	-1.20		-4.49	0.0	000	0.000
Medium Trucks:	70.80	-22.67		3.33	3	-1.20		-4.86	0.0	000	0.000
Heavy Trucks:	77.97	-26.63		3.32	2	-1.20		-5.77	0.0	000	0.000
Unmitigated Noise	Levels (with	out Topo and	barrie	er atten	uation)	-					
VehicleType L	.eq Peak Hou	r Leq Day	/	Leq Ev	rening	Leq I	Vight		Ldn	C	NEL
Autos:	55	.4	54.2		52.4		46.4	1	55.0	0	55.6
Medium Trucks:	50	.3	49.5		43.1		41.6	6	50.0	0	50.3
Heavy Trucks:	53	.5	52.8 43.7 45.0 53.3					53.5			
Vehicle Noise:	58	.3	57.3		53.4		49.5	5	58.0	0	58.4
Centerline Distance	e to Noise Co	ontour (in feet	)								
				70 d	IBA	65 c	IBA	6	60 dBA	55	dBA
			Ldn:	5		10	)		22		48
		C	NEL:	5		11	1		23		51

Scenario: E+P Road Name: Gamble Av. Road Segment: s/o Iris Av. Project Name: Arroyo Vista Job Number: 14577

9												
SITE	SPECIFIC IN	PUT DATA			NOISE MODEL INPUTS							
Highway Data					Site Con	ditions	s (Hard =	= 10, Sc	oft = 15)			
Average Daily	Traffic (Adt):	777 vehicles	6					Autos:	15			
Peak Hour	Percentage:	8.46%			Ме	dium T	rucks (2	Axles):	15			
Peak H	lour Volume:	66 vehicles	6		He	avy Tru	ucks (3+	Axles):	15			
Ve	ehicle Speed:	25 mph			Vohiclo	Miv						
Near/Far La	ane Distance:	12 feet			Veh	icleTvn		Dav	Evenina	Niaht	Daily	
Site Data					Von	юютур	Autos:	77.5%	12.9%	9.6%	97 42%	
Data Data	wiew Heinht.	0.0 feet			M	edium T	Trucks:	84.8%	4.9%	10.3%	1.84%	
Ba Porrior Tupo (0 M	Voll 1 Porm):					-leavy T	Trucks:	86.5%	2.7%	10.8%	0.74%	
Conterline D	ist to Barriar:	0.0 20.0 foot						00.070	,0		•••••	
Contorlino Dist	to Observer:	30.0 feet		_	Noise So	ource E	Elevatior	ns (in fe	et)			
Barrier Distance	to Observer:	0.0 feet				Auto	os: 0	.000				
Observer Height	(Abovo Pod):	0.0 feet			Mediu	m Truci	ks: 2	.297				
	(ADOVE Fau).	5.0 feet			Heav	y Truci	ks: 8	.006	Grade Ad	iustment.	0.0	
r Po	ad Elevation:	0.0 feet			Lane Eq	uivaler	nt Distar	ice (in t	feet)			
R0	au Elevalion. Road Grade:				24/10/29	Διιτ	ns <sup>.</sup> 20	816				
Left View -90.0 degrees					Mediu	m Truci	ks: 20	518				
	Dight View: -90.0 degrees				Heav	N Truci	ks: 20	547				
	Night view.	solo degree	55		nour	y maoi	NO. 20	.047				
FHWA Noise Mod	el Calculation	5										
VehicleType	REMEL	Traffic Flow	Dis	tance	Finite	Road	Fres	nel	Barrier Atte	en Ber	m Atten	
Autos:	58.73	-11.22		3.2	26	-1.20	)	-4.49	0.0	000	0.000	
Medium Trucks:	70.80	-28.46		3.3	33	-1.20	)	-4.86	0.0	000	0.000	
Heavy Trucks:	77.97	-32.41		3.3	32	-1.20	)	-5.77	0.0	000	0.000	
Unmitigated Nois	e Levels (with	out Topo and	barrie	er atter	nuation)							
VehicleType	Leq Peak Hou	r Leq Day	,	Leg E	vening	Leo	n Night		Ldn	Cl	VEL	
Autos:	49	.6	48.4		46.6		40.	6	49.2	2	49.8	
Medium Trucks:	44	.5	43.7		37.3		35.	8	44.2	2	44.5	
Heavy Trucks:	47	.7	47.0		38.0		39.	2	47.6	6	47.7	
Vehicle Noise:	52	.5	51.5		47.6		43.	7	52.2	2	52.6	
Centerline Distan	ce to Noise Co	ontour (in feet)	)									
<u> </u>				70	dBA	65	5 dBA	6	60 dBA	55	dBA	
			Ldn:	:	2		4		9	2	20	
		Cl	VEL:	:	2		4		10		21	

Scenario: E+P Road Name: Wood Rd. Road Segment: n/o Van Buren Bl. Project Name: Arroyo Vista Job Number: 14577

										C		
Hiabway Data	SPECIFIC INF	PUIDAIA			Sita Con	۲ ditions	(Hard		$\frac{1}{1001}$	5		
	T (('			•		unions	(กลาน	_ 10, 00	<u> </u>			
Average Daily	Traffic (Adt):	9,349 venicles	5		Ma	diuma Tu	u alca /	Autos:	15			
Peak Hour	Percentage:	8.46%			1 $1$ $1$ $1$ $1$ $1$ $1$ $1$ $1$ $1$							
Peak F	iour Volume:	791 vehicles	6		не	avy Tru	ICKS (34	- Axies):	15			
Ve	hicle Speed:	40 mph		1	Vehicle I	Mix						
Near/Far La	ne Distance:	36 feet			Veh	icleType	Э	Day	Evening	Night	Daily	
Site Data							Autos:	75.5%	14.0%	10.5%	97.42%	
Ba	rrier Heiaht:	0.0 feet			Me	ədium T	rucks:	48.9%	2.2%	48.9%	1.84%	
Barrier Type (0-W	/all, 1-Berm):	0.0			ŀ	<del>l</del> eavy T	rucks:	47.3%	5.4%	47.3%	0.74%	
Centerline Di	st. to Barrier:	50.0 feet			Naisa Sa	urco E	lovatio	ns (in fa				
Centerline Dist.	to Observer:	50.0 feet		-	10136 30							
Barrier Distance	to Observer:	0.0 feet			Madiu	AULO AULO	is.	2.000				
Observer Height	(Above Pad):	5.0 feet			Mediui		(S. A	2.297	Grada Ad	liuctmont		
Pa	ad Elevation:	0.0 feet			пеал	у писк	(S. )	5.006	Graue Au	Justinent	. 0.0	
Ro	ad Elevation:	0.0 feet			Lane Eq	uivalen	t Dista	nce (in i	feet)			
	Road Grade:	0.0%				Auto	os: 4	6.915				
	Left View:	-90.0 degree	s		Mediur	n Truck	(s: 4	6.726				
	Right View:	90.0 degree	s		Heav	y Truck	(s: 4	6.744				
FHWA Noise Mod	el Calculations											
VehicleType	REMEL	Traffic Flow	Dist	tance	Finite	Road	Fre	snel	Barrier Att	en Ber	m Atten	
Autos:	66.51	-2.46		0.3	1	-1.20		-4.65	0.0	000	0.000	
Medium Trucks:	77.72	-19.70		0.3	4	-1.20		-4.87	0.0	000	0.000	
Heavy Trucks:	82.99	-23.65		0.3	4	-1.20		-5.43	0.0	000	0.000	
Unmitigated Noise	e Levels (witho	ut Topo and	barrie	r atten	uation)							
VehicleType	Leq Peak Hour	Leq Day		Leq E	vening	Leq	Night		Ldn	C	NEL	
Autos:	63.2	2	61.9		60.6		54	.6	63.0	)	63.6	
Medium Trucks:	57.2	2	54.0		46.5		55	5.2	61.4	4	61.4	
Heavy Trucks:	58.5	5	55.2		51.8		56	6.4	62.6	6	62.7	
Vehicle Noise:	65.2	2	63.3		61.3		60	).2	67.2	2	67.4	
Centerline Distan	ce to Noise Cor	ntour (in feet)										
				70 0	dBA	65	dBA	6	60 dBA	55	dBA	
			Ldn:	3	2	7	70		150	3	23	
		CI	IEL:	3	4	-	73		157	3	38	

Scenario: E+P Road Name: Wood Rd. Road Segment: s/o Van Buren BI. Project Name: Arroyo Vista Job Number: 14577

Road Ocyme	nt. S/O van Duie	an Di.										
SITE	SPECIFIC INF	PUT DATA				Ν	IOISE	MODE	L INPUT	S		
Highway Data					Site Cond	litions	(Hard =	= 10, So	oft = 15)			
Average Daily	Traffic (Adt): 12	2,590 vehicles	;					Autos:	15			
Peak Hour	Percentage:	8.46%			Medium Trucks (2 Axles): 15							
Peak H	lour Volume:	1,065 vehicles			Heavy Trucks (3+ Axles): 15							
Ve	hicle Speed:	40 mph		_	Vehicle N	liy						
Near/Far La	ne Distance:	36 feet			Vehic Vehic	leType	)	Day	Evening	Night	Daily	
Site Data						/	Autos:	75.5%	5 14.0%	10.5%	97.42%	
Ba	rrier Heiaht:	0.0 feet			Me	dium T	rucks:	48.9%	2.2%	48.9%	1.84%	
Barrier Type (0-W	/all, 1-Berm):	0.0			Н	eavy T	rucks:	47.3%	5.4%	47.3%	0.74%	
Centerline Di	st. to Barrier:	50.0 feet			Noise So	urco E	lovatio	ns (in fa	aat)			
Centerline Dist.	to Observer:	50.0 feet		'	10136 30							
Barrier Distance	to Observer:	0.0 feet			Madiun	Auto Truck	s. 0 s <sup>.</sup> 2	207				
Observer Height (	(Above Pad):	5.0 feet			Heavy	i Truck i Truck	s. 2 s <sup>.</sup> 8	.006	Grade Ad	liustment	t: 0.0	
Pa	ad Elevation:	0.0 feet			neary	, muon	0. 0	.000		,		
Roa	ad Elevation:	0.0 feet		1	Lane Equ	ivalen	t Distar	nce (in i	feet)			
	Road Grade: 0.0%					Auto	s: 46	.915				
Left View: -90.0 degrees					Mediun	n Truck	s: 46	5.726				
	Right View:	90.0 degree	S		Heavy	/ Truck	s: 46	5.744				
FHWA Noise Mod	el Calculations											
VehicleType	REMEL	Traffic Flow	Dista	ance	Finite I	Road	Fres	nel	Barrier Att	en Bei	rm Atten	
Autos:	66.51	-1.17		0.3	1	-1.20		-4.65	0.0	000	0.000	
Medium Trucks:	77.72	-18.40		0.34	4	-1.20		-4.87	0.0	000	0.000	
Heavy Trucks:	82.99	-22.36		0.34	4	-1.20		-5.43	0.0	000	0.000	
Unmitigated Noise	e Levels (witho	ut Topo and l	barrier	atten	uation)							
VehicleType	Leq Peak Hour	· Leq Day	l	Leq E	vening	Leq	Night		Ldn	С	NEL	
Autos:	64.5	5 6	63.2		61.9		55	.8	64.3	3	64.9	
Medium Trucks:	58.4	4 5	55.3		47.8		56	.5	62.7	7	62.7	
Heavy Trucks:	59.8	8 8	56.5		53.1		57	.7	63.9	9	64.0	
Vehicle Noise:	66.5	5 6	64.6		62.5		61	.5	68.4	4	68.7	
Centerline Distant	ce to Noise Cor	ntour (in feet)										
				70 c	dBA	65	dBA	6	60 dBA	55	i dBA	
		l	_dn:	3	9	8	85		183	3	394	
		CN	IEL:	4	1	8	39		191	2	112	

Scenario: E+P Road Name: Trautwein Rd./Cole Av.	
Road Segment: n/o Van Buren Bl.	
SITE SPECIFIC INPUT DATA	
Highway Data	Site Co
Average Daily Traffic (Adt): 19,764 vehicles	

SITE	SPECIFIC IN	IPUT DATA			1	NOISE	MODE	L INPUT	S	
Highway Data				Site Con	ditions	(Hard	= 10, S	oft = 15)		
Average Daily	Traffic (Adt): 1	19,764 vehicles					Autos.	15		
Peak Hour	· Percentage:	8.46%		Me	dium Tr	rucks (2	Axles).	15		
Peak H	lour Volume:	1,672 vehicles		He	avy Tru	ıcks (3+	Axles).	15		
Ve	ehicle Speed:	50 mph	_	Vehicle I	Mix					
Near/Far La	ane Distance:	36 feet	_	Veh	icleType	е	Dav	Evening	Night	Daily
Site Data						Autos:	75.5%	5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	10.5%	6 97.42%
Ba	rrier Heiaht:	0.0 feet		M	edium T	rucks:	48.9%	ь́ 2.2%	48.9%	6 1.84%
Barrier Type (0-W	Vall, 1-Berm):	0.0		ŀ	Heavy T	rucks:	47.3%	5.4%	47.3%	6 0.74%
Centerline Di	ist. to Barrier:	50.0 feet		Noiso Sa	urco E	ilovatio	ne (in f	oot)		
Centerline Dist.	to Observer:	50.0 feet	_	110136 30				<i>cci)</i>		
Barrier Distance	to Observer:	0.0 feet		Modiu	Auic m Truck		207			
Observer Height	(Above Pad):	5.0 feet		Hoa	n Truck	13. 2 (c) 8		Grade Ad	liustmen	<i>t'</i> 0 0
P	ad Elevation:	0.0 feet		Tieav	y Thuck	<i>\</i> 3. (	.000	Crade / la	Justinion	. 0.0
Ro	ad Elevation:	0.0 feet	_	Lane Eq	uivalen	t Dista	nce (in	feet)		
	Road Grade:	0.0%			Auto	os: 46	6.915			
	Left View:	-90.0 degrees		Mediu	m Truck	ks: 46	6.726			
	Right View:	90.0 degrees		Heav	y Truck	ks: 46	6.744			
FHWA Noise Mod	el Calculation	S								
VehicleType	REMEL	Traffic Flow D	istance	Finite	Road	Fres	snel	Barrier Att	en Be	erm Atten
Autos:	70.20	-0.18	0.3	31	-1.20		-4.65	0.0	000	0.000
Medium Trucks:	81.00	-17.41	0.3	34	-1.20		-4.87	0.0	000	0.000
Heavy Trucks:	85.38	-21.37	0.3	34	-1.20		-5.43	0.0	000	0.000
Unmitigated Nois	e Levels (with	out Topo and barr	rier atter	nuation)						
VehicleType	Leq Peak Hou	ır Leq Day	Leq E	vening	Leq	Night		Ldn	C	ONEL
Autos:	69	.1 67.9	)	66.5		60	.5	69.0	)	69.6
Medium Trucks:	62	.7 59.6	i	52.1		60	.8	67.0	C	67.0
Heavy Trucks:	63	.1 59.8		56.4		61	.1	67.3	3	67.4
Vehicle Noise:	70	.8 69.0		67.1		65	.6	72.0	5	72.9
Centerline Distan	ce to Noise Co	ontour (in feet)								
			70	dBA	65	dBA		60 dBA	55	5 dBA
		Ldn:	: 7	74	1	60		346		745
		CNEL:	: 7	78	1	68		363		782

Scenario: E+P				Project Name: Arroyo Vista							
Road Nan Road Segme	<i>ne:</i> Trautwein I <i>nt:</i> s/o Van Bu	ren Bl.			JOD IN	umber: 14	577				
SITE	SPECIFIC IN	NPUT DATA			Ν	OISE MC	DEL	_ INPUTS	6		
Highway Data				Site Con	ditions	(Hard = 10	), So	ft = 15)			
Average Daily Peak Hour	Traffic (Adt):	12,117 vehicles		Me	dium Tri	Au Icks (2 Axi	itos: les):	15 15			
Peak H	lour Volume:	1 025 vehicles		He	avv Truc	:ks (3+ Axl	les):	15			
Ve Ve	hicle Speed:	50 mph					00).				
Near/Far La	ne Distance:	36 feet		Vehicle	Mix					- "	
				Veh	icle I ype	Da	ay	Evening	Night	Daily	
Site Data						utos: 75	5.5%	14.0%	10.5%	97.42%	
Ba	rrier Height:	0.0 feet		M	edium Tr	ucks: 48	8.9%	2.2%	48.9%	1.84%	
Barrier Type (0-W	/all, 1-Berm):	0.0		I	Heavy Tr	ucks: 47	7.3%	5.4%	47.3%	0.74%	
Centerline Di	ist. to Barrier:	50.0 feet		Noise So	ource El	evations (	in fe	et)			
Centerline Dist.	to Observer:	50.0 feet			Autos	s: 0.00	0				
Barrier Distance	to Observer:	0.0 feet		Mediu	m Trucks	s: 2.29	7				
Observer Height	(Above Pad):	5.0 feet		Heav	v Trucks	s: 8.00	6	Grade Adj	ustment	0.0	
P	0.0 feet										
Ro	ad Elevation:	0.0 feet		Lane Eq	uivalent	Distance	(in fe	eet)			
	Road Grade:	0.0%			Autos	s: 46.91	5				
	Left View:	-90.0 degree	S	Mediu	m Trucks	s: 46.72	6				
	Right View:	90.0 degree	S	Heav	/y Trucks	s: 46.74	4				
FHWA Noise Mod	el Calculation	s									
VehicleType	REMEL	Traffic Flow	Distance	Finite	Road	Fresnel	E	Barrier Atte	en Ber	m Atten	
Autos:	70.20	-2.30	0.3	31	-1.20	-4	.65	0.0	00	0.000	
Medium Trucks:	81.00	-19.54	0.3	34	-1.20	-4	.87	0.0	00	0.000	
Heavy Trucks:	85.38	-23.50	0.3	34	-1.20	-5	.43	0.0	00	0.000	
Unmitigated Nois	e Levels (with	out Topo and k	oarrier atte	nuation)							
VehicleType	Leq Peak Hou	ur Leq Day	Leq E	Evening	Leq I	Night		Ldn	Cl	VEL	
Autos:	67	<b>7.0 6</b>	5.7	64.4		58.4		66.8		67.5	
Medium Trucks:	60	).6 5	57.4	49.9		58.7		64.8		64.9	
Heavy Trucks:	61	.0 5	57.7	54.3		59.0		65.1		65.2	
Vehicle Noise: 68.7 66.9				65.0		63.5		70.5		70.8	
Centerline Distan	ce to Noise Co	ontour (in feet)									

(111000)				
	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	54	116	249	537
CNEL:	56	122	262	564

> 67.5 64.9 65.2 70.8

Scenario: E+P Road Name: Victoria Av. Road Segment: w/o Van Buren Bl. Project Name: Arroyo Vista Job Number: 14577

Noau Seymen	nt. w/o van Bui	Ien Di.									
SITE	SPECIFIC IN	PUT DATA				Ν	IOISE	MODE	L INPUTS	S	
Highway Data					Site Cond	ditions	(Hard :	= 10, Sc	oft = 15)		
Average Daily	Traffic (Adt): 1	0,200 vehicle	s					Autos:	15		
Peak Hour	Percentage:	8.46%			Med	dium Tr	ucks (2	Axles):	15		
Peak H	lour Volume:	863 vehicles	s		Hea	avy Tru	cks (3+	Axles):	15		
Ve	hicle Speed:	45 mph		,	Vehicle II	lix					
Near/Far La	ne Distance:	12 feet			Vehi	leType	9	Day	Evening	Night	Daily
Site Data						,	Autos:	75.5%	14.0%	10.5%	97.42%
Ba	rrier Height:	0.0 feet			Ме	dium T	rucks:	48.9%	2.2%	48.9%	1.84%
Barrier Type (0-W	/all, 1-Berm):	0.0			H	leavy T	rucks:	47.3%	5.4%	47.3%	0.74%
Centerline Di	st. to Barrier:	37.0 feet			Noise So	urce F	lovatio	ns (in fa	aat)		
Centerline Dist.	to Observer:	37.0 feet		-	10/30 00						
Barrier Distance	to Observer:	0.0 feet			Madium	Aulo Truck	ns. U ns. 2	207			
Observer Height (	Above Pad):	5.0 feet			Heav	v Truck	.s. 2 's' 8		Grade Ad	iustment	: 0.0
Pa	ad Elevation:	0.0 feet			neav	y muon	0. 0		<u> </u>		
Roa	ad Elevation:	0.0 feet		I	Lane Equ	livalen	t Distar	nce (in i	feet)		
	Road Grade:	0.0%				Auto	os: 36	6.851			
	Left View:	-90.0 degree	es		Mediun	n Truck	:s: 36	6.610			
	Right View:	90.0 degree	es		Heav	y Truck	:s: 36	6.634			
FHWA Noise Mode	el Calculations	5									
VehicleType	REMEL	Traffic Flow	Disi	tance	Finite I	Road	Fres	snel	Barrier Atte	en Ber	m Atten
Autos:	68.46	-2.59		1.8	В	-1.20		-4.56	0.0	000	0.000
Medium Trucks:	79.45	-19.83		1.93	3	-1.20		-4.87	0.0	000	0.000
Heavy Trucks:	84.25	-23.79		1.92	2	-1.20		-5.61	0.0	000	0.000
Unmitigated Noise	e Levels (witho	out Topo and	barrie	er atten	uation)					1	
VehicleType	Leq Peak Hou	r Leq Day	/	Leq E	vening	Leq	Night		Ldn	CI	NEL
Autos:	66.	.6	65.3		64.0		57	.9	66.4	1	67.0
Medium Trucks:	60.	.3	57.2		49.7		58	.4	64.6	6	64.6
Heavy Trucks:	61.	.2	57.9		54.5		59	.1	65.3	3	65.4
Vehicle Noise:	68.	.4	66.5		64.6		63	.3	70.3	3	70.6
Centerline Distant	ce to Noise Co	ontour (in feet	)							1	
				70 c	dBA	65	dBA	e	60 dBA	55	dBA
			Ldn:	3	9	8	33		179	3	85
		Ci	NEL:	4	0	8	37		187	4	04

Scenario: E+P Road Name: Victoria Av. Road Segment: e/o Van Buren BI. Project Name: Arroyo Vista Job Number: 14577

Road Segme		FILDI.									
SITE	SPECIFIC INF	PUT DATA				Ν	IOISE	MODE	L INPUT	S	
Highway Data				,	Site Con	ditions	(Hard :	= 10, Sc	oft = 15)		
Average Daily	Traffic (Adt):	5,867 vehicle	s					Autos:	15		
Peak Hour	Percentage:	8.46%			Me	dium Tr	ucks (2	Axles):	15		
Peak F	lour Volume:	496 vehicle	s		He	avy Tru	cks (3+	Axles):	15		
Ve	hicle Speed:	40 mph		_	Vohiolo	<i>Aix</i>					
Near/Far La	ne Distance:	12 feet		_	Venicie i Vehi	icleType	)	Day	Evening	Night	Daily
Site Data						/	Autos:	75.5%	5 14.0%	10.5%	97.42%
Ba	rrier Height	0.0 feet			Me	edium T	rucks:	48.9%	2.2%	48.9%	1.84%
Barrier Type (0-W	/all. 1-Berm):	0.0			ŀ	leavy T	rucks:	47.3%	5.4%	47.3%	0.74%
Centerline Di	st. to Barrier:	37.0 feet		_	Naiaa Ca						
Centerline Dist.	to Observer:	37.0 feet			Noise So	ource El	evatio		eet)		
Barrier Distance	to Observer:	0.0 feet			Madiu		s: u	0.000			
Observer Height	(Above Pad):	5.0 feet			Meaiur	n Truck	S: 2		Grado Ad	liustmont	+ 0 0
P	ad Elevation:	0.0 feet			neav	y Truck	s. c	0.000	Olade Au	Justinent	. 0.0
Ro	ad Elevation:	0.0 feet			Lane Equ	uivalent	t Distai	nce (in	feet)		
	Road Grade:	0.0%				Auto	s: 36	6.851			
	Left View:	-90.0 degre	es		Mediur	n Truck	s: 36	5.610			
	Right View:	90.0 degre	es		Heav	y Truck	s: 36	6.634			
FHWA Noise Mod	el Calculations										
VehicleType	REMEL	Traffic Flow	Dis	stance	Finite	Road	Fres	snel	Barrier Att	en Bei	rm Atten
Autos:	66.51	-4.48		1.8	8	-1.20		-4.56	0.0	000	0.000
Medium Trucks:	77.72	-21.72		1.9	3	-1.20		-4.87	0.0	000	0.000
Heavy Trucks:	82.99	-25.68		1.9	2	-1.20		-5.61	0.0	000	0.000
Unmitigated Noise	e Levels (witho	ut Topo and	barri	er atten	nuation)						
VehicleType	Leq Peak Hour	· Leq Day	/	Leq E	vening	Leq	Night		Ldn	С	NEL
Autos:	62.7	7	61.4		60.1		54	.1	62.5	5	63.2
Medium Trucks:	56.7	7	53.6		46.1		54	.8	61.0	)	61.0
Heavy Trucks:	58.0	)	54.7		51.3		56	.0	62.2	2	62.3
Vehicle Noise:	64.7	7	62.8		60.8		59	.8	66.7	7	67.0
Centerline Distan	ce to Noise Col	ntour (in feet	)								
				70	dBA	65	dBA	e	60 dBA	55	dBA
			Ldn:	2	22	4	8		104	2	223
		C	NEL:	2	23	5	50		108	2	234

Scenar Road Nam Road Segme	Scenario: E+P Road Name: Van Buren Bl. Road Segment: w/o Washington St.					Project Name: Arroyo Vista Job Number: 14577						
SITE	SPECIFIC IN	NPUT DATA				1	NOISE	MODE	L INPUT	S		
Highway Data				S	Site Con	ditions	(Hard	= 10, So	oft = 15)			
Average Daily	Traffic (Adt):	29,445 vehicle	S					Autos:	15			
Peak Hour	Percentage:	8.46%			Me	dium Ti	rucks (2	Axles):	15			
Peak H	lour Volume:	2,491 vehicle	S		He	avy Tru	ıcks (3+	Axles):	15			
Ve	hicle Speed:	50 mph		1	/ehicle	Mix						
Near/Far La	ne Distance:	54 feet			Veh	icleType	Э	Day	Evening	Night	Daily	
Site Data							Autos:	75.5%	14.0%	10.59	% 97.42%	
Ba	rrier Height:	0.0 feet			M	edium 7	rucks:	48.9%	2.2%	48.99	% 1.84%	
Barrier Type (0-W	/all, 1-Berm):	0.0			ŀ	leavy T	rucks:	47.3%	5.4%	47.39	% 0.74%	
Centerline Di	st. to Barrier:	76.0 feet		^	voise So	ource E	levatio	ns (in fe	eet)			
Centerline Dist.	to Observer:	76.0 feet				Auto	os <sup>.</sup> (	000				
Barrier Distance	to Observer:	0.0 feet			Mediu	m Truck	(s: 2	2.297				
Observer Height (	(Above Pad):	5.0 feet			Heav	v Truck	(S: E	3.006	Grade Ad	ljustme	nt: 0.0	
Pa	ad Elevation:	0.0 feet										
Roa	ad Elevation:	0.0 feet		L	.ane Eq	uivalen	t Dista	nce (in	feet)			
	Road Grade:	0.0%				Auto	os: 7'	1.218				
	Left View:	-90.0 degree	es		Mediu	m Truck	(s: 7'	1.094				
	Right View:	90.0 degree	es		Heav	y Truck	(s: 7'	1.106				
FHWA Noise Mod	el Calculation	S										
VehicleType	REMEL	Traffic Flow	Dis	stance	Finite	Road	Fres	snel	Barrier Att	ten B	erm Atten	
Autos:	70.20	1.56		-2.41	l	-1.20		-4.73	0.0	000	0.000	
Medium Trucks:	81.00	-15.68		-2.40	)	-1.20		-4.88	0.0	000	0.000	
Heavy Trucks:	85.38	-19.64		-2.40	)	-1.20		-5.25	0.0	000	0.000	
Unmitigated Noise	e Levels (with	out Topo and	barrie	er atten	uation)							
VehicleType	Leq Peak Hou	ur Leq Day	/	Leq Ev	vening	Leq	Night		Ldn		CNEL	
Autos:	68	3.2	66.9		65.6		59	.5	68.	0	68.6	
Medium Trucks:	61	.7	58.5		51.0		59	.8	66.	0	66.0	
Heavy Trucks:	62	2.1	58.8		55.4		60	.1	66.3	3	66.4	
Vehicle Noise:	69	9.8	68.0		66.1		64	.6	71.	6	71.9	
Centerline Distant	ce to Noise Co	ontour (in feet	)									
			L	70 a	IBA	65	dBA	ť	60 dBA	5	5 dBA	
		-	Ldn:	97	7	2	209		451		971	
		Ci	NEL:	10	2	2	220		473		1,020	

Scenar Road Nam Road Segme	<i>io:</i> E+P ne: Van Buren E nt: e/o Washing	3l. gton St.			Project Nam Job Numbe	e: Arroyo er: 14577	Vista		
SITE	SPECIFIC IN	PUT DATA			NOIS	e mode	L INPUTS		
Highway Data				Site Cor	ditions (Har	d = 10, So	oft = 15)		
Average Daily Peak Hour Peak H	Traffic (Adt): 3 Percentage: lour Volume:	6,552 vehicles 8.46% 3,092 vehicles		Me He	edium Trucks eavy Trucks (3	Autos: (2 Axles): 3+ Axles):	15 15 15		
Ve	hicle Speed:	50 mph		Vehicle	Mix				
Near/Far La	ne Distance:	54 feet		Veh	icleType	Day	Evening	Night	Daily
Site Data					Autos	: 75.5%	14.0%	10.5%	97.42%
Ba	rrier Height:	0.0 feet		Μ	edium Trucks	: 48.9%	2.2%	48.9%	1.84%
Barrier Type (0-W	/all, 1-Berm):	0.0		1	Heavy Trucks	: 47.3%	5.4%	47.3%	0.74%
Centerline Di	st. to Barrier:	76.0 feet		Noise S	ource Elevat	ons (in fe	et)		
Centerline Dist.	to Observer:	76.0 feet	_		Autos:	0.000			
Barrier Distance	to Observer:	0.0 feet		Mediu	m Trucks:	2.297			
Observer Height	(Above Pad):	5.0 feet		Hear	/y Trucks:	8.006	Grade Adju	stment:	0.0
	ad Elevation:	0.0 feet		l ano Eo	uivalont Dist	anco (in	foot)		
RO	ad Elevation:		-	LaneLy		71 010			
	Road Grade.	0.0%		Madiu	m Trucks:	71.210 71.00/			
	Right View:	90.0 degrees		Hear	y Trucks:	71.106			
FHWA Noise Mod	el Calculations	5							
VehicleType	REMEL	Traffic Flow	Distance	Finite	Road Fr	esnel	Barrier Atte	n Beri	n Atten
Autos:	70.20	2.49	-2.4	1	-1.20	-4.73	0.00	00	0.000
Medium Trucks:	81.00	-14.74	-2.4	10	-1.20	-4.88	0.00	00	0.000
Heavy Trucks:	85.38	-18.70	-2.4	10	-1.20	-5.25	0.00	00	0.000
Unmitigated Noise	e Levels (witho	out Topo and ba	rrier atter	nuation)					
VehicleType	Leq Peak Hou	r Leq Day	Leq E	vening	Leq Night		Ldn	CN	JEL
Autos:	69.	1 67.	8	66.5	6	60.5	68.9		69.5
Medium Trucks:	62.	.7 59.	5	52.0	6	60.7	66.9		66.9
Heavy Trucks:	63.	1 59.	.8	56.4	6	61.0	67.2		67.3
venicie ivoise.	70.	.0 09.	0	67.0		5.5	72.5		72.9
Centerline Distant	ce to Noise Co	ntour (in feet)	70		05 15 1				
		1.1	/0	aBA	65 dBA	E	DU ABA	55	aBA
			n. 1	1∠ 10	242		J∠I 547	1,1	170
		CIVE	L. 1	10	254		547	Ι,	10

Scenario: E+P	<i>enario:</i> E+	
Road Name: Van Buren Bl.	Va <i>me:</i> Va	
Road Segment: w/o Chicago Av./Alta Cresta Av.	gment: w/o	

Project Name: Arroyo Vista Job Number: 14577

SITE SPECIFIC IN		NOISE MODEL INPUTS									
Highway Data			Site Conditions (Hard = 10, Soft = 15)								
Average Daily Traffic (Adt):	35,880 vehicles					Autos:	15				
Peak Hour Percentage:	8.46%		Me	dium Tru	ucks (2 A	xles):	15				
Peak Hour Volume:	3,035 vehicles		He	avy Truc	ks (3+ A	xles):	15				
Vehicle Speed:	50 mph		Vahiala		•						
Near/Far Lane Distance:	54 feet		Venicie	ieleType		Dav	Evoning	Night	Daily		
Site Data			Ven		lutos:	Day 75 5%	14.0%	10.5%	97 42%		
	0.0 feet		M	r edium Tr	ucks:	48.9%	2.2%	48.9%	1.84%		
Barrier Height:				Heavy Tr	ucks:	47.3%	5.4%	47.3%	0.74%		
Centerline Dist to Barrier	0.0 76.0 feet										
Centerline Dist. to Damer:	76.0 feet		Noise So	ource El	evations	s (in fe	et)				
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					
Pad Elevation:	0.0 feet		Heav	/y Trucks	s: 8.0	006	Grade Ad	iustment.	0.0		
Road Elevation:	0.0 feet		Lane Eq	uivalent	Distand	e (in i	feet)				
Road Grade:	0.0%			Autos	s: 71.2	218	,				
Left View:	-90.0 dearee	s	Mediu	m Trucks	s: 71.0	)94					
Right View:	90.0 degree	S	Heav	/y Trucks	s: 71. <sup>-</sup>	106					
	5			-							
FHWA Noise Model Calculation	S										
VehicleType REMEL	Traffic Flow	Distance	e Finite	Road	Fresn	el	Barrier Atte	en Ber	m Atten		
Autos: 70.20	2.41	-2	2.41	-1.20		-4.73	0.0	000	0.000		
Medium Trucks: 81.00	-14.82	-2	2.40	-1.20		-4.88	0.0	000	0.000		
Heavy Trucks: 85.38	-18.78	-2	2.40	-1.20		-5.25	0.0	000	0.000		
Unmitigated Noise Levels (with	out Topo and k	barrier att	enuation)								
VehicleType Leq Peak Hou	ır Leq Day	Leq	Evening	Leq I	Night		Ldn	Cl	VEL		
Autos: 69	.0 6	67.7	66.4		60.4		68.8	3	69.4		
Medium Trucks: 62		59.4	51.9		60.7		66.8	3	66.9		
Heavy Trucks: 63	.0 5	59.7	56.3		60.9		67.1		67.2		
Vehicle Noise: 70	0.7 6	68.9	67.0		65.4		72.5	5	72.8		
Centerline Distance to Noise Co	ontour (in feet)										
		7	0 dBA	65 0	dBA	6	60 dBA	55	dBA		
	L	_dn:	111	23	39		514	1,	108		
	CN	IEL:	116	25	51		540	1,	164		

Scenar Road Nor	io: E+P	31			Project Name	e: Arroyo	Vista		
Road Segme	nt: e/o Chicago	Av./Alta Cresta	Av.			7. 14377			
SITE	SPECIFIC IN	PUT DATA			NOISE	E MODE	L INPUTS	5	
Highway Data				Site Cor	nditions (Hard	l = 10, Sc	oft = 15)		
Average Daily	Traffic (Adt): 3	4,913 vehicles				Autos:	15		
Peak Hour	Percentage:	8.46%		Me	edium Trucks (	2 Axles):	15		
Peak H	lour Volume:	2,954 vehicles		He	eavy Trucks (3	+ Axles):	15		
Ve	hicle Speed:	50 mph		Vahiala	Mix				
Near/Far La	ne Distance:	54 feet		Venicie Vel	nicleType	Day	Evening	Night	Daily
Site Data					Autos:	75.5%	14.0%	10.5%	97.42%
Ba	rrier Height:	0.0 feet		N	ledium Trucks:	48.9%	2.2%	48.9%	1.84%
Barrier Type (0-W	/all, 1-Berm):	0.0			Heavy Trucks:	47.3%	5.4%	47.3%	0.74%
Centerline Di	st. to Barrier:	76.0 feet		Noise S	ource Elevatio	ons (in fe	et)		
Centerline Dist.	to Observer:	76.0 feet			Autos:	0.000			
Barrier Distance	to Observer:	0.0 feet		Mediu	m Trucks:	2.297			
Observer Height (	(Above Pad):	5.0 feet		Hea	vy Trucks:	8.006	Grade Adj	iustment	: 0.0
Pa	ad Elevation:	0.0 feet			-		• •		
Roa	ad Elevation:	0.0 feet		Lane Eq	uivalent Dista	ance (In i	reet)		
	Road Grade:	0.0%			Autos: 1	1.218			
	Left View:	-90.0 degrees		Medil	m Trucks: 1	1.094			
	Right View:	90.0 degrees		неа	vy Trucks: T	1.106			
FHWA Noise Mod	el Calculations	<b>;</b>							
VehicleType	REMEL	Traffic Flow	Distanc	e Finite	Road Fre	esnel	Barrier Atte	en Ber	m Atten
Autos:	70.20	2.29	-2	2.41	-1.20	-4.73	0.0	000	0.000
Medium Trucks:	81.00	-14.94	-2	2.40	-1.20	-4.88	0.0	000	0.000
Heavy Trucks:	85.38	-18.90	-2	2.40	-1.20	-5.25	0.0	000	0.000
Unmitigated Noise	e Levels (witho	out Topo and ba	arrier at	tenuation)	T	L		T	
VehicleType	Leq Peak Hou	r Leq Day	Leq	l Evening	Leq Night		Ldn	Cl	NEL
Autos:	68.	9 67	.6	66.3	6	0.3	68.7	,	69.3
Medium Trucks:	62.	5 59	.3	51.8	6	0.5	66.7	7	66.7
Heavy Trucks:	62.	9 59	.6	56.2	6	0.8	67.0	)	67.1
Vehicle Noise:	70.	6 68	8.8	66.8	6	5.3	72.3	3	72.7
Centerline Distant	ce to Noise Co	ntour (in feet)							
			7	70 dBA	65 dBA	6	60 dBA	55	dBA
		Lo	In:	109	234		505	1,	088
		CNE	L:	114	246		530	1,	143

Scenario: E+P
Road Name: Van Buren Bl.
Road Segment: e/o Wood Rd.

i toda oogiiio											
SITE	SPECIFIC IN	PUT DATA				1	NOISEI	MODE	L INPUT	S	
Highway Data					Site Con	ditions	; (Hard =	: 10, So	oft = 15)		
Average Daily	Traffic (Adt): 3	2,752 vehicle	S					Autos:	15		
Peak Hour	Percentage:	8.46%			Med	dium Ti	rucks (2	Axles):	15		
Peak H	lour Volume:	2,771 vehicle	S		Hea	avy Tru	icks (3+	Axles):	15		
Ve	ehicle Speed:	50 mph		-	Vohiclo I	/iv					
Near/Far La	ane Distance:	54 feet		-	Venicie i	nie Tvn	۹	Dav	Evenina	Niaht	Daily
Site Data					VOIII	JULIY	Autos:	75 5%	14.0%	10.5%	6 97 42%
		0.0.6			Me	dium T	Frucks:	48.9%	5 14.0% 5 2.2%	48.9%	6 07.4270 6 1.84%
Barrier Ture (0.14	rrier Height:	0.0 feet			Hie H	leavv T	Trucks:	47.3%	5.4%	47.3%	6 1.0170 6 0.74%
Barrier Type (0-M	int to Porrior:	0.0 76.0 foot		_	•	ioury i	ruono.	11.07	0.170	17.07	0.7170
Centerline Di	to Observer:	76.0 feet		-	Noise So	urce E	levation	s (in fe	eet)		
Certierine Dist.	to Observer.					Auto	os: 0.	000			
Observer Height	(Above Ded):	0.0 feet			Mediun	n Trucl	ks: 2	297			
Diserver Height	(ADOVE Fau).	5.0 feet			Heav	y Trucł	ks: 8	006	Grade Ad	ljustmer	nt: 0.0
Po	ad Elevation:			-	Lane Equ	iivalen	nt Distan	ce (in :	feet)		
	Road Grade:			-		Διιτα	71	218			
	L oft View:	-90.0 degree	20		Mediur	n Truck	ks <sup>.</sup> 71	094			
	Right View:		20		Heav	v Truck	ks <sup>.</sup> 71	106			
	rught view.				nour.	,		100			
FHWA Noise Mod	el Calculations										
VehicleType	REMEL	Traffic Flow	Dis	stance	Finite	Road	Fres	nel	Barrier Att	ten Be	erm Atten
Autos:	70.20	2.02		-2.4	11	-1.20		-4.73	0.0	000	0.000
Medium Trucks:	81.00	-15.22		-2.4	40	-1.20		-4.88	0.0	000	0.000
Heavy Trucks:	85.38	-19.18		-2.4	40	-1.20		-5.25	0.0	000	0.000
Unmitigated Noise	e Levels (witho	ut Topo and	barrie	er atter	nuation)						
VehicleType	Leq Peak Hour	· Leq Day	/	Leq E	vening	Leq	Night		Ldn	(	ONEL
Autos:	68.	6	67.3		66.0		60.	C	68.4	4	69.1
Medium Trucks:	62.2	2	59.0		51.5		60.	3	66.4	4	66.5
Heavy Trucks:	62.	6	59.3		55.9		60.	5	66.	7	66.8
Vehicle Noise:	70.	3	68.5		66.6		65.	C	72.	1	72.4
Centerline Distan	ce to Noise Co	ntour (in feet	)								
				70	dBA	65	dBA	6	60 dBA	5	5 dBA
			Ldn:	1	04	2	225		484	1	,043
		C	NEL:	1	10	2	236		508	1	,095

Scenari Road Nam Road Segmei	Scenario: E+P Road Name: Van Buren Bl. Road Segment: e/o Trautwein Rd./Cole Av.						Project Name: Arroyo Vista Job Number: 14577						
SITES	SPECIFIC IN	IPUT DATA				NOIS	E MODE	L INPUT	S				
Highway Data				Si	te Conditio	ons (Har	d = 10, So	oft = 15)					
Average Daily	Traffic (Adt):	30,041 vehicles	;				Autos:	15					
Peak Hour	Percentage:	8.46%			Mediun	n Trucks	(2 Axles):	15					
Peak H	lour Volume:	2,541 vehicles	;		Heavy	Trucks (	3+ Axles):	15					
Ve	hicle Speed:	50 mph		Ve	hicle Mix								
Near/Far La	ne Distance:	54 feet			Vehicle1	Гуре	Day	Evening	Night	Daily			
Site Data						Autos	s: 75.5%	14.0%	10.5%	97.42%			
Bai	rrier Height:	0.0 feet			Mediu	m Trucks	s: 48.9%	2.2%	48.9%	1.84%			
Barrier Type (0-W	all, 1-Berm):	0.0			Heav	y Truck	s: 47.3%	5.4%	47.3%	0.74%			
Centerline Dis	st. to Barrier:	76.0 feet		No	nise Sourc	e Flevat	ions (in f	oot)					
Centerline Dist.	to Observer:	76.0 feet											
Barrier Distance	to Observer:	0.0 feet			r Medium Ti	ucks	2 297						
Observer Height (	Above Pad):	5.0 feet			Heavy Ti	ucks:	8 006	Grade Ad	iustment	· 0.0			
Pa	ad Elevation:	0.0 feet			neavy n	uono.	0.000	Crado riaj		0.0			
Roa	ad Elevation:	0.0 feet		La	nne Equiva	lent Dis	tance (in i	feet)					
I	Road Grade:	0.0%			A	lutos:	71.218						
	Left View:	-90.0 degree	S		Medium Tr	ucks:	71.094						
	Right View:	90.0 degree	S		Heavy Ti	ucks:	71.106						
FHWA Noise Mode	el Calculation	S											
VehicleType	REMEL	Traffic Flow	Distanc	е	Finite Roa	nd Fi	resnel	Barrier Att	en Ber	m Atten			
Autos:	70.20	1.64	-	2.41	-1	.20	-4.73	0.0	000	0.000			
Medium Trucks:	81.00	-15.60	-	2.40	-1	.20	-4.88	0.0	000	0.000			
Heavy Trucks:	85.38	-19.55		2.40	-1	.20	-5.25	0.0	000	0.000			
Unmitigated Noise	e Levels (with	out Topo and I	barrier at	tenua	ation)								
VehicleType	Leq Peak Hou	ır Leq Day	Lee	q Eve	ening l	Leq Nigh	t	Ldn	CI	VEL			
Autos:	68	.2 6	67.0		65.6	:	59.6	68.0	)	68.7			
Medium Trucks:	61	.8 క	58.6		51.1	:	59.9	66.1		66.1			
Heavy Trucks:	62	.2 !	58.9		55.5		60.2	66.4	ŀ	66.5			
Vehicle Noise:	69	.9 (	58.1		66.2		64.7	71.7	7	72.0			
Centerline Distance	ce to Noise Co	ontour (in feet)											
				70 dE	BA	65 dBA	6	60 dBA	55	dBA			
			Ldn:	98		212		457	9	84			
		CN	IEL:	103		223		480	1,0	)34			

Scenario: E+P Road Name: Iris Av. Road Segment: w/o Gamble Av. Project Name: Arroyo Vista Job Number: 14577

Road Seyme		¬v.									
SITE	SPECIFIC INF	UT DATA				1	NOISE	MODE	L INPUT	S	
Highway Data				:	Site Con	ditions	(Hard	= 10, S	oft = 15)		
Average Daily	Traffic (Adt):	35 vehicles	6					Autos:	15		
Peak Hour	Percentage:	8.46%			Me	dium Ti	rucks (2	? Axles):	15		
Peak H	lour Volume:	3 vehicles	5		He	avy Tru	icks (3-	- Axles):	15		
Ve	hicle Speed:	30 mph			Vehicle	Mix					
Near/Far La	ne Distance:	12 feet			Veh	icleType	Э	Day	Evening	Night	Daily
Site Data							Autos:	77.5%	6 12.9%	9.6%	97.42%
Ba	rrier Height:	0.0 feet			M	edium T	rucks:	84.8%	<b>4.9%</b>	10.3%	1.84%
Barrier Type (0-W	/all, 1-Berm):	0.0			I	Heavy T	rucks:	86.5%	<i>6</i> 2.7%	10.8%	0.74%
Centerline Di	st. to Barrier:	30.0 feet			Voise Su	nurce F	lovatio	ns (in f			
Centerline Dist.	to Observer:	30.0 feet		'	10/36 30				eelj		
Barrier Distance	to Observer:	0.0 feet			Modiu	m Truck	·o. ·	2 297			
Observer Height (	(Above Pad):	5.0 feet			Heau	w Truck	(s. )	B 006	Grade Ad	iustment	t: 0.0
Pa	ad Elevation:	0.0 feet		_	neur	y naon		5.000			
Roa	ad Elevation:	0.0 feet		1	Lane Eq	uivalen	t Dista	nce (in	feet)		
	Road Grade:	0.0%				Auto	os: 2	9.816			
	Left View:	-90.0 degree	es		Mediu	m Truck	(s: 2	9.518			
	Right View:	90.0 degree	es		Heav	/y Truck	(s: 2	9.547			
FHWA Noise Mod	el Calculations										
VehicleType	REMEL	Traffic Flow	Dis	stance	Finite	Road	Fre	snel	Barrier Att	en Bei	rm Atten
Autos:	61.75	-25.48		3.20	6	-1.20		-4.49	0.0	000	0.000
Medium Trucks:	73.48	-42.71		3.33	3	-1.20		-4.86	0.0	000	0.000
Heavy Trucks:	79.92	-46.67		3.32	2	-1.20		-5.77	0.0	000	0.000
Unmitigated Noise	e Levels (withou	ut Topo and	barri	er atten	uation)						
VehicleType	Leq Peak Hour	Leq Day		Leq Ev	/ening	Leq	Night		Ldn	С	NEL
Autos:	38.3		37.2		35.4		29	9.3	38.0	)	38.6
Medium Trucks:	32.9	) :	32.1		25.8		24	.2	32.7	7	32.9
Heavy Trucks:	35.4		34.7		25.6		26	6.9	35.2	2	35.4
Vehicle Noise:	40.9		39.9		36.2		32	2.1	40.6	6	41.0
Centerline Distant	ce to Noise Con	tour (in feet)	)							T	
				70 c	<i>IBA</i>	65	dBA		60 dBA	55	i dBA
			Ldn:	C	)		1		2		3
		CI	VEL:	C	)		1		2		3

Scenario Road Name Road Segmen	o: E+P e: Iris Av. at: w/o Chicago	o Av./Alta Cres	ta Av.		Proje Job	ect Name Numbe	e: Arroyo r: 14577	Vista		
SITE S	SPECIFIC IN	PUT DATA				NOISE	MODE	I INPUT	S	
Highway Data				S	ite Conditio	ns (Hard	= 10, Se	oft = 15)	0	
Average Dailv	Traffic (Adt):	397 vehicles	5				Autos:	15		
Peak Hour I	Percentage:	8.46%			Medium	Trucks (2	2 Axles):	15		
Peak He	our Volume:	34 vehicles	5		Heavy T	rucks (3	+ Axles):	15		
Veł	hicle Speed:	30 mph			abiala Mix					
Near/Far Lar	ne Distance:	12 feet		V	VehicleTv	'ne	Dav	Evenina	Niaht	Dailv
Site Data					1011101017	Autos:	77.5%	5 12.9%	9.6%	97.42%
Bar	rier Heiaht:	0.0 feet			Medium	Trucks:	84.8%	<b>4.9%</b>	10.3%	1.84%
Barrier Type (0-Wa	all, 1-Berm):	0.0			Heavy	<sup>,</sup> Trucks:	86.5%	ы́ 2.7%	10.8%	0.74%
Centerline Dis	t. to Barrier:	30.0 feet		N	oise Source	Flevatio	ons (in f	eet)		
Centerline Dist. t	to Observer:	30.0 feet				utos:	0.000			
Barrier Distance t	to Observer:	0.0 feet			Medium Tru	cks:	2 297			
Observer Height (/	Above Pad):	5.0 feet			Heavy Tru	cks:	8 006	Grade Ad	liustment	: 0.0
Pa	d Elevation:	0.0 feet				ono.	0.000		,	
Roa	d Elevation:	0.0 feet		La	ane Equivale	ent Dista	ance (in	feet)		
F	Road Grade:	0.0%			Αι	itos: 2	9.816			
	Left View:	-90.0 degree	s		Medium Tru	cks: 2	9.518			
	Right View:	90.0 degree	S		Heavy Tru	cks: 2	9.547			
FHWA Noise Mode	Calculations	5								
VehicleType	REMEL	Traffic Flow	Distan	се	Finite Road	Fre	snel	Barrier Att	en Ber	m Atten
Autos:	61.75	-14.93		3.26	-1.2	0	-4.49	0.0	000	0.000
Medium Trucks:	73.48	-32.17		3.33	-1.2	0	-4.86	0.0	000	0.000
Heavy Trucks:	79.92	-36.12		3.32	-1.2	0	-5.77	0.0	000	0.000
Unmitigated Noise	Levels (with	out Topo and	barrier a	ttenu	ation)					
VehicleType	Leq Peak Hou	r Leq Day	Le	eq Eve	ening Le	əq Night		Ldn	Cl	NEL
Autos:	48.	.9 4	47.7		45.9	39	9.9	48.5	5	49.1
Medium Trucks:	43.	.4 4	42.7		36.3	34	4.8	43.2	2	43.4
Heavy Trucks:	45.	.9 4	45.2		36.2	3	7.4	45.8	3	45.9
Vehicle Noise:	51.	.4	50.4		46.8	42	2.6	51.1	1	51.6
Centerline Distanc	e to Noise Co	ontour (in feet)			Ι					
				70 dE	BA 6	65 dBA	(	60 dBA	55	dBA
			Ldn:	2		4		8		17
		CI	IEL:	2		4		8		18

Scenari Road Nam Road Segmen	o: E+P e: Iris Av. ot: e/o Chicado	Av./Alta Crest	a Av.			Project Job N	Name: umber:	Arroyc 14577	Vista					
CITE C	SDECIEIC IN		-			N				5				
Highway Data		PUTDATA		S	ite Con	ditions	(Hard :	= 10, S	oft = 15)	3				
Average Daily	Traffic (Adt):	154 vehicles	3					Autos:	15					
Peak Hour	Percentage:	8.46%			Me	dium Tru	ucks (2	Axles):	15					
Peak He	our Volume:	13 vehicles	6		Heavy Trucks (3+ Axles): 15									
Vel	hicle Speed:	30 mph		V	Vahiala Mix									
Near/Far Lar	ne Distance:	12 feet		V	Vehi	icleTvpe	•	Dav	Evenina	Niaht	Daily			
Site Data					Von	<u>مرز ۲ ماه</u> ۸	Autos:	77.5%	5 12.9%	9.6%	97.42%			
Bar	rier Heiaht:	0.0 feet			Me	edium Ti	rucks:	84.8%	4.9%	10.3%	1.84%			
Barrier Type (0-Wa	all, 1-Berm):	0.0			ŀ	leavy Ti	rucks:	86.5%	ы́ 2.7%	10.8%	0.74%			
Centerline Dis	t. to Barrier:	30.0 feet		N	loise So	urce Fl	evatio	ns (in f	eet)					
Centerline Dist. t	to Observer:	30.0 feet		~	0130 00		eruiioi e· ()							
Barrier Distance t	to Observer:	0.0 feet			Mediur	n Truck	s. 0 s. 2	297						
Observer Height (Above Pad): 5.0 feet					Heavy Trucks: 8 006 Grade Adjustment: 0 0									
Pad Elevation: 0.0 feet														
Road Elevation: 0.0 feet					Lane Equivalent Distance (in feet)									
F	Road Grade: 0.0%					Autos: 29.816								
	Left View:	-90.0 degree	es		Meaium Trucks: 29.518									
	Right View:	90.0 degree	es		Heav	y Truck	s: 29	.547						
FHWA Noise Mode	l Calculations	;												
VehicleType	REMEL	Traffic Flow	Distan	ice	Finite	Road	Fres	nel	Barrier Att	en Bei	rm Atten			
Autos:	61.75	-19.04		3.26		-1.20		-4.49	0.0	000	0.000			
Medium Trucks:	73.48	-36.28		3.33		-1.20		-4.86	0.0	000	0.000			
Heavy Trucks:	79.92	-40.24		3.32		-1.20		-5.77	0.0	000	0.000			
Unmitigated Noise	Levels (witho	out Topo and	barrier a	ttenu	uation)									
VehicleType	Leq Peak Hou	r Leq Day	' Le	eq Eve	ening	Leq	Night		Ldn	С	NEL			
Autos:	44.	8	43.6		41.8		35	.8	44.4	4	45.0			
Medium Trucks:	39.	3	38.5		32.2		30	.6	39.1	1	39.3			
Heavy Trucks:	41.	8	41.1		32.1		33	.3	41.	7	41.8			
Vehicle Noise:	47.	3	46.3		42.7		38	.5	47.0	C	47.4			
Centerline Distanc	e to Noise Co	ntour (in feet	)											
				70 dl	BA	65	dBA	(	60 dBA	55	dBA			
			Ldn:	1			2		4		9			
		CI	NEL:	1			2		4		9			

Scenario: EAC (2027) Road Name: Van Buren Bl. Road Segment: n/o Victoria Av.

### Project Name: Arroyo Vista Job Number: 14577

		/.										
SITE	SPECIFIC INPL	JT DATA		NOISE MODEL INPUTS								
Highway Data				Site Conditions (Hard = 10, Soft = 15)								
Average Daily	Traffic (Adt): 33,	838 vehicles					Autos:	15				
Peak Hour	Percentage: 8	3.46%		Mee	dium Tru	cks (2	Axles):	15				
Peak H	lour Volume: 2,	863 vehicles		Hea	avy Truci	ks (3+	Axles):	15				
Ve	hicle Speed:	45 mph	-	Vehicle I	lix							
Near/Far La	ne Distance:	54 feet	-	Vehi	cleType		Day	Evening	Night	Daily		
Site Data					A	utos:	75.5%	5 14.0%	10.5%	97.42%		
Bai	rrier Height:	0.0 feet		Me	dium Tru	ucks:	48.9%	5 2.2%	48.9%	1.84%		
Barrier Type (0-W	/all, 1-Berm):	0.0		H	leavy Tru	ucks:	47.3%	5.4%	47.3%	0.74%		
Centerline Dis	-	Noise So	urco Ele	vatior	ns (in f	oot)						
Centerline Dist.	to Observer:	76.0 feet	_	10/30 00		· 0	000					
Barrier Distance to Observer: 0.0 feet				Autos: 0.000 Medium Trucks: 2.297 Hoow Trucks: 8.006 Grade Adjustment: 0.0								
Observer Height (Above Pad): 5.0 feet												
Pa	_											
Roa	_	Lane Equivalent Distance (in feet)										
	Road Grade:	0.0%			Autos	: 71	.218					
		Medium Trucks: 71.094										
	Right View:	90.0 degrees		Heavy Trucks: 71.106								
FHWA Noise Mode	el Calculations											
VehicleType	REMEL T	raffic Flow Di	stance	Finite	Road	Fres	nel	Barrier Att	en Ber	m Atten		
Autos:	68.46	2.62	-2.4	1	-1.20		-4.73	0.0	000	0.000		
Medium Trucks:	79.45	-14.62	-2.4	0	-1.20		-4.88	0.0	000	0.000		
Heavy Trucks:	84.25	-18.58	-2.4	0	-1.20		-5.25	0.0	000	0.000		
Unmitigated Noise	e Levels (withou	t Topo and barri	ier atter	nuation)								
VehicleType	Leq Peak Hour	Leq Day	Leq E	vening	Leq N	light		Ldn	Cl	NEL		
Autos:	67.5	66.2		64.9		58.	9	67.3	3	67.9		
Medium Trucks:	61.2	58.1		50.6		59.	3	65.5	5	65.5		
Heavy Trucks:	62.1	58.8		55.4		60.	0	66.2	2	66.3		
Vehicle Noise:	69.3	67.4		65.5		64.	2	71.2	2	71.5		
Centerline Distance	ce to Noise Cont	our (in feet)							1			
			70	dBA	65 a	IBA	6	60 dBA	55	dBA		
		Ldn:	ç	91	19	6		421	9	80		
		CNEL:	ç	95	20	5		442	9	52		

Scenario: EAC (2027) Road Name: Van Buren Bl. Road Segment: s/o Victoria Av.

i toda oogiiio		/												
SITE	SPECIFIC IN	PUT DATA			NOISE MODEL INPUTS									
Highway Data					Site Conditions (Hard = 10, Soft = 15)									
Average Daily	Traffic (Adt): 4	17,454 vehicle	s					Autos:	15					
Peak Hour	Percentage:	8.46%			Med	dium Ti	rucks (2	Axles):	15					
Peak H	our Volume:	4,015 vehicle	s		Hea	avy Tru	ıcks (3+	Axles):	15					
Ve	hicle Speed:	55 mph		-	Vahiala	<i>Ai</i> .,								
Near/Far La	ane Distance:	54 feet		_	Venicie iv		0	Dav	Evoning	Night	Daily			
Site Data					vern	cierype	Autoor	Day 75 50/		10.5%				
					Ma	dium T	Autos. Frucks:	10.0%	0 14.0%	10.57	0 97.4270			
Ba	rrier Height:	0.0 feet				loow T	rucks:	40.97	5 /0/	40.97	0 74%			
Barrier Type (0-V	Vall, 1-Berm):	0.0				icavy i	rucks.	47.37	5.470	47.37	0 0.7470			
Centerline Dist. to Barrier: 76.0 feet					Noise Source Elevations (in feet)									
Centerline Dist. to Observer: 76.0 feet					Autos: 0.000									
Barrier Distance to Observer: 0.0 feet					Mediun	n Truck	ks: 2	.297						
Observer Height (Above Pad): 5.0 feet					Heav	y Truck	ks: 8	.006	Grade Ad	justmen	t: 0.0			
Pau Elevation. 0.0 feet					I and Equivalent Distance (in foot)									
RO	ad Elevation:			-	Lane Lyu			240	ieel)					
	Road Grade:	0.0%			Modium	AUIC n Truck	71 71	.210						
Left View: -90.0 degrees					Heavy Trucks: 71 106									
	Right view.	90.0 degree	85		Tieav	y Huch	<i>NS. 1</i>	.100						
FHWA Noise Mod	el Calculations	5												
VehicleType	REMEL	Traffic Flow	Dis	tance	Finite	Road	Fres	nel	Barrier Att	en Be	rm Atten			
Autos:	71.78	3.21		-2.4	11	-1.20		-4.73	0.0	000	0.000			
Medium Trucks:	82.40	-14.02		-2.4	10	-1.20		-4.88	0.0	000	0.000			
Heavy Trucks:	86.40	-17.98		-2.4	10	-1.20		-5.25	0.0	000	0.000			
Unmitigated Nois	e Levels (with	out Topo and	barrie	er atter	nuation)									
VehicleType	Leq Peak Hou	r Leq Day	/	Leq E	vening	Leq	Night		Ldn	C	NEL			
Autos:	71.	.4	70.1		68.8		62	.8	71.2	2	71.8			
Medium Trucks:	64.	.8	61.6		54.1		62	.9	69.0	C	69.1			
Heavy Trucks:	64.	.8	61.5		58.1		62	.8	69.0	C	69.0			
Vehicle Noise:	73.	.0	71.2		69.3		67	.6	74.0	5	75.0			
Centerline Distan	ce to Noise Co	ontour (in feet	)											
				70	dBA	65	dBA	(	60 dBA	55	5 dBA			
			Ldn:	1	55	3	333		718	1	,547			
		C	NEL:	1	63	3	351		755	1	,627			

Scenario: EAC (2027) Road Name: Mockingbird Canyon Rd. Road Segment: s/o Van Buren Bl. Project Name: Arroyo Vista Job Number: 14577

i toda oogiiio													
SITE	SPECIFIC INF	PUT DATA			NOISE MODEL INPUTS								
Highway Data					Site Conditions (Hard = 10, Soft = 15)								
Average Daily	Traffic (Adt): 32	2,803 vehicle	s					Autos:	15				
Peak Hour	Percentage:	8.46%			Mee	dium Ti	rucks (2 /	Axles):	15				
Peak H	lour Volume: 2	2,775 vehicle	s		Hea	avy Tru	ıcks (3+ /	Axles):	15				
Ve	ehicle Speed:	55 mph		-	Vohiolo	liv							
Near/Far La	ane Distance:	12 feet		-	Venicie N Vohi	n <b>ix</b> cloTvn	Δ	Dav	Evenina	Night	Daily		
Site Data					VCIII	ыстур	Autos:	75 5%	14.0%	10.5%	07 42%		
	• • • • • • .				Me	dium T	Trucks	48.9%	2.2%	48.9%	1 84%		
Ba	rrier Height:	0.0 feet			F	leavy T	Trucks:	47.3%	5.4%	40.0%	0 74%		
Barrier Type (U-V	vall, 1-Berm):	0.0				icary i	ruono.	47.070	5 5.470	47.57	0.7470		
Centerline Dist. to Barrier: 50.0 feet					Noise So	urce E	levation	s (in fe	et)				
Centerline Dist. to Observer: 50.0 feet					Autos: 0.000								
Barrier Distance to Observer: 0.0 feet					Medium Trucks: 2.297								
Doserver Height (Above Pad). 5.0 feet					Heavy Trucks: 8.006 Grade Adjustment: 0.0								
r Bo	-	Lane Equivalent Distance (in feet)											
KU	au Elevalion. Road Grada:			-	Lune Lyt	Διιτά	ne: /0	800					
	L oft View:	0.0 %	20		Mediur	n Trucl	53. 40. ke <sup>,</sup> 19	712					
Picht View: -90.0 degrees					Heavy Trucks: 49 730								
	Night view.	Solo degree	53		neav	y maon	ιο <i>.</i> -ο.	100					
FHWA Noise Mod	el Calculations			I									
VehicleType	REMEL	Traffic Flow	Dis	stance	Finite	Road	Fresr	nel	Barrier Att	ten Be	rm Atten		
Autos:	71.78	1.61		-0.0	)9	-1.20		-4.65	0.0	000	0.000		
Medium Trucks:	82.40	-15.63		-0.0	)7	-1.20		-4.87	0.0	000	0.000		
Heavy Trucks:	86.40	-19.58		-0.0	)7	-1.20		-5.43	0.0	000	0.000		
Unmitigated Nois	e Levels (witho	ut Topo and	barrie	er atter	nuation)								
VehicleType	Leq Peak Hour	Leq Day	/	Leq E	vening	Leq	Night		Ldn	C	NEL		
Autos:	72.1		70.8		69.5		63.5	5	71.9	9	72.5		
Medium Trucks:	65.5	5	62.3		54.8		63.6	6	69.8	8	69.8		
Heavy Trucks:	65.5	5	62.2		58.8		63.5	5	69.	7	69.8		
Vehicle Noise:	73.7	7	71.9		70.0		68.3	3	75.4	4	75.7		
Centerline Distan	ce to Noise Cor	ntour (in feet	)										
L				70	dBA	65	dBA	6	60 dBA	55	5 dBA		
			Ldn:	1	14	2	245	1	528	1	,137		
		Ci	NEL:	1	20	2	258		555	1	,196		

Scenario: EAC (2027) Road Name: Washington St. Road Segment: n/o Van Buren Bl.

### Project Name: Arroyo Vista Job Number: 14577

Noau Seyme	m. 1/0 vali bulei	I DI.										
SITE	SPECIFIC INP	UT DATA		NOISE MODEL INPUTS								
Highway Data				Site Conditions (Hard = 10, Soft = 15)								
Average Daily	Traffic (Adt): 20,	811 vehicles					Autos:	15				
Peak Hour	Percentage:	3.46%		Mee	dium Tru	icks (2	Axles):	15				
Peak F	lour Volume: 1,	761 vehicles		Hea	avy Truc	cks (3+ .	Axles):	15				
Ve	hicle Speed:	45 mph		Vehicle II	lix							
Near/Far La	ne Distance:	36 feet		VehicleType Day Evening Night								
Site Data					ŀ	Autos:	77.5%	14.0%	10.5%	92.00%		
Ba	rrier Heiaht:	0.0 feet		Me	dium Tr	ucks:	48.0%	2.0%	50.0%	3.00%		
Barrier Type (0-W	/all, 1-Berm):	0.0		H	leavy Tr	ucks:	48.0%	2.0%	50.0%	5.00%		
Centerline Di		Noise So	urco El	ovation	s (in fa	ot)						
Centerline Dist.	to Observer:	44.0 feet	'	10/30 30			000					
Barrier Distance to Observer:0.0 feetObserver Height (Above Pad):5.0 feet				Modium Trucke: 2,207								
				Heavy Trucks: 8 006 Grade Adjustment: 0 0								
P	_											
Ro	1	Lane Equivalent Distance (in feet)										
		Autos: 40.460										
	Left View:	-90.0 degrees		Medium Trucks: 40.241								
	Right View:	90.0 degrees		Heavy Trucks: 40.262								
FHWA Noise Mod	el Calculations											
VehicleType	REMEL T	raffic Flow D	istance	Finite	Road	Fresi	nel	Barrier Att	en Bei	rm Atten		
Autos:	68.46	0.26	1.28	8	-1.20		-4.61	0.0	000	0.000		
Medium Trucks:	79.45	-14.61	1.3 <sup>-</sup>	1	-1.20		-4.87	0.0	000	0.000		
Heavy Trucks:	84.25	-12.39	1.3 <sup>-</sup>	1	-1.20		-5.50	0.0	000	0.000		
Unmitigated Noise	e Levels (withou	t Topo and barr	ier atten	uation)								
VehicleType	Leq Peak Hour	Leq Day	Leq Ev	vening	Leq	Night		Ldn	С	NEL		
Autos:	68.8	67.6		66.2		60.	2	68.7	7	69.3		
Medium Trucks:	65.0	61.7		53.9		63.	1	69.3	3	69.3		
Heavy Trucks:	72.0	68.7		60.9		70.	1	76.3	3	76.3		
Vehicle Noise:	74.2	71.7		67.5		71.	3	77.7	7	77.8		
Centerline Distant	ce to Noise Con	tour (in feet)							-			
			70 c	dBA	65 (	dBA	6	60 dBA	55	dBA		
		Ldn:	14	3	30	)8		663	1,	427		
		CNEL:	14	15	31	13		674	1,	452		
Scenario: EAC (2027) Road Name: Washington St. Road Segment: s/o Van Buren Bl.

ricad oogino		CH DI.									
SITE	SPECIFIC IN	PUT DATA				ſ	NOISE	MODE	L INPUT	S	
Highway Data					Site Con	ditions	: (Hard :	= 10, S	oft = 15)		
Average Daily	Traffic (Adt): 1	1,032 vehicle	s					Autos:	15		
Peak Hour	Percentage:	8.46%			Me	dium Ti	rucks (2	Axles):	15		
Peak H	lour Volume:	933 vehicle	s		He	avy Tru	ıcks (3+	Axles).	15		
Ve	hicle Speed:	35 mph		_	Vahiala	Mix					
Near/Far La	ne Distance:	36 feet		-	Venicie i	<b>i</b> cloTyp	0	Dav	Evening	Night	Daily
Sita Data					Vern	cieryp		77 5%	LVering	10.5%	
					٨٨	dium T	Aulos. Trucks:	48.0%	2 0%	50.0%	3 00%
Ba	rrier Height:	0.0 feet			IVIC F	Joawy T	rucks:	18.0%	2.0%	50.0%	5 00%
Barrier Type (0-V	Vall, 1-Berm):	0.0			,	icavy i	rucks.	40.07	2.070	50.07	5 5.0070
Centerline Di	st. to Barrier:	44.0 feet			Noise Sc	ource E	levatio	ns (in f	eet)		
Centerline Dist.	to Observer:	44.0 feet									
Barrier Distance	to Observer:	0.0 feet			Medium Trucks: 2.297						
Observer Height		Heavy Trucks: 8.006 Grade Adjustmen									
	_	l ano Fa	uivalon	t Distar	nco (in	foot)					
RU	_	Autos: 40.460									
	Loft Viow:	0.0%	~~		Madiu	n Truck	$\frac{1}{2}$	2/1			
	Pight View:	-90.0 degre	85 00		Heav	n Truck	$\sqrt{3}$ $+\sqrt{3}$	262			
	Night view.	90.0 degre	63		neav	y muor	·····	.202			
FHWA Noise Mod	el Calculations	5									
VehicleType	REMEL	Traffic Flow	Dis	stance	Finite	Road	Fres	nel	Barrier Att	ier Atten Berm A	
Autos:	64.30	-1.41		1.2	28	-1.20		-4.61	0.0	000	0.000
Medium Trucks:	75.75	-16.27		1.3	31 -1.20 -4.87 (				0.0	000	0.000
Heavy Trucks:	81.57	-14.06		1.3	81	-1.20		-5.50	0.0	000	0.000
Unmitigated Nois	e Levels (witho	out Topo and	barrie	er atter	nuation)						
VehicleType	Leq Peak Hou	r Leq Day	/	Leq E	vening	Leq	Night		Ldn	C	NEL
Autos:	63.	0	61.8		60.4		54	4	62.8	3	63.5
Medium Trucks:	59.	6	56.3		48.6		57	8	63.9	9	63.9
Heavy Trucks:	67.	6	64.4		56.6		65	8	71.9	9	72.0
Vehicle Noise:	69.	4	66.7		62.1		66	7	73.0	)	73.1
Centerline Distan	ce to Noise Co	ntour (in feet	)								
				70	dBA	65	dBA	(	60 dBA	55	5 dBA
			Ldn:	7	70	1	51		325	(	699
CNEL:				7	71 153 329				-	709	

Scenario: EAC (2027)
Road Name: Chicago Av./Alta Cresta Av.
Road Segment: n/o Van Buren Bl.

Project Name: Arroyo Vista Job Number: 14577

<u> </u>										
SITE	SPECIFIC INP	UT DATA				NOISE N	10DE	L INPUT	S	
Highway Data				Site Con	ditions	s (Hard =	10, Sc	oft = 15)		
Average Daily	Traffic (Adt): 1	,122 vehicles				/	Autos:	15		
Peak Hour	Percentage:	8.46%		Me	dium T	rucks (2 A	xles):	15		
Peak F	lour Volume:	95 vehicles		He	avy Tru	ıcks (3+ A	xles):	15		
Ve	hicle Speed:	25 mph		Vehicle	Miv					
Near/Far La	ne Distance:	12 feet		Venicie I Veh	icleTvn	ρ	Dav	Evenina	Niaht	Daily
Site Data				Von	юютур	Autos:	77 5%	12.9%	9.6%	97 42%
		0.0 (		M	edium T	Trucks:	84 8%	4.9%	10.3%	1 84%
Ba	rrier Height:	0.0 feet			Heavy T	Trucks:	86.5%	2.7%	10.8%	0.74%
Barrier Type (U-M	/all, 1-Berm):	0.0			loavy	ruono.	00.070	2.170	10.070	0.7 470
Centerline Di	st. to Barrier:	30.0 feet		Noise So	ource E	levations	s (in fe	et)		
Centerline Dist.	to Observer:	30.0 feet			Auto	os: 0.0	000			
Barrier Distance	to Observer:			Medium Trucks: 2.297						
Observer Height	(Above Pad):	5.0 feet		Heavy Trucks: 8.006 Grade Adjustment						
		Lane Equivalent Distance (in feet)								
RO		Autos: 29.816								
	Road Grade:	0.0%		Madiu	Auto m Truol	JS. 29.0 ko: 20.1	510			
	Leit View:	-90.0 degrees		Hoo		ks. 29.: ko: 20.1	210			
	Right view:	90.0 degrees		nea	y muci	NS. 29.3	047			
FHWA Noise Mod	el Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite	Road	Fresn	el	Barrier Att	en Ber	m Atten
Autos:	58.73	-9.62	3.:	26	-1.20		-4.49	0.0	000	0.000
Medium Trucks:	70.80	-26.86	3.	33	-1.20		-4.86	0.0	000	0.000
Heavy Trucks:	77.97	-30.82	3.3	32	-1.20		-5.77	0.0	000	0.000
Unmitigated Noise	e Levels (withou	It Topo and ba	nrier atte	nuation)						
VehicleType	Leq Peak Hour	Leq Day	Leq I	Evening	Leq	n Night		Ldn	Cl	VEL
Autos:	51.2	50	.0	48.2		42.2		50.8	3	51.4
Medium Trucks:	46.1	45	.3	38.9		37.4		45.8	3	46.1
Heavy Trucks:	49.3	48	.6	39.5		40.8		49.2	2	49.3
Vehicle Noise:	54.1	53	5.1	49.2		45.3		53.8	3	54.2
Centerline Distan	ce to Noise Con	tour (in feet)								
			70	dBA	65	6 dBA	6	0 dBA	55	dBA
		La	In:	3		5		12	2	25
CNEL:				3 6 12				2	27	

Scenario: EAC (2027) Road Name: Chicago Av./Alta Cresta Av. Road Segment: s/o Van Buren Bl. Project Name: Arroyo Vista Job Number: 14577

SITE	SPECIFIC IN	PUT DATA				1	NOISE	10DE	L INPUT	S		
Highway Data					Site Con	ditions	(Hard =	10, Sc	oft = 15)			
Average Daily	Traffic (Adt):	3,131 vehicle	s				,	Autos:	15			
Peak Hour	Percentage:	8.46%			Me	dium Ti	rucks (2 A	(xles)	15			
Peak H	lour Volume:	265 vehicle	S		Hea	avy Tru	ıcks (3+ A	(xles)	15			
Ve	hicle Speed:	25 mph			Vehicle I	<i>lix</i>						
Near/Far La	ne Distance:	12 feet			Vehi	cleTyp	e	Day	Evening	Night	Daily	
Site Data							Autos:	77.5%	12.9%	9.6%	97.42%	
Ba	rrier Heiaht:	0.0 feet			Me	edium T	Trucks:	84.8%	4.9%	10.3%	1.84%	
Barrier Type (0-W	/all, 1-Berm):	0.0			ŀ	leavy T	Frucks:	86.5%	2.7%	10.8%	0.74%	
Centerline Di	st. to Barrier:	30.0 feet		_	Noise So	urce F	levation	s (in fe	pet)			
Centerline Dist.	to Observer:	30.0 feet		-								
Barrier Distance	to Observer:	0.0 feet			Medium Trucks: 2 297							
Observer Height	(Above Pad):	5.0 feet			Heavy Trucks: 8 006 Grade Adjustment							
Pad Elevation: 0.0 feet					Heavy Trucks: 8.006 Grade Adjustment.							
Road Elevation: 0.0 feet					Lane Equivalent Distance (in feet)							
Road Grade: 0.0%						Auto	os: 29.8	316				
	Left View:	-90.0 degree	es		Mediur	n Trucł	ks: 29.	518				
	Right View:	90.0 degre	es		Heav	y Trucł	ks: 29.	547				
EHWA Noiso Mod	al Calculations											
VehicleType		Traffic Flow	Dis	tanco	Finite Road Fresnel Barrier At			on Bor	m Atton			
Autos	58 73	-5 17	DIS	3 2	6	-1 20	110311	-1 10				
Medium Trucks:	70.80	-22 41		3.2	о 3	-1 20		-4 86	0.0	000	0.000	
Heavy Trucks:	70.00	-26.36		3.3	2	-1 20		-5 77	0.0	000	0.000	
		20.00		0.0		1.20		0.11	0.0		0.000	
Unmitigated Noise	e Levels (witho	out Topo and	barrie	er atten	uation)		Al's La		1.1.			
Venicie i ype	Leq Peak Hour	r Leq Day		Leq E	vening	Leq	Night		Lan		VEL	
Autos:	55.		54.5		52.7		40.0		55.3	5	55.9	
	50.3	5	49.7		43.4		41.8		50.3	5	50.5	
Heavy Trucks.	53.		53.0		44.0		40.3		53.0	)	50.7	
venicie Noise:	58.3	0	07.0		53.7		49.8	)	58.3	5	58.7	
Centerline Distan	ce to Noise Co	ntour (in feet	)							1		
				70 (	dBA	65	dBA	6	60 dBA	55	dBA	
Ldn:				Ę	5 11 23		Ę	50				
CNEL:					5		11		24	Ę	53	

Scenario: EAC (2027) Road Name: Gamble Av. Road Segment: s/o Iris Av.

#### Project Name: Arroyo Vista Job Number: 14577

Road Ocyme	<i>nt.</i> 3/0 m3 Av.												
SITE	SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS							
Highway Data				S	ite Cond	litions	(Hard :	= 10, So	oft = 15)				
Average Daily	Traffic (Adt):	196 vehicles	6					Autos:	15				
Peak Hour	Percentage:	8.46%			Mea	lium Tr	ucks (2	Axles):	15				
Peak F	lour Volume:	17 vehicles	6		Hea	ivy Tru	cks (3+	Axles):	15				
Ve	hicle Speed:	25 mph		V	ahicla M	liy							
Near/Far La	ne Distance:	12 feet			Vehic	leType	Э	Day	Evening	Night	Daily		
Site Data							Autos:	77.5%	12.9%	9.6%	97.42%		
Ba	rrier Heiaht:	0.0 feet			Me	dium T	rucks:	84.8%	4.9%	10.3%	1.84%		
Barrier Type (0-W	/all, 1-Berm):	0.0			Н	eavy T	rucks:	86.5%	2.7%	10.8%	0.74%		
Centerline Di	st. to Barrier:	30.0 feet		N	laisa Sa	urco E	lovatio	ne (in f					
Centerline Dist.	to Observer:	30.0 feet		/ 1	0136 301								
Barrier Distance	to Observer:	0.0 feet			Modium	Auto		207					
Observer Height	(Above Pad):	5.0 feet			Hoov	i Truck i Truck	13. Z	2006	Grade Ad	iustment	· 0 0		
P	ad Elevation:	0.0 feet			Tieavy	THUCK	.s. c	.000	erade riaj	aounoni	0.0		
Ro	ad Elevation:	0.0 feet		L	ane Equ	ivalen	t Distar	nce (in i	feet)				
	Road Grade:	0.0%				Auto	os: 29	9.816					
	Left View:	-90.0 degree	es		Medium	n Truck	(s: 29	9.518					
	Right View:	90.0 degree	es		Heavy	/ Truck	as: 29	9.547					
FHWA Noise Mod	el Calculations												
VehicleType	REMEL 7	raffic Flow	Dista	ance	Finite F	Road	Fres	snel	Barrier Att	en Ber	m Atten		
Autos:	58.73	-17.20		3.26		-1.20		-4.49	0.0	000	0.000		
Medium Trucks:	70.80	-34.44		3.33		-1.20		-4.86	0.0	000	0.000		
Heavy Trucks:	77.97	-38.40		3.32		-1.20		-5.77	0.0	000	0.000		
Unmitigated Noise	e Levels (withou	t Topo and	barrier	attenu	uation)								
VehicleType	Leq Peak Hour	Leq Day	' I	Leq Eve	ening	Leq	Night		Ldn	Cl	VEL		
Autos:	43.6		42.4		40.7		34	.6	43.2	2	43.8		
Medium Trucks:	38.5	;	37.7		31.3		29	.8	38.3	3	38.5		
Heavy Trucks:	41.7		41.0		32.0		33	.2	41.6	6	41.7		
Vehicle Noise:	46.5		45.6		41.6		37	.7	46.2	2	46.6		
Centerline Distan	ce to Noise Con	tour (in feet)	)										
				70 dl	BA	65	dBA	6	60 dBA	55	dBA		
			Ldn:	1			2		4		8		
		CI	VEL:	1			2		4		8		

Scenario: EAC (2027) Road Name: Wood Rd. Road Segment: n/o Van Buren Bl

#### Project Name: Arroyo Vista Job Number: 14577

Road Segme	nt. n/o van Bur	en Bl.									
SITE	SPECIFIC IN	PUT DATA				Ν	IOISE	MODE	L INPUT	S	
Highway Data				ł	Site Cond	ditions	(Hard =	= 10, Sc	oft = 15)		
Average Daily	Traffic (Adt):	9,239 vehicle	s					Autos:	15		
Peak Hour	Percentage:	8.46%			Med	dium Tr	ucks (2	Axles):	15		
Peak F	lour Volume:	782 vehicle	s		Hea	avy Tru	cks (3+	Axles):	15		
Ve	hicle Speed:	40 mph		1	Vehicle N	lix					
Near/Far La	ne Distance:	36 feet			Vehi	cleType	)	Day	Evening	Night	Daily
Site Data						/	Autos:	75.5%	14.0%	10.5%	97.42%
Ba	rrier Height:	0.0 feet			Me	dium T	rucks:	48.9%	2.2%	48.9%	1.84%
Barrier Type (0-W	/all, 1-Berm):	0.0			H	leavy T	rucks:	47.3%	5.4%	47.3%	0.74%
Centerline Di	st. to Barrier:	50.0 feet			Noise So	urce E	levatior	ns (in fe	et)		
Centerline Dist.	to Observer:	50.0 feet				Auto	s: 0	.000			
Barrier Distance	to Observer:	0.0 feet			Mediun	n Truck	s: 2	.297			
Observer Height	(Above Pad):	5.0 feet			Heav	v Truck	s: 8	.006	Grade Ad	justment	t: 0.0
Pa	ad Elevation:	0.0 feet		-					(		
Ro	ad Elevation:	0.0 feet		1	Lane Equ	livalen	t Distar		reet)		
	Road Grade:	0.0%			N ///	AUto	s: 46	.915			
	Left View:	-90.0 degree	es		Meaiun	n Truck	S: 46	.726			
	Right view:	90.0 degree	es		neav	у писк	S. 40	.744			
FHWA Noise Mod	el Calculations	5									
VehicleType	REMEL	Traffic Flow	Dis	stance	Finite I	Road	Fres	nel	Barrier Att	en Bei	rm Atten
Autos:	66.51	-2.51		0.3	1	-1.20		-4.65	0.0	000	0.000
Medium Trucks:	77.72	-19.75		0.3	4	-1.20		-4.87	0.0	000	0.000
Heavy Trucks:	82.99	-23.70		0.3	4	-1.20		-5.43	0.0	000	0.000
Unmitigated Noise	e Levels (witho	out Topo and	barrie	er atten	uation)						
VehicleType	Leq Peak Hou	r Leq Day	/	Leq E	vening	Leq	Night		Ldn	С	NEL
Autos:	63.	.1	61.8		60.5		54.	5	62.9	9	63.6
Medium Trucks:	57.	.1	53.9		46.4		55.	2	61.4	1	61.4
Heavy Trucks:	58.	.4	55.1		51.7		56.	4	62.6	6	62.7
Vehicle Noise:	65.	.1	63.2		61.2		60.	2	67.1		67.4
Centerline Distan	ce to Noise Co	ntour (in feet	)							1	
				70 0	dBA	65	dBA	6	60 dBA	55	dBA
			Ldn:	3	2	6	69		149	3	320
CNEL:					34 72 156				335		

Scenario: EAC (2027) Road Name: Wood Rd. Road Segment: s/o Van Buren Bl.

#### Project Name: Arroyo Vista Job Number: 14577

Road Seyme	ni. s/o van bure	II DI.								
SITE	SPECIFIC INF	PUT DATA			Ν	IOISE	MODE	L INPUT	S	
Highway Data				Site Cor	nditions	(Hard :	= 10, So	oft = 15)		
Average Daily	Traffic (Adt): 13	3,657 vehicles					Autos:	15		
Peak Hour	Percentage:	8.46%		Me	edium Tru	ucks (2	Axles):	15		
Peak F	lour Volume: 1	,155 vehicles		He	eavy Truc	cks (3+	Axles):	15		
Ve	hicle Speed:	40 mph		Vehicle	Mix					
Near/Far La	ne Distance:	36 feet		Veł	nicleType	,	Day	Evening	Night	Daily
Site Data					ŀ	Autos:	75.5%	14.0%	10.5%	97.42%
Ba	rrier Height:	0.0 feet		M	ledium Ti	rucks:	48.9%	2.2%	48.9%	1.84%
Barrier Type (0-W	/all, 1-Berm):	0.0			Heavy Ti	rucks:	47.3%	5.4%	47.3%	0.74%
Centerline Di	ist. to Barrier:	50.0 feet		Noise S	ource El	evatio	ns (in fe	eet)		
Centerline Dist.	to Observer:	50.0 feet			Auto	s: 0	.000			
Barrier Distance	to Observer:	0.0 feet		Mediu	m Truck	s: 2	.297			
Observer Height	(Above Pad):	5.0 feet		Hea	vy Truck	s: 8	.006	Grade Ad	justment	: 0.0
P	ad Elevation:	0.0 feet					<i>(</i> <b>*</b>	<b>6</b> (1)		
Ro	ad Elevation:	0.0 feet		Lane Eq	uivalent	Distar	ice (in i	teet)		
	Road Grade:	0.0%			Auto	s: 46	5.915			
	Left View:	-90.0 degrees	3	Mediu	m Truck	s: 46	5.726			
	Right View:	90.0 degrees	5	Hea	vy Truck	s: 46	6.744			
FHWA Noise Mod	el Calculations									
VehicleType	REMEL	Traffic Flow	Distan	ce Finite	Road	Fres	nel	Barrier Att	en Ber	m Atten
Autos:	66.51	-0.81		0.31	-1.20		-4.65	0.0	000	0.000
Medium Trucks:	77.72	-18.05		0.34	-1.20		-4.87	0.0	000	0.000
Heavy Trucks:	82.99	-22.01		0.34	-1.20		-5.43	0.0	000	0.000
Unmitigated Noise	e Levels (witho	ut Topo and b	arrier a	ttenuation)						
VehicleType	Leq Peak Hour	Leq Day	Le	eq Evening	Leq	Night		Ldn	C	NEL
Autos:	64.8	6	3.5	62.2		56	.2	64.6	6	65.2
Medium Trucks:	58.8	5 5	5.6	48.1		56	.9	63.′	1	63.1
Heavy Trucks:	60.1	5	6.8	53.4		58	.1	64.3	3	64.4
Vehicle Noise:	66.8	6	4.9	62.9		61	.9	68.8	3	69.1
Centerline Distan	ce to Noise Con	ntour (in feet)								
				70 dBA	65	dBA	6	60 dBA	55	dBA
		L	.dn:	42	9	0		193	4	16
		CN	EL:	43	9	94		202	4	35

Scenario: EAC (2027) Road Name: Trautwein Rd./Cole Av. Road Segment: n/o Van Buren Bl.

i tead oogino										
SITE	SPECIFIC INP	UT DATA			Ν	OISE N	10DE	L INPUT	S	
Highway Data				Site Con	ditions (	Hard =	10, Sc	oft = 15)		
Average Daily	Traffic (Adt): 19	,588 vehicles				ŀ	Autos:	15		
Peak Hour	Percentage:	8.46%		Me	dium Tru	cks (2 A	xles):	15		
Peak F	lour Volume: 1	,657 vehicles		He	avy Truc	ks (3+ A	xles):	15		
Ve	hicle Speed:	50 mph	-	Vehicle I	Mix					
Near/Far La	ne Distance:	36 feet	-	Veh	icleType		Day	Evening	Night	Daily
Site Data					A	utos:	75.5%	14.0%	10.5%	97.42%
Ba	rrier Heiaht:	0.0 feet		Me	edium Tr	ucks:	48.9%	2.2%	48.9%	1.84%
Barrier Type (0-W	/all, 1-Berm):	0.0		ŀ	leavy Tr	ucks:	47.3%	5.4%	47.3%	0.74%
Centerline Di	ist. to Barrier:	50.0 feet	-	Noise Sc	ource Ele	evations	: (in fe	eet)		
Centerline Dist.	to Observer:	50.0 feet	-		Autos	· 00	000			
Barrier Distance	to Observer:	0.0 feet		Medium Trucks: 2 297						
Observer Height	(Above Pad):		Heavy Trucks: 8 006 Grade Adjustment							
P	ad Elevation:	-	Theavy Trucks. 8.000 Grade Adjustment. C							
Ro	ad Elevation:	-	Lane Equivalent Distance (in feet)							
	Road Grade: 0.0%						915			
	Left View:	-90.0 degrees		Mediur	n Trucks	: 46.7	726			
	Right View:	90.0 degrees		Heav	y Trucks	: 46.7	744			
FHWA Noise Mod	el Calculations									
VehicleType	REMEL 7	raffic Flow	Distance	Finite	Road	Fresn	el	Barrier Att	en Be	rm Atten
Autos:	70.20	-0.21	0.3	31	-1.20		-4.65	0.0	000	0.000
Medium Trucks:	81.00	-17.45	0.3	34	-1.20		-4.87	0.0	000	0.000
Heavy Trucks:	85.38	-21.41	0.3	34	-1.20	·	-5.43	0.0	000	0.000
Unmitigated Noise	e Levels (withou	ıt Topo and ba	rrier attei	nuation)						
VehicleType	Leq Peak Hour	Leq Day	Leq E	vening	Leq I	Vight		Ldn	C	NEL
Autos:	69.1	67	.8	66.5		60.5		68.9	9	69.5
Medium Trucks:	62.7	59	.5	52.0		60.8		66.9	9	67.0
Heavy Trucks:	63.1	59	.8	56.4		61.0		67.2	2	67.3
Vehicle Noise:	70.8	69	.0	67.0		65.5		72.6	6	72.9
Centerline Distant	ce to Noise Con	tour (in feet)								
			70	dBA	65 c	IBA	6	60 dBA	55	5 dBA
		Ld	n: T	74	15	9		344	-	740
		CNE	L: 7	78	16	7		361	-	777

Scenario: EAC (2027) Road Name: Trautwein Rd./Cole Av. Road Segment: s/o Van Buren Bl. Project Name: Arroyo Vista Job Number: 14577

SITE	SPECIFIC IN	PUT DATA				[	NOISE	MODE	L INPUT	S			
Highway Data					Site Con	ditions	s (Hard :	= 10, S	oft = 15)				
Average Daily	Traffic (Adt): 1	3,305 vehicles	5					Autos.	15				
Peak Hour	<sup>-</sup> Percentage:	8.46%			Me	dium T	rucks (2	Axles).	15				
Peak F	lour Volume:	1,126 vehicles	S		He	avy Tru	ıcks (3+	Axles).	15				
Ve	ehicle Speed:	50 mph		-	Vehicle I	<i>lix</i>							
Near/Far La	ane Distance:	36 feet		_	Vehi	cleTyp	е	Day	Evening	Night	Daily		
Site Data							Autos:	75.5%	6 14.0%	10.5%	97.42%		
Ba	rrier Height:	0.0 feet			Me	dium T	Trucks:	48.9%	<i>6</i> 2.2%	48.9%	1.84%		
Barrier Type (0-W	Vall, 1-Berm):	0.0			ŀ	leavy T	Trucks:	47.3%	<i>б</i> 5.4%	47.3%	0.74%		
Centerline Di	ist. to Barrier:	50.0 feet		_	Noiso Sa		lovatio	ne (in f	oot)				
Centerline Dist.	to Observer:	50.0 feet		_	NUISE 30				eel)				
Barrier Distance	to Observer:	0.0 feet			Madium		us. C	0.000					
Observer Height	Observer Height (Above Pad): 5.0 feet					Medium Trucks: 2.297							
Pad Elevation: 0.0 feet					Heav	y Truci	KS. 6	0006	Graue Au	usunen	. 0.0		
Road Elevation: 0.0 feet					Lane Equivalent Distance (in feet)								
	Road Grade:	0.0%				Auto	os: 46	6.915					
	Left View:	-90.0 degree	es		Mediur	n Trucl	ks: 46	6.726					
	Right View:	90.0 degree	es		Heav	y Trucl	ks: 46	6.744					
EUWA Noiso Mod	lal Calculations	<u> </u>											
VehicleType		Traffic Flow	Dis	tanco	Finito	Road	Fros	nol	Rarriar Att	on Ro	rm Atton		
	70.20	-1 89	013	0.3	1	-1 20	1103	-4 65					
Medium Trucks:	81.00	-19.13		0.0	4	-1 20		-4.87	0.0	000	0.000		
Heavy Trucks:	85.38	-23.09		0.3	4	-1 20		-5.43	0.0	000	0.000		
								0.70			0.000		
Unmitigated Noise	e Levels (witho	but lopo and	barrie	er atter	iuation)	1.00	Aliant		l dia				
Venicie i ype	Leq Peak Hou	r Leq Day	66 1	Leq E	vening	Leq		0	Lan		INEL 67.0		
Aulos. Modium Trucks:	61	.4	00.1 57 0		04.0 50.2		50	.0 1	07.2	2	65.2		
Heavy Trucks:	61	.0	57.0 58.1		50.5		59 50	. I 1	65.0	> S	65.3		
Vehicle Noise:	69	1	67.3		54.7 65.4		63	.4	70.0		71.2		
	03.	.1			05.4		00	.9	70.3	,	11.2		
Centerline Distan	ce to Noise Co	ntour (in feet	)	70	(5.4								
				70	dBA	65	dBA		bU dBA	55	aBA		
		~	Ldn:	5	o/	1	123		265	Ę	o/2		
		CI	VEL:	6	50	1	129		279	6	501		

Scenario: EAC (2027) Road Name: Victoria Av. Road Segment: w/o Van Buren Bl.

#### Project Name: Arroyo Vista Job Number: 14577

Road Segme	nt. w/o van Bu	Iren BI.									
SITE	SPECIFIC IN	IPUT DATA				Ν	IOISE I	MODE	L INPUT	S	
Highway Data					Site Con	ditions	(Hard =	10, Sc	oft = 15)		
Average Daily	Traffic (Adt):	10,090 vehicle	s					Autos:	15		
Peak Hour	Percentage:	8.46%			Mee	dium Tru	ucks (2	Axles):	15		
Peak H	lour Volume:	854 vehicle	s		Hea	avy Truo	cks (3+ .	Axles):	15		
Ve	hicle Speed:	45 mph			Vehicle I	<i>lix</i>					
Near/Far La	ne Distance:	12 feet			Vehi	cleType	,	Day	Evening	Night	Daily
Site Data						ŀ	Autos:	75.5%	14.0%	10.5%	97.42%
Ba	rrier Height:	0.0 feet			Me	edium Ti	rucks:	48.9%	2.2%	48.9%	1.84%
Barrier Type (0-W	/all, 1-Berm):	0.0			ŀ	leavy Ti	rucks:	47.3%	5.4%	47.3%	0.74%
Centerline Di	st. to Barrier:	37.0 feet			Noise So	urce El	evation	s (in fe	et)		
Centerline Dist.	to Observer:	37.0 feet				Auto	s: 0.	000			
Barrier Distance	to Observer:	0.0 feet			Mediur	n Truck	s: 2.	297			
Observer Height (	(Above Pad):	5.0 feet			Heav	v Truck	s: 8.	006	Grade Ad	justment	t: 0.0
Pa	ad Elevation:	0.0 feet		_							
Roa	ad Elevation:	0.0 feet		1	Lane Equ	livalent	t Distan	ce (in i	feet)		
	Road Grade:	0.0%				Auto	s: 36	851			
	Left View:	-90.0 degre	es		Mediur	n Truck	s: 36	610			
	Right View:	90.0 degre	es		Heav	y Truck	s: 36	634			
FHWA Noise Mod	el Calculation	S									
VehicleType	REMEL	Traffic Flow	Dis	tance	Finite	Road	Fresi	nel	Barrier Att	en Bei	rm Atten
Autos:	68.46	-2.64		1.8	8	-1.20		-4.56	0.0	000	0.000
Medium Trucks:	79.45	-19.88		1.9	3	-1.20		-4.87	0.0	000	0.000
Heavy Trucks:	84.25	-23.83		1.9	2	-1.20		-5.61	0.0	000	0.000
Unmitigated Noise	e Levels (with	out Topo and	barrie	er atten	uation)						
VehicleType	Leq Peak Hou	ur Leq Day	/	Leq E	vening	Leq	Night		Ldn	С	NEL
Autos:	66	5.5	65.2		63.9		57.	9	66.3	3	66.9
Medium Trucks:	60	0.3	57.1		49.6		58.	4	64.5	5	64.6
Heavy Trucks:	61	.1	57.8		54.4		59.	1	65.3	3	65.4
Vehicle Noise:	68	3.4	66.5		64.5		63.	2	70.2	2	70.5
Centerline Distant	ce to Noise Co	ontour (in feet	;)								
				70 0	dBA	65	dBA	6	60 dBA	55	dBA
			Ldn:	3	8	8	32		177	3	382
		С	NEL:	4	0	8	6		186	2	101

Scenario: EAC (2027) Road Name: Victoria Av. Road Segment: e/o Van Buren BI.

Noad Oegine		п <b>D</b> I.									
SITE	SPECIFIC INP	UT DATA				Ν	NOISE	MODE	L INPUT	S	
Highway Data				5	Site Con	ditions	(Hard =	= 10, So	oft = 15)		
Average Daily	Traffic (Adt): 5	,757 vehicles						Autos:	15		
Peak Hour	Percentage:	8.46%			Me	dium Tr	rucks (2	Axles):	15		
Peak H	lour Volume:	487 vehicles			He	avy Tru	cks (3+	Axles):	15		
Ve	hicle Speed:	40 mph		1	/ehicle I	Mix					
Near/Far La	ne Distance:	12 feet		-	Vehi	icleType	e	Day	Evening	Night	Daily
Site Data							Autos:	75.5%	5 14.0%	10.5%	97.42%
Ba	rrier Heiaht:	0.0 feet			Me	edium T	rucks:	48.9%	2.2%	48.9%	1.84%
Barrier Type (0-W	/all, 1-Berm):	0.0			ŀ	<del>l</del> eavy T	rucks:	47.3%	5.4%	47.3%	0.74%
Centerline Di	st. to Barrier:	37.0 feet			Voice Se	uroo E	lovation	no (in f			
Centerline Dist.	to Observer:	37.0 feet		r	voise so				eet)		
Barrier Distance	to Observer:	0.0 feet			Madiu	AUto Auto	is: 0	.000			
Observer Height	(Above Pad):	5.0 feet			Mediur		(S. 2	.297	Crada Ad	iuotmon	<i></i>
P	ad Elevation:	0.0 feet			Heav	у тиск	(S: 8	.006	Grade Au	Jusunem	. 0.0
Ro	ad Elevation:	0.0 feet		L	ane Equ	uivalen	t Distar	ice (in	feet)		
	Road Grade:	0.0%				Auto	os: 36	.851			
	Left View:	-90.0 degree	S		Mediur	n Truck	.s: 36	.610			
	Right View:	90.0 degree	s		Heav	y Truck	ks: 36	.634			
FHWA Noise Mod	el Calculations		<b>D</b> '. (		<b>-</b> ''(	Deed	<b>-</b>		Da via v Av		A (1
Vehicle I ype	REMEL I	raffic Flow	Dista	ance	Finite	Road	Fres	nel	Barrier Att	en Bei	rm Atten
Autos:	66.51 77 70	-4.56		1.88	5	-1.20		-4.50	0.0	000	0.000
Medium Trucks:	11.12	-21.80		1.93	3	-1.20		-4.87	0.0	000	0.000
Heavy Trucks:	82.99	-25.76		1.92	2	-1.20		-5.61	0.0	000	0.000
Unmitigated Nois	e Levels (withou	it Topo and b	barrier	atten	uation)						
VehicleType	Leq Peak Hour	Leq Day	I	Leq Ev	/ening	Leq	Night		Ldn	С	NEL
Autos:	62.6	e	61.3		60.0		54.	0	62.4	4	63.1
Medium Trucks:	56.6	5	53.5		46.0		54.	7	60.9	9	60.9
Heavy Trucks:	58.0	5	54.6		51.2		55.	9	62.1	1	62.2
Vehicle Noise:	64.7	6	62.7		60.7		59.	7	66.6	6	66.9
Centerline Distan	ce to Noise Con	tour (in feet)									
				70 a	IBA	65	dBA	6	60 dBA	55	dBA
		L	_dn:	22	2	4	48		102	2	221
CNEL:					23 50 107				2	231	

Scenario: EAC (2027) Road Name: Van Buren Bl. Road Segment: w/o Washington St.

Road Seyme	m. w/o washingi	ion 3i.									
SITE	SPECIFIC INP	UT DATA				١	VOISE	MODE	L INPUT	S	
Highway Data					Site Cond	litions	(Hard =	= 10, So	oft = 15)		
Average Daily	Traffic (Adt): 32	,255 vehicles						Autos:	15		
Peak Hour	Percentage:	8.46%			Mec	lium Tr	rucks (2	Axles):	15		
Peak H	our Volume: 2	,729 vehicles			Hea	ivy Tru	icks (3+	Axles):	15		
Ve	ehicle Speed:	50 mph		-	Vahiala N	liv					
Near/Far La	ane Distance:	54 feet		_	Venicie IV Vehic	leType	Э	Day	Evening	Night	Daily
Site Data							Autos:	75.5%	5 14.0%	10.5%	97.42%
Ba	rrier Height:	0.0 feet			Me	dium T	rucks:	48.9%	5 2.2%	48.9%	1.84%
Barrier Type (0-V	Vall. 1-Berm):	0.0			Н	eavy T	rucks:	47.3%	5.4%	47.3%	0.74%
Centerline Di	ist. to Barrier:	76.0 feet		_	Naiza Sa		lovatio	o (in f	oo4)		
Centerline Dist.	to Observer:	76.0 feet			Noise 30				eet)		
Barrier Distance	to Observer:	0.0 feet			Madium	AUIC	os: 0	.000			
Observer Height		Hoove	liustmon	t· 0.0							
P		Heavy Trucks: 8.006 Grade Adjustment									
Ro	ad Elevation:		Lane Equivalent Distance (in feet)								
	Road Grade:	0.0%				Auto	os: 71	.218			
	Left View:	-90.0 degrees	5		Mediun	n Truck	ks: 71	.094			
	Right View:	90.0 degrees	6		Heavy	/ Truck	(s: 71	.106			
FHWA Noise Mod	el Calculations										
VehicleType	REMEL 7	Traffic Flow	Dista	ance	Finite I	Road	Fres	nel	Barrier Att	en Be	rm Atten
Autos:	70.20	1.95		-2.4	1	-1.20		-4.73	0.0	000	0.000
Medium Trucks:	81.00	-15.29		-2.4	0	-1.20		-4.88	0.0	000	0.000
Heavy Trucks:	85.38	-19.24		-2.4	0	-1.20		-5.25	0.0	000	0.000
Unmitigated Nois	e Levels (withou	it Topo and b	arrier	r atten	uation)						
VehicleType	Leq Peak Hour	Leq Day		Leq E	vening	Leq	Night		Ldn	C	NEL
Autos:	68.5	6	7.3		66.0		59.	9	68.4	4	69.0
Medium Trucks:	62.1	5	8.9		51.4		60.	2	66.4	4	66.4
Heavy Trucks:	62.5	5	9.2		55.8		60.	5	66.	7	66.8
Vehicle Noise:	70.2	6	8.4		66.5		65.	0	72.0	C	72.3
Centerline Distan	ce to Noise Con	tour (in feet)									
				70	dBA	65	dBA	6	60 dBA	55	5 dBA
		L	dn:	1(	03	2	22		479	1	,032
		CN	EL:	1(	30	2	234		503	1	,084

Scenario: EAC (2027) Road Name: Van Buren Bl. Road Segment: e/o Washington St.

SITE SPECIFIC INPUT DATA Highway Data						ſ	NOISE	MODE	L INPUT	S	
Highway Data				5	Site Con	ditions	; (Hard	= 10, So	oft = 15)		
Average Daily	Traffic (Adt):	40,485 vehicle	s					Autos:	15		
Peak Hour	Percentage:	8.46%			Me	dium Ti	rucks (2	Axles):	15		
Peak H	our Volume:	3,425 vehicles	s		He	avy Tru	ıcks (3-	Axles):	15		
Ve	hicle Speed:	50 mph		,	lahiala l	<i>liv</i>					
Near/Far La	ne Distance:	54 feet			Voh	<b>ilix</b> icloTyp	0	Dav	Evening	Night	Daily
Sita Data					Ven	сіетур	Autos	75 5%	11.0%	10.5%	07 12%
Sile Dala					٨٨	dium T	rucks <sup>.</sup>	13.370 48.9%	5 14.0 <i>%</i>	48.9%	97.4270 1.84%
Ba	rrier Height:	0.0 feet			IVIC L	loovv 1	Trucks:	40.37	5 10/	40.3%	0 74%
Barrier Type (0-W	Vall, 1-Berm):	0.0			,	ieavy i	TUCKS.	47.37	5 5.470	47.370	0.7470
Centerline Di	st. to Barrier:	76.0 feet		1	Voise Sc	ource E	levatio	ns (in f	eet)		
Centerline Dist.	to Observer:	76.0 feet				Auto	os: (	0.000			
Barrier Distance	to Observer:	0.0 feet			Mediur	n Trucl	ks: 2	2.297			
Observer Height	(Above Pad):	5.0 feet			Heav	y Trucl	ks: 8	3.006	Grade Ad	justment	: 0.0
	ad Elevation:	0.0 feet		,	ano Equ	uivalan	t Dicto	nco (in	faat)		
Ro	ad Elevation:			-	Lane Equ				ieel)		
	Road Grade:	0.0%			Madiu	AUIC	DS. 7	1.210			
	Left View:	-90.0 degree	es		Mealui	n Truck	(S: 7	1.094			
	Right View:	90.0 degree	es		пеал	y TTUC	(S. 7	1.106			
FHWA Noise Mod	el Calculation	S									
VehicleType	REMEL	Traffic Flow	Dis	stance	Finite	Road	Fre	snel	Barrier Att	en Ber	m Atten
Autos:	70.20	2.94		-2.41	1	-1.20		-4.73	0.0	000	0.000
Medium Trucks:	81.00	-14.30		-2.40	)	-1.20		-4.88	0.0	000	0.000
Heavy Trucks:	85.38	-18.26		-2.40	)	-1.20		-5.25	0.0	000	0.000
Unmitigated Nois	e Levels (with	out Topo and	barrie	er atten	uation)						
VehicleType	Leg Peak Hou	ur Leq Day	/	Leg Ev	/ening	Leg	Night		Ldn	С	NEL
Autos:	69	9.5	68.3		66.9		60	.9	69.3	3	70.0
Medium Trucks:	63	3.1	59.9		52.4		61	.2	67.4	1	67.4
Heavy Trucks:	63	3.5	60.2		56.8		61	.5	67.7	7	67.8
Vehicle Noise:	71	.2	69.4		67.5		66	5.0	73.0	)	73.3
Centerline Distan	ce to Noise C	ontour (in feet	)								
L		•		70 a	<i>IBA</i>	65	dBA	(	60 dBA	55	dBA
			Ldn:	12	20	2	259	I	558	1,	201
		C	NEL:	12	26	2	272		585	1,	261

Scenario: EAC (2027) Road Name: Van Buren Bl. Road Segment: w/o Chicago Av./Alta Cresta Av. Project Name: Arroyo Vista Job Number: 14577

	0										
SITE	SPECIFIC IN	PUT DATA					NOISE	MODE	L INPUT	S	
Highway Data					Site Con	ditions	s (Hard =	= 10, So	oft = 15)		
Average Daily	Traffic (Adt): 3	35,550 vehicles						Autos:	15		
Peak Hour	Percentage:	8.46%			Me	dium T	rucks (2	Axles):	15		
Peak F	lour Volume:	3,008 vehicles			He	avy Tru	ıcks (3+	Axles):	15		
Ve	hicle Speed:	50 mph		-	Vehicle I	Mix					
Near/Far La	ne Distance:	54 feet			Veh	icleTyp	е	Day	Evening	Night	Daily
Site Data							Autos:	75.5%	5 14.0%	10.5%	97.42%
Ba	rrier Height:	0.0 feet			M	edium T	Trucks:	48.9%	5 2.2%	48.9%	1.84%
Barrier Type (0-W	/all, 1-Berm):	0.0			ŀ	leavy	Trucks:	47.3%	5.4%	47.3%	0.74%
Centerline Di	st. to Barrier:	76.0 feet		-	Noise So	ource E	levatio	ns (in f	eet)		
Centerline Dist.	to Observer:	76.0 feet		-		Auto	os: 0	.000			
Barrier Distance	to Observer:	0.0 feet			Mediu	m Truci	ks <sup>.</sup> 2	.297			
Observer Height	(Above Pad):	5.0 feet			Heav	v Truci	ks: 8	.006	Grade Ad	justment	: 0.0
P	ad Elevation:	0.0 feet		_							
Ro	ad Elevation:	0.0 feet		_	Lane Eq	uivaler	nt Distar	ice (in	feet)		
	Road Grade:	0.0%				Auto	os: 71	.218			
	Left View:	-90.0 degree	S		Mediu	m Truci	ks: 71	.094			
	Right View:	90.0 degree	S		Heav	y Truci	ks: 71	.106			
FHWA Noise Mod	el Calculations	5									
VehicleType	REMEL	Traffic Flow	Dis	stance	Finite	Road	Fres	nel	Barrier Atte	en Ber	rm Atten
Autos:	70.20	2.37		-2.4	1	-1.20	L	-4.73	0.0	000	0.000
Medium Trucks:	81.00	-14.86		-2.4	0	-1.20		-4.88	0.0	000	0.000
Heavy Trucks:	85.38	-18.82		-2.4	0	-1.20		-5.25	0.0	000	0.000
Unmitigated Noise	e Levels (with	out Topo and I	barrie	er atter	nuation)						
VehicleType	Leq Peak Hou	r Leq Day		Leq E	vening	Leq	Night		Ldn	С	NEL
Autos:	69.	.0 6	67.7		66.4		60	4	68.8	3	69.4
Medium Trucks:	62.	.5 5	59.4		51.9		60	6	66.8	3	66.8
Heavy Trucks:	63.	.0 5	59.6		56.2		60.	9	67.1	l	67.2
Vehicle Noise:	70.	.7 6	6.8		66.9		65	4	72.4	1	72.7
Centerline Distan	ce to Noise Co	ontour (in feet)									
				70	dBA	65	i dBA	6	60 dBA	55	dBA
		l	_dn:	1	10	2	237	·	511	1,	101
		CN	IEL:	1	16	2	249		537	1,	157

Scenario: EAC (2027) Road Name: Van Buren Bl. Road Segment: e/o Chicago Av./Alta Cresta Av. Project Name: Arroyo Vista Job Number: 14577

SITE	SPECIFIC IN	IPUT DATA				Ν	OISE N	ЛОDE	L INPUT	S	
Highway Data				S	Site Con	ditions (	(Hard =	10, So	oft = 15)		
Average Daily	Traffic (Adt):	33,813 vehicle	s					Autos:	15		
Peak Hour	Percentage:	8.46%			Me	dium Tru	icks (2 A	Axles):	15		
Peak H	lour Volume:	2,861 vehicle	s		He	avy Truc	ks (3+ A	Axles):	15		
Ve	hicle Speed:	50 mph		V	/ehicle	Mix					
Near/Far La	ane Distance:	54 feet			Veh	icleTvne		Dav	Evenina	Niaht	Dailv
Site Data					VOII	<u>оң тоң</u> А	utos:	75.5%	14.0%	10.5%	97.42%
Do	rrior Hoight	0.0 faat			Me	ədium Tr	ucks:	48.9%	2.2%	48.9%	1.84%
Barrier Type (0-M	Vall 1.Rorm)				ŀ	leavy Tr	ucks:	47.3%	5.4%	47.3%	0.74%
Centerline Di	ist to Barrier	76 0 feet								- / -	
Centerline Dist	to Observer			Ν	loise Sc	ource Ele	evation	s (in fe	eet)		
Barriar Distance	to Observer					Autos	s: 0.0	000			
Observer Unicht	(Above Pad):				Mediui	n Trucks	s: 2.2	297			
Diserver neight	ad Elevation:				Heav	y Trucks	s: 8.0	006	Grade Ad	justmen	t: 0.0
Ro Po	ad Elevation.			L	ane Ea	uivalent	Distand	ce (in t	feet)		
NO	Road Grade:	0.0%				Autos	: 71	218			
	Left View	-90 0 deared	es		Mediu	n Trucks	; 71	094			
	Right View:	90.0 degree	es		Heav	v Trucks	s: 71.	106			
FHWA Noise Mod	el Calculation	s									
VehicleType	REMEL	Traffic Flow	Dis	stance	Finite	Road	Fresh	el	Barrier Att	en Be	rm Atten
Autos:	70.20	2.16		-2.41		-1.20		-4.73	0.0	000	0.000
Medium Trucks:	81.00	-15.08		-2.40	)	-1.20		-4.88	0.0	000	0.000
Heavy Trucks:	85.38	-19.04		-2.40	)	-1.20		-5.25	0.0	000	0.000
Unmitigated Nois	e Levels (with	out Topo and	barrie	er attenu	uation)						
VehicleType	Leq Peak Hou	ur Leq Day	/	Leq Ev	ening	Leq I	Vight		Ldn	С	NEL
Autos:	68	3.8	67.5		66.2		60.1		68.0	6	69.2
Medium Trucks:	62	2.3	59.2		51.6		60.4	ŀ	66.0	6	66.6
Heavy Trucks:	62	2.7	59.4		56.0		60.7	7	66.9	)	67.0
Vehicle Noise:	70	).4	68.6		66.7		65.2	2	72.2	2	72.5
Centerline Distan	ce to Noise Co	ontour (in feet	)								
L		•		70 d	BA	65 c	<i>IBA</i>	6	60 dBA	55	5 dBA
			Ldn:	10	7	22	29	1	494	1	,065
		С	NEL:	11:	2	24	1		519	1	,119
											•

Scenario: EAC (2027) Road Name: Van Buren Bl. Road Segment: e/o Wood Rd.

i toda oogiiio		(d)									
SITE	SPECIFIC IN	IPUT DATA					NOISE	NODE	L INPUT	S	
Highway Data					Site Cond	ditions	s (Hard =	10, Se	oft = 15)		
Average Daily	Traffic (Adt):	31,982 vehicle	s					Autos:	15		
Peak Hour	Percentage:	8.46%			Med	dium T	rucks (2 )	Axles):	15		
Peak F	our Volume:	2,706 vehicle	s		Hea	avy Tru	ıcks (3+ )	Axles):	15		
Ve	hicle Speed:	50 mph		-	Vahiala			-			
Near/Far La	ane Distance:	54 feet		-	Venicie IV		0	Dov	Evoning	Night	Doily
Cita Data					vern	летур	Autoor			10 50	
Site Data					Ma	dium	AUIOS. Trucks:	10.0%	0 14.0%	10.5%	97.42%
Ba	rrier Height:	0.0 feet					Trucks.	40.9/	0 Z.Z/0	40.9/0	0 7 4 0/
Barrier Type (0-V	Vall, 1-Berm):	0.0				leavy I	TTUCKS.	47.3%	0 3.4%	47.3%	0.74%
Centerline Di	ist. to Barrier:	76.0 feet			Noise So	urce E	levation	s (in f	eet)		
Centerline Dist.	to Observer:	76.0 feet				Auto	os: 0.	000			
Barrier Distance	to Observer:	0.0 feet			Mediun	n Trucl	ks: 2.	297			
Observer Height	(Above Pad):	5.0 feet			Heav	y Trucl	ks: 8.	006	Grade Ad	justmen	t: 0.0
P	ad Elevation:	0.0 feet		-	Lono Equ	ivalar	t Dicton	oo (in	fact		
Ro	ad Elevation:			_	Lane Lyu			24 Q	ieel)		
	Road Grade:	0.0%			Madium	AUIO	$V_{S}$ , 71.	218			
	Left View:	-90.0 degree	es		Mediun		KS. 71. Ko: 71	400			
	Right view:	90.0 degree	es		пеау	y Truci	KS. 71.	106			
FHWA Noise Mod	el Calculation	S									
VehicleType	REMEL	Traffic Flow	Dis	stance	Finite	Road	Fresi	nel	Barrier Att	en Be	rm Atten
Autos:	70.20	1.91		-2.4	1	-1.20	1	-4.73	0.0	000	0.000
Medium Trucks:	81.00	-15.32		-2.4	ŀO	-1.20		-4.88	0.0	000	0.000
Heavy Trucks:	85.38	-19.28		-2.4	10	-1.20		-5.25	0.0	000	0.000
Unmitigated Nois	e Levels (with	out Topo and	barrie	er atter	nuation)						
VehicleType	Leq Peak Hou	ir Leq Day	/	Leq E	vening	Leq	Night		Ldn	C	NEL
Autos:	68	.5	67.2		65.9		59.9	9	68.3	3	68.9
Medium Trucks:	62	.1	58.9		51.4		60.2	2	66.3	3	66.4
Heavy Trucks:	62	.5	59.2		55.8		60.4	1	66.6	6	66.7
Vehicle Noise:	70	.2	68.4		66.5		64.9	9	72.0	)	72.3
Centerline Distan	ce to Noise Co	ontour (in feet	)								
				70	dBA	65	i dBA	(	60 dBA	55	5 dBA
			Ldn:	1	03	2	221		476	1	,026
		C	NEL:	1	08	2	232		500	1	,078

Scenario: EAC (2027) Road Name: Van Buren Bl. Road Segment: e/o Trautwein Rd./Cole Av. Project Name: Arroyo Vista Job Number: 14577

SITE SPECIFIC IN	NPUT DATA		<b>•</b> •••	NOIS	E MODE	LINPUTS	5	
Highway Data			Site Condit	ions (Harc	l = 10, S	oft = 15)		
Average Daily Traffic (Adt):	29,513 vehicles				Autos:	15		
Peak Hour Percentage:	8.46%		Mediu	m Trucks (	2 Axles):	15		
Peak Hour Volume:	2,497 vehicles		Heav	y Trucks (3	+ Axles):	15		
Vehicle Speed:	50 mph	·	Vehicle Mix	7				
Near/Far Lane Distance:	54 feet		Vehicle	Туре	Day	Evening	Night	Daily
Site Data				Autos	75.5%	5 14.0%	10.5% 9	97.42%
Barrier Height:	0.0 feet		Medi	um Trucks	48.9%	a 2.2%	48.9%	1.84%
Barrier Type (0-Wall, 1-Berm):	0.0		Hea	avy Trucks	47.3%	5.4%	47.3%	0.74%
Centerline Dist. to Barrier:	76.0 feet	·	Noise Sour	re Flevati	ons (in f	eet)		
Centerline Dist. to Observer:	76.0 feet		10130 0001	Autos:				
Barrier Distance to Observer:	0.0 feet		Modium	Aulos. Trucks:	2 207			
Observer Height (Above Pad):	5.0 feet		Hoovy	Tucks:	8.006	Grade Adii	istment <sup>.</sup> (	0
Pad Elevation:	0.0 feet	-	Tieavy	TUCKS.	0.000	Grade / lajt		
Road Elevation:	0.0 feet	-	Lane Equiv	alent Dist	ance (in	feet)		
Road Grade:	0.0%			Autos:	71.218			
Left View:	-90.0 degrees		Medium	Trucks:	71.094			
Right View:	90.0 degrees		Heavy	Trucks:	71.106			
EHWA Noise Medel Coloulation								
VehicleType REMEL	S Traffic Flow	Distanco	Einite Ro	ad Er	osnal	Rarriar Atta	n Borm	Atton
Autos: 70.20	1 57	-2 /	11 -	1 20	-4 73			
Medium Trucks: 81.00	-15.67	-2	- - -	1.20	-4.88	0.0	00	0.000
Heavy Trucks: 85.38	-19.63	-2 4	40 -	1.20	-5.25	0.0	00	0.000
					0.20	0.0		0.000
Unmitigated Noise Levels (with	out lopo and bai	rrier atte	nuation)			l ala		-,
	Leq Day		ering	Leq Night	0.6	Lan	CINE	:L
Autos: 68	3.2 66. <sup>-</sup>	9	0.00	5	9.6	08.0		08.0
Medium Trucks. 61	1.7 58. D 2 59	0	51.1 55.4	0	9.8	00.0		00.0 66.4
Heavy Hucks. 62	2.2 58.	0	55.4	6	0.1	00.3		74.0
Venicie Noise: 69	9.9 68.	0	66.1	b	4.6	/1.6		71.9
Centerline Distance to Noise C	ontour (in feet)							
		70	dBA	65 dBA		60 dBA	55 dE	BA
	Ldr	n: 9	97	210		452	973	3
	CNEL	L: 1	02	220		474	1,02	2

Scenario: EAC (2027) Road Name: Iris Av. Road Segment: w/o Gamble Av.

#### Project Name: Arroyo Vista Job Number: 14577

. tead oogino											
SITE	SPECIFIC INF	UT DATA				N	OISE	MODE	L INPUT	S	
Highway Data					Site Con	ditions	(Hard	= 10, Se	oft = 15)		
Average Daily	Traffic (Adt):	35 vehicles	6					Autos:	15		
Peak Hour	Percentage:	8.46%			Me	dium Tru	ucks (2	? Axles):	15		
Peak H	our Volume:	3 vehicles	6		He	avy Truc	cks (3+	- Axles):	15		
Ve	hicle Speed:	30 mph		_	Vahiala	Mix					
Near/Far La	ne Distance:	12 feet		_	Venicie i Voh	<b>i</b> cleType		Dav	Evenina	Niaht	Daily
Site Data					Ven		lutos:	77 5%	12 9%	9.6%	97 42%
	• • • • • •				Λ.	r dium Ti	uios. ucks	84.8%	5 12.9%	10.3%	1 84%
Ba	rrier Height:	0.0 feet				leavy Ti	ucks:	86.5%	27%	10.0%	0.74%
Barrier Type (U-V	vall, 1-Berm):	0.0					uono.	00.07	5 2.170	10.070	0.7 4 70
Centerline Di	st. to Barrier:	30.0 feet			Noise So	ource El	evatio	ns (in f	eet)		
Certierline Dist.	to Observer.	30.0 feet				Autos	s: (	0.000			
Damer Distance	(Above Ded):	0.0 feet			Mediul	n Trucks	s: 2	2.297			
	(ADOVE Pau).	5.0 feet			Heav	y Trucks	s: 8	3.006	Grade Ad	justment	: 0.0
r Po	ad Elevation:			_	l ane Fo	uivalent	Dista	nce (in	feet)		
RU	au Elevalion. Pood Grado:			_			2. 2	0.816	lecty		
	Loft Viow:	0.0%			Madiu	n Trucks	5. Z	9.010 9.518			
	Pight View:		*5 \\C		Heau	n Truck	s. 2	9.510			
	Night view.	90.0 degree	5		ncar	y much	з. <u>с</u>	5.547			
FHWA Noise Mod	el Calculations			I							
VehicleType	REMEL	Traffic Flow	Disi	tance	Finite	Road	Fre	snel	Barrier Att	en Ber	m Atten
Autos:	61.75	-25.48		3.2	6	-1.20		-4.49	0.0	000	0.000
Medium Trucks:	73.48	-42.71		3.3	3	-1.20		-4.86	0.0	000	0.000
Heavy Trucks:	79.92	-46.67		3.3	2	-1.20		-5.77	0.0	000	0.000
Unmitigated Nois	e Levels (withou	ut Topo and	barrie	er atter	uation)						
VehicleTvpe	Lea Peak Hour	Lea Dav	,	Lea E	venina	Lea	Niaht		Ldn	С	NEL
Autos:	38.3		37.2	- 1	35.4	- 1	29	0.3	38.0	)	38.6
Medium Trucks:	32.9	)	32.1		25.8		24	.2	32.7	7	32.9
Heavy Trucks:	35.4		34.7		25.6		26	5.9	35.2	2	35.4
Vehicle Noise:	40.9	)	39.9		36.2		32	2.1	40.6	6	41.0
Centerline Distan	ce to Noise Con	tour (in feet	)								
				70	dBA	65 (	dBA		60 dBA	55	dBA
			Ldn:	(	C		1		2		3
		CI	VEL:	(	C		1		2		3

Scena Road Nar Road Seame	rio: EAC (2027 ne: Iris Av. ent: w/o Chicag	) o Av./Alta Cres	ta Av.			Project N Job Nui	lame: mber:	Arroyo 14577	Vista		
						NIC	אפר י			c	
Highway Data	SPECIFIC IN	IPUT DATA		S	Site Cor	nditions (H	JISE   Hard =	10 SC	$\frac{1}{1000}$	5	
Average Deily	Troffic (Adt);	177 vohiele	•				iaia –	Autoo:	15		
Average Daily	r Doroontogo:		5		Ma	dium Truc	nka (2	Autos. Avlos):	15		
	Percentage.	0.40%	•		Ис	ann Truck	/ 2 / 2 /	Avlas).	15		
	iour volume.	20 mph	5		110	avy nuch	ы (От )	плісз).	15		
Near/Far La	ane Distance:	12 feet		V	/ehicle	Mix					
	ine Distance.	12 1661			Veh	icleType		Day	Evening	Night	Daily
Site Data						Αι	itos:	77.5%	12.9%	9.6%	6 97.42%
Ba	nrrier Height:	0.0 feet			M	edium Tru	icks:	84.8%	6 4.9%	10.3%	6 1.84%
Barrier Type (0-V	Vall, 1-Berm):	0.0				Heavy Iru	icks:	86.5%	s 2.7%	10.8%	6 0.74%
Centerline D	ist. to Barrier:	30.0 feet		۸	loise So	ource Ele	vation	s (in f	eet)		
Centerline Dist.	to Observer:	30.0 feet				Autos:	0.	000			
Barrier Distance	to Observer:	0.0 feet			Mediu	m Trucks:	2.	297			
Observer Height	(Above Pad):	5.0 feet			Heav	/y Trucks:	8.	006	Grade Ad	justmer	<i>t:</i> 0.0
F	Pad Elevation:	0.0 feet				·	<b>.</b>		(		
Rc	ad Elevation:	0.0 feet		L	ane Eq.		Jistan	ce (In	ieet)		
	Road Grade:	0.0%				Autos:	29	.816			
	Left View:	-90.0 degree	es		Mediu	m Trucks:	29	.518			
	Right View:	90.0 degree	es		Heal	/y Trucks:	29	.547			
FHWA Noise Mod	lel Calculation	S									
VehicleType	REMEL	Traffic Flow	Dist	tance	Finite	Road	Fresi	nel	Barrier Att	en Be	erm Atten
Autos:	61.75	-18.44		3.26	5	-1.20		-4.49	0.0	000	0.000
Medium Trucks:	73.48	-35.67		3.33	3	-1.20		-4.86	0.0	000	0.000
Heavy Trucks:	79.92	-39.63		3.32	2	-1.20		-5.77	0.0	000	0.000
Unmitigated Nois	e Levels (with	out Topo and	barrie	er atteni	uation)						
VehicleType	Leq Peak Hou	ır Leq Day	/	Leq Ev	rening	Leq N	light		Ldn	(	NEL
Autos:	45	.4	44.2		42.4		36.4	4	45.0	D	45.6
Medium Trucks:	. 39	.9	39.2		32.8 31.2 39.7				7	39.9	
Heavy Trucks:	42	.4	41.7		32.7		33.	9	42.3	3	42.4
Vehicle Noise:	47	.9	46.9		43.3		39.	1	47.0	6	48.0
Centerline Distan	ce to Noise Co	ontour (in feet	)								
L		• •		70 d	BA	65 dl	BA	6	60 dBA	5	5 dBA
			Ldn:	1		2		I	4	<u> </u>	10
		C	NEL:	1		2			5		10

Scena Road Nar Road Segme	rio: EAC (2027 ne: Iris Av. ent: e/o Chicag	) o Av./Alta Cres	ta Av			Project N Job Nui	lame: mber:	Arroyo 14577	Vista		
										<u> </u>	
Highway Data	SPECIFIC IN	IPUI DATA			Site Cor	NC Inditions (F	ו בכול <b>Hard –</b>	10 S	L INPUT	2	
Augrage Delle	Troffic (Adt):	151 vobicle	•					Autoo	15		
Average Daily	r Doroontogo:		5		Ma	dium Truc	ka 12	Autos. Avlos):	15		
Peak Hour	Percentage.	0.40%	•		іле Ца	ann Truck	/NS (Z )	Avlas).	15		
reak i	iour voiume.	20 mph	5		110	avy much	ы (J+ /	плісз).	15		
Near/Far L	ane Distance:	12 feet		V	/ehicle	Mix					
	ane Distance.	12 1660			Veh	icleType		Day	Evening	Night	Daily
Site Data						Αι 	itos:	77.5%	b 12.9%	9.6%	% 97.42%
Ba	arrier Height:	0.0 feet			M	edium Tru	cks:	84.8%	6 4.9%	10.3%	% 1.84%
Barrier Type (0-V	Vall, 1-Berm):	0.0			1	Heavy Iru	CKS:	86.5%	b 2.7%	10.89	% 0.74%
Centerline D	ist. to Barrier:	30.0 feet		٨	loise S	ource Elev	vation	s (in f	eet)		
Centerline Dist.	to Observer:	30.0 feet				Autos:	0.	000	-		
Barrier Distance	to Observer:	0.0 feet			Mediu	m Trucks:	2.	297			
Observer Height	(Above Pad):	5.0 feet			Hear	vy Trucks:	8.	006	Grade Ad	ljustmer	nt: 0.0
F	Pad Elevation:	0.0 feet				-	<b></b>	(:	fact		
Ro	ad Elevation:	0.0 feet		L	ane Eq		Jistan		reet)		
	Road Grade:	0.0%			Madiu	AUTOS:	29.	.816 			
	Left View:	-90.0 degree	es		Mediu	III TTUCKS:	29.	518			
	Right view:	90.0 degree	es		пеа	y mucks.	29.	.547			
FHWA Noise Mod	lel Calculation	s		I							
VehicleType	REMEL	Traffic Flow	Dis	tance	Finite	Road	Fresi	nel	Barrier Att	ten Be	erm Atten
Autos:	61.75	-19.04		3.26	6	-1.20		-4.49	0.0	000	0.000
Medium Trucks.	73.48	-36.28		3.33	3	-1.20		-4.86	0.0	000	0.000
Heavy Trucks.	79.92	-40.24		3.32	2	-1.20		-5.77	0.0	000	0.000
Unmitigated Nois	e Levels (with	out Topo and	barrie	er atteni	uation)						
VehicleType	Leq Peak Hou	ır Leq Day	/	Leq Ev	rening	Leq N	light		Ldn	(	CNEL
Autos.	44	.8	43.6		41.8		35.8	8	44.4	4	45.0
Medium Trucks.	Medium Trucks: 39.3 38.5				32.2 30.6 39.1				39.3		
Heavy Trucks	41	.8	41.1		32.1		33.3	3	41.	7	41.8
Vehicle Noise.	47	.3	46.3		42.7		38.	5	47.	0	47.4
Centerline Distan	ce to Noise Co	ontour (in feet	)								
L		-		70 d	IBA	65 dl	BA	6	60 dBA	5	5 dBA
			Ldn:	1		2			4		9
		C	NEL:	1		2			4		9

Scenario: EAPC (2027) Road Name: Van Buren Bl. Road Segment: n/o Victoria Av.

#### Project Name: Arroyo Vista Job Number: 14577

		•••								
SITE	SPECIFIC INF	UT DATA			N	DISE N	IODE	LINPUT	S	
Highway Data				Site Con	ditions (	Hard =	10, Sc	oft = 15)		
Average Daily	Traffic (Adt): 34	1,344 vehicles				F	lutos:	15		
Peak Hour	· Percentage:	8.46%		Me	dium Tru	cks (2 A	xles):	15		
Peak H	our Volume: 2	2,906 vehicles		He	avy Truc	ks (3+ A	xles):	15		
Ve	hicle Speed:	45 mph	-	Vehicle	Mix					
Near/Far La	ne Distance:	54 feet	-	Veh	icleType		Dav	Evening	Night	Daily
Site Data					A	utos:	, 75.5%	14.0%	10.5%	97.42%
Ba	rrier Height:	0.0 feet		M	edium Tri	ucks: 4	48.9%	2.2%	48.9%	1.84%
Barrier Type (0-V	Vall. 1-Berm):	0.0		ŀ	Heavy Tri	ucks: 4	47.3%	5.4%	47.3%	0.74%
Centerline Di	ist. to Barrier:	76.0 feet	-	Noice Se	NIKAA Ela	votiona	(in fa	a4)		
Centerline Dist.	to Observer:	76.0 feet	-	Noise Sc		vations		et)		
Barrier Distance	to Observer:	0.0 feet		Madiu	AUTOS	. 0.0	00			
Observer Height	(Above Pad):	5.0 feet		Mediu	n Trucks	. 2.2	.97	Grada Ad	iustmont	
P	ad Elevation:	0.0 feet		пеал	y TTUCKS	. 0.0	00	Graue Auj	usuneni	. 0.0
Ro	ad Elevation:	0.0 feet		Lane Eq	uivalent	Distanc	e (in t	eet)		
	Road Grade:	0.0%			Autos	: 71.2	218			
	Left View:	-90.0 degrees		Mediu	m Trucks	: 71.0	94			
	Right View:	90.0 degrees		Heav	vy Trucks	: 71.1	06			
FHWA NOISE MOD		Troffic Flow	Viatanaa	Finite	Deed	Freese		Downion Att		
Venicie i ype	REMEL		nstance		4 20	Fresh	470	Barrier Atte	en Ber	n Atten
Aulos. Modium Truoko:	00.40 70.45	2.00	-2.4	+ I 10	-1.20	-	·4.73 100	0.0	000	0.000
	79.40	-14.50	-2.4	+U 10	-1.20	-	-4.00 5.25	0.0	000	0.000
Tieavy Trucks.	04.25	-16.51	-2.4	+0	-1.20	•	-5.25	0.0	000	0.000
Unmitigated Nois	e Levels (witho	ut Topo and bar	rier attei	nuation)						
VehicleType	Leq Peak Hour	Leq Day	Leq E	vening	Leq N	light		Ldn	CI	NEL
Autos:	67.5	66.3	3	64.9		58.9		67.3	3	68.0
Medium Trucks:	61.3	58.1		50.6		59.4		65.5	5	65.6
Heavy Trucks:	62.1	58.8	3	55.4		60.1		66.3	3	66.4
Vehicle Noise:	69.4	67.5	5	65.5		64.3		71.2	2	71.5
Centerline Distan	ce to Noise Con	ntour (in feet)								
			70	dBA	65 a	IBA	6	0 dBA	55	dBA
		Ldn	: 9	92	19	8		426	9	17
		CNEL	: 9	96	20	7		446	9	61

Scenario: EAPC (2027) Road Name: Van Buren Bl. Road Segment: s/o Victoria Av.

#### Project Name: Arroyo Vista Job Number: 14577

Roau Seymen	ni. s/o viciona A	7.								
SITE	SPECIFIC INP	UT DATA			NC	DISEN	ЛОDE	L INPUTS	S	
Highway Data				Site Cond	litions (l	Hard =	10, Sc	oft = 15)		
Average Daily	Traffic (Adt): 48,	180 vehicles					Autos:	15		
Peak Hour	Percentage: 8	3.46%		Mec	lium Truc	cks (2 /	Axles):	15		
Peak H	lour Volume: 4,	076 vehicles		Hea	ivy Truck	(3+ /	Axles):	15		
Ve	hicle Speed:	55 mph	_	Vehicle N	lix					
Near/Far La	ne Distance:	54 feet	-	Vehic	cleType		Day	Evening	Night	Daily
Site Data					Αι	utos:	75.5%	14.0%	10.5%	97.42%
Bai	rrier Height:	0.0 feet		Me	dium Tru	icks:	48.9%	2.2%	48.9%	1.84%
Barrier Type (0-W	/all, 1-Berm):	0.0		Н	eavy Tru	icks:	47.3%	5.4%	47.3%	0.74%
Centerline Dis	st. to Barrier:	76.0 feet	_	Noise So	urce Fle	vation	s (in fe	pet)		
Centerline Dist.	to Observer:	76.0 feet	_	110/00 00		0	000	,		
Barrier Distance	to Observer:	0.0 feet		Mediun	Trucks	2.	297			
Observer Height (	(Above Pad):	5.0 feet		Heav	/ Trucks:	8.	006	Grade Ad	justment.	: 0.0
Pa	ad Elevation:	0.0 feet	=							
Roa	ad Elevation:	0.0 feet	_	Lane Equ	ivalent I	Distan	ce (in i	teet)		
	Road Grade:	0.0%			Autos:	71.	218			
	Left View:	-90.0 degrees		Mediun	1 Trucks:	71.	094			
	Right View:	90.0 degrees		Heavy	/ Trucks:	/1.	106			
FHWA Noise Mode	el Calculations									
VehicleType	REMEL T	raffic Flow Di	istance	Finite I	Road	Fresr	nel	Barrier Atte	en Ber	m Atten
Autos:	71.78	3.28	-2.4	1	-1.20		-4.73	0.0	000	0.000
Medium Trucks:	82.40	-13.96	-2.4	10	-1.20		-4.88	0.0	000	0.000
Heavy Trucks:	86.40	-17.91	-2.4	10	-1.20		-5.25	0.0	000	0.000
Unmitigated Noise	e Levels (withou	t Topo and barr	ier atter	nuation)			_		1	
VehicleType	Leq Peak Hour	Leq Day	Leq E	vening	Leq N	light		Ldn	CI	NEL
Autos:	71.5	70.2		68.9		62.8	3	71.3	3	71.9
Medium Trucks:	64.8	61.7		54.2		62.9	)	69.1		69.1
Heavy Trucks:	64.9	61.6		58.2		62.8	}	69.0	)	69.1
Vehicle Noise:	73.0	71.2		69.3		67.6	6	74.7	7	75.0
Centerline Distant	ce to Noise Cont	tour (in feet)							1	
			70	dBA	65 di	BA	6	60 dBA	55	dBA
		Ldn:	1	56	337	7		725	1,	563
		CNEL:	1	64	354	4		763	1,	644

Scenario: EAPC (2027) Road Name: Mockingbird Canyon Rd. Road Segment: s/o Van Buren Bl. Project Name: Arroyo Vista Job Number: 14577

. to a cogino											
SITE	SPECIFIC IN	IPUT DATA				N	OISE	MODE	L INPUT	S	
Highway Data				5	Site Con	ditions (	(Hard =	= 10, Sc	oft = 15)		
Average Daily	Traffic (Adt):	33,551 vehicle	s					Autos:	15		
Peak Hour	Percentage:	8.46%			Me	dium Tru	ıcks (2	Axles):	15		
Peak H	our Volume:	2,838 vehicle	s		He	avy Truc	ks (3+	Axles):	15		
Ve	hicle Speed:	55 mph		1	Vahicla I	<i>Ni</i> v					
Near/Far La	ne Distance:	12 feet			Veh	cleType		Dav	Evenina	Niaht	Daily
Site Data						<u>ою гуро</u> А	utos:	75.5%	14.0%	10.5%	97 42%
		0.0 fact			Me	edium Tr	ucks:	48.9%	2.2%	48.9%	1.84%
Ba Descript Turpe (0.14	rrier Height:				ŀ	leavv Tr	ucks:	47.3%	5.4%	47.3%	0.74%
Contorlino D	ist to Parriar:	0.0 50.0 foot			-				0.170		011 170
Centerline Di	to Observer:	50.0 feet		/	Voise Sc	ource Ele	evatior	ns (in fe	et)		
Certierine Dist.	to Observer.	50.0 feet				Autos	s: 0	.000			
Observer Height	(Abovo Pad):	0.0 feet			Mediur	n Trucks	s: 2	.297			
	(ADOVE FAU).	5.0 feet			Heav	y Trucks	s: 8	.006	Grade Ad	justment	: 0.0
r Po	ad Elevation.	0.0 feet		1	ane Fo	ıivalent	Distar	ice (in i	feet)		
RU	au Elevalion. Pood Grado:			-	Lane Ly	Autos	· /0	800			
		0.0%	~~		Modiu	n Trucks	. 40 . 10	712			
	Len View.	-90.0 degre	es		Hoay	n Trucks	5. 43 S <sup>.</sup> 40	.7 12			
	Right view.	90.0 degre	es		Tieav	y TTUCKS	5. 49	.730			
FHWA Noise Mod	el Calculation	s									
VehicleType	REMEL	Traffic Flow	Dist	tance	Finite	Road	Fres	nel	Barrier Att	en Ber	m Atten
Autos:	71.78	1.71		-0.09	9	-1.20		-4.65	0.0	000	0.000
Medium Trucks:	82.40	-15.53		-0.07	7	-1.20		-4.87	0.0	000	0.000
Heavy Trucks:	86.40	-19.49		-0.07	7	-1.20		-5.43	0.0	000	0.000
Unmitigated Nois	e Levels (with	out Topo and	barrie	er atten	uation)						
VehicleType	Leq Peak Hou	ir Leq Day	/	Leq Ev	/ening	Leq I	Vight		Ldn	С	NEL
Autos:	72	.2	70.9		69.6		63.	6	72.0	)	72.6
Medium Trucks:	65	.6	62.4		54.9		63.	7	69.9	9	69.9
Heavy Trucks:	65	.6	62.3		58.9		63.	6	69.8	3	69.9
Vehicle Noise:	73	.8	72.0		70.1		68.	4	75.4	1	75.8
Centerline Distan	ce to Noise Co	ontour (in feet	;)								
				70 c	<i>BA</i>	65 c	<i>IBA</i>	6	60 dBA	55	dBA
			Ldn:	11	5	24	9		536	1,	154
		С	NEL:	12	21	26	62		563	1,	214

Scenario: EAPC (2027) Road Name: Washington St. Road Segment: n/o Van Buren Bl

#### Project Name: Arroyo Vista Job Number: 14577

Ruau Seyme	ni. 1/0 vali bulei	I DI.								
SITE	SPECIFIC INP	UT DATA			N	DISE M	10DE	L INPUTS	5	
Highway Data				Site Cond	litions (	Hard =	10, Sc	oft = 15)		
Average Daily	Traffic (Adt): 20,	965 vehicles				ŀ	Autos:	15		
Peak Hour	Percentage:	3.46%		Med	ium Tru	cks (2 A	xles):	15		
Peak H	Hour Volume: 1,	774 vehicles		Hea	vy Trucl	ks (3+ A	xles):	15		
Ve	hicle Speed:	45 mph		Vehicle M	iy					
Near/Far La	ne Distance:	36 feet		Vehic	leType		Day	Evening	Night	Daily
Site Data					A	utos:	77.5%	14.0%	10.5%	92.00%
Ва	rrier Heiaht:	0.0 feet		Mee	dium Tru	icks:	48.0%	2.0%	50.0%	3.00%
Barrier Type (0-V	Vall, 1-Berm):	0.0		He	eavy Tru	ucks:	48.0%	2.0%	50.0%	5.00%
Centerline Di	ist. to Barrier:	44.0 feet	-	Noisa Sa	irco Elo	vations	in fa			
Centerline Dist.	to Observer:	44.0 feet		140136 301						
Barrier Distance	to Observer:	0.0 feet		Modium	Autos.	· 0.0	00			
Observer Height	(Above Pad):	5.0 feet		Hoove	Trucks	. 2.2 · 8.0	.97	Grade Ad	iustment	· 0.0
P	ad Elevation:	0.0 feet		Tieavy	TTUCKS	. 0.0	000	Crade Maj	uoumoni	. 0.0
Ro	ad Elevation:	0.0 feet		Lane Equ	ivalent	Distanc	e (in f	feet)		
	Road Grade:	0.0%			Autos.	: 40.4	160			
	Left View:	-90.0 degrees		Medium	Trucks	: 40.2	241			
	Right View:	90.0 degrees		Heavy	Trucks	: 40.2	262			
FHWA Noise Mod	el Calculations									
VehicleType	REMEL 7	raffic Flow	Distance	Finite F	Road	Fresn	el	Barrier Atte	en Ber	m Atten
Autos:	68.46	0.29	1.2	8	-1.20		-4.61	0.0	000	0.000
Medium Trucks:	79.45	-14.58	1.3	1	-1.20		-4.87	0.0	000	0.000
Heavy Trucks:	84.25	-12.36	1.3	1	-1.20		-5.50	0.0	000	0.000
Unmitigated Nois	e Levels (withou	t Topo and ba	rrier atter	uation)						
VehicleType	Leq Peak Hour	Leq Day	Leq E	vening	Leq N	light		Ldn	C	NEL
Autos:	68.8	67	.7	66.2		60.2	1	68.7	,	69.3
Medium Trucks:	65.0	61	.7	53.9		63.2		69.3	3	69.3
Heavy Trucks:	72.0	68	.7	61.0		70.2		76.3	3	76.4
Vehicle Noise:	74.3	71	.7	67.6		71.3		77.7	7	77.8
Centerline Distan	ce to Noise Con	tour (in feet)								
			70	dBA	65 d	BA	6	60 dBA	55	dBA
		Ld	n: 14	43	30	9		666	1,	434
		CNE	<i>L:</i> 14	46	31	4		677	1,	459

Scenario: EAPC (2027) Road Name: Washington St. Road Segment: s/o Van Buren Bl.

i toda oogiiio											
SITE	SPECIFIC IN	PUT DATA				1	NOISE N	/IODE	L INPUT	S	
Highway Data					Site Con	ditions	; (Hard =	10, So	oft = 15)		
Average Daily	Traffic (Adt): 1	1,120 vehicle	s					Autos:	15		
Peak Hour	Percentage:	8.46%			Me	dium Ti	rucks (2 A	Axles):	15		
Peak F	lour Volume:	941 vehicle	s		He	avy Tru	ıcks (3+ A	Axles):	15		
Ve	hicle Speed:	35 mph		-	Vahiala			-			
Near/Far La	ne Distance:	36 feet		-	Venicie i		0	Day	Evoning	Night	Doily
Cite Dete					ven	cieryp		Day	Evening		
Site Data					Λ.Λ.	- dium 7	Autos: Fruekei	11.5%	0 14.0%	10.5%	92.00%
Ba	rrier Height:	0.0 feet					TUCKS. Frucks:	40.0%	2.0%	50.0%	5.00%
Barrier Type (0-V	Vall, 1-Berm):	0.0			Г	leavy I	TUCKS.	40.0%	o 2.0%	50.0%	5.00%
Centerline Di	ist. to Barrier:	44.0 feet			Noise Sc	ource E	levation	s (in fe	et)		
Centerline Dist.	to Observer:	44.0 feet				Auto	os: 0.0	000			
Barrier Distance	to Observer:	0.0 feet			Mediui	n Truck	ks: 2.2	297			
Observer Height	(Above Pad):	5.0 feet			Heav	y Trucł	ks: 8.0	006	Grade Ad	justment	: 0.0
P	ad Elevation:	0.0 feet		_	Long Eq	uivalar	+ Distand	o (in	fact		
Ro	ad Elevation:	0.0 feet		_	Lane Eq			2 <b>e</b> (111)	ieel)		
	Road Grade:	0.0%			Madiu	AUIC Truck	DS: 40.4	460			
	Leit View:	-90.0 degre	es		Hoo	n nuci v Truci	40.7	241			
	Right view:	90.0 degre	es		пеач	y mucr	(3. 40.2	202			
FHWA Noise Mod	el Calculations	;									
VehicleType	REMEL	Traffic Flow	Dis	stance	Finite	Road	Fresn	el	Barrier Att	en Bei	m Atten
Autos:	64.30	-1.37		1.2	28	-1.20		-4.61	0.0	000	0.000
Medium Trucks:	75.75	-16.24		1.3	31	-1.20		-4.87	0.0	000	0.000
Heavy Trucks:	81.57	-14.02		1.3	81	-1.20		-5.50	0.0	000	0.000
Unmitigated Nois	e Levels (witho	out Topo and	barrie	er atter	nuation)						
VehicleType	Leq Peak Hou	r Leq Day	/	Leq E	vening	Leq	ı Night		Ldn	С	NEL
Autos:	63.	0	61.8		60.4		54.4		62.9	)	63.5
Medium Trucks:	59.	6	56.4		48.6		57.8	5	63.9	9	64.0
Heavy Trucks:	67.	7	64.4		56.6		65.8	6	72.0	)	72.0
Vehicle Noise:	69.	4	66.7		62.1		66.7	,	73.2	1	73.1
Centerline Distan	ce to Noise Co	ntour (in feet	)								
				70	dBA	65	dBA	6	60 dBA	55	dBA
			Ldn:	7	70	1	151		326	7	'03
		С	NEL:	7	71	1	154		331	7	'13

Scenario: EAPC (2027) Road Name: Chicago Av./Alta Cresta Av. Road Segment: n/o Van Buren Bl. Project Name: Arroyo Vista Job Number: 14577

SITE SPECIFIC INPUT DATA							NOISE	NODE	LINPUT	S	
Highway Data					Site Con	ditions	; (Hard =	10, Sc	oft = 15)		
Average Daily	Traffic (Adt):	2,662 vehicle	s					Autos:	15		
Peak Hour	Percentage:	8.46%			Me	dium T	rucks (2 J	Axles):	15		
Peak H	lour Volume:	225 vehicle	s		He	avy Tri	ıcks (3+ )	Axles):	15		
Ve	ehicle Speed:	25 mph		-	Vehicle I	Miv					
Near/Far La	ane Distance:	12 feet		-	Venicie i Veh	icleTvn	۹	Dav	Evenina	Niaht	Daily
Site Data						010179	Autos	77 5%	12.9%	9.6%	97 42%
		0.0.6			Me	adium T	Frucks	84.8%	4.9%	10.3%	1 84%
Ba Domining Trans (0.14	rrier Height:				ŀ	leavy T	Trucks:	86.5%	2.7%	10.8%	0 74%
Barrier Type (0-M	iot to Porrior	0.0			•	loary .	ruono.	00.070	2.170	10.070	0.7 170
Centerline Di	to Observer	30.0 feet		_	Noise Sc	ource E	levation	s (in fe	et)		
Certierline Dist.	to Observer.	30.0 feet				Auto	os: 0.	000			
Observer Usight	(Above Ded)				Mediu	n Trucl	ks: 2.	297			
	(ADOVE Pau).	5.0 feet			Heav	y Trucl	ks: 8.	006	Grade Ad	justment.	: 0.0
	au Elevation.	0.0 feet		-	l ano Eq	uivalor	nt Distan	co (in s	foot)		
RU	Bood Crodo:			-	Lane Ly	Λιτ	20	816			
		0.0%			Modiu	n Truc	13. 29. ke <sup>,</sup> 20	518			
	Left View.	-90.0 degree	35		Hoay	n muci v Truci	ns. 29. ks <sup>.</sup> 20	547			
	Right view.	90.0 degree	32		Tieav	y muci	NG. 29.	547			
FHWA Noise Mod	el Calculations										
VehicleType	REMEL	Traffic Flow	Dis	stance	Finite	Road	Fresi	nel	Barrier Att	en Ber	m Atten
Autos:	58.73	-5.87		3.2	26	-1.20		-4.49	0.0	000	0.000
Medium Trucks:	70.80	-23.11		3.3	33	-1.20		-4.86	0.0	000	0.000
Heavy Trucks:	77.97	-27.07		3.3	32	-1.20		-5.77	0.0	000	0.000
Unmitigated Nois	e Levels (witho	ut Topo and	barrie	er atter	nuation)						
VehicleType	Leg Peak Hour	Leg Day	/	Leg E	Ivening	Lea	Night		Ldn	CI	VEL
Autos:	, 54.9	9	53.8		52.0		45.9	9	54.6	5	55.2
Medium Trucks:	49.8	8	49.0		42.7		41.1	1	49.6	6	49.8
Heavy Trucks:	53.0	)	52.3		43.3		44.	5	52.9	)	53.0
Vehicle Noise:	57.8	8	56.9		53.0		49.	1	57.6	6	58.0
Centerline Distan	ce to Noise Col	ntour (in feet	)								
L		<u> </u>		70	dBA	65	dBA	6	0 dBA	55	dBA
			Ldn:		4		10	1	21	4	45
		C	NEL:		5	10 22 4				47	

Scenario: EAPC (2027) Road Name: Chicago Av./Alta Cresta Av. Road Segment: s/o Van Buren Bl. Project Name: Arroyo Vista Job Number: 14577

i toda oogiiio		n Bi.								
SITE	SITE SPECIFIC INPUT DATA					OISE N	10DE	L INPUT	S	
Highway Data				Site Con	ditions	(Hard =	10, Sc	oft = 15)		
Average Daily	Traffic (Adt): 3	,241 vehicles				/	Autos:	15		
Peak Hour	Percentage:	8.46%		Me	dium Tru	icks (2 A	xles):	15		
Peak F	our Volume:	274 vehicles		He	avy Truc	:ks (3+ A	xles):	15		
Ve	hicle Speed:	25 mph		Vahiala						
Near/Far La	ne Distance:	12 feet		Venicie	ioloTuno		Day	Evoning	Night	Daily
Cite Dete				Ven		lutoo i	Day 77 50/			
Site Data					F adium Tr	ulos.	//.3% 0/ 00/	12.9%	9.0%	97.42%
Ba	rrier Height:	0.0 feet		IVI	ulum m ⊔oovy Tr	ucks.	04.070 06 50/	0 4.9%	10.3%	1.04%
Barrier Type (0-V	Vall, 1-Berm):	0.0			leavy II	ucns.	00.3%	2.170	10.0%	0.74%
Centerline Di	st. to Barrier:	30.0 feet		Noise So	ource El	evations	s (in fe	et)		
Centerline Dist.	to Observer:	30.0 feet			Autos	s: 0.0	000			
Barrier Distance	to Observer:	0.0 feet		Mediu	m Trucks	s: 2.2	297			
Observer Height	(Above Pad):	5.0 feet		Heav	/y Trucks	s: 8.0	006	Grade Ad	justment	: 0.0
P	ad Elevation:	0.0 feet		Lono Ea	uivalant	Distanc	o (in i	fact)		
Ro	ad Elevation:	0.0 feet		Lane Eq		DISIAIL		eel)		
	Road Grade:	0.0%		Madiu	Autos m Truck	5. 29.0	-10			
	Left View:	-90.0 degree	S	Mediu		<i>S.</i> 29.8	010			
	Right view:	90.0 degree	S	nea	y TTUCKS	5. 29.3	547			
FHWA Noise Mod	el Calculations									
VehicleType	REMEL 7	Traffic Flow	Distand	ce Finite	Road	Fresn	el	Barrier Att	en Ber	m Atten
Autos:	58.73	-5.02		3.26	-1.20		-4.49	0.0	000	0.000
Medium Trucks:	70.80	-22.26		3.33	-1.20		-4.86	0.0	000	0.000
Heavy Trucks:	77.97	-26.21		3.32	-1.20		-5.77	0.0	000	0.000
Unmitigated Nois	e Levels (withou	It Topo and I	barrier at	ttenuation)						
VehicleType	Leq Peak Hour	Leq Day	Le	q Evening	Leq I	Night		Ldn	C	NEL
Autos:	55.8	5	54.6	52.8		46.8		55.4	1	56.0
Medium Trucks:	50.7	2	19.9	43.5		42.0		50.4	1	50.7
Heavy Trucks:	53.9	5	53.2	44.2		45.4		53.8	3	53.9
Vehicle Noise:	58.7	5	57.7	53.8		49.9		58.4	1	58.8
Centerline Distan	ce to Noise Con	tour (in feet)								
				70 dBA	65 0	dBA	6	60 dBA	55	dBA
		L	_dn:	5	1	1		24	Ę	51
		CN	IEL:	5	1	2		25	ł	54

Scenario: EAPC (2027) Road Name: Gamble Av. Road Segment: s/o Iris Av.

#### Project Name: Arroyo Vista Job Number: 14577

i tead begine	<i>nt.</i> 3/0 m3 Av.									
SITE	SPECIFIC INP	UT DATA			Ν	IOISE	MODE	L INPUT	S	
Highway Data				Site Con	ditions	(Hard =	= 10, So	oft = 15)		
Average Daily	Traffic (Adt):	856 vehicles					Autos:	15		
Peak Hour	Percentage: 8	8.46%		Me	dium Tru	ucks (2	Axles):	15		
Peak F	lour Volume:	72 vehicles		He	avy Truc	cks (3+	Axles):	15		
Ve	hicle Speed:	25 mph		Vehicle	Mix					
Near/Far La	ne Distance:	12 feet		Veh	icleType		Day	Evening	Night	Daily
Site Data					A	Autos:	77.5%	12.9%	9.6%	97.42%
Ba	rrier Heiaht:	0.0 feet		M	ədium Tı	rucks:	84.8%	4.9%	10.3%	1.84%
Barrier Type (0-W	/all, 1-Berm):	0.0			leavy Tr	rucks:	86.5%	2.7%	10.8%	0.74%
Centerline Di	st. to Barrier:	30.0 feet		Noiso Se	urco El	ovatio	ne (in f			
Centerline Dist.	to Observer:	30.0 feet		NOISE SC				el)		
Barrier Distance	to Observer:	0.0 feet		Madiu	Aulos	s. U	.000			
Observer Height	(Above Pad):	5.0 feet		Hoo	TI TTUCK	s. 2	.297	Grada Ad	iustmont	· 0 0
P	ad Elevation:	0.0 feet		Tieav	y TIUCKS	s. o	.000	Orade Auj	usinen	. 0.0
Ro	ad Elevation:	0.0 feet		Lane Eq	uivalent	Distar	nce (in i	feet)		
	Road Grade:	0.0%			Autos	s: 29	.816			
	Left View:	-90.0 degrees	S	Mediu	m Trucks	s: 29	.518			
	Right View:	90.0 degrees	S	Heav	y Trucks	s: 29	.547			
FHWA Noise Mod	el Calculations									
VehicleType	REMEL T	raffic Flow	Distanc	e Finite	Road	Fres	nel	Barrier Att	en Ber	m Atten
Autos:	58.73	-10.80		3.26	-1.20		-4.49	0.0	000	0.000
Medium Trucks:	70.80	-28.04		3.33	-1.20		-4.86	0.0	000	0.000
Heavy Trucks:	77.97	-31.99		3.32	-1.20		-5.77	0.0	000	0.000
Unmitigated Noise	e Levels (withou	t Topo and b	oarrier at	tenuation)						
VehicleType	Leq Peak Hour	Leq Day	Lee	q Evening	Leq	Night		Ldn	CI	NEL
Autos:	50.0	4	8.8	47.1		41	.0	49.6	6	50.2
Medium Trucks:	44.9	4	4.1	37.7		36	2	44.7	7	44.9
Heavy Trucks:	48.1	4	7.4	38.4		39.	.6	48.0	)	48.1
Vehicle Noise:	52.9	5	2.0	48.0		44	.1	52.6	6	53.0
Centerline Distan	ce to Noise Cont	tour (in feet)								
				70 dBA	65 (	dBA	6	60 dBA	55	dBA
		L	.dn:	2	Ę	5		10	2	21
		CN	EL:	2	Ę	5		10		22

Scenario: EAPC (2027) Road Name: Wood Rd. Road Segment: n/o Van Buren Bl.

Road Segme	nt. 170 van Duit	FILDI.									
SITE	SPECIFIC INF	PUT DATA				Ν	IOISE	MODE	L INPUT	S	
Highway Data					Site Con	ditions	(Hard :	= 10, Sc	oft = 15)		
Average Daily	Traffic (Adt):	9,349 vehicle	s					Autos:	15		
Peak Hour	Percentage:	8.46%			Me	dium Tru	ucks (2	Axles):	15		
Peak F	lour Volume:	791 vehicle	s		Hea	avy Truc	cks (3+	Axles):	15		
Ve	hicle Speed:	40 mph		_	Vahiala	<i>Niv</i>					
Near/Far La	ne Distance:	36 feet		_	Venicie I Vehi	icleType		Day	Evening	Night	Daily
Site Data						A	Autos:	75.5%	14.0%	10.5%	97.42%
Ba	rrier Heiaht <sup>.</sup>	0.0 feet			Me	edium Ti	rucks:	48.9%	2.2%	48.9%	1.84%
Barrier Type (0-W	/all. 1-Berm):	0.0			ŀ	leavy Ti	rucks:	47.3%	5.4%	47.3%	0.74%
Centerline Di	st. to Barrier:	50.0 feet		_	Naiaa Ca				41		
Centerline Dist.	to Observer:	50.0 feet		1	Noise So	ource El	evatio		et)		
Barrier Distance	to Observer:	0.0 feet				AUtos Tarrada	s: 0	.000			
Observer Height	(Above Pad):	5.0 feet			Mealur	n Trucks	S: 2	.297	Grada Ad	iustmont	4 0 0
Pa	ad Elevation:	0.0 feet			Heav	y Trucks	s: 8	.006	Grade Au	Justinent	. 0.0
Ro	ad Elevation:	0.0 feet			Lane Equ	uivalent	Distar	nce (in i	feet)		
	Road Grade:	0.0%				Autos	s: 46	5.915			
	Left View:	-90.0 degre	es		Mediur	n Truck	s: 46	5.726			
	Right View:	90.0 degre	es		Heav	y Truck	s: 46	6.744			
FHWA Noise Mod	el Calculations										
VehicleType	REMEL	Traffic Flow	Dis	stance	Finite	Road	Fres	nel	Barrier Att	en Ber	rm Atten
Autos:	66.51	-2.46		0.3	1	-1.20		-4.65	0.0	000	0.000
Medium Trucks:	77.72	-19.70		0.3	4	-1.20		-4.87	0.0	000	0.000
Heavy Trucks:	82.99	-23.65		0.3	4	-1.20		-5.43	0.0	000	0.000
Unmitigated Noise	e Levels (witho	ut Topo and	barri	er atten	uation)						
VehicleType	Leq Peak Hour	· Leq Day	/	Leq E	vening	Leq	Night		Ldn	С	NEL
Autos:	63.2	2	61.9		60.6		54	.6	63.0	)	63.6
Medium Trucks:	57.2	2	54.0		46.5		55	2	61.4	1	61.4
Heavy Trucks:	58.5	5	55.2		51.8		56	.4	62.6	6	62.7
Vehicle Noise:	65.2	2	63.3		61.3		60	.2	67.2	2	67.4
Centerline Distant	ce to Noise Col	ntour (in feet	)								
				70 0	dBA	65	dBA	6	60 dBA	55	dBA
			Ldn:	3	2	7	0		150	З	323
		С	NEL:	3	4	7	3		157	3	338

Scenario: EAPC (2027) Road Name: Wood Rd. Road Segment: s/o Van Buren Bl.

#### Project Name: Arroyo Vista Job Number: 14577

Road Seyme	nt. s/o van bure	П Ы.									
SITE	SPECIFIC INP	PUT DATA				Ν	IOISE	MODE	L INPUT	S	
Highway Data				S	Site Con	ditions	(Hard :	= 10, So	oft = 15)		
Average Daily	Traffic (Adt): 13	3,877 vehicles						Autos:	15		
Peak Hour	Percentage:	8.46%			Mee	dium Tru	ucks (2	Axles):	15		
Peak H	lour Volume: 1	,174 vehicles			Hea	avy Truo	cks (3+	Axles):	15		
Ve	hicle Speed:	40 mph		ľ	/ehicle II	<i>lix</i>					
Near/Far La	ne Distance:	36 feet		-	Vehi	cleType	,	Day	Evening	Night	Daily
Site Data						ŀ	Autos:	75.5%	14.0%	10.5%	97.42%
Ba	rrier Height:	0.0 feet			Me	edium Ti	rucks:	48.9%	2.2%	48.9%	1.84%
Barrier Type (0-W	/all, 1-Berm):	0.0			H	leavy Ti	rucks:	47.3%	5.4%	47.3%	0.74%
Centerline Di	st. to Barrier:	50.0 feet		٨	loise So	urce El	evatio	ns (in fe	eet)		
Centerline Dist.	to Observer:	50.0 feet				Auto	s: C	.000			
Barrier Distance	to Observer:	0.0 feet			Mediur	n Truck	s: 2	.297			
Observer Height	(Above Pad):	5.0 feet			Heav	y Truck	s: 8	.006	Grade Ad	justment	: 0.0
	ad Elevation:	0.0 feet					D:		f= = 4)		
Ro	ad Elevation:	0.0 feet		L	ane Equ	livalent	Distal	ice (in i	reet)		
	Road Grade:	0.0%				Auto:	s: 46	5.915			
	Left View:	-90.0 degree	S		Mediur	n Truck	s: 46	5.726			
	Right View:	90.0 degree	S		Heav	y Truck	s: 46	5.744			
FHWA Noise Mod	el Calculations										
VehicleType	REMEL	Traffic Flow	Dista	ance	Finite	Road	Fres	snel	Barrier Att	en Ber	rm Atten
Autos:	66.51	-0.74		0.31		-1.20		-4.65	0.0	000	0.000
Medium Trucks:	77.72	-17.98		0.34	Ļ	-1.20		-4.87	0.0	000	0.000
Heavy Trucks:	82.99	-21.94		0.34	ļ	-1.20		-5.43	0.0	000	0.000
Unmitigated Noise	e Levels (withou	ut Topo and I	barrier	atten	uation)					-1	
VehicleType	Leq Peak Hour	Leq Day		Leq Ev	rening	Leq	Night		Ldn	C	NEL
Autos:	64.9		63.6		62.3		56	.3	64.7	7	65.3
Medium Trucks:	58.9	5	55.7		48.2		57	.0	63.´	1	63.2
Heavy Trucks:	60.2	5 5	56.9		53.5		58	.1	64.3	3	64.4
Vehicle Noise:	66.9	) 6	65.0		63.0		62	.0	68.9	9	69.2
Centerline Distant	ce to Noise Con	tour (in feet)									
				70 a	IBA	65	dBA	E	60 dBA	55	dBA
		L	_dn:	42	2	9	1		195	4	20
		CN	IEL:	44	1	9	5		204	4	39

Scenario: EAPC (2027) Road Name: Trautwein Rd./Cole Av. Road Segment: n/o Van Buren Bl. Project Name: Arroyo Vista Job Number: 14577

i toda oogiiio	na nyo van Ban										
SITE	SPECIFIC IN	PUT DATA				]	NOISE	NODE	L INPUT	S	
Highway Data					Site Con	ditions	; (Hard =	10, Sc	oft = 15)		
Average Daily	Traffic (Adt): 1	9,764 vehicle	S					Autos:	15		
Peak Hour	Percentage:	8.46%			Mee	dium Ti	rucks (2 /	Axles):	15		
Peak H	lour Volume:	1,672 vehicle	S		Hea	avy Tru	ıcks (3+ )	Axles):	15		
Ve	ehicle Speed:	50 mph		-	Vehicle I	/iv					
Near/Far La	ane Distance:	36 feet		-	Venicie i Vehi	cleTvn	۵	Dav	Evenina	Niaht	Daily
Site Data					VOIN	010 1 90	Autos:	75 5%	14.0%	10.5%	97 42%
		0.0.6			Me	dium T	rucks:	48.9%	2.2%	48.9%	1 84%
Barrier Tures (0 M	Voll 1 Dorm				F	leavv T	rucks:	47.3%	5.4%	47.3%	0.74%
Barrier Type (0-M	int to Porrior:	0.0 50.0 faat		_		loary .	, aono:	11.070	0.170	11.070	0.1170
Centerline Di	to Observer:	50.0 feet		-	Noise So	urce E	levation	s (in fe	et)		
Certierine Dist.	to Observer.					Auto	os: 0.	000			
Observer Height	(Above Ded):	0.0 feet			Mediur	n Trucl	ks: 2.	297			
	(ADOVE Pau).	5.0 feet			Heav	y Trucl	ks: 8.	006	Grade Ad	justment	t: 0.0
Po Po	au Elevation.	0.0 feet		-	l ane Fou	ıivaler	t Distan	ce (in i	feet)		
RU	Bood Grada:			-	Lune Lyt	Διιτά	ne 16	015			
		0.0%	20		Modiur	n Trucl	73. 40. 78. 46	726			
	Right View:		55		Heav	v Truci	(s. 46. (s <sup>.</sup> 46	744			
	Night view.	90.0 degree	55		ncav.	y much		/ 44			
FHWA Noise Mod	el Calculations										
VehicleType	REMEL	Traffic Flow	Dis	tance	Finite	Road	Fresr	nel	Barrier Att	en Bei	rm Atten
Autos:	70.20	-0.18		0.3	31	-1.20		-4.65	0.0	000	0.000
Medium Trucks:	81.00	-17.41		0.3	34	-1.20		-4.87	0.0	000	0.000
Heavy Trucks:	85.38	-21.37		0.3	34	-1.20		-5.43	0.0	000	0.000
Unmitigated Nois	e Levels (witho	ut Topo and	barrie	er atter	nuation)						
VehicleType	Leq Peak Hour	· Leq Day	/	Leq E	vening	Leq	Night		Ldn	С	NEL
Autos:	69.	1	67.9		66.5		60.5	5	69.0	C	69.6
Medium Trucks:	62.	7	59.6		52.1		60.8	3	67.0	C	67.0
Heavy Trucks:	63.	1	59.8		56.4		61.′	1	67.3	3	67.4
Vehicle Noise:	70.3	8	69.0		67.1		65.6	6	72.0	6	72.9
Centerline Distan	ce to Noise Co	ntour (in feet	)								
				70	dBA	65	dBA	6	60 dBA	55	dBA
			Ldn:	7	74	1	60	- u	346	7	745
		C	NEL:	7	78	1	68		363	7	782

Scenario: EAPC (2027) Road Name: Trautwein Rd./Cole Av. Road Segment: s/o Van Buren Bl. Project Name: Arroyo Vista Job Number: 14577

SITE	SPECIFIC IN	PUT DATA				1	NOISE	MODE	L INPUT	S	
Highway Data					Site Con	ditions	(Hard	= 10, So	oft = 15)		
Average Daily	Traffic (Adt): 1	13,371 vehicle	s					Autos:	15		
Peak Hour	<sup>r</sup> Percentage:	8.46%			Mee	dium Ti	rucks (2	2 Axles):	15		
Peak H	lour Volume:	1,131 vehicle	S		Hea	avy Tru	icks (3-	+ Axles):	15		
Ve	ehicle Speed:	50 mph		-	Vehicle I	<i>lix</i>					
Near/Far La	ane Distance:	36 feet		-	Vehi	cleTyp	e	Day	Evening	Night	Daily
Site Data							Autos:	75.5%	5 14.0%	10.5%	97.42%
Ba	rrier Height:	0.0 feet			Me	edium T	rucks:	48.9%	2.2%	48.9%	1.84%
Barrier Type (0-W	Vall, 1-Berm):	0.0			ŀ	leavy T	rucks:	47.3%	5.4%	47.3%	0.74%
Centerline Di	ist. to Barrier:	50.0 feet		_	Noise So	urce F	lovatio	ns (in f	aat)		
Centerline Dist.	to Observer:	50.0 feet		-	10/30 00						
Barrier Distance	to Observer:	0.0 feet			Modiur	Auic n Truck	/o.	2 207			
Observer Height	(Above Pad):	5.0 feet			Mediur	n nucr	(S. )	2.291	Grade Ad	iustmont	· 0 0
P	ad Elevation:	0.0 feet			Heav	y Truck	(S.	8.006	Grade Au	usuneni	. 0.0
Ro	ad Elevation:	0.0 feet			Lane Equ	ıivalen	t Dista	nce (in	feet)		
	Road Grade:	0.0%				Auto	os: 4	6.915			
	Left View:	-90.0 degre	es		Mediur	n Truck	ks: 4	6.726			
	Right View:	90.0 degre	es		Heav	y Truck	ks: 4	6.744			
ELIMA Noise Med	lal Calavlatian	_									
VehicleType		Traffic Flow	Dia	stanco	Finito	Pood	Ero	spol	Barrior Att	on Bor	m Atton
Venicie rype Autos:	70.20		Dis			-1 20	rie-	-1 65			
Medium Trucks:	81.00	-1.07		0.0	24	-1.20		-4.00	0.0	000	0.000
Heavy Trucks:	85.38	-19.11		0.0	24 24	-1.20		-4.07	0.0	000	0.000
Theory Trucks.	00.00	-20.07		0.0	74	-1.20		-0.40	0.0	,00	0.000
Unmitigated Nois	e Levels (with	out Topo and	barri	er atter	nuation)						
Vehicle Type	Leq Peak Hou	r Leq Day	/	Leq E	vening	Leq	Night		Ldn		NEL 07 0
Autos:	67	.4	66.2		64.8		58	3.8	67.3	3	67.9
Medium Trucks:	61	.0	57.9		50.4		59	9.1	65.3	3	65.3
Heavy Trucks:	61	.4	58.1		54.7		59	9.4	65.6	5	65.7
Vehicle Noise:	69	.1	67.3		65.4		63	3.9	70.9	9	71.2
Centerline Distan	ce to Noise Co	ontour (in feet	)								
				70	dBA	65	dBA	e	60 dBA	55	dBA
			Ldn:	5	57	1	24		266	5	74
		С	NEL:	6	60	1	30		280	6	03

Scenario: EAPC (2027) Road Name: Victoria Av. Road Segment: w/o Van Buren Bl.

i tead begine		IT DI.								
SITE	SPECIFIC INP	UT DATA			Ν	OISE N	ЛОDE	L INPUTS	S	
Highway Data				Site Con	ditions (	(Hard =	10, Sc	oft = 15)		
Average Daily	Traffic (Adt): 10,	200 vehicles					Autos:	15		
Peak Hour	Percentage: 8	8.46%		Me	dium Tru	icks (2 A	Axles):	15		
Peak F	lour Volume:	863 vehicles		He	avy Truc	:ks (3+ A	Axles):	15		
Ve	hicle Speed:	45 mph		Vehicle I	Mix					
Near/Far La	ne Distance:	12 feet		Veh	icleType		Day	Evening	Night	Daily
Site Data					A	utos:	75.5%	14.0%	10.5%	97.42%
Ba	rrier Heiaht:	0.0 feet		Me	ədium Tr	ucks:	48.9%	2.2%	48.9%	1.84%
Barrier Type (0-N	/all, 1-Berm):	0.0		ŀ	<del>l</del> eavy Tr	ucks:	47.3%	5.4%	47.3%	0.74%
Centerline Di	st. to Barrier:	37.0 feet		Noise Sc	urce Ele	avation	s (in fa	(at)		
Centerline Dist.	to Observer:	37.0 feet		Noise St						
Barrier Distance	to Observer:	0.0 feet		Mediu	n Trucks	$\sim 2$	297			
Observer Height	(Above Pad):	5.0 feet		Heav	w Trucks	s 80	206	Grade Ad	iustment	: 0.0
P	ad Elevation:	0.0 feet			y maone	. 0				
Ro	ad Elevation:	0.0 feet		Lane Eq	uivalent	Distand	ce (in f	feet)		
	Road Grade:	0.0%			Autos	s: 36.	851			
	Left View:	-90.0 degrees	6	Mediu	n Trucks	s: 36.	610			
	Right View:	90.0 degrees	5	Heav	y Trucks	s: 36.	634			
FHWA Noise Mod	el Calculations									
VehicleType	REMEL T	raffic Flow	Distance	Finite	Road	Fresn	el	Barrier Atte	en Ber	m Atten
Autos:	68.46	-2.59	1	.88	-1.20		-4.56	0.0	000	0.000
Medium Trucks:	79.45	-19.83	1	.93	-1.20		-4.87	0.0	000	0.000
Heavy Trucks:	84.25	-23.79	1	.92	-1.20		-5.61	0.0	000	0.000
Unmitigated Noise	e Levels (withou	t Topo and b	arrier atte	enuation)						
VehicleType	Leq Peak Hour	Leq Day	Leq	Evening	Leq I	Vight		Ldn	Cl	NEL
Autos:	66.6	6	5.3	64.0		57.9	)	66.4	ł	67.0
Medium Trucks:	60.3	5	7.2	49.7		58.4	ŀ	64.6	6	64.6
Heavy Trucks:	61.2	5	7.9	54.5		59.1		65.3	3	65.4
Vehicle Noise:	68.4	6	6.5	64.6		63.3	3	70.3	3	70.6
Centerline Distan	ce to Noise Cont	tour (in feet)					1			
			70	) dBA	65 c	dBA	6	0 dBA	55	dBA
		L	dn:	39	8	3		179	3	85
		CN	EL:	40	8	7		187	4	-04

Scenario: EAPC (2027) Road Name: Victoria Av. Road Segment: e/o Van Buren BI.

Noad Oegine		IT DI.								
SITE	SPECIFIC INP	UT DATA			Ν	IOISE I	MODE	L INPUT	S	
Highway Data				Site Cor	ditions	(Hard =	= 10, So	oft = 15)		
Average Daily	Traffic (Adt): 5	,867 vehicles					Autos:	15		
Peak Hour	Percentage:	8.46%		Me	dium Tr	ucks (2	Axles):	15		
Peak H	lour Volume:	496 vehicles		He	avy Tru	cks (3+	Axles):	15		
Ve	hicle Speed:	40 mph		Vehicle	Mix					
Near/Far La	ne Distance:	12 feet		Veh	icleType	9	Day	Evening	Night	Daily
Site Data					/	Autos:	75.5%	14.0%	10.5%	97.42%
Ba	rrier Heiaht:	0.0 feet		M	edium T	rucks:	48.9%	2.2%	48.9%	1.84%
Barrier Type (0-W	/all, 1-Berm):	0.0			Heavy T	rucks:	47.3%	5.4%	47.3%	0.74%
Centerline Di	st. to Barrier:	37.0 feet		Noice S	ouroo E	lovation	o (in f			
Centerline Dist.	to Observer:	37.0 feet		NOISE S				el)		
Barrier Distance	to Observer:	0.0 feet		Madiu	AUIO m Truck	vs. 0.	207			
Observer Height	(Above Pad):	5.0 feet		Hoo	ni Truck	ιδ. Ζ. Γοι Ο	006	Grade Ad	iustment	. 0 0
P	ad Elevation:	0.0 feet		пеа	y Huck	.5. 0.	.000	Olade Au	usimeni	. 0.0
Ro	ad Elevation:	0.0 feet		Lane Eq	uivalen	t Distan	ce (in i	feet)		
	Road Grade:	0.0%			Auto	s: 36	.851			
	Left View:	-90.0 degrees	6	Mediu	m Truck	:s: 36	.610			
	Right View:	90.0 degrees	6	Hear	/y Truck	:s: 36	.634			
FHWA Noise Mod	el Calculations									
VehicleType	REMEL 7	Traffic Flow	Distance	Finite	Road	Fres	nel	Barrier Att	en Ber	m Atten
Autos:	66.51	-4.48	1	.88	-1.20		-4.56	0.0	000	0.000
Medium Trucks:	77.72	-21.72	1	.93	-1.20		-4.87	0.0	000	0.000
Heavy Trucks:	82.99	-25.68	1	.92	-1.20		-5.61	0.0	000	0.000
Unmitigated Nois	e Levels (withou	ıt Topo and b	arrier atte	enuation)					_	
VehicleType	Leq Peak Hour	Leq Day	Leq	Evening	Leq	Night		Ldn	C	NEL
Autos:	62.7	6	1.4	60.1		54.	1	62.5	5	63.2
Medium Trucks:	56.7	5	3.6	46.1		54.	8	61.0	)	61.0
Heavy Trucks:	58.0	5	4.7	51.3		56.	0	62.2	2	62.3
Vehicle Noise:	64.7	6	2.8	60.8		59.	8	66.7	7	67.0
Centerline Distan	ce to Noise Con	tour (in feet)								
			70	0 dBA	65	dBA	e	60 dBA	55	dBA
		L	dn:	22	2	48		104	2	223
		CN	EL:	23	23 50 108				2	234

Scenario: EAPC (2027) Road Name: Van Buren Bl. Road Segment: w/o Washington St.

#### Project Name: Arroyo Vista Job Number: 14577

		- <u>-</u>									
SITE	SPECIFIC IN	IPUT DATA				N	DISE	MODE	L INPUT	S	
Highway Data					Site Con	ditions (	Hard =	= 10, So	oft = 15)		
Average Daily	Traffic (Adt):	33,003 vehicle	s					Autos:	15		
Peak Hour	· Percentage:	8.46%			Me	dium Tru	cks (2	Axles):	15		
Peak H	lour Volume:	2,792 vehicle	s		He	avy Trucl	ks (3+	Axles):	15		
Ve	hicle Speed:	50 mph		_	Vohiclo I	Mir					
Near/Far La	ne Distance:	54 feet			Veh	icleTvpe		Dav	Evenina	Niaht	Dailv
Site Data						A	utos:	75.5%	14.0%	10.5%	97.42%
Ba	rrior Hoight:	0.0 foot			Me	ədium Tru	icks:	48.9%	5 2.2%	48.9%	1.84%
Barrier Type (0-M	/all_1_Berm) <sup>.</sup>				ŀ	leavy Tru	ıcks:	47.3%	5.4%	47.3%	0.74%
Centerline Di	ist to Barrier:	76.0 feet									
Centerline Dist	to Observer:	76.0 feet		1	Noise Sc	ource Ele	vatio	ns (in fe	eet)		
Barrier Distance	to Observer:	0.0 feet				Autos.	: 0	.000			
Observer Height	(Above Pad):	5.0 feet			Mediui	n Trucks.	: 2	.297			
Doserver Height	ad Elevation:	0.0 feet			Heav	y Trucks.	: 8	.006	Grade Ad	justment	: 0.0
Ro	ad Elevation. ad Elevation:				Lane Eq	uivalent	Distar	ice (in i	feet)		
NO	Road Grade:	0.0%				Autos	· 71	218			
	Left View:	-90.0 degre	00		Mediu	n Trucks	· 71	094			
	Right View:	90.0 degre	63 65		Heav	v Trucks	. 71	106			
	ragine view.	Solo degre	00		riour	y maone.					
FHWA Noise Mod	el Calculation	S									
VehicleType	REMEL	Traffic Flow	Dis	stance	Finite	Road	Fres	nel	Barrier Att	en Ber	rm Atten
Autos:	70.20	2.05		-2.4	1	-1.20		-4.73	0.0	000	0.000
Medium Trucks:	81.00	-15.19		-2.40	0	-1.20		-4.88	0.0	000	0.000
Heavy Trucks:	85.38	-19.14		-2.40	0	-1.20		-5.25	0.0	000	0.000
Unmitigated Nois	e Levels (with	out Topo and	barrie	er atten	uation)						
VehicleType	Leq Peak Hou	ur Leq Day	/	Leg E	vening	Leq N	light		Ldn	C	NEL
Autos:	68	3.6	67.4		66.1		60.	0	68.	5	69.1
Medium Trucks:	62	2.2	59.0		51.5		60.	3	66.	5	66.5
Heavy Trucks:	62	2.6	59.3		55.9		60.	6	66.8	3	66.9
Vehicle Noise:	70	).3	68.5		66.6		65.	1	72.1	1	72.4
Centerline Distan	ce to Noise Co	ontour (in feet	t)								
L		•	-	70 c	dBA	65 d	BA	e	60 dBA	55	dBA
			Ldn:	10	)5	22	6		487	1,	048
		С	NEL:	11	0	23	7		511	1,	101

Scenario: EAPC (2027) Road Name: Van Buren Bl. Road Segment: e/o Washington St.

i tead oogino											
SITE	SPECIFIC IN	IPUT DATA				Ν	OISE	MODE	L INPUT	S	
Highway Data				S	Site Conc	litions	(Hard	= 10, So	oft = 15)		
Average Daily	Traffic (Adt):	41,475 vehicle	s					Autos:	15		
Peak Hour	Percentage:	8.46%			Mea	lium Tru	ıcks (2	Axles):	15		
Peak H	our Volume:	3,509 vehicles	s		Hea	vy Truc	:ks (3+	Axles):	15		
Ve	hicle Speed:	50 mph			/ohiclo M	liv					
Near/Far La	ne Distance:	54 feet			Vehic	leTvne		Dav	Evenina	Niaht	Daily
Site Data					Vonic		lutos'	75.5%	14.0%	10.5%	97 42%
Data Data		0.0 faat			Me	, dium Tr	ucks:	48.9%	2.2%	48.9%	1.84%
Barrior Tupo (0 M	Voll 1 Porm):				H	eavv Tr	ucks:	47.3%	5.4%	47.3%	0.74%
Contorlino Di	ist to Parriar:	0.0 76.0 foot							0.170	11.070	011 170
Contorlino Dist	to Observer:	76.0 feet		Λ	loise So	urce Ele	evatio	ns (in fe	eet)		
Barrier Distance	to Observer:					Autos	s: (	.000			
Observer Height	(Above Pad):	5.0 foot			Medium	n Trucks	s: 2	.297			
Diserver Height	(ADOVE Fau).	0.0 feet			Heavy	r Trucks	s: 8	6.006	Grade Ad	justment	: 0.0
Ro	ad Elevation.			L	ane Equ	ivalent	Dista	nce (in	feet)		
NO	Road Grade:	0.0 1001		_		Autos	2·010	218			
	Left View:	-90.0 degree	20		Medium	Trucks	,. , 	094			
	Right View:	-90.0 degree			Heavy	r Trucks	5: 7'	106			
	rught view.	Solo degree	00		, loary	i i done					
FHWA Noise Mod	el Calculation	S									
VehicleType	REMEL	Traffic Flow	Dis	stance	Finite F	Road	Fres	snel	Barrier Att	en Bei	rm Atten
Autos:	70.20	3.04		-2.41	l	-1.20		-4.73	0.0	000	0.000
Medium Trucks:	81.00	-14.20		-2.40	)	-1.20		-4.88	0.0	000	0.000
Heavy Trucks:	85.38	-18.15		-2.40	)	-1.20		-5.25	0.0	000	0.000
Unmitigated Nois	e Levels (with	out Topo and	barrie	er atteni	uation)						
VehicleType	Leq Peak Hou	ur Leq Day	/	Leq Ev	, vening	Leq l	Night		Ldn	С	NEL
Autos:	69	9.6	68.4		67.0		61	.0	69.5	5	70.1
Medium Trucks:	63	3.2	60.0		52.5		61	.3	67.5	5	67.5
Heavy Trucks:	63	3.6	60.3		56.9		61	.6	67.8	3	67.9
Vehicle Noise:	71	.3	69.5		67.6		66	.1	73.2	1	73.4
Centerline Distan	ce to Noise Co	ontour (in feet	)								
				70 d	IBA	65 d	dBA	e	60 dBA	55	dBA
			Ldn:	12	2	26	63	·	567	1,	221
		Ci	NEL:	12	128 276			595 1,282			

Scenario:	EAPC (2027)
Road Name:	Van Buren Bl.
Road Segment:	w/o Chicago Av./Alta Cresta Av.

Project Name: Arroyo Vista Job Number: 14577

SITE SPECIFIC IN	IPUT DATA		NOISE MODEL INPUTS							
Highway Data			Site Conditions (Hard = 10, Soft = 15)							
Average Daily Traffic (Adt):	35,880 vehicles		Autos: 15							
Peak Hour Percentage:	8.46%		Medium Trucks (2 Axles): 15							
Peak Hour Volume:	3,035 vehicles		Heavy	Trucks (3+	Axles):	15				
Vehicle Speed:	50 mph		Vohiclo Mix							
Near/Far Lane Distance:	54 feet	_	Vehicle	Type	Dav	Evenina	Niaht	Daily		
Site Data			Vernole	Autos:	75.5%	5 14.0%	10.5%	97.42%		
Barrier Height:	0.0 feet		Mediu	m Trucks:	48.9%	2.2%	48.9%	1.84%		
Barrier Type (0-Wall, 1-Berm):	0.0		Hea	/y Trucks:	47.3%	5.4%	47.3%	0.74%		
Centerline Dist. to Barrier:	76.0 feet		Noise Source Elevations (in feet)							
Centerline Dist. to Observer:	76.0 feet									
Barrier Distance to Observer:	0.0 feet		, Medium T	rucks:	297					
Observer Height (Above Pad):	5.0 feet		Heavy T	ucks: 8	3 006	Grade Adi	ustment:	0.0		
Pad Elevation:	0.0 feet	_	Theavy T							
Road Elevation:	0.0 feet	1	Lane Equiva	lent Dista	nce (in	feet)				
Road Grade:	0.0%		1	Autos: 7	1.218					
Left View:	Left View: -90.0 degrees				Medium Trucks: 71.094					
Right View:	90.0 degrees		Heavy I	rucks: 7	1.106					
FHWA Noise Model Calculation	S									
VehicleType REMEL	Traffic Flow D	Distance	Finite Roa	ad Fre	snel	Barrier Atte	en Beri	n Atten		
Autos: 70.20	2.41	-2.4	1 -1	.20	-4.73	0.0	00	0.000		
Medium Trucks: 81.00	-14.82	-2.4	40 -1.20		-4.88	0.000		0.000		
Heavy Trucks: 85.38	-18.78	-2.4	40 -1.20		-5.25	0.000		0.000		
Unmitigated Noise Levels (with	out Topo and bar	rier atten	uation)							
VehicleType Leq Peak Hou	ur Leq Day	Leq E	vening	Leq Night		Ldn	CN	IEL		
Autos: 69	0.0 67.7	7	66.4	60	.4	68.8		69.4		
Medium Trucks: 62	2.6 59.4	1	51.9	60.7		66.8		66.9		
Heavy Trucks: 63	8.0 59.7	7	56.3	60.9		67.1		67.2		
Vehicle Noise: 70	0.7 68.9	)	67.0	65	.4	72.5		72.8		
Centerline Distance to Noise Co	ontour (in feet)									
		70 0	dBA	65 dBA	6	60 dBA	55	dBA		
	Ldn	: <b>1</b> 1	11	239		514	1,1	108		
	CNEL	: <b>1</b> 1	16	251		540	1,*	164		
Scenario:	EAPC (2027)									
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Road Name:	Van Buren Bl.									
Road Segment:	e/o Chicago Av./Alta Cresta Av.									

Project Name: Arroyo Vista Job Number: 14577

SITE	SITE SPECIFIC INPUT DATA						NOISE MODEL INPUTS							
Highway Data					Site Con	litions (Hard = 10, Soft = 15)								
Average Daily	Traffic (Adt):	34,913 vehicles	s					Autos:	15					
Peak Hour	Percentage:	8.46%			Me	dium T	rucks (2	Axles):	15					
Peak H	lour Volume:	2,954 vehicles	s		He	avy Tri	ucks (3+	Axles):	15					
Ve	hicle Speed:	50 mph			Vohicla									
Near/Far La	ne Distance:	54 feet			Venicie i Vehi	icleTvn	e	Dav	Evenina	Niaht	Daily			
Site Data						0.0170	Autos:	75.5%	5 14.0%	10.5%	97.42%			
Ba	rrier Height	0.0 feet			Me	edium	Trucks:	48.9%	2.2%	48.9%	1.84%			
Barrier Type (0-W	Vall, 1-Berm):	0.0			ŀ	leavy	Trucks:	47.3%	5.4%	47.3%	0.74%			
Centerline Di	ist. to Barrier:	76.0 feet			Noise So	ource E	levatio	ns (in fe	eet)					
Centerline Dist.	to Observer:	76.0 feet		-		Aut	05. 0	000	,					
Barrier Distance	to Observer:	0.0 feet			Mediur	n Truc	ks: 2	.297						
Observer Height	(Above Pad):	5.0 feet			Heav	v Truc	ks: 8	.006	Grade Ad	justment.	0.0			
P	ad Elevation:	0.0 feet		_										
Ro	ad Elevation:	0.0 feet		1	Lane Equ	uvaler	nt Distar	ice (in i	feet)					
Road Grade: 0.0%						Aut	os: 71	.218						
Left View: -90.0 degrees					Mediur	n Truc	KS: /1	.094						
	Right View:	90.0 degree	es		Heav	y Truc	KS: 71	.106						
FHWA Noise Mod	el Calculation	S												
VehicleType	REMEL	Traffic Flow	Dis	stance	Finite	Road	Fres	nel	Barrier Att	en Ber	m Atten			
Autos:	70.20	2.29		-2.4	1	-1.20		-4.73	0.0	000	0.000			
Medium Trucks:	81.00	-14.94		-2.40	0	-1.20		-4.88	0.0	000	0.000			
Heavy Trucks:	85.38	-18.90		-2.40	0	-1.20		-5.25	0.0	000	0.000			
Unmitigated Nois	e Levels (with	out Topo and	barrie	er atten	uation)									
VehicleType	Leq Peak Hou	ur Leq Day	/	Leq E	vening	Leo	q Night		Ldn	Cl	VEL			
Autos:	68	3.9	67.6		66.3		60.	3	68.7	7	69.3			
Medium Trucks:	62	2.5	59.3		51.8		60.	5	66.7	7	66.7			
Heavy Trucks:	62	2.9	59.6		56.2		60.	8	67.0	)	67.1			
Vehicle Noise:	70	).6	68.8		66.8		65	3	72.3	3	72.7			
Centerline Distan	ce to Noise Co	ontour (in feet	)											
				70 c	dBA	65	5 dBA	6	60 dBA	55	dBA			
			Ldn:	10	)9	2	234		505	1,0	288			
		Cl	NEL:	11	4	2	246		530	1,	143			

Scenario: EAPC (2027) Road Name: Van Buren Bl. Road Segment: e/o Wood Rd.

#### Project Name: Arroyo Vista Job Number: 14577

i toud oogiiio		а.											
SITE	SPECIFIC IN	PUT DATA				[	NOISE	MODE	EL INPUT	S			
Highway Data					Site Con	ditions	G (Hard	= 10, S	oft = 15)				
Average Daily	Traffic (Adt): 3	2,752 vehicles	5					Autos.	15				
Peak Hour	Percentage:	8.46%			Med	dium T	rucks (2	Axles)	: 15				
Peak H	our Volume:	2,771 vehicles	5		Heavy Trucks (3+ Axles): 15								
Ve	ehicle Speed:	50 mph		_	Vahiala I	<i>liv</i>							
Near/Far La	ane Distance:	54 feet		-	Venicie ii Vohi		0	Dav	Evoning	Night	Daily		
Site Data					Vern	летур		75 50		10.50			
Site Data													
Ba	rrier Height:	0.0 feet			Mealum Trucks: 48.9% 2.2% 48.9% 1								
Barrier Type (0-W	Vall, 1-Berm):	0.0			Heavy Trucks: 47.3% 5.4% 47.3% 0.74%								
Centerline Di	ist. to Barrier:	76.0 feet			Noise So	urce E	levatio	ns (in f	eet)				
Centerline Dist.	to Observer:	76.0 feet				Auto	os: (	000.					
Barrier Distance	to Observer:	0.0 feet			Medium Trucks: 2.297								
Observer Height	(Above Pad):	5.0 feet			Heavy Trucks: 8.006 Grade Adjustment: 0.0								
	_	l ano Equ	uivalor	t Dista	nco (in	foot)							
RO	_	Lane Lyi			100 (III	ieel)							
		Modiur	AUIC n Truci	JS. T	001								
	Leit View.	-90.0 degree	-5		Hoav	v Truci	ns. 1 ke: 7	1.094					
	Right view.	90.0 degree	5		neav.	y much	NG. 1						
FHWA Noise Mod	el Calculations	;											
VehicleType	REMEL	Traffic Flow	Dista	ance	Finite	Road	Fres	snel	Barrier At	ten Be	rm Atten		
Autos:	70.20	2.02		-2.4	.1	-1.20		-4.73	0.	000	0.000		
Medium Trucks:	81.00	-15.22		-2.4	0	-1.20		-4.88	0.	000	0.000		
Heavy Trucks:	85.38	-19.18		-2.4	0	-1.20		-5.25	0.	000	0.000		
Unmitigated Nois	e Levels (witho	out Topo and	barrier	r atter	nuation)								
VehicleType	Leg Peak Hour	r Leq Day	,	Leg E	vening	Leg	Night		Ldn	0	NEL		
Autos:	. 68.	6	67.3		66.0		60	.0	68.	4	69.1		
Medium Trucks:	62.	2	59.0		51.5		60	.3	66.	4	66.5		
Heavy Trucks:	62.	6	59.3		55.9		60	.5	66.	7	66.8		
Vehicle Noise:	70.	3	68.5		66.6		65	.0	72.	1	72.4		
Centerline Distan	ce to Noise Co	ntour (in feet	)										
				70	dBA	65	dBA		60 dBA	58	5 dBA		
			Ldn:	1(	104 225				484 1,043				
		Cl	VEL:	1	10	2	236		508	1	,095		

Scenario:	EAPC (2027)
Road Name:	Van Buren Bl.
Road Segment:	e/o Trautwein Rd./Cole Av.

Project Name: Arroyo Vista Job Number: 14577

SITE	SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS							
Highway Data				S	Site Conditions (Hard = 10, Soft = 15)								
Average Daily	Traffic (Adt): 3	0,041 vehicles					Autos.	15					
Peak Hour	Percentage:	8.46%			Medium	Trucks (	2 Axles).	15					
Peak H	lour Volume:	2,541 vehicles			Heavy Trucks (3+ Axles): 15								
Ve	hicle Speed:	50 mph		1	/ohiclo Mix								
Near/Far La	ane Distance:	54 feet			VehicleT	vne	Dav	Evenina	Niaht	Daily			
Site Data					10110101	Autos.	75.5%	6 14.0%	10.5%	97.42%			
Ba	rrier Heiaht:	0.0 feet			Mediur	n Trucks.	48.9%	<i>6</i> 2.2%	48.9%	1.84%			
Barrier Type (0-V	Vall, 1-Berm):	0.0			Heav	y Trucks.	47.3%	<b>5.4%</b>	47.3%	0.74%			
Centerline Di	ist. to Barrier:	76.0 feet		^	Noise Source Elevations (in feet)								
Centerline Dist.	to Observer:	76.0 feet			A	utos:	0.000	,					
Barrier Distance	to Observer:	0.0 feet			Medium Tri	icks:	2 297						
Observer Height	(Above Pad):	5.0 feet			Heavy Trucks: 8.006 Grade Adjustment: 0.0								
P	ad Elevation:	0.0 feet					0.000						
Ro	Road Elevation: 0.0 feet						ance (in	feet)					
		A	utos:	71.218									
		Medium Tr	icks:	71.094									
	Right View:	90.0 degree	S		Heavy Tr	icks:	71.106						
FHWA Noise Mod	el Calculations	;											
VehicleType	REMEL	Traffic Flow	Dista	nce	Finite Roa	d Fre	esnel	Barrier Atte	en Ber	m Atten			
Autos:	70.20	1.64		-2.41	-1.	20	-4.73	0.0	00	0.000			
Medium Trucks:	81.00	-15.60		-2.40	) -1.	20	-4.88	0.0	00	0.000			
Heavy Trucks:	85.38	-19.55		-2.40	) -1.	20	-5.25	0.0	00	0.000			
Unmitigated Nois	e Levels (witho	out Topo and L	barrier a	atten	uation)								
VehicleType	Leq Peak Hou	r Leq Day	L	.eq Ev	vening L	eq Night		Ldn	Cl	VEL			
Autos:	68.	2 6	67.0		65.6	5	9.6	68.0	)	68.7			
Medium Trucks:	61.	8 5	58.6		51.1	5	9.9	66.1		66.1			
Heavy Trucks:	62.	2 5	58.9		55.5	6	0.2	66.4	ŀ	66.5			
Vehicle Noise:	69.	9 6	68.1		66.2	6	4.7	71.7	,	72.0			
Centerline Distan	ce to Noise Co	ntour (in feet)											
				70 a	IBA	65 dBA		60 dBA	55	dBA			
		L	_dn:	98	3	212		457	9	84			
		CN	IEL:	10	3	223		480	1,(	034			

Scenario: EAPC (2027) Road Name: Iris Av. Road Segment: w/o Gamble Av.

#### Project Name: Arroyo Vista Job Number: 14577

SITE	SPECIFIC INF	PUT DATA				١	NOISE	MODE	L INPUT	S			
Highway Data					Site Con	ditions	(Hard =	= 10, So	oft = 15)				
Average Daily	Traffic (Adt):	35 vehicles	5					Autos:	15				
Peak Hour	Percentage:	8.46%			Me	dium Tr	ucks (2	Axles):	15				
Peak F	lour Volume:	3 vehicles	5		Heavy Trucks (3+ Axles): 15								
Ve	hicle Speed:	30 mph		-	Vehicle Mix								
Near/Far La	ne Distance:	12 feet			Veh	icleType	Э	Day	Evening	Night	Daily		
Site Data					Autos: 77.5% 12.9% 9.6% 97								
Ba	rrier Height:	0.0 feet			M	ədium T	rucks:	84.8%	4.9%	10.3%	1.84%		
Barrier Type (0-W	/all, 1-Berm):	0.0			Heavy Trucks: 86.5% 2.7% 10.8% 0.74								
Centerline Di	st. to Barrier:	30.0 feet			Noise Source Elevations (in feet)								
Centerline Dist.	to Observer:	30.0 feet			10/30 00			000					
Barrier Distance	to Observer:	0.0 feet			Autos: 0.000								
Observer Height	(Above Pad):	5.0 feet			Heavy Trucks: 8.006 Grade Adjustment: 0.0								
Pa	ad Elevation:	0.0 feet			neav	y much		.000	Crado / laj	aounon	. 0.0		
Ro	ad Elevation:	0.0 feet			Lane Eq	uivalen	t Distar	ice (in	feet)				
Road Grade: 0.0%						Auto	os: 29	.816					
Left View: -90.0 degrees					Mediu	m Truck	ks: 29	.518					
	Right View:	90.0 degree	s		Heav	y Truck	(s: 29	.547					
FHWA Noise Mod	el Calculations	,											
VehicleType	REMEL	Traffic Flow	Dist	tance	Finite	Road	Fres	nel	Barrier Att	en Ber	m Atten		
Autos:	61.75	-25.48		3.2	6	-1.20		-4.49	0.0	000	0.000		
Medium Trucks:	73.48	-42.71		3.3	3	-1.20		-4.86	0.0	000	0.000		
Heavy Trucks:	79.92	-46.67		3.3	2	-1.20		-5.77	0.0	000	0.000		
Unmitigated Noise	e Levels (witho	ut Topo and I	barrie	r atten	uation)								
VehicleType	Leq Peak Hour	· Leq Day		Leq E	vening	Leq	Night		Ldn	C	NEL		
Autos:	38.3	3 3	37.2		35.4		29.	3	38.0	)	38.6		
Medium Trucks:	32.9	9 :	32.1		25.8		24.	2	32.7	7	32.9		
Heavy Trucks:	35.4	4 :	34.7		25.6		26.	9	35.2	2	35.4		
Vehicle Noise:	40.9	9 :	39.9		36.2		32.	1	40.6	6	41.0		
Centerline Distant	ce to Noise Col	ntour (in feet)						T					
				70 (	dBA	65	dBA	6	60 dBA	55	dBA		
			Ldn:	(	0 1			2 3		3			
		CN	IEL:	(	)	1			2 3				

Scenal Road Nan Road Segme	rio: EAPC (2027 ne: Iris Av. ent: w/o Chicago			Project Job N	Name: umber:	Arroyo 14577	Vista						
	SDECIEIC IN					N		MODE		5			
Highway Data	JELUIEIU III	IUIDAIA		s	Site Conditions (Hard = 10, Soft = 15)								
Average Daily	Traffic (Adt):	397 vehicles											
Peak Hou	r Percentage:	8 46%	5		Me	dium Tri	ıcks (2	Axles)	15				
Peak F	Hour Volume:	34 vehicles		He	avv Truc	cks (3+	Axles):	15					
Ve	hicle Speed:	30 mph											
Near/Far La	ane Distance:	12 feet		V	Vehicle Mix								
Sita Data	e Data						Nutoo	Day	Evening		Daily		
Sile Dala					1.1	r Iedium Ti	uios. rucks:	84.8%	4 9%	9.0%	97.4270 1.84%		
Barriar Tuna (0 V	Noll 1 Borm\:	0.0 feet			101	Heavy Tr	ucks: rucks:	86.5%	2.7%	10.3%	0.74%		
Contorlino D	ist to Barrier:	0.0 20.0 foot						001070	2.1.70	101070	0.1.170		
Centerline Dist	N	Noise Source Elevations (in feet)											
Barrier Distance		Autos: 0.000											
Observer Height (Above Pad): 5.0 feet					Mediu	m Trucks	s: 2	.297					
Pad Elevation: 0.0 feet					Hea	vy Trucks	s: 8	.006	Grade Ad	justment	: 0.0		
Road Elevation: 0.0 feet					ane Eq	uivalent	Distar	nce (in f	feet)				
	Road Grade:	0.0%				Autos	s: 29	9.816	-				
	Left View:	-90.0 degree	es		Mediu	m Trucks	s: 29	9.518					
	Right View:	90.0 degree	es		Hear	vy Trucks	s: 29	9.547					
FHWA Noise Mod	lel Calculations	;											
VehicleType	REMEL	Traffic Flow	Dis	stance	e Finite Road Fresnel Barrier Atten Berm A								
Autos:	61.75	-14.93		3.26	I.	-1.20		-4.49	0.0	000	0.000		
Medium Trucks:	73.48	-32.17		3.33		-1.20		-4.86	0.0	000	0.000		
Heavy Trucks:	79.92	-36.12		3.32		-1.20		-5.77	0.0	000	0.000		
Unmitigated Nois	e Levels (witho	out Topo and	barrie	er attenu	uation)								
VehicleType	Leq Peak Hou	r Leq Day	,	Leq Ev	ening	Leq	Night		Ldn	Cl	NEL		
Autos:	48.	9 4	47.7		45.9		39	.9	48.5	5	49.1		
Medium Trucks:	43.	4 4	42.7		36.3		34	.8	43.2	2	43.4		
Heavy Trucks:	45.	9 4	45.2		36.2		37	.4	45.8	3	45.9		
Vehicle Noise: 51.4 50.4					46.8		42	.6	51.1	1	51.6		
Centerline Distance to Noise Contour (in feet)													
7					BA	65 0	dBA	6	60 dBA	55 dBA			
			Ldn:	2		2	4		8		17		
		CNEL:					2 4 8 1						

Scena Road Nar Road Segme	rio: EAPC (202 ne: Iris Av. ent: e/o Chicago	a Av.			Project Job N	Name: lumber:	Arroyo 14577	Vista					
SITE	SPECIFIC IN	PUT DATA				N	IOISE	MODE	L INPUT	S			
Highway Data				S	ite Con	ditions	(Hard =	= 10, Sc	oft = 15)				
Average Dailv	Traffic (Adt):	154 vehicles						Autos:	15				
Peak Hou	Percentage:	8.46%			Ме	dium Tru	ucks (2	Axles):	15				
Peak I	Hour Volume:	13 vehicles			He	avy Truc	cks (3+	Axles):	15				
Ve	ehicle Speed:	30 mph		V	obiolo								
Near/Far La	ane Distance:	12 feet		V	Veh	icleType	,	Dav	Evening	Night	Daily		
Site Data						/	Autos:	77.5%	5 12.9%	9.6%	97.42%		
Ba	rrier Height <sup>.</sup>	0.0 feet			Μ	edium Ti	rucks:	84.8%	4.9%	10.3%	1.84%		
Barrier Type (0-V	Vall, 1-Berm):	0.0			I	Heavy Ti	rucks:	86.5%	2.7%	10.8%	0.74%		
Centerline D	ist. to Barrier:	30.0 feet		N	Noise Source Elevations (in feet)								
Centerline Dist.	to Observer:	30.0 feet			Autos: 0 000								
Barrier Distance	to Observer:	0.0 feet			Medium Trucks: 2.297								
Observer Height	(Above Pad):	5.0 feet			Heav	N Truck	s. 2 s. 8	006	Grade Ad	iustment	: 0.0		
F	ad Elevation:	0.0 feet			neur		0. 0	.000					
Road Elevation: 0.0 feet					ane Eq	uivalent	t Distar	nce (in i	feet)				
	Road Grade:	0.0%				Autos	s: 29	.816					
	Left View:	-90.0 degree	S		Mediu	m Truck	s: 29	.518					
	Right View:	90.0 degree	S		Heav	/y Truck	s: 29	.547					
FHWA Noise Mod	lel Calculations	S											
VehicleType	REMEL	Traffic Flow	Dista	nce	Finite	Road	Fres	nel	Barrier Att	en Bei	rm Atten		
Autos:	61.75	-19.04		3.26		-1.20		-4.49	0.0	000	0.000		
Medium Trucks:	73.48	-36.28		3.33		-1.20		-4.86	0.0	000	0.000		
Heavy Trucks:	79.92	-40.24		3.32		-1.20		-5.77	0.0	000	0.000		
Unmitigated Nois	e Levels (with	out Topo and l	barrier	attenu	ation)								
VehicleType	Leq Peak Hou	r Leq Day	L	.eq Eve	ening	Leq	Night		Ldn	С	NEL		
Autos:	44	.8 4	13.6		41.8		35.	.8	44.4	1	45.0		
Medium Trucks:	39	.3 3	38.5		32.2		30.	.6	39.2	1	39.3		
Heavy Trucks:	41	.8 4	11.1		32.1		33.	.3	41.7	7	41.8		
Vehicle Noise:	47	.3 4	46.3		42.7		38.	.5	47.0	)	47.4		
Centerline Distan	ce to Noise Co	ontour (in feet)											
				70 dł	BA	65	dBA	6	60 dBA	55	dBA		
		l	_dn:	1			2		4		9		
		CN	IEL:	1		2	2		4		9		

Scenario: Road Name: Van Buren Bl. Road Segment: n/o Victoria Av.

#### Project Name: Arroyo Vista Job Number: 14577

Roau Seymer	ni. n/o viciona A	v.										
SITE	SPECIFIC INP	UT DATA			N	DISE	NODE	L INPUT	S			
Highway Data				Site Cond	ditions (	Hard =	10, Sc	oft = 15)				
Average Daily	Traffic (Adt): 41,	126 vehicles					Autos:	15				
Peak Hour	Percentage:	8.46%		Medium Trucks (2 Axles): 15								
Peak H	lour Volume: 3,	479 vehicles		Heavy Trucks (3+ Axles): 15								
Ve	hicle Speed:	45 mph	_	Vehicle N	lix							
Near/Far La	ne Distance:	54 feet	-	Vehi	cleType		Day	Evening	Night	Daily		
Site Data					A	utos:	75.5%	14.0%	10.5%	97.42%		
Ba	rrier Height:	0.0 feet		Medium Trucks: 48.9% 2.2% 48.9% 1.						1.84%		
Barrier Type (0-W	/all, 1-Berm):	0.0		Heavy Trucks: 47.3% 5.4% 47.3% 0.74%								
Centerline Di	st. to Barrier:	76.0 feet	-	Noise Source Elevations (in feet)								
Centerline Dist.	to Observer:	76.0 feet	_	10.00 00		· 0	000	,				
Barrier Distance	to Observer:	0.0 feet		Medium Trucks: 2.297								
Observer Height (	(Above Pad):	5.0 feet		Heavy Trucks: 8.006 Grade Adjustment: 0.0								
Pa	ad Elevation:	0.0 feet	_		,							
Roa	ad Elevation:	-	Lane Equ	livalent	Distan	ce (in i	feet)					
	Road Grade:			Autos	: 71.	218						
	Left View:	-90.0 degrees		Mediun	n Trucks	: 71.	094					
	Right View:	90.0 degrees		Heav	y Trucks	: 71.	106					
FHWA Noise Mode	el Calculations											
VehicleType	REMEL T	raffic Flow D	istance	Finite I	Road	Fresr	nel	Barrier Att	en Ber	m Atten		
Autos:	68.46	3.46	-2.4	11	-1.20		-4.73	0.0	000	0.000		
Medium Trucks:	79.45	-13.77	-2.4	10	-1.20		-4.88	0.0	000	0.000		
Heavy Trucks:	84.25	-17.73	-2.4	40	-1.20		-5.25	0.0	000	0.000		
Unmitigated Noise	e Levels (withou	t Topo and barr	rier atter	nuation)			1					
VehicleType	Leq Peak Hour	Leq Day	Leq E	vening	Leq N	light		Ldn	CI	NEL		
Autos:	68.3	67.0		65.7		59.7	7	68.1		68.8		
Medium Trucks:	62.1	58.9		51.4		60.2	2	66.3	3	66.4		
Heavy Trucks:	62.9	59.6		56.2		60.9	9	67.1		67.2		
Vehicle Noise:	70.2	68.3		66.3		65.0	)	72.0	)	72.3		
Centerline Distant	ce to Noise Con	tour (in feet)	T						1			
			70	dBA	65 d	BA	6	60 dBA	55	dBA		
		Ldn:	1	03	22	3		480	1,	034		
		CNEL:	1	08	23	3		503	1,	084		

Scenario: Road Name: Van Buren Bl. Road Segment: s/o Victoria Av.

#### Project Name: Arroyo Vista Job Number: 14577

		· · · · ·											
SITE	SPECIFIC IN	IPUT DATA			NOISE MODEL INPUTS								
Highway Data					Site Conditions (Hard = 10, Soft = 15)								
Average Daily	Traffic (Adt):	51,843 vehicle	s					Autos:	15				
Peak Hour	Percentage:	8.46%			Mee	dium Tru	cks (2	Axles):	15				
Peak H	lour Volume:	4,386 vehicle	S		Heavy Trucks (3+ Axles): 15								
Ve	hicle Speed:	55 mph		,	Vahicla I	<i>liv</i>							
Near/Far La	ne Distance:	54 feet			Vehi	cleTvne		Dav	Evenina	Niaht	Daily		
Site Data						A	utos:	75.5%	14.0%	10.5%	97.42%		
Ba	rrior Hoight:	0.0 foot			Me	dium Tru	ucks:	48.9%	5 2.2%	48.9%	1.84%		
Barrier Type (0-M	/all_1-Berm):				Heavy Trucks: 47.3% 5.4% 47.3% 0.7								
Centerline Di	ist to Barrier	76.0 feet		_									
Centerline Dist	to Observer:	76.0 feet		1	Noise So	urce Ele	vatio	ns (in fe	eet)				
Barrier Distance	to Observer:	0.0 feet				Autos	: C	0.000					
Observer Height	(Above Pad):	5.0 feet			Medium Trucks: 2.297								
Doserver Height	ad Elevation:	0.0 feet			Heavy Trucks: 8.006 Grade Adjustment: 0.0								
- Ro		Lane Equ	uivalent	Distar	nce (in	feet)							
			Autos	· 71	218								
		Mediur	n Trucks	· 71	094								
	Right View:	90.0 degre	63 65		Heav	v Trucks	. 71	106					
	rught view.		00		riour,	y maone							
FHWA Noise Mod	el Calculation	S											
VehicleType	REMEL	Traffic Flow	Dis	tance	Finite	Road	Fres	snel	Barrier Att	en Ber	rm Atten		
Autos:	71.78	3.60		-2.4	1	-1.20		-4.73	0.0	000	0.000		
Medium Trucks:	82.40	-13.64		-2.4	0	-1.20		-4.88	0.0	000	0.000		
Heavy Trucks:	86.40	-17.60		-2.4	0	-1.20		-5.25	0.0	000	0.000		
Unmitigated Nois	e Levels (with	out Topo and	barrie	er atten	uation)								
VehicleType	Leq Peak Hou	ur Leq Day	/	Leq E	vening	Leq N	light		Ldn	C	NEL		
Autos:	71	.8	70.5		69.2		63	.2	71.6	6	72.2		
Medium Trucks:	65	5.2	62.0		54.5		63	.2	69.4	4	69.5		
Heavy Trucks:	65	5.2	61.9		58.5		63	.1	69.3	3	69.4		
Vehicle Noise: 73.4 71.6					69.7		68	.0	75.0	C	75.3		
Centerline Distan	ce to Noise Co	ontour (in feet	t)										
		•	·	70 (	dBA	65 d	BA	ť	60 dBA	55	dBA		
			Ldn:	16	64	35	3		762	1,	641		
		C	NEL:	17	73	37	2		801	1,	726		
										,			

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Scen	arın.
000//	uno.

Road Name: Mockingbird Canyon Rd. Road Segment: s/o Van Buren Bl. Project Name: Arroyo Vista Job Number: 14577

<u></u>													
SITE	SPECIFIC IN	PUT DATA			NOISE MODEL INPUTS								
Highway Data					Site Con	ditions	; (Hard =	10, Sc	oft = 15)				
Average Daily	Traffic (Adt): 3	5,727 vehicle	s					Autos:	15				
Peak Hour	Percentage:	8.46%			Mee	dium Ti	rucks (2 /	Axles):	15				
Peak H	lour Volume:	3,023 vehicle	s		Heavy Trucks (3+ Axles): 15								
Ve	ehicle Speed:	55 mph			Vohiclo I	/iv							
Near/Far La	ane Distance:	12 feet			Venicie i Vehi	cleTvn	e	Dav	Evenina	Niaht	Daily		
Site Data					Voli	oloryp	Autos:	75 5%	14.0%	10.5%	97 42%		
Data Data	wier Usight	0.0 feet			Me	edium T	rucks:	48.9%	2.2%	48.9%	1.84%		
Da Barriar Tupo (0 M	Vall 1 Borm):				Heavy Trucks: 47.3% 5.4% 47.3% 0								
Contorlino Di	ist to Barrier:	0.0 50.0 foot											
Centerline Di	to Observer:	50.0 feet			Noise So	urce E	levation	s (in fe	et)				
Barrier Distance	to Observer:					Auto	os: 0.	000					
Observer Height	(Above Pad):	5.0 feet			Medium Trucks: 2.297								
Diserver neight	(ADUVE Fau). Pad Elevation:	0.0 feet			Heavy Trucks: 8.006 Grade Adjustment: 0.0								
Ro		Lane Equ	ıivalen	t Distan	ce (in t	feet)							
10			Auto	os: 49.	890	,							
	Left View: -90.0 degrees					n Truck	ks: 49.	712					
	Right View:	90.0 degree	25		Heav	v Truck	ks: 49.	730					
FHWA Noise Mod	el Calculations	5											
VehicleType	REMEL	Traffic Flow	Dis	stance	Finite	Road	Fresr	nel	Barrier Att	en Ber	m Atten		
Autos:	71.78	1.98		-0.0	9	-1.20		-4.65	0.0	000	0.000		
Medium Trucks:	82.40	-15.26		-0.0	)7	-1.20		-4.87	0.0	000	0.000		
Heavy Trucks:	86.40	-19.21		-0.0	)7	-1.20		-5.43	0.0	000	0.000		
Unmitigated Nois	e Levels (witho	out Topo and	barrie	er atter	uation)								
VehicleType	Leq Peak Hou	r Leq Day	/	Leq E	vening	Leq	Night		Ldn	Cl	NEL		
Autos:	72.	5	71.2		69.9		63.9	)	72.3	3	72.9		
Medium Trucks:	65.	9	62.7		55.2		64.0	)	70.1	l	70.2		
Heavy Trucks:	65.	9	62.6		59.2		63.8	3	70.0	)	70.1		
Vehicle Noise:	74.	1	72.3		70.4		68.7	7	75.7	7	76.1		
Centerline Distan	ce to Noise Co	ntour (in feet	)										
L				70	dBA	65	dBA	6	0 dBA	55	dBA		
			Ldn:	1	20	2	259	1	559	1,	203		
		Ci	NEL:	1	27	2	273		588	1,	266		

Scenario: Road Name: Washington St. Road Segment: n/o Van Buren Bl.

#### Project Name: Arroyo Vista Job Number: 14577

SITE	SPECIFIC INF	PUT DATA			NOISE MODEL INPUTS								
Highway Data				S	Site Con	ditions	(Hard	= 10, So	oft = 15)				
Average Daily	Traffic (Adt): 24	4,184 vehicles						Autos:	15				
Peak Hour	Percentage:	8.46%			Me	dium Tr	rucks (2	Axles):	15				
Peak H	Hour Volume:	2,046 vehicles			He	avy Tru	icks (3+	Axles):	15				
Ve	hicle Speed:	45 mph			lahiala I	Niv							
Near/Far La	ne Distance:	36 feet		`	VehicleType Day Evening					Niaht	Daily		
Site Data					VCIII	olorype	ς Δutos:	77 5%	14 0%	10.5%	92 00%		
					Me	ر dium T	rucks <sup>.</sup>	48.0%	5 14.070 5 2.0%	50.0%	3.00%		
Ba	rrier Height:	0.0 feet			H H	leavy T	rucks:	48.0%	2.0%	50.0%	5.00%		
Barrier Type (U-V	vall, 1-Berm):	0.0				loavy I	ruono.	40.07	2.070	00.070	0.0070		
Centerline Di	st. to Barrier:	44.0 feet		٨	Voise So	ource E	levatio	ns (in fe	eet)				
Centerline Dist.	to Observer:	44.0 feet				Auto	os: C	0.000					
Barrier Distance	to Observer:	0.0 feet			Mediur	n Truck	ks: 2	2.297					
Observer Height	(ADOVE Pad):	5.0 feet			Heav	y Truck	ks: 8	8.006	Grade Ad	justment	: 0.0		
	ad Elevation.	0.0 feet		1	ano Fai	uivalon	t Dista	nco (in	foot)				
RO	ad Elevation:							100 (III ) 460	ieelj				
	Road Grade.	0.0%	_		Modiu	Auto n Truck	40	0.400					
	Leit View.	-90.0 degrees	5		меции Цору	n Truck	40	) 262					
	Right view.	90.0 degrees	5		Tieav	y TTUCK	40	).202					
FHWA Noise Mod	el Calculations												
VehicleType	REMEL	Traffic Flow	Dist	ance	Finite	Road	Fres	snel	Barrier Att	en Bei	rm Atten		
Autos:	68.46	0.91		1.28	3	-1.20		-4.61	0.0	000	0.000		
Medium Trucks:	79.45	-13.96		1.31	1	-1.20		-4.87	0.0	000	0.000		
Heavy Trucks:	84.25	-11.74		1.31	1	-1.20		-5.50	0.0	000	0.000		
Unmitigated Noise	e Levels (witho	ut Topo and b	arrie	r atten	uation)								
VehicleType	Leq Peak Hour	- Leq Day		Leq Ev	/ening	Leq	Night		Ldn	С	NEL		
Autos:	69.4	4 6	8.3		66.9		60	.8	69.3	3	69.9		
Medium Trucks:	65.6	6 6	2.4		54.6		63	.8	69.9	)	70.0		
Heavy Trucks:	72.6	6 6	9.4		61.6		70	.8	76.9	)	77.0		
Vehicle Noise:	74.9	9 7	2.3		68.2		71	.9	78.3	3	78.4		
Centerline Distan	ce to Noise Col	ntour (in feet)											
				70 a	<i>IBA</i>	65	dBA	6	60 dBA	55	dBA		
		L	.dn:	15	8	3	40		732	1,	578		
		CN	EL:	16	51	3	46		745	1,	605		

Scenario: Road Name: Washington St. Road Segment: s/o Van Buren Bl. Project Name: Arroyo Vista Job Number: 14577

SITE	SPECIFIC IN	PUT DATA			NOISE MODEL INPUTS							
Highway Data				Site Co	nditions	(Hard =	: 10, Sc	oft = 15)				
Average Daily	Traffic (Adt): 1	2,047 vehicles					Autos:	15				
Peak Hour	Percentage:	8.46%		Medium Trucks (2 Axles): 15								
Peak F	lour Volume:	1,019 vehicles		H	eavy Truc	cks (3+ .	Axles):	15				
Ve	hicle Speed:	35 mph		Vohiclo	Mix							
Near/Far La	ne Distance:	36 feet		Venicle	hicleType		Dav	Evenina	Niaht	Daily		
Site Data					<u>Autos:</u> 77 5% 14 0% 10 5°							
		0.0 ( (			r Iedium Ti	rucks:	48.0%	2.0%	50.0%	3.00%		
Ba	rrier Height:	0.0 feet			Heavy Tr	rucks:	48.0%	2.0%	50.0%	5.00%		
Barrier Type (U-W	/all, 1-Berm):	0.0			neavy n	<i>uono.</i>	40.070	2.070	00.070	0.0070		
	st. to Barrier:	44.0 feet		Noise S	ource El	evation	is (in fe	et)				
Centerline Dist.	to Observer:	44.0 feet			Autos	s: 0.	000					
Barrier Distance	to Observer:	0.0 feet		Mediu	ım Trucks	s: 2.	297					
Observer Height	(ADOVE Pad):	5.0 feet		Hea	vy Trucks	s: 8.	006	Grade Ad	justment.	0.0		
	ad Elevation.	0.0 feet		Lano Er	wivelont	Distan	co (in t	(act)				
RO	Road Grade:			LaneLu	Auto			eelj				
	0.0%	_	Modiu	Aulos Im Trucki	5. 40	.400 244						
	Leit View.	-90.0 degrees	5	Meuit Loo	MIT TTUCK	s. 40	.241 262					
	Right view.	90.0 degrees	5	nea	vy Trucka	5. 40	.202					
FHWA Noise Mod	el Calculations	;										
VehicleType	REMEL	Traffic Flow	Distan	ce Finite	e Road	Fresi	nel	Barrier Att	en Ber	m Atten		
Autos:	64.30	-1.03		1.28	-1.20		-4.61	0.0	000	0.000		
Medium Trucks:	75.75	-15.89		1.31	-1.20		-4.87	0.0	000	0.000		
Heavy Trucks:	81.57	-13.67		1.31	-1.20		-5.50	0.0	000	0.000		
Unmitigated Noise	e Levels (witho	out Topo and b	arrier a	ttenuation)								
VehicleType	Leq Peak Hour	r Leq Day	Le	q Evening	Leq	Night		Ldn	Cl	VEL		
Autos:	63.	4 6	2.2	60.8	3	54.	7	63.2	2	63.8		
Medium Trucks:	60.	0 5	6.7	48.9	)	58.	1	64.3	3	64.3		
Heavy Trucks:	68.	0 6	4.7	57.0	)	66.	2	72.3	3	72.4		
Vehicle Noise:	69.	8 6	7.1	62.5	5	67.	1	73.4	1	73.5		
Centerline Distan	ce to Noise Co	ntour (in feet)										
				70 dBA	65 (	dBA	6	0 dBA	55	dBA		
		L	dn:	74	16	60		344	7	42		
		CN	EL:	75	16	62		349	7	52		

Project Name: Arroyo Vista Job Number: 14577

SITE	SPECIFIC INF	ρυτ πάτα			NOISE MODEL INPUTS								
Highway Data	2. 20110 111	5. 2/1/1			Site Conditions (Hard = 10, Soft = 15)								
Average Dailv	Traffic (Adt):	1.363 vehicles	S				-	Autos:	15				
Peak Hour	Percentage:	8.46%	-		Me	dium T	rucks (2 A	Axles):	15				
Peak F	lour Volume:	115 vehicles	S		He	avy Tru	, icks (3+ /	Axles):	15				
Ve	hicle Speed:	25 mph		_	\/_L'_L		•	,					
Near/Far La	ne Distance:	12 feet			Venicie I		•	Dav	Fuening	Nicht	Deily		
Cite Dete					veni	cie i yp		Day	Evening		Daily		
Site Data					1.10	dium T	Aulos. Frucks:	77.5% 87.8%	12.9%	9.0%	97.42%		
Ba	rrier Height:	0.0 feet			IVIE L		rucks. Frucks:	04.0 /c	0 4.970	10.3%	0.74%		
Barrier Type (0-W	Vall, 1-Berm):	0.0			'	icavy i	TUCKS.	00.576	o 2.170	10.0 %	0.7470		
Centerline Di	st. to Barrier:	30.0 feet			Noise Sc	ource E	levation	s (in fe	eet)				
Centerline Dist.	to Observer:	30.0 feet				Auto	os: 0.	000					
Barrier Distance	to Observer:	0.0 feet			Mediur	n Trucl	ks: 2.	297					
Observer Height	(Above Pad):	5.0 feet			Heav	y Trucl	ks: 8.	006	Grade Ad	justment.	: 0.0		
P	ad Elevation.	0.0 feet			l ano Equ	uivalor	t Distan	ro (in	foot)				
Road Grade: 0.0%			-	Lune Ly	Διιτά	20 20 20	816						
Left View: -90.0 degrees				Mediur	n Trucl	ks <sup>.</sup> 29.	518						
	Right View:		20		Heav	v Trucl	ks <sup>.</sup> 29.	547					
	Night View.	JU.U UCYIC			nour	y maon		011					
FHWA Noise Mod	el Calculations												
VehicleType	REMEL	Traffic Flow	Dis	tance	Finite	Road	Fresr	nel	Barrier Att	en Ber	m Atten		
Autos:	58.73	-8.78		3.2	26	-1.20		-4.49	0.0	000	0.000		
Medium Trucks:	70.80	-26.02		3.3	33	-1.20		-4.86	0.0	000	0.000		
Heavy Trucks:	77.97	-29.97		3.3	32	-1.20		-5.77	0.0	000	0.000		
Unmitigated Nois	e Levels (witho	ut Topo and	barrie	er atter	nuation)								
VehicleType	Leq Peak Hour	Leq Day	/	Leq E	vening	Leq	Night		Ldn	CI	VEL		
Autos:	52.	0	50.8		49.1		43.0	)	51.6	6	52.3		
Medium Trucks:	46.9	9	46.1		39.8		38.2	2	46.7	7	46.9		
Heavy Trucks:	50.	1	49.4		40.4		41.6	6	50.0	)	50.1		
Vehicle Noise:	54.	9	54.0		50.1		46.2	2	54.7	7	55.1		
Centerline Distan	ce to Noise Co	ntour (in feet	)										
				70	dBA	65	dBA	6	60 dBA	55	dBA		
			Ldn:	:	3		6		13	2	28		
		Cl	NEL:	:	3		7		14	3	30		

Scenario:	
Road Name:	Chicago Av./Alta Cresta Av.
Road Segment:	s/o Van Buren Bl.

Project Name: Arroyo Vista Job Number: 14577

SITE	SPECIFIC IN	ριιτ πατα			NOISE MODEL INPUTS							
Highway Data		DIDAIA			Site Con	ditions	Gilleright (Hard =	: 10, So	$c_{1} = 15$	<u>,</u>		
Average Dailv	Traffic (Adt):	3.444 vehicle	s					Autos:	15			
Peak Hour	Percentage:	8.46%	•		Me	dium T	rucks (2	Axles):	15			
Peak H	lour Volume:	291 vehicle	s		He	avy Tru	icks (3+	Axles):	15			
Ve	hicle Speed:	25 mph			Vahiala		•	,				
Near/Far La	ne Distance:	12 feet			venicie i		~	Davi	<b>E</b> vening	Nicht	Deiler	
Cita Data					Venicie i ype Day Evening Nigh						Daily	
Site Data					Medium Trucks: 84.8% 4.9% 10.3					9.0%	97.42%	
Ba	rrier Height:	0.0 feet			Heavy Trucks: 86 5% 2 7% 10.3%					0.74%		
Barrier Type (0-V	Vall, 1-Berm):	0.0			1	ieavy i	TUCKS.	00.57	5 2.170	10.0 %	0.7470	
Centerline Di	ist. to Barrier:	30.0 feet			Noise Source Elevations (in feet)							
Centerline Dist.	to Observer:	30.0 feet				Auto	os: 0	.000				
Barrier Distance	to Ubserver:	0.0 feet			Mediur	n Trucl	ks: 2	.297				
Observer Height	(Above Pad):	5.0 feet			Heav	y Trucl	ks: 8	.006	Grade Ad	iustment:	0.0	
P	ad Elevation.	0.0 feet			l ano Fou	uivalor	nt Distan	co (in	foot)			
Road Grade: 0.0%					Lune Ly	Διιτά	ne: 20	816	leely			
Road Grade: 0.0%			20		Mediur	n Trucl	13. 23 ks <sup>.</sup> 29	518				
	Right View:		55 26		Heav	v Trucl	ks <sup>.</sup> 29	547				
	Night View.	30.0 degree	55		nouv	y maon	10. 20	.047				
FHWA Noise Mod	el Calculations	;										
VehicleType	REMEL	Traffic Flow	Dis	tance	Finite	Road	Fres	nel	Barrier Atte	en Ber	m Atten	
Autos:	58.73	-4.75		3.2	6	-1.20		-4.49	0.0	000	0.000	
Medium Trucks:	70.80	-21.99		3.3	3	-1.20		-4.86	0.0	000	0.000	
Heavy Trucks:	77.97	-25.95		3.3	2	-1.20		-5.77	0.0	000	0.000	
Unmitigated Nois	e Levels (witho	out Topo and	barrie	er atter	nuation)							
VehicleType	Leq Peak Hou	r Leq Day	/	Leq E	vening	Leq	Night		Ldn	Cl	VEL	
Autos:	56.	0	54.9		53.1		47.	1	55.7	7	56.3	
Medium Trucks:	50.	9	50.2		43.8		42.	2	50.7	7	50.9	
Heavy Trucks:	54.	1	53.5		44.4		45.	7	54.0	)	54.1	
Vehicle Noise:	59.	0	58.0		54.1		50.	2	58.7	7	59.1	
Centerline Distan	ce to Noise Co	ntour (in feet	)									
				70	dBA	65	dBA	6	60 dBA	55	dBA	
			Ldn:	!	5		11		25	5	53	
		Ci	NEL:	(	6		12		26	5	56	

Scenario: Road Name: Gamble Av. Road Segment: s/o Iris Av. Project Name: Arroyo Vista Job Number: 14577

SITE	SPECIFIC IN	PUT DATA				NOISE	MODE	L INPUT	S			
Highway Data				Site C	Site Conditions (Hard = 10, Soft = 15)							
Average Daily	Traffic (Adt):	215 vehicles					Autos:	15				
Peak Hour	Percentage:	8.46%			Medium	Trucks (2	? Axles):	15				
Peak F	lour Volume:	18 vehicles			Heavy Ti	rucks (3+	- Axles):	15				
Ve	hicle Speed:	25 mph		Vehic	lo Mix							
Near/Far La	ne Distance:	12 feet		Venic	le iii. /ehicleTv	ne	Dav	Evenina	Niaht	Dailv		
Site Data				•		Autos:	77.5%	12.9%	9.6%	97.42%		
Ba	rrier Height:	0.0 feet			Medium	Trucks:	84.8%	4.9%	10.3%	1.84%		
Barrier Type (0-W	/all_1-Berm) <sup>.</sup>	0.0			Heavy	Trucks:	86.5%	2.7%	10.8%	0.74%		
Centerline Di	ist. to Barrier:	30.0 feet		Maia	0			4)				
Centerline Dist.	to Observer:	30.0 feet		NOISE	Source	Elevatio	ns (in te	et)				
Barrier Distance	to Observer:	0.0 feet			. –	tos: (	0.000					
Observer Heiaht	(Above Pad):	5.0 feet		Me	dium Truc —	cks: 2	2.297	Ours dis Aut				
P	ad Elevation:	0.0 feet		Н	eavy Truc	cks: 8	3.006	Grade Adj	justment:	0.0		
Ro	ad Elevation:	0.0 feet		Lane	Equivale	nt Dista	nce (in t	feet)				
	Road Grade:	0.0%			Au	tos: 2	9.816					
	Left View:	-90.0 degree	s	Me	dium Truc	cks: 2	9.518					
	Right View:	90.0 degree	S	Н	eavy Tru	cks: 2	9.547					
FHWA Noise Mod	el Calculations	;										
VehicleType	REMEL	Traffic Flow	Distar	nce Fir	nite Road	Fre	snel	Barrier Att	en Ber	m Atten		
Autos:	58.73	-16.80		3.26	-1.2	0	-4.49	0.0	000	0.000		
Medium Trucks:	70.80	-34.04		3.33	-1.2	0	-4.86	0.0	000	0.000		
Heavy Trucks:	77.97	-37.99		3.32	-1.2	0	-5.77	0.0	000	0.000		
Unmitigated Noise	e Levels (witho	out Topo and L	barrier a	attenuatio	n)							
VehicleType	Leq Peak Hour	r Leq Day	L	eq Evenin	g Le	eq Night		Ldn	Cl	VEL		
Autos:	44.	0 4	2.8	4	1.1	35	5.0	43.6	6	44.2		
Medium Trucks:	38.	9 3	38.1	3	1.7	30	).2	38.7	7	38.9		
Heavy Trucks:	42.	1 4	1.4	3	2.4	33	8.6	42.0	)	42.1		
Vehicle Noise:	46.	9 4	6.0	4	2.0	38	3.1	46.6	6	47.0		
Centerline Distant	ce to Noise Co	ntour (in feet)										
				70 dBA	6	5 dBA	6	60 dBA	55	dBA		
		L	_dn:	1		2		4		8		
		CN	IEL:	1		2		4		9		

Scenario: Road Name: Wood Rd. Road Segment: n/o Van Buren Bl. Project Name: Arroyo Vista Job Number: 14577

SITE	SPECIFIC IN	PUT DATA		NOISE MODEL INPUTS							
Highway Data				Site Col	nditions	(Hard =	: 10, Sc	oft = 15)			
Average Daily	Traffic (Adt): 1	2,618 vehicles					Autos:	15			
Peak Hour	Percentage:	8.46%		Medium Trucks (2 Axles): 15							
Peak F	lour Volume:	1,067 vehicles		He	eavy True	cks (3+ .	Axles):	15			
Ve	hicle Speed:	40 mph		Vehicle	Mix						
Near/Far La	ne Distance:	36 feet		Vel	nicleType	2	Dav	Evenina	Niaht	Daily	
Site Data				Autos: 75.5% 14.0% 10.5%						97 42%	
	wiew Heinht.	0.0 fact			, Iedium Ti	rucks:	48.9%	2.2%	48.9%	1.84%	
Barrier Turne (0.14	rrier neight:				Heavy T	rucks:	47.3%	5.4%	47.3%	0 74%	
Contorlino Di	all, I-Dellil).	0.0 50.0 faat			····,			0,0		0	
Centerline Di	to Observer:	50.0 feet		Noise S	ource El	levation	s (in fe	et)			
Barriar Distance	to Observer:				Auto	s: 0.	000				
Observer Height	(Above Pad):	5.0 foot		Mediu	m Truck	s: 2.	297				
	ad Elevation:	0.0 feet		Hea	vy Truck	s: 8.	006	Grade Ad	justment.	0.0	
Ro	ad Elevation. ad Elevation:			Lane Ec	uivalen	t Distan	ce (in f	eet)			
	Road Grade:	0.0%			Auto	s <sup>.</sup> 46	915	,			
	Left View:	-90.0 degrees		Mediu	m Truck	s 46	726				
	Right View:	90.0 degrees		Hea	vv Truck	s <sup>.</sup> 46	744				
	ragine view.	Solo degrees		1100	iy naon	0. 10					
FHWA Noise Mod	el Calculations	1		I							
VehicleType	REMEL	Traffic Flow	Distand	ce Finite	Road	Fresi	nel	Barrier Att	en Ber	m Atten	
Autos:	66.51	-1.16		0.31	-1.20		-4.65	0.0	000	0.000	
Medium Trucks:	77.72	-18.39		0.34	-1.20		-4.87	0.0	000	0.000	
Heavy Trucks:	82.99	-22.35		0.34	-1.20		-5.43	0.0	000	0.000	
Unmitigated Noise	e Levels (witho	out Topo and ba	arrier at	tenuation)							
VehicleType	Leq Peak Hour	r Leq Day	Le	q Evening	Leq	Night		Ldn	Cl	VEL	
Autos:	64.	5 63	3.2	61.9		55.	9	64.3	3	64.9	
Medium Trucks:	58.	5 55	5.3	47.8		56.	5	62.7	7	62.7	
Heavy Trucks:	59.	8 56	6.5	53.1		57.	7	63.9	9	64.0	
Vehicle Noise:	66.	5 64	4.6	62.6	i	61.	5	68.5	5	68.7	
Centerline Distant	ce to Noise Co	ntour (in feet)									
L				70 dBA	65	dBA	6	0 dBA	55	dBA	
		Lo	dn:	39	8	35		183	3	94	
		CNE	EL:	41	8	39		191	4	12	

Scenario: Road Name: Wood Rd. Road Segment: s/o Van Buren Bl. Project Name: Arroyo Vista Job Number: 14577

SITE	SPECIFIC IN	PUT DATA			NOISE MODEL INPUTS							
Highway Data				Site Co	onditions	s (Hard	= 10, So	oft = 15)				
Average Daily	Traffic (Adt): 1	7,833 vehicles					Autos:	15				
Peak Hour	Percentage:	8.46%		/	Medium Trucks (2 Axles): 15							
Peak H	lour Volume:	1,509 vehicles		1	leavy Tri	ucks (3+	Axles):	15				
Ve	hicle Speed:	40 mph		Vehicl	e Mix							
Near/Far La	ne Distance:	36 feet		V	ehicleTyp	e	Day	Evening	Night	Daily		
Site Data						Autos:	75.5%	14.0%	10.5%	97.42%		
Ba	rrier Height:	0.0 feet			Medium	Trucks:	48.9%	2.2%	48.9%	1.84%		
Barrier Type (0-W	/all, 1-Berm):	0.0			Heavy	Trucks:	47.3%	5.4%	47.3%	0.74%		
Centerline Di	st. to Barrier:	50.0 feet		Noiso	Sourco	Elovatio	ns (in f					
Centerline Dist.	to Observer:	50.0 feet		NUISe								
Barrier Distance	to Observer:	0.0 feet		14			0.000					
Observer Height (	(Above Pad):	5.0 feet		IVIed		KS: 2	2.297	Crada Ad	iuotmont			
Pa	ad Elevation:	0.0 feet		He	Theavy Trucks. 8.000 Grade Adjustment. 0.0							
Roa	ad Elevation:	0.0 feet		Lane E	Equivaler	nt Dista	nce (in i	feet)				
Road Grade: 0.0%					Aut	os: 46	6.915					
Left View: -90.0 degrees				Mea	lium Truc	ks: 46	6.726					
	Right View:	90.0 degrees	3	He	avy Truc	ks: 46	6.744					
FHWA Noise Mod	el Calculations	;										
VehicleType	REMEL	Traffic Flow	Distan	ice Fini	te Road	Fres	snel	Barrier Att	en Ber	m Atten		
Autos:	66.51	0.35		0.31	-1.20	)	-4.65	0.0	000	0.000		
Medium Trucks:	77.72	-16.89		0.34	-1.20		-4.87	0.0	000	0.000		
Heavy Trucks:	82.99	-20.85		0.34	-1.20		-5.43	0.0	000	0.000		
Unmitigated Noise	e Levels (witho	out Topo and b	arrier a	ottenuation	1)							
VehicleType	Leq Peak Hour	r Leq Day	Le	əq Evening	Leo	q Night		Ldn	CI	VEL		
Autos:	66.	0 6	4.7	63	.4	57	.4	65.8	3	66.4		
Medium Trucks:	60.	0 5	6.8	49	.3	58	.0	64.2	2	64.2		
Heavy Trucks:	61.3	3 5	8.0	54	.6	59	.2	65.4	1	65.5		
Vehicle Noise:	68.	0 6	6.1	64	.1	63	.0	70.0	)	70.2		
Centerline Distant	ce to Noise Col	ntour (in feet)										
				70 dBA	65	5 dBA	e	60 dBA	55	dBA		
		L	.dn:	50		107		231	4	97		
		CN	EL:	52		112		241	5	19		

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Scen	ario.
00001	uno.

*Road Name:* Trautwein Rd./Cole Av. *Road Segment:* n/o Van Buren Bl.

Project Name: Arroyo Vista Job Number: 14577

СІТГ					N				2		
Highway Data	SPECIFIC INF	UTDATA		Site Con	ditions	(Hard =	10. Sc	oft = 15)	ر		
Average Daily	Traffic (Adt): 28	3 156 vehicles				(	Autos:	15			
Peak Hour	Percentage:	8 46%		Me	Medium Trucks (2 Axles): 15						
Peak H	Tour Volume: 2	2382 vehicles		He	Heavy Trucks (3+ Axles): 15						
Ve	hicle Speed:	50 mph						10			
Near/Far La	ne Distance:	36 feet		Vehicle	Mix						
		00 1001		Veh	VehicleType Day Evening Night						
Site Data						Autos:	75.5%	14.0%	10.5%	97.42%	
Ba	rrier Height:	0.0 feet		M	edium T	rucks:	48.9%	2.2%	48.9%	1.84%	
Barrier Type (0-W	Vall, 1-Berm):	0.0			Heavy T	rucks:	47.3%	5.4%	47.3%	0.74%	
Centerline Di	ist. to Barrier:	50.0 feet		Noise So	ource E	levation	s (in fe	et)			
Centerline Dist.	to Observer:	50.0 feet				<u>s</u> . 0(	000				
Barrier Distance	to Observer:	0.0 feet		Mediu	m Truck	(s <sup>.</sup> 22	97 97				
Observer Height	(Above Pad):	5.0 feet		Heav	w Truck	(s: 8(	006	Grade Adi	ustment:	0.0	
P	ad Elevation:	0.0 feet			ly maon	0.		,			
Ro	ad Elevation:	0.0 feet		Lane Eq	uivalen	t Distand	e (in i	feet)			
Road Grade: 0.0%					Auto	os: 46.9	915				
Left View: -90.0 degrees			S	Mediu	m Truck	as: 46.	726				
	Right View:	90.0 degree	S	Heav	/y Truck	s: 46.	744				
EHWA Noise Mod	lel Calculations										
VehicleType	REMEL	Traffic Flow	Distan	ce Finite	Road	Fresn	el	Barrier Atte	en Ber	m Atten	
Autos:	70.20	1.36	2101011	0.31	-1.20		-4.65	0.0	000	0.000	
Medium Trucks:	81.00	-15.88		0.34	-1.20		-4.87	0.0	000	0.000	
Heavy Trucks:	85.38	-19.83		0.34	-1.20		-5.43	0.0	00	0.000	
Unmitigated Noise	e Leveis (without		barrier a	ttenuation)	100	Night		l dn			
Venicie rype				eq Evening 69.1	Leq	1VIGIII 62 1		LUII 70 5		VEL 71.1	
Aulos. Medium Trucks:	64.2		99.4 31 1	52.6		62.1		70.0 69.5	;	69.5	
Heavy Trucks:	64.3		51.1 S1.4	58.0		62.5		68.9	2	68.0	
Vehiole Neige	72.4	1 7	70.5	50.0		67.1		74.4	,	74.4	
venicie noise.	12.4	+ /	0.5	00.0		07.1		74.1		74.4	
Centerline Distan	ce to Noise Cor	ntour (in feet)									
				70 dBA	65	dBA	6	30 dBA	55	dBA	
		L	_dn:	94	2	03		438	9	43	
		CN	IEL:	99	2	13		459	9	90	

Scenario:	

*Road Name:* Trautwein Rd./Cole Av. *Road Segment:* s/o Van Buren Bl.

#### Project Name: Arroyo Vista Job Number: 14577

SITE	SPECIFIC IN	IPUT DATA			NOISE MODEL INPUTS							
Highway Data				S	Site Con	ditions (	Hard	= 10, S	oft = 15)			
Average Daily	Traffic (Adt):	17,456 vehicle	s					Autos:	15			
Peak Hour	Percentage:	8.46%			Medium Trucks (2 Axles): 15							
Peak F	lour Volume:	1,477 vehicle	s		Heavy Trucks (3+ Axles): 15							
Ve	hicle Speed:	50 mph		1	/ohiclo I	Nix						
Near/Far La	ne Distance:	36 feet			Vehi	cleTvne		Dav	Evening	Niaht	Daily	
Site Data					VGIII	Δ	utos	75 5%	14 0%	10 59	6 97 42%	
		0.0 fast			Me	n dium Tri	ucks:	48.9%	5 14.070 5 2.2%	48.99	6 1 84%	
Barrier Time (0.14	rrier Height:	0.0 feet			H L	leavv Tri	ucks:	47.3%	5 4%	47 39	6 0 74%	
Barrier Type (0-M	vall, 1-Berm):					icary in		-1.07	5.770	-1.J <i>1</i>	0.7770	
Centerline Di	si. to Barrier:	50.0 feet		Λ	Voise So	urce Ele	evatio	ns (in f	eet)			
Centerline Dist.	to Observer:					Autos	: (	0.000				
Barrier Distance	to Upserver:				Medium	n Trucks	: 2	2.297				
Observer Height	(ADOVE Pad):	5.0 feet			Heav	y Trucks	: 8	3.006	Grade Ac	ljustmer	nt: 0.0	
	au Elevation:	U.U feet			ano Eau	uvalort	Dista	nco (in	foot)			
Ro	ad Elevation:	U.U feet		L	ane Eql		ista ،		1001)			
	Road Grade:	0.0%			Madie	AUTOS	. 40	0.915				
Left View: -90.0 degrees					Mediun	n Trucks	: 40	0.726				
	Right View:	90.0 degree	es		Heav	y Trucks	: 40	o./44				
FHWA Noise Mod	el Calculation	s										
VehicleType	REMEL	Traffic Flow	Dis	stance	Finite	Road	Fres	snel	Barrier At	ten Be	erm Atten	
Autos:	70.20	-0.72		0.31	1	-1.20		-4.65	0.	000	0.000	
Medium Trucks:	81.00	-17.95		0.34	4	-1.20		-4.87	0.	000	0.000	
Heavy Trucks:	85.38	-21.91		0.34	4	-1.20		-5.43	0.	000	0.000	
Unmitigated Noise	e Levels (with	out Topo and	barrie	er atten	uation)							
VehicleType	Leg Peak Hou	Ir Leq Day	/	Leg Ev	/ening	Leq N	Vight		Ldn	(	CNEL	
Autos:	. 68	.6	67.3	•	66.0	•	60	0.0	68.	4	69.0	
Medium Trucks:	62	2	59.0		51.5		60	.3	66.	4	66.5	
Heavy Trucks:	62	6	59.3		55.9		60	.5	66.	7	66.8	
Vehicle Noise:	70	.3	68.5		66.5		65	5.0	72.	1	72.4	
Centerline Distance to Noise Contour (in feet)												
L				70 a	IBA	65 a	<i>IBA</i>	(	60 dBA	5	5 dBA	
			Ldn:	69	9	14	8	I	318		685	
		C	NEL:	72	2	15	5		334		720	

Scenario: Road Name: Victoria Av. Road Segment: w/o Van Buren Bl. Project Name: Arroyo Vista Job Number: 14577

Noau Seyme	ni. w/o vali bu										
SITE	SPECIFIC IN	IPUT DATA					NOISE	MODE	L INPUT	S	
Highway Data				,	Site Con	ditions	(Hard	= 10, S	oft = 15)		
Average Daily	Traffic (Adt): 1	12,254 vehicle	S					Autos:	15		
Peak Hour	Percentage:	8.46%			Me	dium Tr	rucks (2	? Axles):	15		
Peak H	lour Volume:	1,037 vehicle	S		He	avy Tru	ıcks (3+	- Axles):	15		
Ve	hicle Speed:	45 mph		_	Vehicle	Mix					
Near/Far La	ne Distance:	12 feet			Veh	icleType	е	Day	Evening	Night	Daily
Site Data							Autos:	75.5%	ы́ 14.0%	10.5%	97.42%
Ba	rrier Height:	0.0 feet			M	edium T	Trucks:	48.9%	ы́ 2.2%	48.9%	1.84%
Barrier Type (0-W	/all, 1-Berm):	0.0			I	Heavy T	rucks:	47.3%	5.4%	47.3%	0.74%
Centerline Di	st. to Barrier:	37.0 feet		_	Noise Sc	ource F	ilevatio	ns (in f	eet)		
Centerline Dist.	to Observer:	37.0 feet									
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	3.006	Grade Ad	liustment	: 0.0
Pa	ad Elevation:	0.0 feet		_							
Roa	ad Elevation:	0.0 feet			Lane Eq	uivalen	t Dista	nce (in	feet)		
	Road Grade:	0.0%				Auto	os: 30	6.851			
Left View: -90.0 degrees					Mediu	m Truck	(s: 3)	6.610			
	Right View:	90.0 degre	es		Heav	y Truck	(s: 3)	6.634			
FHWA Noise Mod	el Calculation	S									
VehicleType	REMEL	Traffic Flow	Dis	stance	Finite	Road	Fre	snel	Barrier Att	en Bei	rm Atten
Autos:	68.46	-1.79		1.8	8	-1.20		-4.56	0.0	000	0.000
Medium Trucks:	79.45	-19.03		1.9	3	-1.20		-4.87	0.0	000	0.000
Heavy Trucks:	84.25	-22.99		1.9	2	-1.20		-5.61	0.0	000	0.000
Unmitigated Noise	e Levels (with	out Topo and	barri	er atten	uation)						
VehicleType	Leq Peak Hou	ır Leq Da	V	Leq E	vening	Leq	Night		Ldn	C	NEL
Autos:	67	.4	66.1		64.8		58	8.7	67.2	2	67.8
Medium Trucks:	61	.1	58.0		50.5		59	0.2	65.4	4	65.4
Heavy Trucks:	62	0	58.7		55.3		59	).9	66.′	1	66.2
Vehicle Noise:	69	.2	67.3		65.4		64	.1	71.1	1	71.4
Centerline Distant	ce to Noise Co	ontour (in fee	t)								
				70	dBA	65	dBA		60 dBA	55	dBA
			Ldn:	4	4	9	94		202	2	135
		С	NEL:	4	6	ć	98		212	Z	156

Scenario: Road Name: Victoria Av. Road Segment: e/o Van Buren Bl. Project Name: Arroyo Vista Job Number: 14577

SITE	SPECIFIC IN	IPUT DATA			NOISE MODEL INPUTS							
Highway Data					Site Con	ditions	(Hard	= 10, So	oft = 15)			
Average Daily	Traffic (Adt):	6,992 vehicle	s					Autos:	15			
Peak Hour	Percentage:	8.46%			Ме	dium Tri	ucks (2	? Axles):	15			
Peak F	lour Volume:	592 vehicle	s		He	avy Tru	cks (3+	- Axles):	15			
Ve	hicle Speed:	40 mph		_	Vehicle	Miv						
Near/Far La	ne Distance:	12 feet			Venicle	icleType	)	Day	Evening	Night	Daily	
Site Data						/	Autos:	75.5%	5 14.0%	10.5%	97.42%	
Ba	rrier Height:	0.0 feet			М	edium Ti	rucks:	48.9%	5 2.2%	48.9%	1.84%	
Barrier Type (0-W	/all, 1-Berm):	0.0				Heavy Ti	rucks:	47.3%	5.4%	47.3%	0.74%	
Centerline Di	st. to Barrier:	37.0 feet		_	Noiso S		lovatio	ne (in f	oot)			
Centerline Dist.	to Observer:	37.0 feet			NOISE 30				eel)			
Barrier Distance	to Observer:	0.0 feet			Modiu	AUIO m Truck	s. (	2.000				
Observer Height	(Above Pad):	5.0 feet			Hoa		5. 4 oʻ (	2.297	Grade Ad	iustment	÷ 0 0	
Pa	ad Elevation:	0.0 feet			Tiea	y Huck	s. (	5.000	Orado Maj	Juotinoni	. 0.0	
Ro	ad Elevation:	0.0 feet		_	Lane Eq	uivalent	t Dista	nce (in	feet)			
	Road Grade:	0.0%				Auto	s: 30	6.851				
	Left View:	-90.0 degre	es		Mediu	m Truck	s: 30	6.610				
	Right View:	90.0 degre	es		Heav	/y Truck	s: 30	6.634				
FHWA Noise Mod	el Calculation	S										
VehicleType	REMEL	Traffic Flow	Dis	stance	Finite	Road	Fres	snel	Barrier Att	en Bei	rm Atten	
Autos:	66.51	-3.72		1.8	8	-1.20		-4.56	0.0	000	0.000	
Medium Trucks:	77.72	-20.96		1.9	3	-1.20		-4.87	0.0	000	0.000	
Heavy Trucks:	82.99	-24.91		1.9	2	-1.20		-5.61	0.0	000	0.000	
Unmitigated Noise	e Levels (with	out Topo and	barrie	er atter	nuation)							
VehicleType	Leq Peak Hou	ir Leq Day	/	Leq E	vening	Leq	Night		Ldn	С	NEL	
Autos:	63	.5	62.2		60.9		54	.9	63.3	3	63.9	
Medium Trucks:	57	.5	54.3		46.8		55	5.6	61.7	7	61.8	
Heavy Trucks:	58	.8	55.5		52.1		56	6.7	62.9	9	63.0	
Vehicle Noise:	65	.5	63.6		61.6		60	).6	67.5	5	67.8	
Centerline Distant	ce to Noise Co	ontour (in feet	;)					1		T		
				70	dBA	65	dBA	6	60 dBA	55	dBA	
		_	Ldn:	2	25	5	54		117	2	251	
		C	NEL:	2	26	5	57		122	2	263	

Scenario:	
Road Name:	Van Buren Bl.
Road Segment:	w/o Washington St.

#### Project Name: Arroyo Vista Job Number: 14577

		g.e e										
SITE	SPECIFIC IN	PUT DATA			NOISE MODEL INPUTS							
Highway Data					Site Con	ditions	: (Hard =	= 10, Se	oft = 15)			
Average Daily	Traffic (Adt): 3	8,410 vehicles	5					Autos:	15			
Peak Hour	<sup>-</sup> Percentage:	8.46%			Medium Trucks (2 Axles): 15							
Peak H	lour Volume:	3,249 vehicles	5		He	avy Tru	ıcks (3+	Axles):	15			
Ve	ehicle Speed:	50 mph		_	Vehicle I	Mix						
Near/Far La	ane Distance:	54 feet			Veh	icleTvp	e	Dav	Evenina	Niaht	Dailv	
Site Data						- <b>)</b>	Autos:	75.5%	5 14.0%	10.5%	97.42%	
Ba	rrier Height:	0.0 feet			Me	edium T	Trucks:	48.9%	5 2.2%	48.9%	1.84%	
Barrier Type (0-V	Vall. 1-Berm):	0.0			ŀ	leavy T	Frucks:	47.3%	5.4%	47.3%	0.74%	
Centerline Di	ist. to Barrier:	76.0 feet		_	Naiaa Ca							
Centerline Dist.	to Observer:	76.0 feet			Noise Sc	ource E	evation	is (in t	eet)			
Barrier Distance	to Observer	0.0 feet				Auto	os: 0	.000				
Observer Height	(Above Pad):	5.0 feet			Medium Trucks: 2.297							
P	ad Elevation:	0.0 feet			Heavy Trucks: 8.006 Grade Adjustment: 0.0							
Ro	_	Lane Eq	uivalen	t Distar	ice (in	feet)						
			Auto	os: 71	.218							
Left View: -90.0 degrees					Mediur	n Trucl	ks: 71	.094				
	Right View:	90.0 degree	S		Heav	y Trucl	ks: 71	.106				
		5				-						
FHWA Noise Mod	el Calculations	;										
VehicleType	REMEL	Traffic Flow	Dist	tance	Finite	Road	Fres	nel	Barrier Att	en Ber	m Atten	
Autos:	70.20	2.71		-2.4	1	-1.20		-4.73	0.0	000	0.000	
Medium Trucks:	81.00	-14.53		-2.4	0	-1.20		-4.88	0.0	000	0.000	
Heavy Trucks:	85.38	-18.48		-2.4	0	-1.20		-5.25	0.0	000	0.000	
Unmitigated Nois	e Levels (witho	out Topo and	barrie	r atten	uation)							
VehicleType	Leq Peak Hour	r Leq Day		Leq E	vening	Leq	ı Night		Ldn	C	NEL	
Autos:	69.	3	68.0		66.7		60.	7	69.1	l	69.7	
Medium Trucks:	62.	9	59.7		52.2		61.	0	67.1	l	67.2	
Heavy Trucks:	63.	3	60.0		56.6		61.	2	67.4	1	67.5	
Vehicle Noise:	71.	0	69.2		67.3		65.	7	72.8	3	73.1	
Centerline Distan	ce to Noise Co	ntour (in feet)										
				70	dBA	65	dBA	(	60 dBA	55	dBA	
	Ldn:			1	16 250			538		1,160		
		CI	IEL:	12	122 262 565 1,2					218		

Scenario: Road Name: Van Buren Bl. Road Segment: e/o Washington St. Project Name: Arroyo Vista Job Number: 14577

SITE	SPECIFIC IN	PUT DATA				N	OISE	MODE	L INPUT	S	
Highway Data				5	Site Con	ditions	(Hard	= 10, So	oft = 15)		
Average Daily	Traffic (Adt): 4	8,133 vehicles	5					Autos:	15		
Peak Hour	Percentage:	8.46%			Me	dium Tru	ucks (2	Axles):	15		
Peak F	lour Volume:	4,072 vehicles	5		He	avy Truc	:ks (3+	Axles):	15		
Ve	hicle Speed:	50 mph		1	Vehicle I	Mix					
Near/Far La	ne Distance:	54 feet			Veh	icleType		Day	Evening	Night	Daily
Site Data						F	Autos:	75.5%	5 14.0%	10.5%	97.42%
Ba	rrier Height:	0.0 feet			Me	ədium Tr	ucks:	48.9%	5 2.2%	48.9%	1.84%
Barrier Type (0-W	/all, 1-Berm):	0.0			ŀ	leavy Tr	ucks:	47.3%	5.4%	47.3%	0.74%
Centerline Di	st. to Barrier:	76.0 feet		,	Noise Sc	urce Fl	evatio	ns (in fi	eet)		
Centerline Dist.	to Observer:	76.0 feet		-	10/30 00		e valio.		,		
Barrier Distance	to Observer:	0.0 feet			Mediu	n Trucks	s. (	297			
Observer Height	(Above Pad):	5.0 feet			Heav	v Trucks	s: 6	3.006	Grade Ad	ljustment	t: 0.0
Pa	ad Elevation:	0.0 feet				<i>y n a a a</i>				,	
Ro	ad Elevation:	0.0 feet		L	Lane Eq	uivalent	Dista	nce (in	feet)		
	Road Grade: 0.0%						s: 7'	.218			
Left View: -90.0 degrees					Mediur	n Trucks	s: 7'	.094			
	Right View:	90.0 degree	s		Heav	y Trucks	s: 7'	.106			
FHWA Noise Mod	el Calculations										
VehicleType	REMEL	Traffic Flow	Dist	tance	Finite	Road	Fres	snel	Barrier Att	en Bei	rm Atten
Autos:	70.20	3.69		-2.41	1	-1.20		-4.73	0.0	000	0.000
Medium Trucks:	81.00	-13.55		-2.40	C	-1.20		-4.88	0.0	000	0.000
Heavy Trucks:	85.38	-17.50		-2.40	)	-1.20		-5.25	0.0	000	0.000
Unmitigated Noise	e Levels (witho	out Topo and	barrie	r atten	uation)					1	
VehicleType	Leq Peak Hour	r Leq Day		Leq Ev	/ening	Leq	Night		Ldn	C	NEL
Autos:	70.3	3 (	59.0		67.7		61	.7	70.1	1	70.7
Medium Trucks:	63.	9 (	50.7		53.2		61	.9	68.1	1	68.1
Heavy Trucks:	64.3	3 (	51.0		57.6		62	.2	68.4	4	68.5
Vehicle Noise:	72.	0	70.2		68.2		66	.7	73.7	7	74.1
Centerline Distan	ce to Noise Co	ntour (in feet)	)								
			L	70 c	iBA	65 0	dBA	6	50 dBA	55	dBA
			Ldn:	13	85	29	90		626	1,	,348
		Cl	IEL:	14	2	30	)5		657	1,	,416

Scenario:	
Road Name:	Van Buren Bl.
Road Segment:	w/o Chicago Av./Alta Cresta Av.

Project Name: Arroyo Vista Job Number: 14577

SITE SPECIFIC IN	IPUT DATA		NOISE MODEL INPUTS							
Highway Data		S	ite Condition	itions (Hard = 10, Soft = 15)						
Average Daily Traffic (Adt):	43,175 vehicles			Autos	s: 15					
Peak Hour Percentage:	8.46%		Medium	Trucks (2 Axles	): 15					
Peak Hour Volume:	3,653 vehicles		Heavy Tr	rucks (3+ Axles	): 15					
Vehicle Speed:	50 mph	V	ohiclo Mix							
Near/Far Lane Distance:	54 feet	V	VehicleTvi	ne Dav	Evening N	light Daily				
Site Data			venielery	Autos: 75.5	% 14.0%	10.5% 97.42%				
Barrier Height:	0.0 feet		Medium	Trucks: 48.9	% 2.2%	48.9% 1.84%				
Barrier Type (0-Wall, 1-Berm):	0.0		Heavy	Trucks: 47.3	% 5.4%	47.3% 0.74%				
Centerline Dist. to Barrier:	76.0 feet	N	loise Source	Elevations (in	feet)					
Centerline Dist. to Observer:	76.0 feet	<u> </u>								
Barrier Distance to Observer:	0.0 feet		Medium Tru	2297						
Observer Height (Above Pad):	5.0 feet			2.207	Grade Adius	stment: 0.0				
Pad Elevation:	0.0 feet		neavy nuc	<i>7</i> NS. 0.000	Crade rajac					
Road Elevation:	0.0 feet	L	ane Equivale	nt Distance (ir	i feet)					
Road Grade:	0.0%		Au	tos: 71.218						
Left View:	-90.0 degrees		Medium Truc	cks: 71.094						
Right View:	90.0 degrees		Heavy Truc	cks: 71.106						
EHWA Noise Model Calculation	s									
VehicleType REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten				
Autos: 70.20	3.22	-2.41	-1.20	0 -4.73	3 0.000	0.000				
Medium Trucks: 81.00	-14.02	-2.40	-1.20	0 -4.88	3 0.000	0.000				
Heavy Trucks: 85.38	-17.98	-2.40	-1.20	0 -5.28	5 0.000	0.000				
Unmitigated Noise Levels (with	out Topo and bar	rier attenu	uation)							
VehicleType Leq Peak Hou	ur Leq Day	Leq Ev	ening Le	q Night	Ldn	CNEL				
Autos: 69	0.8 68.	5	67.2	61.2	69.6	70.3				
Medium Trucks: 63	8.4 60.2	2	52.7	61.5	67.6	67.7				
Heavy Trucks: 63	3.8 60.5	5	57.1	61.7	67.9	68.0				
Vehicle Noise: 71	.5 69.	7	67.8	66.2	73.3	73.6				
Centerline Distance to Noise Co										
		70 d	BA 6	5 dBA	60 dBA	55 dBA				
	Ldr	n: 12	5	270	582	1,254				
	CNEL	.: 132	2	284	611	1,317				

Scenario:	
Road Name:	Van Buren Bl.
Road Segment:	e/o Chicago Av./Alta Cresta Av.

Project Name: Arroyo Vista Job Number: 14577

SITE	SPECIFIC IN	IPUT DATA				NC	DISE MODE	EL INPUTS	<u>,</u>		
Highway Data		/ / / / /		S	ite Condi	tions (l	Hard = 10, S	oft = 15)			
Average Daily	Traffic (Adt):	11,066 vehicles	;				Autos	: 15			
Peak Hour	Percentage:	8.46%			Media	um Truc	cks (2 Axles)	: 15			
Peak H	lour Volume:	3,474 vehicles	;		Heav	y Truck	(3+ Axles)	: 15			
Ve	hicle Speed:	50 mph		V	obiala Mi	~					
Near/Far La	ne Distance:	54 feet		V	Vehicl		Dav	Evoning	Niaht	Daily	
Site Data					Vernor	етуре Аі	105: 75.5%	6 14 0%	10.5%	97 42%	
Ba	rrior Hoight:	0.0 foot			Med	ium Tru	icks: 48.9%	6 2.2%	48.9%	1.84%	
Barrier Type (0-W	/all_1_Rerm) <sup>.</sup>				He	avy Tru	icks: 47.3%	6 5.4%	47.3%	0.74%	
Centerline Di	st to Barrier:	76.0 feet									
Centerline Dist	to Observer:	76.0 feet		N	oise Sou	rce Ele	vations (in f	eet)			
Barrier Distance	to Observer:	0.0 feet				Autos:	0.000				
Observer Height (	(Above Pad):	5.0 feet			Medium	Trucks:	2.297				
P	ad Elevation:	0.0 feet			Heavy	Trucks:	8.006	Grade Adj	ustment:	0.0	
Ro	ad Elevation:	0.0 feet		L	ane Equi	valent l	Distance (in	feet)			
	Road Grade:	0.0%				Autos	71 218	,			
		Medium	Trucks:	71.094							
	Right View:	90.0 degree	s		Heavv	Trucks:	71.106				
					, <b>,</b>						
FHWA Noise Mode	el Calculations	S		·							
VehicleType	REMEL	Traffic Flow	Dista	ance	Finite R	oad	Fresnel	Barrier Atte	en Beri	m Atten	
Autos:	70.20	3.00		-2.41		1.20	-4.73	0.0	00	0.000	
Medium Trucks:	81.00	-14.24		-2.40		1.20	-4.88	0.0	00	0.000	
Heavy Trucks:	85.38	-18.19		-2.40		1.20	-5.25	0.0	00	0.000	
Unmitigated Noise	e Levels (with	out Topo and I	barrier	attenu	ation)						
VehicleType	Leq Peak Hou	ır Leq Day		Leq Eve	ening	Leq N	light	Ldn	CN	IEL	
Autos:	69	.6 6	68.3		67.0		61.0	69.4		70.0	
Medium Trucks:	63	.2 6	60.0		52.5		61.2	67.4		67.5	
Heavy Trucks:	63	.6 6	60.3		56.9		61.5	67.7		67.8	
Vehicle Noise:	71	.3 6	69.5		67.5		66.0	73.0		73.4	
Centerline Distance to Noise Contour (in feet)											
				70 dl	BA	65 di	BA	60 dBA	55	dBA	
		l	Ldn:	121	1	26	1	563		1,213	
		CN	IEL:	127	7	274	1	591	1,2	273	

Scenario: Road Name: Van Buren Bl. Road Segment: e/o Wood Rd.

#### Project Name: Arroyo Vista Job Number: 14577

SITE	SPECIFIC IN	PUT DATA				Ν	NOISE	MODE	L INPUTS	5		
Highway Data					Site Con	ditions	(Hard	= 10, So	oft = 15)			
Average Daily	Traffic (Adt): 4	10,274 vehicle	s					Autos:	15			
Peak Hour	Percentage:	8.46%			Me	dium Tr	ucks (2	Axles):	15			
Peak H	-lour Volume:	3,407 vehicle	s		He	avy Tru	cks (3+	Axles):	15			
Ve	ehicle Speed:	50 mph		_	Vahiala	1.						
Near/Far La	ane Distance:	54 feet		_	Venicie i	ioloTvo	<b>_</b>	Dav	Evoning	Night	Daily	
Sita Data					Ven	cierype	z Autos:	Day 75 5%	14.0%	10 5%	07 120/	
Sile Dala		_			٨.٨	Dium T	rucks	19.0%	0 14.070 0 2 20/	10.5 %	97.42/0 1.8/0/	
Ba	rrier Height:	0.0 feet			IVIC H	Hoovy T	rucks.	40.97	5 /0/	40.970	0.74%	
Barrier Type (0-M	Vall, 1-Berm):	0.0			,	icavy i	ruchs.	47.570	) J.470	47.370	0.7470	
Centerline Di	ist. to Barrier:	76.0 feet		1	Noise So	ource E	levatio	ns (in fe	eet)			
Centerline Dist.	to Observer:	76.0 feet				Auto	os: (	0.000				
Barrier Distance	to Observer:	0.0 feet			Medium Trucks: 2.297							
Observer Height	(Above Pad):	5.0 feet			Heavy Trucks: 8.006 Grade Adjustment: 0.0							
	ad Elevation:	0.0 feet			l ano Eq	uivalon	t Dicta	nco (in	foot)			
RO	ad Elevation:			-				1 240				
Left View: 00.0 degrees					Modiu	Auto n Truck	13. 1 10. 7	1.210				
Left View: -90.0 degrees					Hoay	n Truck	13. 1 19. 7	1 106				
	Right view.	90.0 degre	85		Tieav	y Truch		1.100				
FHWA Noise Mod	lel Calculations	5										
VehicleType	REMEL	Traffic Flow	Dis	tance	Finite	Road	Fre	snel	Barrier Atte	en Ber	m Atten	
Autos:	70.20	2.92		-2.4	1	-1.20		-4.73	0.0	00	0.000	
Medium Trucks:	81.00	-14.32		-2.4	0	-1.20		-4.88	0.0	00	0.000	
Heavy Trucks:	85.38	-18.28		-2.4	0	-1.20		-5.25	0.0	00	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	Night		Ldn	Cl	NEL	
Autos:	69.	.5	68.2		66.9		60	.9	69.3	3	69.9	
Medium Trucks:	63.	.1	59.9		52.4		61	.2	67.3	5	67.4	
Heavy Trucks:	63.	.5	60.2		56.8		61	.4	67.6	5	67.7	
Vehicle Noise:	71.	.2	69.4		67.5		65	.9	73.0	)	73.3	
Centerline Distan	ce to Noise Co	ontour (in feet	)									
				70 0	dBA	65	dBA	ť	60 dBA	55	dBA	
	Ldn:			12	20 258				556 1,19			
		С	NEL:	12	126 271 583				1,:	257		

Scenario: Road Name: Van Buren Bl. Road Segment: e/o Trautwein Rd./Cole Av. Project Name: Arroyo Vista Job Number: 14577

i toda oogino											
SITE	SPECIFIC INP	UT DATA		NOISE MODEL INPUTS							
Highway Data				Site Con	ditions	(Hard =	10, So	oft = 15)			
Average Daily	Traffic (Adt): 35	,843 vehicles					Autos:	15			
Peak Hour	Percentage:	8.46%		Medium Trucks (2 Axles): 15							
Peak F	our Volume: 3	,032 vehicles		Hea	avy Truc	cks (3+ /	Axles):	15			
Ve	hicle Speed:	50 mph		Vehiele	A:						
Near/Far La	ne Distance:	54 feet		Venicie I			Dav	Fuening	Niaht	Doilu	
Cita Data				veni	cie i ype		Day	Evening		Dally	
Site Data				1.4	A Transt	AUTOS:	10.0%	0 14.0%	10.5%	97.42%	
Ba	rrier Height:	0.0 feet							48.9%	1.84%	
Barrier Type (0-N	Vall, 1-Berm):	0.0		F	leavy II	rucks:	47.3%	5.4%	47.3%	0.74%	
Centerline Di	ist. to Barrier:	76.0 feet		Noise Source Elevations (in feet)							
Centerline Dist.	to Observer:	76.0 feet			Autos	s: 0.	000	-			
Barrier Distance	to Observer:	0.0 feet		Medium Trucks: 2.297							
Observer Height	(Above Pad):	5.0 feet		Heav	v Truck	s: 8.	006	Grade Ad	justment	: 0.0	
P	ad Elevation:	0.0 feet									
Ro	ad Elevation:	0.0 feet		Lane Equ	uivalent	Distan	ce (in i	feet)			
			Autos	s: 71.	218						
		Mediur	n Truck	s: 71.	094						
	Right View:	90.0 degrees		Heav	y Truck	s: 71.	106				
FHWA Noise Mod	el Calculations										
VehicleType	REMEL 1	raffic Flow	Distance	Finite	Road	Fresr	nel	Barrier Att	en Bei	rm Atten	
Autos:	70.20	2.41	-2.4	41	-1.20		-4.73	0.0	000	0.000	
Medium Trucks:	81.00	-14.83	-2.4	40	-1.20		-4.88	0.0	000	0.000	
Heavy Trucks:	85.38	-18.79	-2.4	40	-1.20		-5.25	0.0	000	0.000	
Unmitigated Noise	e Levels (withou	t Topo and ba	nrrier atte	nuation)							
VehicleType	Leq Peak Hour	Leq Day	Leq E	Evening	Leq	Night		Ldn	С	NEL	
Autos:	69.0	67	.7	66.4		60.4	1	68.8	3	69.4	
Medium Trucks:	62.6	59	.4	51.9		60.7	7	66.8	3	66.9	
Heavy Trucks:	63.0	59	.7	56.3		60.9	)	67.′	l	67.2	
Vehicle Noise:	70.7	68	.9	67.0		65.4	1	72.5	5	72.8	
Centerline Distan	ce to Noise Con	tour (in feet)									
			70	dBA	65	dBA	6	60 dBA	55	dBA	
	Ldn:			111 239		514		1,	1,107		
		CNE	<i>:L:</i> 1	16	25	51		540	1,	163	

Scenario: Road Name: Iris Av. Road Segment: w/o Gamble Av. Project Name: Arroyo Vista Job Number: 14577

9												
SITE	SPECIFIC IN	PUT DATA			NOISE MODEL INPUTS							
Highway Data					Site Con	ditions	s (Hard =	= 10, Sc	oft = 15)			
Average Daily	Traffic (Adt):	43 vehicles	5					Autos:	15			
Peak Hour	Percentage:	8.46%			Me	dium T	rucks (2	Axles):	15			
Peak H	Hour Volume:	4 vehicles	6		He	avy Tru	ucks (3+	Axles):	15			
Ve	ehicle Speed:	30 mph			Vehicle	Miv						
Near/Far La	ane Distance:	12 feet			Veh	icleTvn	۵	Dav	Evenina	Niaht	Daily	
Site Data					Von	юютур	Autos:	77.5%	12.9%	9.6%	97 42%	
	wie z Heierbe	0.0 fact			M	edium	Trucks:	84.8%	4.9%	10.3%	1.84%	
Ba Porrior Tupo (0 M	Voll 1 Porm):				NOISE MODEL INPUTSSite Conditions (Hard = 10, Soft = 15)Autos: 15Autos: 15Medium Trucks (2 Axles): 15Vehicle MixVehicle MixVehicle MixVehicle MixVehicle MixVehicle MixVehicle MixAutos: 77.5% 12.9% 9.6°Medium Trucks: 84.8% 4.9% 10.3°Heavy Trucks: 84.8% 4.9% 10.3°Heavy Trucks: 84.8% 4.9% 10.3°Heavy Trucks: 86.5% 2.7% 10.8°Moise Source Elevations (in feet)Autos: 0.000Medium Trucks: 2.297Heavy Trucks: 2.297Heavy Trucks: 29.816Medium Trucks: 29.816Medium Trucks: 29.518Heavy Trucks: 29.518Heavy Trucks: 29.547InceFinite RoadFresnelBarrier AttenB3.26-1.20-5.770.0003.33-1.20-5.770.000ade for all fightLdnGGFinite RoadFresnelBarrier AttenB3.262.6			10.8%	0.74%			
Contorlino D	ist to Parriar:	0.0 20.0 foot			NOISE MODEL INPUTSSite Conditions (Hard = 10, Soft = 15)Autos:15Autos:15Medium Trucks (2 Axles):15Vehicle Mix $Vehicle Type$ DayEveningNightDayVehicle Mix $Vehicle Type$ DayEveningNightDayAutos:77.5%12.9%9.6%97.4Medium Trucks:84.8%4.9%10.3%1.8Heavy Trucks:86.5%2.7%10.8%0.7Noise Source Elevations (in feet) $Autos:$ 0.000 $Medium Trucks:$ 2.297Heavy Trucks:8.006Grade Adjustment:0.0Medium Trucks:29.518 $Heavy Trucks:$ 29.518Heavy Trucks:29.547 $Barrier Atten$ $Berm Att3.26-1.20-4.490.0000.3.33-1.20-5.770.0000.3.32-1.20-5.770.0000.Teruation)TeruationLdnCNEL36.330.238.932.26.625.133.632.26.625.133.633.37.133.041.541.5$							
Contorlino Diet	to Obsorver:	30.0 feet			Noise So	ource E	evation	ns (in fe	et)			
Barrier Distance	to Observer:	0.0 feet				Aute	os: 0	.000				
Observer Height	(Abovo Pad):	5.0 feet			Mediu	m Truc	ks: 2	.297				
	(ADOVE Fau).	0.0 feet			Heav	y Truc	ks: 8	.006	Grade Ad	iustment.	: 0.0	
r Po	ad Elevation:	0.0 feet			Lane Eq	uivaler	nt Distan	ce (in t	feet)			
NU	Road Grade:	0.0 1661			Lano Lq	Διιτ	ns <sup>.</sup> 29	816				
Left View: -90.0 degrees				Mediu	m Truc	ks <sup>.</sup> 29	518					
	Leit View90.0 degrees				Hear	w Truc	ks <sup>.</sup> 20	547				
	night view.	30.0 degree	55		nour	y muo	. 20	.047				
FHWA Noise Mod	lel Calculations	5										
VehicleType	REMEL	Traffic Flow	Dis	tance	Finite	Road	Fres	nel	Barrier Atte	en Ber	m Atten	
Autos:	61.75	-24.58		3.2	26	-1.20		-4.49	0.0	000	0.000	
Medium Trucks:	73.48	-41.82		3.3	33	-1.20		-4.86	0.0	000	0.000	
Heavy Trucks:	79.92	-45.78		3.3	32	-1.20		-5.77	0.0	000	0.000	
Unmitigated Nois	e Levels (with	out Topo and	barrie	er atter	nuation)							
VehicleType	Leq Peak Hou	r Leq Day		Leg E	vening	Lec	n Night		Ldn	Cl	VEL	
Autos:	39.	.2	38.1		36.3		30.	2	38.9	)	39.5	
Medium Trucks:	33.	.8 :	33.0		26.6		25.	1	33.6	6	33.8	
Heavy Trucks:	36	.3 :	35.6		26.5		27.	8	36.1	l	36.3	
Vehicle Noise: 41.8 40.8				37.1		33.	0	41.5	5	41.9		
Centerline Distance to Noise Contour (in feet)												
				70	dBA	65	5 dBA	6	60 dBA	55	dBA	
			Ldn:	(	0		1	- :	2		4	
		CI	VEL:	(	0		1		2		4	

Scenar Road Nan Road Segme	Scenario: Road Name: Iris Av. Road Segment: w/o Chicago Av./Alta Cresta Av.				Project N Job Nui	lame: mber:	Arroyo 14577	Vista		
SITE	SPECIFIC INI	PUT DATA			NC	DISE	MODE	L INPUT	S	
Highway Data			S	Site Con	ditions (H	Hard =	= 10, So	oft = 15)		
Average Daily	Traffic (Adt):	215 vehicles					Autos:	15		
Peak Hour	<sup>-</sup> Percentage:	8.46%		Me	dium Truc	cks (2	Axles):	15		
Peak H	lour Volume:	18 vehicles		He	avy Truck	as (3+	Axles):	15		
Ve	hicle Speed:	30 mph	L.	/ehicle	Mix					
Near/Far La	ane Distance:	12 feet		Veh	icleType		Day	Evening	Night	Daily
Site Data					AL	itos:	77.5%	12.9%	9.6%	97.42%
Ba	rrier Heiaht:	0.0 feet		М	edium Tru	cks:	84.8%	4.9%	10.3%	1.84%
Barrier Type (0-W	Vall, 1-Berm):	0.0			Heavy Tru	cks:	86.5%	2.7%	10.8%	0.74%
Centerline Di	ist. to Barrier:	30.0 feet	٨	Voise So	ource Elev	vatior	ns (in fe	et)		
Centerline Dist.	to Observer:	30.0 feet	-		Autos:	0	000	,		
Barrier Distance	to Observer:	0.0 feet		Mediu	m Trucks:	2	297			
Observer Height	(Above Pad):	5.0 feet		Heav	w Trucks:	8	006	Grade Ad	iustment	: 0.0
P	Pad Elevation: 0.0 feet			11001		0	.000			
Ro	Road Elevation: 0.0 feet			.ane Eq	uivalent L	Distan	ce (in i	feet)		
	Road Grade:	0.0%			Autos:	29	.816			
	Left View:	-90.0 degrees		Mediu	m Trucks:	29	.518			
	Right View:	90.0 degrees		Heav	/y Trucks:	29	.547			
FHWA Noise Mod	el Calculations	;								
VehicleType	REMEL	Traffic Flow D	istance	Finite	Road	Fres	nel	Barrier Att	en Ber	m Atten
Autos:	61.75	-17.59	3.26	6	-1.20		-4.49	0.0	000	0.000
Medium Trucks:	73.48	-34.83	3.33	3	-1.20		-4.86	0.0	000	0.000
Heavy Trucks:	79.92	-38.79	3.32	2	-1.20		-5.77	0.0	000	0.000
Unmitigated Nois	e Levels (witho	out Topo and barr	rier atten	uation)						
VehicleType	Leq Peak Hour	r Leq Day	Leq Ev	vening	Leq N	light		Ldn	С	NEL
Autos:	46.	2 45.1		43.3		37.	2	45.9	Э	46.5
Medium Trucks:	40.	8 40.0		33.6		32.	1	40.6	6	40.8
Heavy Trucks:	<i>Heavy Trucks:</i> 43.3 42.6			33.5		34.	8	43.1	1	43.3
Vehicle Noise:	48.	8 47.8		44.1		40.	0	48.5	5	48.9
Centerline Distan	ce to Noise Co	ntour (in feet)			Ι					
			70 d	IBA	65 dl	BA	6	60 dBA	55	dBA
		Ldn:	1		2			5		11
		CNEL:	: 1		3			5		12

Scenario Road Namo Road Segmen	Scenario: Road Name: Iris Av. Road Segment: e/o Chicago Av./Alta Cresta Av.				Project Job N	Name: Arroy umber: 1457	o Vista 7				
SITE S	SPECIFIC IN	IPUT DATA			Ν	OISE MOD	EL INPUTS				
Highway Data				Sit	te Conditions	(Hard = 10, S	Soft = 15)				
Average Daily	Traffic (Adt):	187 vehicles	6			Autos	s: 15				
Peak Hour	Percentage:	8.46%			Medium Trucks (2 Axles): 15						
Peak He	our Volume:	16 vehicles	6	Heavy Trucks (3+ Axles): 15							
Vel	hicle Speed:	30 mph									
Near/Far Lar	ne Distance:	12 feet		VC	VehicleType	Night Daily					
Site Data					A consider ype	Autos: 77.5	% 12.9%	9.6% 97.42%			
Bar	rier Height:	0.0 feet			Medium Tr	rucks: 84.8	% 4.9%	10.3% 1.84%			
Barrier Type (0-Wa	all, 1-Berm):	0.0			Heavy Tr	rucks: 86.5	% 2.7%	10.8% 0.74%			
Centerline Dis	t. to Barrier:	30.0 feet		No	oise Source El	evations (in	feet)				
Centerline Dist. t	to Observer:	30.0 feet				s <sup>.</sup> 0.000					
Barrier Distance t	to Observer:	0.0 feet			Medium Trucks	s <sup>.</sup> 2.297					
Observer Height (/	Above Pad):	5.0 feet			Heavy Trucks	s: 8.006	Grade Adju	stment: 0.0			
Pa	Pad Elevation: 0.0 feet			_							
Road Elevation: 0.0 feet				La	ne Equivalent	Distance (in	i feet)				
F	Road Grade:	0.0%			Autos	s: 29.816					
	Left View:	-90.0 degree	es		Medium Trucks	s: 29.518					
	Right View:	90.0 degree	es		Heavy Trucks	s: 29.547					
FHWA Noise Mode	l Calculation	S									
VehicleType	REMEL	Traffic Flow	Distand	ce	Finite Road	Fresnel	Barrier Atte	n Berm Atten			
Autos:	61.75	-18.20		3.26	-1.20	-4.49	0.00	0.000			
Medium Trucks:	73.48	-35.44		3.33	-1.20	-4.86	6 0.00	0.000			
Heavy Trucks:	79.92	-39.39		3.32	-1.20	-5.77	0.00	0.000			
Unmitigated Noise	Levels (with	out Topo and	barrier at	ttenua	ation)	I.					
VehicleType	Leq Peak Hou	ır Leq Day	Le	q Eve	ning Leq	Night	Ldn	CNEL			
Autos:	45	.6	44.4		42.7	36.6	45.2	45.9			
Medium Trucks:	40	.2	39.4		33.0	31.5	39.9	40.2			
Heavy Trucks:	42	.7	42.0		32.9	34.2	42.5	42.7			
Vehicle Noise:	48	.1	47.2		43.5	39.4	47.9	48.3			
Centerline Distanc	e to Noise Co	ontour (in feet	)	70 /-							
				70 dB	65		ь0 авА	55 dBA			
			Lan:	1 4	2	<u> </u>	5	10			
		CI		T	4	2	Э	11			

Scenario: Road Name: Van Buren Bl. Road Segment: n/o Victoria Av.

#### Project Name: Arroyo Vista Job Number: 14577

i teau eegine												
SITE	SPECIFIC IN	IPUT DATA			NOISE MODEL INPUTS							
Highway Data					Site Con	ditions (	(Hard =	= 10, So	oft = $1\overline{5}$ )			
Average Daily	Traffic (Adt):	41,632 vehicle	s				_	Autos:	15			
Peak Hour	Percentage:	8.46%			Me	dium Tru	ıcks (2	Axles):	15			
Peak H	our Volume:	3,522 vehicle	s		He	avy Truc	ks (3+	Axles):	15			
Ve	ehicle Speed:	45 mph			Vehicle I	Nix						
Near/Far La	ane Distance:	54 feet		_	Vehi	cleType		Dav	Evenina	Niaht	Daily	
Site Data					VOIII	<u>оло турс</u> Д	utos:	75 5%	14.0%	10.5%	97.42%	
D_	rrior Usiaht.	0 0 faat			Me	edium Tr	ucks:	48.9%	5 2.2%	48.9%	1.84%	
Barrier Tupo (0 M	Vall 1-Borm):				 F	leavv Tr	ucks:	47.3%	5.4%	47.3%	0.74%	
Centerline D	ist to Berrier:	0.0 76.0 feet										
Contorlino Diet	to Observer	76.0 feet		1	Noise Source Elevations (in feet)							
Barrier Distance	to Observer.					Autos	s: 0	.000				
Observer Unicht	(Above Pad):	5.0 foot			Mediur	n Trucks	s: 2	.297				
	ad Elevation:				Heav	y Trucks	s: 8	.006	Grade Ad	ljustment	:: 0.0	
	ad Elevation:	0.0 Teel			Lane Equ	uivalent	Distar	nce (in	feet)			
RU	Road Grade:					Autos	: 71	.218	- ~ <b>- /</b>			
	-90.0 degree	95		Mediu	n Trucks	. 71	.094					
	90.0 degre	es		Heav	v Trucks	: 71	.106					
		colo dogio				,	• •					
FHWA Noise Mod	el Calculation	s										
VehicleType	REMEL	Traffic Flow	Dis	stance	Finite	Road	Fres	nel	Barrier Att	ten Bei	rm Atten	
Autos:	68.46	3.52		-2.4	1	-1.20		-4.73	0.0	000	0.00	
Medium Trucks:	79.45	-13.72		-2.40	0	-1.20		-4.88	0.0	000	0.000	
Heavy Trucks:	84.25	-17.68		-2.40	0	-1.20		-5.25	0.0	000	0.000	
Unmitigated Nois	e Levels (with	out Topo and	barrie	er atten	uation)							
VehicleType	Leq Peak Hou	ir Leq Day	/	Leq E	vening	Leq I	Vight		Ldn	С	NEL	
Autos:	68	.4	67.1		65.8		59	.8	68.2	2	68.8	
Medium Trucks:	62	.1	59.0		51.5		60	2	66.4	4	66.4	
Heavy Trucks:	63	.0	59.7		56.3		60	.9	67.	1	67.2	
Vehicle Noise: 70.2 68.3				66.4		65	.1	72.	1	72.4		
Centerline Distan	ce to Noise Co	ontour (in feet	)									
		•		70 c	dBA	65 c	<i>IBA</i>	6	60 dBA	55	dBA	
			Ldn:	10	)4	22	25	1	484	1,	042	
		С	NEL:	10	09	23	85		507	1,	093	

Scenario: Road Name: Van Buren Bl. Road Segment: s/o Victoria Av.

#### Project Name: Arroyo Vista Job Number: 14577

	0,0 11010114										
SITE	SPECIFIC IN	IPUT DATA			NOISE MODEL INPUTS						
Highway Data					Site Con	ditions	(Hard	= 10, S	oft = 15)		
Average Daily	Traffic (Adt): 5	52,569 vehicle	s					Autos	: 15		
Peak Hour	· Percentage:	8.46%			Me	dium Tr	rucks (2	Axles)	: 15		
Peak H	lour Volume:	4,447 vehicles	s		Heavy Trucks (3+ Axles): 15						
Ve	hicle Speed:	55 mph		,	Vehicle I	Nix					
Near/Far La	ne Distance:	54 feet			Veh	cleTvpe	9	Dav	Evenina	Niaht	Dailv
Site Data							- Autos:	75.5%	6 14.0%	10.5%	6 97.42%
Ba	rrior Hoight:	0.0 foot			Me	edium T	rucks:	48.9%	6 2.2%	48.9%	6 1.84%
Barrier Type (0-W	/all_1-Rerm) <sup>.</sup>	0.0 1001			Heavy Trucks: 47.3% 5.4% 47.3% 0.74					6 0.74%	
Centerline Di	ist to Barrier:	76.0 feet									
Centerline Dist	to Observer:	76.0 feet		1	Noise Sc	ource E	levatio	ns (in f	eet)		
Barrier Distance	to Observer:	0.0 feet				Auto	os: (	0.000			
Observer Height	(Above Pad):	5.0 feet			Mediur	n Truck	(S: 2	2.297	_		
P	ad Elevation:				Heav	y Truck	(S: 8	3.006	Grade Ad	justmer	nt: 0.0
Ro	ad Elevation: ad Elevation:	0.0 feet			Lane Eq	uivalen	t Dista	nce (in	feet)		
Road Grade: 0.0%					Auto	os: 7	1.218	,			
Left View: -90.0 degrees					Mediur	n Truck	(s: 7	1.094			
Right View: 90.0 degrees				Heav	v Truck	(s: 7	1.106				
		0010 a.c.g. 0				<b>,</b>					
FHWA Noise Mod	el Calculation	s									
VehicleType	REMEL	Traffic Flow	Dis	tance	Finite	Road	Fres	snel	Barrier Att	en Be	erm Atten
Autos:	71.78	3.66		-2.4	1	-1.20		-4.73	0.0	000	0.000
Medium Trucks:	82.40	-13.58		-2.40	0	-1.20		-4.88	0.0	000	0.000
Heavy Trucks:	86.40	-17.54		-2.40	0	-1.20		-5.25	0.0	000	0.000
Unmitigated Nois	e Levels (with	out Topo and	barrie	er atten	uation)						
VehicleType	Leq Peak Hou	ır Leq Day	/	Leq E	vening	Leq	Night		Ldn	(	ONEL
Autos:	71	.8	70.5		69.2		63	.2	71.0	6	72.3
Medium Trucks:	65	.2	62.1		54.6		63	.3	69.	5	69.5
Heavy Trucks:	65	.3	61.9		58.6		63	.2	69.4	4	69.5
Vehicle Noise: 73.4 71.6				69.7		68	.0	75.1	1	75.4	
Centerline Distance to Noise Contour (in feet)											
				70 c	dBA	65	dBA		60 dBA	5	5 dBA
			Ldn:	16	6	3	57		769	1	,656
		Ci	NEL:	17	74	3	875		809	1	,742

<u> </u>	
Scen	ario:

Road Name: Mockingbird Canyon Rd. Road Segment: s/o Van Buren Bl. Project Name: Arroyo Vista Job Number: 14577

SITE	SITE SPECIFIC INPLIT DATA					NOISE MODEL INDUTS						
Highway Data		UTDATA		Site Conditions (Hard = 10, Soft = 15)								
Average Daily	Traffic (Adt): 3	6 475 vehicles		Autos: 15								
Peak Hour	Percentage:	8 46%		Med	ium Truck	s (2 Axles);	15					
Peak H	Hour Volume:	3.086 vehicles		Heavy Trucks (3+ Axles): 15								
Ve	hicle Speed:	55 mph										
Near/Far La	ane Distance:	12 feet		Vehicle M	IX In The second				D'!			
Cite Dete				venic	ale i ype		Evening	Night	Daily			
Site Data				Mo	AUIO Aium Truol	0S: 75.5%	o 14.0%	10.5%	97.42%			
Ba	rrier Height:	0.0 feet		іліес Ц	auni muci	40.9%	D Z.Z%	40.9%	1.04%			
Barrier Type (0-V	Vall, 1-Berm):	0.0		Treavy Trucks. 47.5% 5.4% 47.5% 0.74%								
Centerline D	ist. to Barrier:	50.0 feet		Noise Source Elevations (in feet)								
Centerline Dist.	to Observer:	50.0 feet			Autos:	0.000						
Barrier Distance	to Observer:	0.0 feet		Medium	Trucks:	2.297						
Observer Height	(Above Pad):	5.0 feet		Heavy Trucks: 8.006 Grade Adjustment: 0.0								
	ad Elevation:	0.0 feet		l ano Equ	ivalent Di	stanco (in	foot)					
RO	Baad Crada			Lane Lyu		10 200	ieelj					
Left View: 0.0%				Medium	Trucks	49.090						
Left View: -90.0 degrees				Hoavy	Trucks:	49.712						
	Ngni view.	90.0 degrees		Ticavy	TTUCKS.	43.750						
FHWA Noise Mod	el Calculations											
VehicleType	REMEL	Traffic Flow	Distance	Finite F	Road I	Fresnel	Barrier Atte	en Berr	n Atten			
Autos:	71.78	2.07	-0.	09	-1.20	-4.65	0.0	00	0.000			
Medium Trucks:	82.40	-15.17	-0.	07	-1.20	-4.87	0.0	00	0.000			
Heavy Trucks:	86.40	-19.12	-0.	07	-1.20	-5.43	0.0	00	0.000			
Unmitigated Nois	e Levels (witho	ut Topo and ba	arrier atte	nuation)								
VehicleType	Leq Peak Hour	Leq Day	Leq I	Evening	Leq Nig	ht	Ldn	CN	IEL			
Autos:	72.6	6 71	1.3	70.0		64.0	72.4	I.	73.0			
Medium Trucks:	66.0	0 62	2.8	55.3		64.0	70.2		70.3			
Heavy Trucks:	66.0	0 62	2.7	59.3		63.9	70.1	.1 70				
Vehicle Noise: 74.1 72.4			2.4	70.5		68.8	75.8		76.1			
Centerline Distan	ce to Noise Cor	ntour (in feet)										
			70	dBA	65 dBA	A (	60 dBA	55	dBA			
		Lo	dn: ^	122	263		566	1,2	220			
		CNE	EL:	128	276		596	1,2	283			

Scenario: Road Name: Washington St. Road Segment: n/o Van Buren Bl. Project Name: Arroyo Vista Job Number: 14577

CITE	SDECIEIC IN						NOISE			3	
Highwav Data		NI UT DATA			Site Con	ditions	6 (Hard =	= 10. Sc	oft = 15)		
Average Daily	Traffic (Adt):	25 338 vehicle	ic i				(	Autos:	15		
Peak Hou	r Percentage:	8 46%	3		Me	dium T	rucks (2	Axles):	15		
Peak F	Hour Volume:	2 144 vehicle	S		Heavy Trucks $(3 \pm \Delta x \log)$ . 15						
Ve	ehicle Speed:	45 mph	.0								
Near/Far La	ane Distance:	36 feet			Vehicle I	Mix					
					Veh	icle I yp	e	Day	Evening	Night	Daily
Site Data							Autos:	//.5%	5 14.0%	10.5%	92.00%
Ba	rrier Height:	0.0 feet			Me	edium	I rucks:	48.0%	2.0%	50.0%	3.00%
Barrier Type (0-V	Vall, 1-Berm):	0.0			Heavy Trucks: 48.0% 2.0% 50.0% 5.00						5.00%
Centerline D	ist. to Barrier:	44.0 feet		1	Noise Source Elevations (in feet)						
Centerline Dist.	to Observer:	44.0 feet				Aute	os: 0	.000			
Barrier Distance	to Observer:	0.0 feet			Mediu	n Truc	ks: 2	.297			
Observer Height	(Above Pad):	5.0 feet			Heavy Trucks: 8.006 Grade Adjustment: 0.0						0.0
	ad Elevation:	0.0 feet			l ana Ea	uivalar	t Dictor	oo (in i	fact		
Ro	ad Elevation:			-	Lane Ly			460			
Left View: 00.0 degrees				Modiu	Auto m Truo	$V_{5}$ . 40	.400				
Left View: -90.0 degrees				Hoay	n muci v Truc	ns. 40 ks <sup>.</sup> 10	262				
	night view.	90.0 degre	62		neav	y much	NG. 40	.202			
FHWA Noise Mod	lel Calculation	S		1							
VehicleType	REMEL	Traffic Flow	Dis	stance	Finite	Road	Fres	nel	Barrier Atte	en Ber	m Atten
Autos:	68.46	1.11		1.28	8	-1.20		-4.61	0.0	000	0.000
Medium Trucks:	79.45	-13.75		1.3 <sup>-</sup>	1	-1.20		-4.87	0.0	000	0.000
Heavy Trucks:	84.25	-11.54		1.3	1	-1.20		-5.50	0.0	000	0.000
Unmitigated Nois	e Levels (with	out Topo and	barri	er atten	uation)						
VehicleType	Leq Peak Hou	ur Leq Da	V	Leq E	vening	Lec	Night		Ldn	Cl	VEL
Autos:	69	9.6	68.5		67.1		61.	0	69.5	5	70.1
Medium Trucks:	65	5.8	62.6		54.8		64.	0	70.1	l	70.2
Heavy Trucks:	72	2.8	69.6		61.8		71.	0	77.2	2	77.2
Vehicle Noise: 75.1 72.5			68.4		72.	1	78.5	5	78.6		
Centerline Distance to Noise Contour (in feet)											
				70 c	dBA	65	dBA	6	60 dBA	55	dBA
			Ldn:	16	63		351		755	1,0	627
		С	NEL:	16	66		357		769	1,0	656

Scenario: Road Name: Washington St. Road Segment: s/o Van Buren Bl.

#### Project Name: Arroyo Vista Job Number: 14577

i toda oogiiio		TBI.											
SITE	SPECIFIC INP	UT DATA			NOISE MODEL INPUTS								
Highway Data				ł	Site Con	ditions	(Hard	= 10, Se	oft = 15)				
Average Daily Peak Hour Peak F	Traffic (Adt): 12 Percentage: Hour Volume: 1	,135 vehicles 8.46% ,027 vehicles	;		Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15								
Ve	ehicle Speed:	35 mph		1	Vehicle Mix								
Near/Far La	ane Distance:	36 feet			Veh	icleType	Э	Day	Evening	Night	Daily		
Site Data							Autos:	77.5%	6 14.0%	10.5%	92.00%		
Ba Barrier Type (0-V	Barrier Height:0.0 feetBarrier Type (0-Wall, 1-Berm):0.0Conterline Dist to Barrier:44.0 feet				Me F	edium T Heavy T	rucks: rucks:	48.0% 48.0%	6 2.0% 6 2.0%	50.0% 50.0%	5.00% 5.00%		
Centerline Di	ist. to Barrier:	44.0 feet		1	Noise Source Elevations (in feet)								
Centerline Dist. Barrier Distance Observer Height P	to Observer: to Observer: (Above Pad): ad Elevation:	44.0 feet 0.0 feet 5.0 feet 0.0 feet			Mediui Heav	Auto n Truck ry Truck	os: () (s: 2 (s: 8	0.000 2.297 3.006	Grade Ad	justmen	t: 0.0		
Ro	ad Elevation:	0.0 feet		1	Lane Eq	uivalen	t Dista	nce (in	feet)				
Road Grade: 0.0%						Auto	os: 40	).460					
Left View: -90.0 degrees					Mediu	m Truck	(s: 40	).241					
	Right View:	90.0 degree	\$S		Heav	y Truck	(s: 40	).262					
FHWA Noise Mod	el Calculations												
VehicleType	REMEL 1	raffic Flow	Dist	tance	Finite	Road	Fres	snel	Barrier Att	en Be	rm Atten		
Autos:	64.30	-0.99		1.2	8	-1.20		-4.61	0.0	000	0.000		
Medium Trucks:	75.75	-15.86		1.3	1	-1.20		-4.87	0.0	000	0.000		
Heavy Trucks:	81.57	-13.64		1.3	1	-1.20		-5.50	0.0	000	0.000		
Unmitigated Nois	e Levels (withou	t Topo and I	barrie	r atten	uation)								
VehicleType	Leq Peak Hour	Leq Day		Leq E	vening	Leq	Night		Ldn	С	NEL		
Autos:	63.4	6	32.2		60.8		54	.8	63.2	2	63.9		
Medium Trucks:	60.0	Ę	56.7		49.0		58	.2	64.3	3	64.4		
Heavy Trucks:	68.0	8.0 64.8			57.0		66	.2	72.4	1	72.4		
Vehicle Noise: 69.8 67.1			62.5		67	.1	73.4	1	73.5				
Centerline Distan	ce to Noise Con	tour (in feet)	1										
				70 0	dBA	65	dBA	(	60 dBA	55	5 dBA		
		l	Ldn:	7	5	1	61		346	7	745		
		CN	IEL:	7	6	1	63		351	7	756		

Scenario:	
Road Name:	Chicago Av./Alta Cresta Av.
Road Segment:	n/o Van Buren Bl.

Project Name: Arroyo Vista Job Number: 14577

SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS						
Highway Data		01 0/1/1		,	Site Conditions (Hard = 10, Soft = 15)						
Average Dailv	Traffic (Adt): 2	2.903 vehicle	s		Autos: 15						
Peak Hour	Percentage:	8.46%	-		Me	dium T	rucks (2	Axles):	15		
Peak H	our Volume:	246 vehicles	s		Heavy Trucks (3+ Axles): 15						
Ve	hicle Speed:	25 mph		_	Vahiala	, //:	•	,			
Near/Far La	ne Distance:	12 feet		_	Vehicle Wix						
Sita Data					ven	сіетур		Day 77 5%			07 12%
Sile Dala					٨.٨	dium <sup>-</sup>	Aulos. Trucks:	8/ 8%	12.9%	9.0%	97.4270 1.84%
Bai	rrier Height:	0.0 feet			Heavy Trucks: 86 5% 2 7% 10.8% 07				0.74%		
Barrier Type (0-W	all, 1-Berm):	0.0			Heavy Hucks. 60.5% 2.1% 10.6% 0.14%						0.7470
Centerline Dis	st. to Barrier:	30.0 feet			Noise Source Elevations (in feet)						
Centerline Dist.	to Observer:	30.0 feet				Auto	os: 0	.000			
Barrier Distance	to Observer:				Mediu	m Truci	ks: 2	.297			
Observer Height (	Above Pad):	5.0 feet			Heavy Trucks: 8.006 Grade Adjustment: 0.0						0.0
Pa	ad Elevation:			_	l ano Ea	uivələr	nt Distan	co (in	foot)		
Rua	au Elevalion. Dood Crodo:					Λιιτ	20	816			
, i					Modiu	Auto m Truci	JS. 29 ks: 20	518			
Left View: -90.0 degrees					Heau	N Truci	ns. 29 ke <sup>,</sup> 20	547			
	Night view.	90.0 degree	55		ncar	y much	NG. 29	.547			
FHWA Noise Mode	el Calculations			I							
VehicleType	REMEL	Traffic Flow	Dis	stance	Finite	Road	Fres	nel	Barrier Atte	en Ber	m Atten
Autos:	58.73	-5.50		3.2	6	-1.20		-4.49	0.0	000	0.000
Medium Trucks:	70.80	-22.73		3.3	3	-1.20		-4.86	0.0	000	0.000
Heavy Trucks:	77.97	-26.69		3.3	2	-1.20		-5.77	0.0	000	0.000
Unmitigated Noise	e Levels (withou	ut Topo and	barri	er atten	uation)						
VehicleType	Leq Peak Hour	Leq Day	/	Leq E	vening	Leq	n Night		Ldn	CI	VEL
Autos:	55.3	}	54.1		52.4		46.	3	54.9	)	55.5
Medium Trucks:	50.2	2	49.4		43.0		41.	5	50.0	)	50.2
Heavy Trucks:	53.4	ļ	52.7		43.7		44.	9	53.3	3	53.4
Vehicle Noise: 58.2 57.3				53.3		49.	4	57.9	)	58.3	
Centerline Distance to Noise Contour (in feet)											
			-	70	dBA	65	dBA	6	60 dBA	55	dBA
			Ldn:	į	5		10		22	4	17
		Cl	NEL:	Į	5		11		23	Ę	50

Scenario:	
Road Name:	Chicago Av./Alta Cresta Av.
Road Segment:	s/o Van Buren Bl.

Project Name: Arroyo Vista Job Number: 14577

								1005		2	
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS						
nignway Data					Site Conditions (Hard = $10$ , Soft = $15$ )						
Average Daily Traffic (Adt): 3,554 vehicles					Autos: 15						
Peak Hour Percentage: 8.46%					Medium Trucks (2 Axles): 15						
Peak Hour Volume: 301 vehicles					Heavy Trucks (3+ Axles): 15						
Vehicle Speed: 25 mph					Vehicle Mix						
Near/Far Lane Distance: 12 feet					Veh	icleTyp	е	Day	Evening	Night	Daily
Site Data							Autos:	77.5%	12.9%	9.6%	97.42%
Ba	0.0 feet	0.0 feet		M	edium T	Trucks:	84.8%	4.9%	10.3%	1.84%	
Barrier Type (0-W	0.0			ŀ	leavy T	Trucks:	86.5%	2.7%	10.8%	0.74%	
Centerline Dist. to Barrier: 30.0 feet				-	Noise Source Elevations (in fact)						
Centerline Dist. to Observer: 30.0 feet											
Barrier Distance to Observer: 0.0 feet					Autos: 0.000						
Observer Height (Above Pad): 5.0 feet					Medium Trucks: 2.297						
Pad Flevation: 0.0 feet					Heavy Trucks: 8.006 Grade Adjustment: 0.0						
Road Elevation: 0.0 feet				-	Lane Equivalent Distance (in feet)						
Road Grade: 0.0%					-	Auto	os: 29.	816			
Left View: -90.0 degrees					Medium Trucks: 29.518						
Right View: 90.0 degrees					Heavy Trucks: 29.547						
						-					
FHWA Noise Model Calculations											
VehicleType	REMEL	Traffic Flow	Dis	stance	Finite	Road	Fresi	nel	Barrier Att	en Ber	m Atten
Autos:	58.73	-4.62	-4.62		-1.20			-4.49 0.000		000	0.000
Medium Trucks: 70.80		-21.86		3.3	33	-1.20	.20 -4.86		0.0	000	0.000
Heavy Trucks: 77.97		-25.81	1 3.3		32	-1.20		-5.77 0.000		000	0.000
Unmitigated Noise Levels (without Topo and barrier attenuation)											
VehicleType	Leq Peak Hour	Leq Day	/	Leq E	vening	Leq	Night		Ldn	Cl	VEL
Autos:	56.2	55.0			53.2		47.2		55.8	3	56.4
Medium Trucks:	Medium Trucks: 51.1		50.3		43.9 42		4	50.8		51.1	
Heavy Trucks:	ks:54.353		53.6	44.6		45.8		3	54.2	2	54.3
Vehicle Noise:	Vehicle Noise: 59.1 58.1			54.2		50.3		58.8	3	59.2	
Centerline Distance to Noise Contour (in feet)											
				70	dBA	65	i dBA	6	60 dBA	55	dBA
			Ldn:		5		12		25	Ę	54
		C	NEL:		6		12		27	ţ	57
Heavy Trucks: Vehicle Noise: <b>Centerline Distan</b>	54.3 59.7 <b>ce to Noise Co</b> i	3 1 <b>ntour (in feet</b> C	53.6 58.1 ) Ldn: NEL:	70	44.6 54.2 dBA 5 6	65	45.8 50.3 5 <i>dBA</i> 12 12	3 3 6	54.2 58.8 50 dBA 25 27	2 3 55 4	54.3 59.2 dBA 54 57
Scenario: Road Name: Gamble Av. Road Segment: s/o Iris Av. Project Name: Arroyo Vista Job Number: 14577

CITE		NOISE MODEL INDUTS									
Highway Data	SPECIFIC IN	PUIDAIA		Site C	ondition	NUISE   s (Hard -	10 Sr	$\frac{1}{10} + \frac{1}{15}$	5		
Tilgitway Data	<b>—</b> (0, 10)			She C	onunion	5 (11ai u -	10, 30	/r = 13)			
Average Daily	Traffic (Adt):	875 vehicles			4		Autos:	15			
Peak Hour	Percentage:	8.46%		1	$\frac{1}{1}$						
Peak F	lour Volume:	74 vehicles			Heavy In	ucks (3+	Axles):	15			
Ve	hicle Speed:	25 mph		Vehic	e Mix						
Near/Far La	ne Distance:	12 feet		V	ehicleTyp	)e	Day	Evening	Night	Daily	
Site Data						Autos:	77.5%	12.9%	9.6%	97.42%	
Ba	rrier Heiaht:	0.0 feet			Medium	Trucks:	84.8%	4.9%	10.3%	1.84%	
Barrier Type (0-W	Vall, 1-Berm):	0.0			Heavy	Trucks:	86.5%	2.7%	10.8%	0.74%	
Centerline Di	ist. to Barrier:	30.0 feet		Noise Source Elevations (in feet)							
Centerline Dist.	to Observer:	30.0 feet		Noise Source Elevations (in feet)							
Barrier Distance	to Observer:	0.0 feet		Mar	Aut Autor Truco	0s. 0	207				
Observer Height	(Above Pad):	5.0 feet			Hoow Trucks: 2.297						
P	ad Elevation:	0.0 feet			avy nuc	KS. 0.	000	Orace Au	usunen.	0.0	
Ro	ad Elevation:	0.0 feet		Lane I	Equivale	nt Distan	ce (in t	feet)			
	Road Grade:	0.0%			Aut	os: 29	.816				
Left View: -90.0 degrees					lium Truc	ks: 29	.518				
	Right View:	90.0 degrees	5	He	avy Truc	ks: 29	.547				
EHWA Noise Med	al Calaulation										
VehicleType		Traffic Flow	Distan	ico Ein	ito Road	Eros		Barriar Att	on Bor	m Atton	
Autos	58 73	-10.70	Distail	3.26	_1 20	17031					
Medium Trucks:	70.80	-70.70		3.20	-1.20	, )	-4.86	0.0	000	0.000	
Heavy Trucks:	70.00	-31.90		3 32	-1.20	, )	-5 77	0.0	000	0.000	
Theory Trucks.	11.51	51.50		0.02	1.20	/	0.77	0.0	,00	0.000	
Unmitigated Nois	e Levels (with	out Topo and b	arrier a	ttenuation	ו)	N# 14					
Vehicle I ype	Leq Peak Hou	r Leq Day	Le	eq Evening	Leo	q Night	4	Ldn		VEL	
Autos:	50	.1 4	8.9	47	.2	41.	1	49.7		50.3	
Medium Trucks:	45	.0 4	4.2	37	.8	36.	3	44.8	3	45.0	
Heavy Trucks:	48	.2 4	7.5	38	.5	39.	/	48.1	-	48.2	
Vehicle Noise:	53	.0 5	2.1	48	.1	44.	2	52.7	/	53.1	
Centerline Distan	ce to Noise Co	ontour (in feet)									
				70 dBA	65	5 dBA	6	60 dBA	55	dBA	
	Ldn:			2	5			10		21	
	2	2 5 10				2	23				

Scenario: Road Name: Wood Rd. Road Segment: n/o Van Buren Bl.

Road Geginer		г <b>D</b> I.									
SITES	SPECIFIC INPL	JT DATA			٦	NOISE	MODE	L INPUT	S		
Highway Data				Site Con	ditions	(Hard =	= 10, Sc	oft = 15)			
Average Daily	Traffic (Adt): 12,	728 vehicles					Autos:	15			
Peak Hour	Percentage: 8	8.46%		Medium Trucks (2 Axles): 15							
Peak H	our Volume: 1,	077 vehicles		He	avy Tru	icks (3+	Axles):	15			
Ve	hicle Speed:	40 mph	-	Vahiala	Mix						
Near/Far La	ne Distance:	36 feet	-	Venicie	icleType	<b>a</b>	Dav	Evenina	Niaht	Daily	
Site Data				VOII		Autos:	75.5%	14.0%	10.5%	97 42%	
Data Data	wiew Heinste	0.0.6		М	edium T	rucks:	48.9%	2.2%	48.9%	1.84%	
Barrior Tupo (0.W	Voll 1 Porm):				Heavy 7	rucks:	47.3%	5.4%	47.3%	0.74%	
Contorlino Die	dii, I-Dellii).	0.0 50.0 foot	-							0	
Centerline Dis	to Observer:	50.0 feet	-	Noise So	ource E	levatior	ns (in fe	eet)			
Barrier Distance	to Observer:				Auto	os: 0	.000				
Observer Height (	(Above Pad):	5.0 feet		Mediu	m Truck	(s: 2	.297	_			
Pa	ad Elevation:			Heav	/y Truck	(s: 8	.006	Grade Ad	justment	: 0.0	
Roa	ad Elevation:	0.0 feet	-	Lane Eq	uivalen	t Distar	ice (in i	feet)			
	-	•	Auto	os: 46	.915	,					
		Mediu	m Truck	ks: 46	.726						
	Right View:	90.0 degrees		Heav	/y Truck	ks: 46	.744				
	0	0									
FHWA Noise Mode	el Calculations								_	-	
VehicleType	REMEL T	raffic Flow	Distance	Finite	Road	Fres	nel	Barrier Att	en Bei	rm Atten	
Autos:	66.51	-1.12	0.3	31	-1.20		-4.65	0.0	000	0.000	
Medium Trucks:	11.12	-18.36	0.3	34	-1.20		-4.87	0.0	000	0.000	
Heavy Trucks:	82.99	-22.31	0.3	34	-1.20		-5.43	0.0	000	0.000	
Unmitigated Noise	e Levels (without	t Topo and ba	arrier atte	nuation)							
VehicleType	Leq Peak Hour	Leq Day	Leq E	Evening	Leq	Night		Ldn	C	NEL	
Autos:	64.5	63	3.2	61.9		55.	9	64.3	3	64.9	
Medium Trucks:	58.5	55	5.3	47.8		56.	6	62.7	7	62.8	
Heavy Trucks:	59.8	56	6.5	53.1		57.	7	63.9	9	64.0	
Vehicle Noise:	66.5	64	1.6	62.6		61.	6	68.5	5	68.8	
Centerline Distance	e to Noise Cont	our (in feet)									
			70	dBA	65	dBA	e	60 dBA	55	dBA	
		Lc	dn: 4	40	ł	85	184		3	397	
		CNE	EL: 4	41	ł	89		193	4	15	

Scenario: Road Name: Wood Rd. Road Segment: s/o Van Buren Bl.

SITE	SPECIFIC IN	PUT DATA					NOISE	MODE	LINPUT	S		
Highway Data				5	Site Con	ditions	(Hard :	= 10, Sc	oft = 15)			
Average Daily	Traffic (Adt): 1	8,053 vehicles						Autos:	15			
Peak Hour	Percentage:	8.46%			Me	dium T	rucks (2	Axles):	15			
Peak H	lour Volume:	1,527 vehicles			He	avy Tru	ıcks (3+	Axles):	15			
Ve	hicle Speed:	40 mph		1	Vehicle I	Mix						
Near/Far La	ne Distance:	36 feet			Veh	icleTyp	е	Day	Evening	Night	Daily	
Site Data							Autos:	75.5%	14.0%	10.5%	97.42%	
Ba	rrier Height:	0.0 feet			Me	edium T	Trucks:	48.9%	2.2%	48.9%	1.84%	
Barrier Type (0-W	/all, 1-Berm):	0.0			ŀ	leavy T	Trucks:	47.3%	5.4%	47.3%	0.74%	
Centerline Di	st. to Barrier:	50.0 feet			Noise Source Elevations (in fact)							
Centerline Dist.	to Observer:	50.0 feet		r	VUISE SC							
Barrier Distance	to Observer:	0.0 feet			Madiu		us. C	.000				
Observer Height (	(Above Pad):	5.0 feet			Mealum Trucks: 2.297							
Pa	ad Elevation:	0.0 feet			Heavy Trucks. 8.006 Grade Adjustitient. 0.0							
Roa	ad Elevation:	0.0 feet		L	ane Eq	uivalen	nt Distai	nce (in t	feet)			
	Road Grade:	0.0%				Auto	os: 46	6.915				
Left View: -90.0 degrees					Mediur	n Trucl	ks: 46	6.726				
	Right View:	90.0 degree	S		Heav	y Trucl	ks: 46	6.744				
FHWA Noise Mod	el Calculations	;										
VehicleType	REMEL	Traffic Flow	Dista	ance	Finite	Road	Fres	nel	Barrier Att	en Ber	m Atten	
Autos:	66.51	0.40		0.31	1	-1.20		-4.65	0.0	000	0.000	
Medium Trucks:	77.72	-16.84		0.34	1	-1.20		-4.87	0.0	000	0.000	
Heavy Trucks:	82.99	-20.79		0.34	4	-1.20		-5.43	0.0	000	0.000	
Unmitigated Noise	e Levels (witho	out Topo and l	barrier	atten	uation)							
VehicleType	Leq Peak Hour	r Leq Day		Leq Ev	/ening	Leq	ı Night		Ldn	Cl	VEL	
Autos:	66.0	0 6	64.7		63.4		57	.4	65.8	3	66.5	
Medium Trucks:	60.0	0 5	56.8		49.3		58	.1	64.3	3	64.3	
Heavy Trucks:	61.3	3 5	58.0		54.6		59	.3	65.5	5	65.6	
Vehicle Noise:	68.	0 6	6.1		64.1		63	.1	70.0	)	70.3	
Centerline Distant	ce to Noise Col	ntour (in feet)										
				70 a	<i>IBA</i>	65	i dBA	6	60 dBA	55	dBA	
		I	_dn:	50	C	108			232		01	
		CN	IEL:	52	2		113		243		24	

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*Road Name:* Trautwein Rd./Cole Av. *Road Segment:* n/o Van Buren Bl.

Project Name: Arroyo Vista Job Number: 14577

SITE SPECIFIC IN	PUT DATA		<u></u>	NO	ISE MODE	L INPUTS					
Highway Data			Site Cond	litions (H	ard = 10, S	oft = 15)					
Average Daily Traffic (Adt): 2	8,332 vehicles				Autos	15					
Peak Hour Percentage:	8.46%		Medium Trucks (2 Axles): 15								
Peak Hour Volume:	2,397 vehicles		Hea	vy Trucks	s (3+ Axles)	15					
Vehicle Speed:	50 mph		Vehicle M	ix							
Near/Far Lane Distance:	36 feet		Vehic	leType	Day	Evening	Night Daily				
Site Data				Aut	tos: 75.5%	6 14.0%	10.5% 97.42%				
Barrier Height:	0.0 feet		Me	dium Truc	<i>6</i> 2.2%	48.9% 1.84%					
Barrier Type (0-Wall, 1-Berm):	0.0		Heavy Trucks: 47.3% 5.4% 47.3% 0.74%								
Centerline Dist. to Barrier:	50.0 feet		Noise Source Elevations (in feet)								
Centerline Dist. to Observer:	50.0 feet										
Barrier Distance to Observer:	0.0 feet		Autos. 0.000 Modium Trucks: 2.207								
Observer Height (Above Pad):	5.0 feet		Neululli Ilucks: 2.291 Hoovy Trucks: 8.006 Grada Adjustment: 0.0								
Pad Elevation:	0.0 feet		пеату	TTUCKS.	0.000	Grade Aujt					
Road Elevation:	0.0 feet		Lane Equ	ivalent D	istance (in	feet)					
Road Grade:			Autos:	46.915							
Left View:	3	Medium	Trucks:	46.726							
Right View:	90.0 degrees	6	Heavy	' Trucks:	46.744						
FUNA Naisa Madal Calavlatian											
VehicleType DEMEL	Troffic Flow	Diotonoo	Einita E	Pood	Franci	Porrior Atto	n Porm Atton				
		Distance		1.20	riestiei 4 65						
Autos. 70.20 Modium Trucks: 81.00	1.39	0.	24	-1.20	-4.00	0.00					
Heavy Trucks: 85.38	-10.81	0.	54 37	-1.20	-4.07	0.00					
	-19.01	0	54	-1.20	-0.45	0.00	0.000				
Unmitigated Noise Levels (with	out Topo and b	arrier atte	nuation)		_						
VehicleType Leq Peak Hou	r Leq Day	Leq I	Evening	Leq Nig	ght	Ldn	CNEL				
Autos: 70.	7 69	9.4	68.1		62.1	70.5	71.1				
Medium Trucks: 64.	3 6	1.1	53.6		62.4	68.5	68.6				
Heavy Trucks: 64.	7 6	1.4	58.0		62.6	68.8	68.9				
Vehicle Noise: 72.	4 7	0.6	68.6		67.1	74.2	74.5				
Centerline Distance to Noise Co	ntour (in feet)										
		70	dBA	65 dB	A	60 dBA	55 dBA				
	L	dn:	95	204		439	947				
	CNEL:					99 214 461 994					

Scenario:
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*Road Name:* Trautwein Rd./Cole Av. *Road Segment:* s/o Van Buren Bl.

. toda obginio													
SITE	SPECIFIC IN	IPUT DATA			NOISE MODEL INPUTS								
Highway Data				5	Site Cond	ditions	(Hard =	10, S	oft = 15)				
Average Daily	Traffic (Adt):	17,522 vehicle	s					Autos:	15				
Peak Hour	Percentage:	8.46%			Med	dium Tru	ucks (2 J	Axles).	15				
Peak H	lour Volume:	1,482 vehicle	s		Hea	avy Truc	cks (3+ )	Axles).	15				
Ve	hicle Speed:	50 mph			lohiclo N	liv							
Near/Far La	ne Distance:	36 feet		,	Vehicle II	<b>IIA</b> NeTvne		Dav	Evenina	Niaht	Daily		
Site Data					Verne		Autos:	75 5%	L VC/ III 19	10.5%	97 42%		
		0.0.6			Me	r dium Ti	ucks:	48.9%	5 14.070 5 2.2%	48.9%	1 84%		
Ba Dourriour Turno (O.M	rrier Height:	0.0 feet			H	leavy Ti	ucks:	47.3%	5 4%	47.3%	0.74%		
Barrier Type (0-V	int to Porrior	0.0											
Centerline Di	to Observer	50.0 feet		^	Noise Source Elevations (in feet)								
Centenine Dist.	to Observer.	50.0 feet				Autos	s: 0.	000					
Damer Distance	(Above Ded)	0.0 feet			Mediun	n Truck	s: 2.	297					
Observer Height	(ADOVE Pad):	5.0 feet			Heavy	7 Truck	s: 8.	006	Grade Ad	justment	t: 0.0		
P	ad Elevation:	0.0 feet			ano Equ	uvəlont	Distan	co (in	foot)				
Ro	ad Elevation:				ane Lyu	Auto			ieel)				
Loff View: 00.0 degrees					Madium	AUIO	5. 40. AC	310					
Left View: -90.0 degrees					Mealun		S. 40.	720					
	Right View:	90.0 degre	es		Heavy	Y TTUCK	S. 46.	744					
FHWA Noise Mod	el Calculation	S											
VehicleType	REMEL	Traffic Flow	Dis	tance	Finite I	Road	Fresi	nel	Barrier Att	en Bei	rm Atten		
Autos:	70.20	-0.70		0.31	1	-1.20		-4.65	0.0	000	0.000		
Medium Trucks:	81.00	-17.94		0.34	1	-1.20		-4.87	0.0	000	0.000		
Heavy Trucks:	85.38	-21.89		0.34	1	-1.20		-5.43	0.0	000	0.000		
Unmitigated Nois	e Levels (with	out Topo and	barrie	er atten	uation)								
VehicleType	Leq Peak Hou	ur Leq Day	/	Leq Ev	, ening	Leq	Night		Ldn	С	NEL		
Autos:	68	8.6	67.3		66.0		60.0	C	68.4	1	69.1		
Medium Trucks:	62	2.2	59.0		51.5		60.3	3	66.5	5	66.5		
Heavy Trucks:	62	2.6	59.3		55.9		60.0	6	66.8	3	66.8		
Vehicle Noise:	70	).3	68.5		66.6		65.	1	72.1		72.4		
Centerline Distan	ce to Noise Co	ontour (in feet	;)										
		-		70 a	IBA	65	dBA	(	60 dBA	55	dBA		
			Ldn:	69	9	14	48		319	6	687		
		С	NEL:	72	2	1:	55		335	7	722		

Scenario: Road Name: Victoria Av. Road Segment: w/o Van Buren Bl. Project Name: Arroyo Vista Job Number: 14577

Noau Seyme	nt. w/o vali bu										
SITE	SPECIFIC IN	IPUT DATA					NOISE	MODE	EL INPUT	S	
Highway Data					Site Con	ditions	(Hard	= 10, S	oft = 15)		
Average Daily	Traffic (Adt): 1	12,364 vehicle	s					Autos.	: 15		
Peak Hour	Percentage:	8.46%			Me	dium Ti	rucks (2	? Axles).	: 15		
Peak H	lour Volume:	1,046 vehicles	s		He	avy Tru	icks (3+	- Axles).	: 15		
Ve	hicle Speed:	45 mph		_	Vehicle	Mix					
Near/Far La	ne Distance:	12 feet			Veh	icleType	е	Day	Evening	Night	Daily
Site Data							Autos:	75.5%	6 14.0%	10.5%	97.42%
Ba	rrier Height:	0.0 feet			M	edium T	Trucks:	48.9%	6 2.2%	48.9%	1.84%
Barrier Type (0-W	/all, 1-Berm):	0.0			I	Heavy 7	rucks:	47.3%	6 5.4%	47.3%	0.74%
Centerline Di	st. to Barrier:	37.0 feet		_	Noise So	ource F	ilevatio	ns (in f	eet)		
Centerline Dist.	to Observer:	37.0 feet				Auto		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	3.006	Grade Ad	justment	: 0.0
Pa	ad Elevation:	0.0 feet				· ·				·	
Roa	ad Elevation:	0.0 feet		1	Lane Eq	uivalen	t Dista	nce (in	feet)		
	Road Grade: 0.0%					Auto	os: 3	6.851			
Left View: -90.0 degrees					Mediu	m Truck	(s: 3)	6.610			
	Right View:	90.0 degree	es		Heav	/y Truck	(s: 3)	6.634			
FHWA Noise Mod	el Calculation	S									
VehicleType	REMEL	Traffic Flow	Dis	stance	Finite	Road	Fre	snel	Barrier Att	en Bei	rm Atten
Autos:	68.46	-1.76		1.8	8	-1.20		-4.56	0.0	000	0.000
Medium Trucks:	79.45	-18.99		1.9	3	-1.20		-4.87	0.0	000	0.000
Heavy Trucks:	84.25	-22.95		1.9	2	-1.20		-5.61	0.0	000	0.000
Unmitigated Noise	e Levels (with	out Topo and	barrie	er atten	uation)						
VehicleType	Leq Peak Hou	ır Leq Day	/	Leq E	vening	Leq	Night		Ldn	С	NEL
Autos:	67	.4	66.1		64.8		58	8.8	67.2	2	67.8
Medium Trucks:	61	.2	58.0		50.5		59	).3	65.4	4	65.5
Heavy Trucks:	62	.0	58.7		55.3		60	0.0	66.2	2	66.3
Vehicle Noise:	69	.2	67.4		65.4		64	.1	71.1	1	71.4
Centerline Distant	ce to Noise Co	ontour (in feet	)								
				70 (	dBA	65	dBA		60 dBA	55	dBA
			Ldn:	4	14 94			203		438	
		Ci	NEL:	4	6	(	99		213	Z	159

Scenario: Road Name: Victoria Av. Road Segment: e/o Van Buren Bl. Project Name: Arroyo Vista Job Number: 14577

Noau Seyme											
SITE	SPECIFIC IN	IPUT DATA				Ν	NOISE	MODE	L INPUT	S	
Highway Data					Site Con	ditions	(Hard	= 10, So	oft = 15)		
Average Daily	Traffic (Adt):	7,102 vehicle	S					Autos:	15		
Peak Hour	Percentage:	8.46%			Me	dium Tr	ucks (2	Axles):	15		
Peak H	lour Volume:	601 vehicle	S		He	avy Tru	cks (3+	Axles):	15		
Ve	hicle Speed:	40 mph			Vehicle	Mix					
Near/Far La	ne Distance:	12 feet			Veh	icleType	Э	Day	Evening	Night	Daily
Site Data							Autos:	75.5%	5 14.0%	10.5%	97.42%
Ba	rrier Height:	0.0 feet			M	edium T	rucks:	48.9%	5 2.2%	48.9%	1.84%
Barrier Type (0-W	/all, 1-Berm):	0.0			I	Heavy T	rucks:	47.3%	5.4%	47.3%	0.74%
Centerline Di	st. to Barrier:	37.0 feet			Noise So	ource E	levatio	ns (in f	eet)		
Centerline Dist.	to Observer:	37.0 feet		-		Auto	os <sup>.</sup> (	000			
Barrier Distance	to Observer:	0.0 feet			Mediu	m Truck	(S: 2	2.297			
Observer Height (	(Above Pad):	5.0 feet			Heav	/v Truck	(S: 6	3.006	Grade Ad	justment	: 0.0
Pa	ad Elevation:	0.0 feet		_							
Roa	ad Elevation:	0.0 feet		1	Lane Eq	uivalen	t Dista	nce (în	feet)		
	Road Grade: 0.0%					Auto	os: 36	5.851			
Left View: -90.0 degrees					Mediu	m Truck	(s: 36	5.610			
	Right View:	90.0 degre	es		Heav	/y Truck	as: 36	5.634			
FHWA Noise Mod	el Calculation	s									
VehicleType	REMEL	Traffic Flow	Dis	stance	Finite	Road	Fres	snel	Barrier Att	en Ber	m Atten
Autos:	66.51	-3.65		1.88	8	-1.20		-4.56	0.0	000	0.000
Medium Trucks:	77.72	-20.89		1.93	3	-1.20		-4.87	0.0	000	0.000
Heavy Trucks:	82.99	-24.85		1.92	2	-1.20		-5.61	0.0	000	0.000
Unmitigated Noise	e Levels (with	out Topo and	barrie	er atten	uation)						
VehicleType	Leq Peak Hou	ir Leq Dag	/	Leq E	vening	Leq	Night		Ldn	Cl	NEL
Autos:	63	.5	62.3		60.9		54	.9	63.4	1	64.0
Medium Trucks:	57	.6	54.4		46.9		55	.6	61.8	3	61.8
Heavy Trucks:	58	.9	55.6		52.2		56	.8	63.0	)	63.1
Vehicle Noise:	65	.6	63.6		61.6		60	.6	67.5	5	67.8
Centerline Distant	ce to Noise Co	ontour (in fee	t)							T	
				70 c	dBA	65	dBA	6	60 dBA	55	dBA
			Ldn:	2	25 55		118		2	254	
		С	NEL:	2	27 57 123				2	:65	

Scenario:	
Road Name:	Van Buren Bl.
Road Segment:	w/o Washington St.

Project Name: Arroyo Vista Job Number: 14577

		J										
SITE	SPECIFIC INF	PUT DATA				[	NOISE	MODE	L INPUT	S		
Highway Data					Site Con	ditions	s (Hard =	= 10, Se	oft = 15)			
Average Daily	Traffic (Adt): 3	9,158 vehicles	6					Autos:	15			
Peak Hour	<sup>-</sup> Percentage:	8.46%			Me	dium T	rucks (2	Axles):	15			
Peak F	lour Volume:	3,313 vehicles	6		He	avy Tru	ıcks (3+	Axles):	15			
Ve	ehicle Speed:	50 mph		1	Vehicle I	Mix						
Near/Far La	ane Distance:	54 feet			Vehi	icleTvp	e	Dav	Evenina	Niaht	Dailv	
Site Data						- <b>)</b>	Autos:	75.5%	5 14.0%	10.5%	97.42%	
Ba	rrier Height	0.0 feet			Me	edium T	Trucks:	48.9%	5 2.2%	48.9%	1.84%	
Barrier Type (0-W	Vall. 1-Berm):	0.0			ŀ	leavy T	Trucks:	47.3%	5.4%	47.3%	0.74%	
Centerline Di	ist. to Barrier:	76.0 feet			Naiaa Ca							
Centerline Dist.	to Observer:	76.0 feet			Noise So	ource E	evation	is (in t	eet)			
Barrier Distance	to Observer:	0.0 feet				Auto	os: 0	.000				
Observer Height	(Above Pad):	5.0 feet			Mediur	n Trucl	ks: 2	.297				
P	ad Elevation:	0.0 feet			Heavy Trucks: 8.006 Grade Adjustment: 0.0							
Ro	ad Elevation: ad Elevation:	0.0 feet		1	Lane Equ	uivalen	nt Distar	ice (in	feet)			
Road Grade: 0.0%					·	Auto	os: 71	.218				
Left View: -90.0 degrees					Mediur	n Trucl	ks: 71	.094				
	Right View:	90.0 degree	es		Heav	y Trucl	ks: 71	.106				
	-	C										
FHWA Noise Mod	el Calculations											
VehicleType	REMEL	Traffic Flow	Dist	ance	Finite	Road	Fres	nel	Barrier Att	en Bei	m Atten	
Autos:	70.20	2.79		-2.4	1	-1.20		-4.73	0.0	000	0.000	
Medium Trucks:	81.00	-14.44		-2.4	0	-1.20		-4.88	0.0	000	0.000	
Heavy Trucks:	85.38	-18.40		-2.4	0	-1.20		-5.25	0.0	000	0.000	
Unmitigated Noise	e Levels (witho	ut Topo and	barrie	r atten	uation)							
VehicleType	Leq Peak Hour	· Leq Day	,	Leq E	vening	Leq	ı Night		Ldn	С	NEL	
Autos:	69.4	4 (	68.1		66.8		60.	8	69.2	2	69.8	
Medium Trucks:	63.0	0 :	59.8		52.3		61.	0	67.2	2	67.2	
Heavy Trucks:	63.4	4 (	60.1		56.7		61.	3	67.5	5	67.6	
Vehicle Noise:	71.1	1	69.3		67.3		65.	8	72.8	3	73.2	
Centerline Distan	ce to Noise Col	ntour (in feet)	)									
				70 0	dBA	65	dBA	(	60 dBA	55	dBA	
			Ldn:	11	17	2	253		545		1,175	
		Cl	VEL:	12	23	2	266		573	1,	234	

Scenario: Road Name: Van Buren Bl. Road Segment: e/o Washington St.

Noau Seymen	ni. e/o washingit	JII 31.									
SITE	SPECIFIC INPL	JT DATA			٦	NOISE	MODE	L INPUT	S		
Highway Data				Site Cor	nditions	(Hard =	= 10, So	oft = 15)			
Average Daily	Traffic (Adt): 49,	103 vehicles					Autos:	15			
Peak Hour	Percentage: 8	3.46%		Me	edium Tr	ucks (2	Axles):	15			
Peak H	lour Volume: 4,	154 vehicles		He	avy Tru	cks (3+	Axles):	15			
Ve	hicle Speed:	50 mph		Vahiala	Mix						
Near/Far La	ne Distance:	54 feet		Vehicle	iviix nicleTvne	2	Dav	Evenina	Niaht	Daily	
Site Data				101		Autos:	75.5%	14.0%	10.5%	97 42%	
Data Data	rriar Haight			M	Iedium T	rucks:	48.9%	5 11.070 5 2.2%	48.9%	1.84%	
Barrier Type (0-M	/all_1_Borm):				Heavy T	rucks:	47.3%	5.4%	47.3%	0.74%	
Centerline Di	st to Barrier	0.0 76.0 feet									
Centerline Dist	to Observer:	76.0 feet		Noise S	ource E	levatio	ns (in f	eet)			
Barrier Distance	to Observer:	0.0 feet			Auto	os: 0	.000				
Observer Height (	(Above Pad):	5.0 feet		Mediu	m Truck	(s: 2	.297				
Pi	ad Flevation:	0.0 feet		Heavy Trucks: 8.006 Grade Adjustment: 0.0							
Roa	ad Elevation:	0.0 feet		Lane Eq	uivalen	t Distar	nce (in	feet)			
	Road Grade:	0.0%			Auto	s: 71	.218				
		Mediu	m Truck	.s: 71	.094						
	Right View:	90.0 degrees		Hea	vy Truck	:s: 71	.106				
	_										
FHWA Noise Mode	el Calculations										
VehicleType	REMEL T	raffic Flow	Distance	Finite	Road	Fres	nel	Barrier Att	en Be	rm Atten	
Autos:	70.20	3.78	-2	.41	-1.20		-4.73	0.0	000	0.000	
Meaium Trucks:	81.00	-13.46	-2	.40	-1.20		-4.88	0.0	000	0.000	
Heavy Trucks:	85.38	-17.42	-2	.40	-1.20		-5.25	0.0	000	0.000	
Unmitigated Noise	e Levels (withou	t Topo and ba	arrier atte	enuation)					-1		
VehicleType	Leq Peak Hour	Leq Day	Leq	Evening	Leq	Night		Ldn	C	NEL	
Autos:	70.4	69	.1	67.8		61.	8	70.2	2	70.8	
Medium Trucks:	63.9	60	.8	53.3		62.	0	68.2	2	68.2	
Heavy Trucks:	64.4	61	.0	57.6		62.	3	68.5	5	68.6	
Vehicle Noise:	72.1	70	).2	68.3		66.	8	73.8	3	74.1	
Centerline Distant	ce to Noise Cont	tour (in feet)									
			7	0 dBA	65	dBA	(	60 dBA	55	5 dBA	
		La	In:	137	294		634		1,366		
		CNE	L:	143	3	09		666	1	,435	

Scenario:	
Road Name:	Van Buren Bl.
Road Segment:	w/o Chicago Av./Alta Cresta Av.

SITE SPECIFIC IN	IPUT DATA			NOISE MOE	EL INPUTS					
Highway Data		S	Site Conditions (Hard = 10, Soft = 15)							
Average Daily Traffic (Adt):	43,505 vehicles			Auto	s: 15					
Peak Hour Percentage:	8.46%		Medium	Trucks (2 Axle	s <i>):</i> 15					
Peak Hour Volume:	3,681 vehicles		Heavy T	rucks (3+ Axle	s <i>):</i> 15					
Vehicle Speed:	50 mph	V	ahicla Mix							
Near/Far Lane Distance:	54 feet	V	VehicleTv	pe Dav	Evenina I	Vight Daily				
Site Data			v or more r y	Autos: 75.5	5% 14.0%	10.5% 97.42%				
Barrier Height:	0.0 feet		Medium	Trucks: 48.9	9% 2.2%	48.9% 1.84%				
Barrier Type (0-Wall, 1-Berm):	0.0		Heavy	Trucks: 47.3	3% 5.4%	47.3% 0.74%				
Centerline Dist. to Barrier:	76.0 feet		laisa Saurca	Elevations (in	foot)					
Centerline Dist. to Observer:	76.0 feet		oise Source		leelj					
Barrier Distance to Observer:	0.0 feet		Au Madium Tru	103. $0.000$						
Observer Height (Above Pad):	5.0 feet			2.291	Grade Adius	stment: 0.0				
Pad Elevation:	0.0 feet		Tleavy Tru	JNS. 0.000	Orade Auja					
Road Elevation:	0.0 feet	L	ane Equivale	nt Distance (i	n feet)					
Road Grade:	0.0%		Au	tos: 71.218						
Left View:	-90.0 degrees		Medium Tru	cks: 71.094						
Right View:	90.0 degrees		Heavy Tru	cks: 71.106						
EHWA Noise Medel Calculation										
VehicleType REMEI	S Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atter	Berm Atten				
Autos: 70.20	3 25	-2 41	-1 2	0 -47	3 0.00					
Medium Trucks: 81.00	-13.99	-2.40	-1.2	0 -4.8	8 0.00	0.000				
Heavy Trucks: 85.38	-17.94	-2.40	-1.2	0 -5.2	5 0.00	0 0.000				
Inmitigated Noise Levels (with	out Topo and ba	rrior atton	ution)							
VehicleType Leg Peak Hou	ur Lea Dav	Lea Ev	enina le	a Niaht	l dn	CNEL				
Autos: 69	0.8 68	.6	67.3	61.2	69.7	70.3				
Medium Trucks: 63	3.4 60.	.2	52.7	61.5	67.7	67.7				
Heavy Trucks: 63	3.8 60	.5	57.1	61.8	68.0	68.1				
Vehicle Noise: 71	.5 69	.7	67.8	66.3	73.3	73.6				
Centerline Distance to Noise Co	ontour (in feet)									
	/	70 di	BA 6	5 dBA	60 dBA	55 dBA				
	Ld	<i>n:</i> 126	6	271	585	1,260				
	CNE	<i>L:</i> 132	2	285	614	1,323				

Scenario:	
Road Name:	Van Buren Bl.
Road Segment:	e/o Chicago Av./Alta Cresta Av.

SITE SPECIFIC IN	IPUT DATA			1	NOISEN	/ODF		S		
Highway Data			Site Conditions (Hard = 10, Soft = 15)							
Average Daily Traffic (Adt):	42 166 vehicles		Autos: 15							
Peak Hour Percentage:	8.46%		Me	dium Ti	rucks (2 A	Axles):	15			
Peak Hour Volume:	3.567 vehicles		Hea	avy Tru	icks (3+ A	Axles):	15			
Vehicle Speed:	50 mph		Vahiala		•	,				
Near/Far Lane Distance:	54 feet		Venicie I		•	Dav	Fuening	Niaht	Dailu	
Site Data			Vern	сіетур		Day 75 50/		10.5%		
			٨.٨٥	dium T	Aulos. Trucks:	10.0%	2.2%	10.5%	97.42%	
Barrier Height:	0.0 feet		- IVIC	leavy T	rucks:	40.970	5.4%	40.9%	0.74%	
Barrier Type (0-Wall, 1-Berm):	0.0		'	ieavy i	rucks.	47.370	5 3.470	47.5%	0.7470	
Centerline Dist. to Barrier:	76.0 feet		Noise So	ource E	levation	s (in fe	et)			
Centerline Dist. to Observer:	76.0 feet			Auto	os: 0.0	000				
Barrier Distance to Observer:	0.0 feet		Mediur	n Trucł	ks: 2.2	297				
Observer Height (Above Pad):	5.0 feet		Heav	y Truck	ks: 8.0	006	Grade Ad	justment	: 0.0	
Pad Elevation:	0.0 feet		l ano Fru	uivalon	t Distan	no (in i	foot)			
Road Elevation.			Lane Ly	Λυτο	71	218				
L oft View:	0.0%		Mediur	n Truck	/s. 71.	ng4				
Dight View:	-90.0 degrees		Heav	v Truck	(s. 71.) (s <sup>.</sup> 71	106				
night view.	90.0 degrees	5	Ticav	y mucr	<i></i>	100				
FHWA Noise Model Calculation	s									
VehicleType REMEL	Traffic Flow	Distance	Finite	Road	Fresh	el	Barrier Att	en Ber	m Atten	
Autos: 70.20	3.11	-2	.41	-1.20		-4.73	0.0	000	0.000	
Medium Trucks: 81.00	-14.12	-2	.40 -1.20 -4.88 0.000					000	0.000	
Heavy Trucks: 85.38	-18.08	-2	.40	-1.20		-5.25	0.0	000	0.000	
Unmitigated Noise Levels (with	out Topo and b	arrier atte	enuation)							
VehicleType Leg Peak Hou	Ir Leq Day	Leg	Evening	Leq	Night		Ldn	С	NEL	
Autos: 69	.7 6	8.4	67.1		61.1		69.5	5	70.1	
Medium Trucks: 63	.3 6	0.1	52.6		61.4	Ļ	67.5	5	67.6	
Heavy Trucks: 63	.7 6	0.4	57.0		61.6	5	67.8	3	67.9	
Vehicle Noise: 71	.4 6	9.6	67.7		66.1		73.2	2	73.5	
Centerline Distance to Noise Co	ontour (in feet)									
		70	) dBA	65	dBA	6	60 dBA	55	dBA	
	L	dn:	123	2	266	÷	573 1,2		234	
	CN	EL:	130 279 602				602	1,	296	

Scenario: Road Name: Van Buren Bl. Road Segment: e/o Wood Rd.

### Project Name: Arroyo Vista Job Number: 14577

		····											
SITE	SPECIFIC IN	IPUT DATA				ſ	NOISE	MODE	L INPUT	S			
Highway Data				S	Site Conditions (Hard = 10, Soft = 15)								
Average Daily	Traffic (Adt):	41,044 vehicles	S		Autos: 15								
Peak Hour	Percentage:	8.46%			Medium Trucks (2 Axles): 15								
Peak H	our Volume:	3,472 vehicles	S		Hea	avy Tru	ıcks (3-	- Axles):	15				
Ve	hicle Speed:	50 mph			/ohiclo I	liv							
Near/Far La	ne Distance:	54 feet		v	Venicie i Vehi	icleTvn	۵	Dav	Evenina	Niaht	Daily		
Site Data					veni	сістур	Autos:	75 5%	14.0%	10.5%	97 42%		
		0.0.6			Me	edium 1	rucks <sup>.</sup>	48.9%	5 14.0% 5 2.2%	48.9%	1 84%		
Ba	rrier Height:	0.0 feet			H.	leavv T	rucks:	47.3%	5 4%	47.3%	0 74%		
Barrier Type (U-M	vall, 1-Berm):	0.0 70.0 feet				loary l	ruono.	47.07	0.470	47.070	0.7 470		
Centerline Di	st. to Barrier:	76.0 feet		٨	Voise So	ource E	ilevatio	ns (in f	eet)				
Centenine Dist.	to Observer:	76.0 feet				Auto	os: (	0.000					
Damer Distance	(Above Ded)	0.0 feet			Mediur	n Trucl	ks:	2.297					
	(ADOVE Pau).	5.0 feet		Heav	justment	: 0.0							
Po Po	ad Elevation.			1	ane Foi	uivalen	t Dista	nce (in	feet)				
	au Elevation. Road Grade:			_	.uno 290	Διιτά	ne <sup>.</sup> 7	1 218	1001)				
		-90.0 degree	20		Mediur	n Truck	/0. 1 /(s <sup>.</sup> 7	1 094					
	Right View:				Heav	v Truck	(s <sup>.</sup> 7	1 106					
	ragin view.	30.0 degree	53		nouv	y maon		1.100					
FHWA Noise Mod	el Calculation	S		1									
VehicleType	REMEL	Traffic Flow	Dis	stance	Finite	Road	Fre	snel	Barrier Att	en Ber	m Atten		
Autos:	70.20	3.00		-2.41	l	-1.20		-4.73	0.0	000	0.000		
Medium Trucks:	81.00	-14.24		-2.40	2.40 -1.20 -4.88 0.000					000	0.000		
Heavy Trucks:	85.38	-18.20		-2.40	-2.40 -1.20 -5.25 0.000				000	0.000			
Unmitigated Noise	e Levels (with	out Topo and	barrie	er atteni	uation)								
VehicleType	Leq Peak Hou	ur Leq Day	/	Leq Ev	, vening	Leq	Night		Ldn	C	NEL		
Autos:	69	9.6	68.3		67.0		61	.0	69.4	1	70.0		
Medium Trucks:	63	3.2	60.0		52.5		61	.2	67.4	1	67.5		
Heavy Trucks:	63		56.9		61	.5	67.7	7	67.8				
Vehicle Noise:		67.5		66	5.0	73.0	)	73.4					
Centerline Distan	ce to Noise Co	)											
				70 d	IBA	65	dBA	(	60 dBA	55	dBA		
			12	121 261				563	1,	212			
		Ci	NEL:	12	7	2	274		591	1,	273		

Scenario:	
Road Name:	Van Buren Bl.
Road Segment:	e/o Trautwein Rd./Cole Av.

Road Oegine			<i>.</i>									
SITE	SPECIFIC IN	PUT DATA				1	NOISE	MODE	L INPUT	S		
Highway Data					Site Conditions (Hard = 10, Soft = 15)							
Average Daily	Traffic (Adt): 3	6,371 vehicle	s					Autos:	15			
Peak Hour	Percentage:	8.46%			Med	dium Ti	rucks (2	Axles):	15			
Peak H	our Volume:	3,077 vehicle	s		Hea	avy Tru	ıcks (3+	Axles):	15			
Ve	hicle Speed:	50 mph		-	Vohielo I	<i>liv</i>						
Near/Far La	ne Distance:	54 feet			Venicie i Vehi	r <b>iix</b> cleTvni	۵	Dav	Evenina	Niaht	Daily	
Site Data						oloryp	Autos:	75.5%	L 14 0%	10.59	6 97 42%	
Ba	rriar Uaiabt	0.0 foot			Ме	dium T	rucks:	48.9%	5 1.10% 5 2.2%	48.99	% 1.84%	
Barrier Type (0-M	Vall 1-Borm) <sup>.</sup>				H	leavy 7	rucks:	47.3%	5.4%	47.39	% 0.74%	
Centerline Di	ist to Barrier:	0.0 76.0 feet										
Centerline Dist	to Observer:	76.0 feet			Noise So	urce E	levatio	ns (in f	eet)			
Barrier Distance	to Observer:	0.0 feet				Auto	os: (	0.000				
Observer Height	(Above Pad):	5.0 feet			Mediun	n Truck	(S: 2	2.297				
P	ad Elevation:				Heav	y Truck	(S: 6	3.006	Grade Ad	ljustmer	nt: 0.0	
Ro	ad Elevation: ad Elevation:	0.0 feet			Lane Equ	iivalen	t Dista	nce (in	feet)			
	Road Grade:	0.0%			•	Auto	os: 7'	1.218	,			
	Left View:	-90.0 deared	25		Mediun	n Truck	(s: 7	1.094				
	Right View:	90.0 degree	es		Heav	v Truck	(s: 7'	1.106				
	- igno - ieni				•	•						
FHWA Noise Mod	el Calculations	;										
VehicleType	REMEL	Traffic Flow	Dis	stance	Finite	Road	Fres	snel	Barrier Att	ten Be	erm Atten	
Autos:	70.20	2.47		-2.4	.1	-1.20		-4.73	0.0	000	0.000	
Medium Trucks:	81.00	-14.77		-2.4	0	-1.20		-4.88	0.0	000	0.000	
Heavy Trucks:	85.38	-18.72		-2.4	0	-1.20		-5.25	0.0	000	0.000	
Unmitigated Nois	e Levels (witho	out Topo and	barrie	er atter	nuation)							
VehicleType	Leq Peak Hou	r Leq Day	/	Leq E	vening	Leq	Night		Ldn	(	CNEL	
Autos:	69.	1	67.8		66.5		60	.5	68.	9	69.5	
Medium Trucks:		52.0		60	.7	66.	9	66.9				
Heavy Trucks:		56.3		61	.0	67.	2	67.3				
Vehicle Noise:		67.0		65	.5	72.	5	72.8				
Centerline Distan	ce to Noise Co	ntour (in feet	)									
				70	dBA	65	dBA	(	60 dBA	5	5 dBA	
			Ldn:	1	12	2	241		519		1,118	
		C	NEL:	1	17 253				545 1,174			

Scenario: Road Name: Iris Av. Road Segment: w/o Gamble Av. Project Name: Arroyo Vista Job Number: 14577

SITE	SPECIFIC IN	ΙΡΠΤ ΠΑΤΔ			NOISE MODEL INPUTS								
Highway Data		UT DATA			Site Conditions (Hard = 10, Soft = 15)								
Average Dailv	Traffic (Adt):	43 vehicle	S		Autos: 15								
Peak Hour	r Percentage:	8.46%	•		Me	dium T	rucks (2	Axles):	15				
Peak H	Jour Volume:	4 vehicle	S		He	avy Tru	ıcks (3+	Axles):	15				
Ve	ehicle Speed:	30 mph		_	Vahiala I	Mine							
Near/Far La	ane Distance:	12 feet			Venicie i	<b>VIIX</b> ioloTyp	Evoning	Night	Daily				
Sita Data					ven	сіетур	e Autos:	Day 77.5%	12 0%	0.6%	07 12%		
Sile Dala					٨٨	dium	Autos. Trucks:	84.8%	12.9%	9.0%	97.42 %		
Ba	rrier Height:	0.0 feet			line H	leavy T	Trucks:	86.5%	2.7%	10.0%	0.74%		
Barrier Type (U-V	vall, 1-Berm):	0.0				loavy	ruono.	00.070	2.170	10.070	0.7470		
Centerline Di	to Observer	30.0 feet		1	Noise Sc	ource E	levatio	ns (in fe	et)				
Certierine Dist.	to Observer.	30.0 feet				Auto	os: C	.000					
Observer Height	(Abovo Pod):	0.0 feet			Mediur	n Trucl	ks: 2	.297					
	(ADOVE Fau).	5.0 feet			Heav	y Trucl	ks: 8	.006	Grade Ad	justment.	0.0		
Ro	ad Elevation:			_	Lane Eq	uivaler	nt Distai	nce (in t	feet)				
	Road Grade:	0.0 1001				Auto	$25^{\circ}$	816					
	Left View:	-90.0 deare	<b>6</b> 5		Mediu	n Truci	ks: 29	0.518					
	Right View:	90.0 degrees			Heav	v Trucl	ks: 29	0.547					
	i igini i ioni	colo dogio	00			,							
FHWA Noise Mod	lel Calculation	s			I					T			
VehicleType	REMEL	Traffic Flow	Dis	tance	Finite	Road	Fres	nel	Barrier Att	en Ber	m Atten		
Autos:	61.75	-24.58		3.2	6	-1.20		-4.49	0.0	000	0.000		
Medium Trucks:	73.48	-41.82		3.3	3	-1.20		-4.86	0.0	000	0.000		
Heavy Trucks:	79.92	-45.78		3.3	2	-1.20		-5.77	0.0	000	0.000		
Unmitigated Nois	e Levels (with	out Topo and	barrie	er atten	uation)								
VehicleType	Leq Peak Ho	ur Leq Day	/	Leq E	vening	Leq	Night		Ldn	CI	VEL		
Autos:	39	9.2	38.1		36.3		30	.2	38.9	)	39.5		
Medium Trucks:	33	3.8	33.0		26.6		25	.1	33.6	6	33.8		
Heavy Trucks:	36	5.3	35.6		26.5		27	.8	36.′		36.3		
Vehicle Noise:	41	.8	40.8		37.1		33	.0	41.5	5	41.9		
Centerline Distan													
				70 (	dBA	65	dBA	6	60 dBA	55	dBA		
			Ldn:	(	C		1		2 4		4		
		С	CNEL:				1	2			4		

Scenari Road Nam Road Segmer	o: e: Iris Av. nt: w/o Chicago	o Av./Alta Cres	a Av.			Project Job Ni	Name: umber:	Arroyo 14577	Vista		
SITE S	SPECIFIC IN	PUT DATA				Ν	OISE	MODE	L INPUT	S	
Highway Data				Si	ite Cona	litions (	(Hard =	= 10, Sc	oft = 15)		
Average Daily	Traffic (Adt):	435 vehicles						Autos:	15		
Peak Hour	Percentage:	8.46%			Med	lium Tru	ıcks (2	Axles):	15		
Peak H	our Volume:	37 vehicles			Hea	vy Truc	ks (3+	Axles):	15		
Vel	hicle Speed:	30 mph		V	obialo M	liv					
Near/Far Lar	ne Distance:	12 feet		Ve	Vehic	ix leTvpe		Dav	Evenina	Niaht	Dailv
Site Data						A	utos:	77.5%	5 12.9%	9.6%	5 97.42%
Bar	rier Heiaht:	0.0 feet			Me	dium Tr	ucks:	84.8%	4.9%	10.3%	5 1.84%
Barrier Type (0-W	all, 1-Berm):	0.0			H	eavy Tr	ucks:	86.5%	2.7%	10.8%	6 0.74%
Centerline Dis	st. to Barrier:	30.0 feet		No	oise Soi	ırce Ele	evatio	ns (in fe	eet)		
Centerline Dist.	to Observer:	30.0 feet				Autos	s <sup>.</sup> 0	000	,		
Barrier Distance	to Observer:	0.0 feet			Medium	Trucks		.297			
Observer Height (J	Above Pad):	5.0 feet			Heavy	Trucks	. – .: 8	.006	Grade Ad	justmen	t: 0.0
Pa	ad Elevation:	0.0 feet			noary						
Roa	ad Elevation:	0.0 feet		Lá	ane Equ	ivalent	Distar	ice (in	feet)		
F	Road Grade:	0.0%				Autos	: 29	.816			
	Left View:	-90.0 degree	S		Medium	Trucks	s: 29	.518			
	Right View:	90.0 degree	S		Heavy	' Trucks	s: 29	.547			
FHWA Noise Mode	el Calculation	S									
VehicleType	REMEL	Traffic Flow	Distan	се	Finite F	Road	Fres	nel	Barrier Att	en Be	rm Atten
Autos:	61.75	-14.53		3.26		-1.20		-4.49	0.0	000	0.000
Medium Trucks:	73.48	-31.77		3.33		-1.20		-4.86	0.0	000	0.000
Heavy Trucks:	79.92	-35.73		3.32		-1.20		-5.77	0.0	000	0.000
Unmitigated Noise	Evels (with	out Topo and I	barrier a	ttenu	ation)			-			
VehicleType	Leq Peak Hou	r Leq Day	Le	eq Eve	ening	Leq I	Vight		Ldn	C	NEL
Autos:	49	.3 4	8.1		46.3		40	3	48.9	9	49.5
Medium Trucks:	43	.8 4	3.1		36.7		35.	2	43.6	5	43.8
Heavy Trucks:	46	.3 4	5.6		36.6		37.	8	46.2	2	46.3
Vehicle Noise:	51	.8	50.8		47.2		43	0	51.8	5	51.9
Centerline Distance	e to Noise Co	ontour (in feet)									
			. L	70 dE	ЗA	65 0	aBA	6	50 dBA	55	o dBA
			_dn:	2		4	ŀ		8		18
		CN	IEL:	2		4	ŀ		9		19

Scenario Road Name Road Segmen	o: ə: Iris Av. t: e/o Chicago A	Av./Alta Cresta Av	1.		Project Na Job Num	me: Arroyo ber: 14577	Vista	
SITE S	SPECIFIC INP	UT DATA			NOI	SE MODE	L INPUTS	5
Highway Data				Site Con	ditions (Ha	ard = 10, Se	oft = 15)	
Average Daily 1	Traffic (Adt):	187 vehicles				Autos:	15	
Peak Hour I	Percentage:	8.46%		Me	dium Truck	s (2 Axles):	15	
Peak Ho	our Volume:	16 vehicles		Hea	avy Trucks	(3+ Axles):	15	
Veh	nicle Speed:	30 mph	_	Vohicla	liv			
Near/Far Lan	ne Distance:	12 feet		Venicie i Vehi	icleType	Dav	Evening	Night Daily
Site Data					Auto	os: 77.5%	5 12.9%	9.6% 97.42%
Bar	rier Height:	0.0 feet		Me	edium Truci	ks: 84.8%	4.9%	10.3% 1.84%
Barrier Type (0-Wa	all, 1-Berm):	0.0		ŀ	leavy Truci	ks: 86.5%	5 2.7%	10.8% 0.74%
Centerline Dis	t. to Barrier:	30.0 feet	-	Noise So	ource Eleva	tions (in f	eet)	
Centerline Dist. t	o Observer:	30.0 feet			Autos:	0.000		
Barrier Distance t	o Observer:	0.0 feet		Mediur	n Trucks:	2.297		
Observer Height (A	Above Pad):	5.0 feet		Heav	v Trucks:	8.006	Grade Adj	ustment: 0.0
Pa	d Elevation:	0.0 feet	_		, 		- -	
Roa	d Elevation:	0.0 feet	-	Lane Equ	livalent Di	stance (In	teet)	
h h	Road Grade:	0.0%		Marthur	Autos:	29.816		
	Left View:	-90.0 degrees		Mealur Lloov	n Trucks:	29.518		
	Right view:	90.0 degrees		neav	y TTUCKS.	29.547		
FHWA Noise Mode	l Calculations		I					
VehicleType	REMEL T	Traffic Flow Di	istance	Finite	Road I	Fresnel	Barrier Atte	en Berm Atten
Autos:	61.75	-18.20	3.2	6	-1.20	-4.49	0.0	0.00
Medium Trucks:	73.48	-35.44	3.3	3	-1.20	-4.86	0.0	0.00
Heavy Trucks:	79.92	-39.39	3.3	2	-1.20	-5.77	0.0	0.00
Unmitigated Noise	Levels (withou	it Topo and barr	ier atten	uation)				
VehicleType	Leq Peak Hour	Leq Day	Leq E	vening	Leq Nig	ht	Ldn	CNEL
Autos:	45.6	44.4		42.7		36.6	45.2	45.
Medium Trucks:	40.2	39.4		33.0		31.5	39.9	) 40.
Heavy Trucks:	42.7	42.0		32.9		34.2	42.5	42.
Venicie inoise:	48.1	47.2		43.5		39.4	47.9	9 48.
Centerline Distance	e to Noise Con	tour (in feet)	70			<b>n</b>   .		
		I da.	700	и <i>БА</i> 1	05 UB/	- (	50 UDA	20 UBA
		CNEL:		1	2 2		5	11

APPENDIX 10.1:

**OPERATIONS NOISE CALCULATIONS** 



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## 14577 - Arroyo Vista

CadnaA Noise Prediction Model: 14577-02\_Operation.cna Date: 11.04.23 Analyst: B. Maddux

## 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	
Reference Time Day (min)	960.00
Reference Time Night (min)	480.00
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		Lir	mit. Val	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)
R1		R1	33.7	31.0	37.7	0.0	0.0	0.0		x	Total	5.00	r	6227063.78	2270948.36	5.00
R2		R2	29.6	26.8	33.5	0.0	0.0	0.0		x	Total	5.00	r	6228371.46	2271009.86	5.00
R3		R3	34.5	31.8	38.5	0.0	0.0	0.0		x	Total	5.00	r	6228303.46	2269214.00	5.00
R4		R4	32.9	30.2	36.9	0.0	0.0	0.0		x	Total	5.00	r	6228115.94	2268158.46	5.00
R5		R5	35.5	32.8	39.5	0.0	0.0	0.0		x	Total	5.00	r	6226736.83	2268160.29	5.00

### Point Source(s)

	_					-										
Name	М.	ID	R	esult. PW	/L		Lw/L	i	Op	erating Ti	ime	Heigh	t	C	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)
AC001		AC001	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	а	6225628.05	2269617.96	3.00
AC002		AC002	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	а	6225745.15	2269625.13	3.00
AC003		AC003	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	а	6225845.53	2269632.30	3.00
AC004		AC004	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	а	6225924.39	2269637.08	3.00
AC005		AC005	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	а	6225998.48	2269665.75	3.00
AC006		AC006	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	а	6226070.18	2269713.55	3.00
AC007		AC007	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	а	6226261.36	2269414.82	3.00
AC008		AC008	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	а	6226268.53	2269367.02	3.00
AC009		AC009	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	а	6226342.62	2269321.61	3.00
AC010		AC010	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	а	6226266.14	2269302.50	3.00
AC011		AC011	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	а	6226266.14	2269218.85	3.00
AC012		AC012	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	а	6226258.97	2269132.81	3.00
AC013		AC013	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	а	6226258.97	2269037.22	3.00

Name	М.	ID	R	esult. PW	/L		Lw / L	i	Op	erating Ti	me	Heigh	t	C	oordinates	
			Day	Evening	Night	Туре	Value	norm.	Day	Special	Night	(6)		X	Y	Z
4 6 0 1 4		4 6 0 1 4	(dBA)	(dBA)	(dBA)	Lui	70	dB(A)	(min)	(min)	(min)	(ft)	-	(ft)	(ft)	(ft)
AC014		AC014	76.0	76.0	76.0	LW	76		675.00	0.00	270.00	3.00	a	6226258.97	2268953.57	3.00
AC015		AC015	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	a	6226258.97	2268793.45	3.00
AC017		AC017	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	a	6226258.97	2268709.81	3.00
AC018		AC018	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	а	6226258.97	2268628.55	3.00
AC019		AC019	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	а	6226261.36	2268552.08	3.00
AC020		AC020	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	а	6226256.58	2268320.26	3.00
AC021		AC021	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	а	6226325.89	2268317.87	3.00
AC022		AC022	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	а	6226478.84	2268308.31	3.00
AC023		AC023	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	а	6226581.61	2268305.92	3.00
AC024		AC024	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	а	6226679.59	2268310.70	3.00
AC025		AC025	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	а	6226839.71	2268305.92	3.00
AC026		AC026	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	а	6226844.49	2268442.14	3.00
AC027		AC027	76.0	76.0	76.0	LW	76		675.00	0.00	270.00	3.00	a	6226846.88	2268590.31	3.00
AC028		AC028	76.0	76.0	76.0	LW	76		675.00	0.00	270.00	3.00	a	6226844.49	2268676.35	3.00
AC029		AC029	76.0	76.0	76.0	LW	76		675.00	0.00	270.00	3.00	d	6226844.49	2208/07.10	3.00
AC031		AC030	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	a	6226856.44	2268915 34	3.00
AC032		AC032	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	a	6226875 56	2268960 74	3.00
AC033		AC033	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	a	6226909.02	2268915.34	3.00
AC034		AC034	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	a	6226892.29	2268807.79	3.00
AC035		AC035	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	а	6226892.29	2268764.78	3.00
AC036		AC036	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	а	6226889.90	2268671.57	3.00
AC037		AC037	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	а	6226889.90	2268583.15	3.00
AC038		AC038	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	а	6226894.68	2268437.36	3.00
AC039		AC039	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	а	6226897.07	2268308.31	3.00
AC040		AC040	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	а	6227093.04	2268308.31	3.00
AC041		AC041	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	а	6227143.23	2268308.31	3.00
AC042		AC042	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	а	6227250.77	2268308.31	3.00
AC043		AC043	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	а	6227174.29	2268865.15	3.00
AC044		AC044	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	а	6227226.87	2268846.03	3.00
AC045		AC045	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	а	6227174.29	2268791.06	3.00
AC046		AC046	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	а	6227224.48	2268740.88	3.00
AC047		AC047	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	а	6227171.90	2268707.42	3.00
AC048		AC048	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	a	6227224.48	2268688.30	3.00
AC049		AC049	76.0	76.0	76.0	LW	76		675.00	0.00	270.00	3.00	a	622/1/6.68	2208035.72	3.00
AC050		AC050	76.0	76.0	76.0	LW	76		675.00	0.00	270.00	3.00	a	622/1/9.0/	2208585.54	3.00
AC051		AC051	76.0	76.0	76.0	LW	76		675.00	0.00	270.00	3.00	a	6227475 42	2208350.51	3.00
AC053		AC052	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	a	6227494 54	2268454 09	3.00
AC054		AC054	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	a	6227537.55	2268487.55	3.00
AC055		AC055	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	a	6227492.15	2268528.18	3.00
AC056		AC056	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	а	6227492.15	2268602.26	3.00
AC057		AC057	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	а	6227532.77	2268669.18	3.00
AC058		AC058	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	а	6227539.94	2268721.76	3.00
AC059		AC059	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	а	6227492.15	2268712.20	3.00
AC060		AC060	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	а	6227496.93	2268760.00	3.00
AC061		AC061	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	а	6227475.42	2268824.52	3.00
AC062		AC062	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	а	6227568.62	2268313.09	3.00
AC063		AC063	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	а	6227628.37	2268315.48	3.00
AC064	-	AC064	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	а	6227735.91	2268313.09	3.00
AC065	-	AC065	76.0	76.0	76.0	LW	76		675.00	0.00	270.00	3.00	a	6227831.51	2268313.09	3.00
ACUED		ACUED	70.0	76.0	70.0	LW	70 76		675.00	0.00	270.00	3.00 2.00	a	6220020 07	2208315.48	5.00 2.00
AC062	-	AC068	76.0	76.0	76.0		76		675.00	0.00	270.00	3.00	a	6227752 64	2200310.70	3.00
AC069		ACO69	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	a	6227855 41	2268659 62	3.00
AC070		AC070	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	a	6227958.17	2268678.74	3.00
AC071		AC071	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	a	6228020.31	2268695.47	3.00
AC072		AC072	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	а	6227946.22	2268862.76	3.00
AC073		AC073	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	а	6227888.86	2268855.59	3.00
AC074		AC074	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	а	6227817.17	2268860.37	3.00
AC075		AC075	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	а	6227759.81	2268877.10	3.00
AC076		AC076	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	а	6227707.23	2268944.02	3.00
AC077		AC077	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	а	6227666.61	2268987.03	3.00
AC078		AC078	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	а	6227582.96	2268996.59	3.00
AC079	_	AC079	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	а	6227473.03	2269118.48	3.00
AC080		AC080	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	а	6227367.87	2269080.24	3.00
AC081	-	AC081	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	а	6227289.01	2269104.14	3.00
AC082	-	AC082	76.0	76.0	76.0	LW	76		675.00	0.00	270.00	3.00	a	6227226.87	2269065.90	3.00
AC083		AC083	76.0	76.0	76.0	LW	76		675.00	0.00	270.00	3.00	a	6226854.05	2209216.46	3.00
AC084	-	ACU84	70.0	76.0	76.0	LW	70 76		675.00	0.00	270.00	3.00	a	6226732 17	22092/8.60	3.00
AC000	-	AC005	76.0	70.0	76.0	LW	70		675.00	0.00	270.00	2.00	d	6776600 71	2209360.14	3.00
AC087	-	AC087	76.0	76.0	76.0		76		675.00	0.00	270.00	3.00	a	6226629 40	2203433.94	3.00
AC088		ACO88	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	a	6226581 61	2269479 35	3.00
AC089		AC089	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	a	6226486.01	2269579.72	3.00
AC090		AC090	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	а	6226311.55	2269775.69	3.00

Name	M.	ID	R	esult. PW	'L		Lw/L	i	Ope	erating Ti	ime	Heigh	t	C	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)
AC091		AC091	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	а	6226282.87	2269818.71	3.00
AC092		AC092	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	а	6226354.57	2269864.11	3.00
AC093		AC093	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	а	6226376.08	2269811.54	3.00
AC094		AC094	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	а	6226428.66	2269842.60	3.00
AC095		AC095	76.0	76.0	76.0	LW	76		675.00	0.00	270.00	3.00	a	6226404.76	2269885.62	3.00
AC096		AC096	76.0	76.0	76.0	LW	76		675.00	0.00	270.00	3.00	a	6226497.96	2269940.59	3.00
AC097	-	AC097	76.0	76.0	76.0	LW	76		675.00	0.00	270.00	3.00	a	6226517.08	2269895.18	3.00
AC098		AC098	76.0	76.0	76.0	LW	76		675.00	0.00	270.00	3.00	a	6226000.87	2269969.27	3.00
AC099		AC100	76.0	76.0	76.0	LW	76		675.00	0.00	270.00	3.00	a	6226058.23	2270007.51	3.00
AC100	-	AC100	76.0	76.0	76.0	LW	76		675.00	0.00	270.00	3.00	d	6220132.31	2270040.90	3.00
AC101		AC101	76.0	76.0	76.0	LW	70		675.00	0.00	270.00	3.00	d	6220190.84	22/0080.57	3.00
AC102		AC102	76.0	76.0	76.0	LW	76		675.00	0.00	270.00	3.00	d	6227219.70	2209414.82	3.00
AC103		AC103	76.0	76.0	76.0	LW	76		675.00	0.00	270.00	3.00	a 2	6227303.33	2209393.31	3.00
AC104		AC104	76.0	76.0	76.0	LW	76		675.00	0.00	270.00	3.00	a 2	6227351.77	2260357.46	3.00
AC105		AC106	76.0	76.0	76.0	LW	76		675.00	0.00	270.00	3.00	a	6227542 33	2269324.00	3.00
AC107		AC107	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	a	6227614.03	2269264.00	3.00
AC108		AC108	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	a	6227695.28	2269214.07	3.00
AC109		AC109	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	a	6227759.81	2269159.10	3.00
AC110		AC110	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	a	6227826.73	2269104.14	3.00
AC111		AC111	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	а	6227869.74	2269039.61	3.00
AC112		AC112	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	а	6226758.46	2269962.10	3.00
AC113		AC113	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	а	6226717.83	2270079.20	3.00
AC114		AC114	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	а	6226691.54	2270127.00	3.00
AC115		AC115	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	а	6226638.96	2270198.70	3.00
AC116		AC116	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	а	6227155.17	2269515.19	3.00
AC117		AC117	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	а	6227095.43	2269579.72	3.00
AC118		AC118	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	а	6227050.02	2269632.30	3.00
AC119		AC119	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	а	6226978.32	2269694.43	3.00
AC120		AC120	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	а	6226885.12	2269732.67	3.00
AC121		AC121	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	а	6226856.44	2269768.52	3.00
AC122		AC122	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	а	6226825.37	2269837.83	3.00
AC123		AC123	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	а	6226572.05	2270260.83	3.00
AC124		AC124	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	а	6226529.03	2270342.09	3.00
AC125		AC125	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	а	6226493.18	2270416.17	3.00
AC126		AC126	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	а	6226481.23	2270506.99	3.00
AC127		AC127	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	а	6226469.28	2270590.63	3.00
AC128		AC128	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	а	6226572.05	2270731.64	3.00
AC129		AC129	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	а	6226717.83	2270724.47	3.00
AC130		AC130	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	а	6226777.58	2270722.08	3.00
AC131		AC131	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	а	6226937.70	2270717.30	3.00
AC132		AC132	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	а	6227095.43	2270729.25	3.00
AC133		AC133	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	а	6227260.33	2270714.91	3.00
AC134		AC134	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	а	6227413.28	2270769.87	3.00
AC135		AC135	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	а	6227673.78	2270753.14	3.00
AC136		AC136	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	а	6227731.13	2270757.92	3.00
AC137		AC137	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	а	6227884.08	2270767.48	3.00
AC138		AC138	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	а	6228130.24	2270734.03	3.00
AC139		AC139	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	а	6228137.41	2270664.72	3.00
AC140		AC140	76.0	76.0	76.0	LW	76		675.00	0.00	270.00	3.00	а	6228132.63	2270442.46	3.00
AC141		AC141	76.0	76.0	76.0	LW	76		675.00	0.00	270.00	3.00	а	6226789.52	22/0535.6/	3.00
AC142	-	AC142	76.0	76.0	76.0	LW	76		675.00	0.00	270.00	3.00	a	6220///.58	2270495.04	3.00
AC143	-	AC143	70.0	76.0	70.0	LW	70		675.00	0.00	270.00	3.00	a	6220/89.52	22/0449.63	3.00
AC144	-	AC145	70.0	76.0	76.0	LW	70		675.00	0.00	270.00	3.00	d 2	6226862 61	2210392.21	3.00
AC145	-	AC145	76.0	76.0	70.0	LW	76		675.00	0.00	270.00	3.00	d	6226003.01	2270331.05	3.00
AC140		AC147	76.0	76.0	76.0	1.00	76		675.00	0.00	270.00	3.00	2	6226952 04	2270234.23	3.00
AC149	-	AC149	76.0	76.0	76.0	1.00	76		675.00	0.00	270.00	3.00	a	6226992.04	2270174.94	3.00
AC140	-	AC1/10	76.0	76.0	76.0	1.00	76		675.00	0.00	270.00	3.00	a	6226961 60	2270382 71	3.00
AC150	-	AC150	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	a	6226880 34	2270416 17	3.00
AC151	1	AC151	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	a	6226949.65	2270432.90	3.00
AC152		AC152	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	a	6227038.07	2270382 71	3.00
AC153		AC153	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	a	6227050.07	2270432.90	3.00
AC154		AC154	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	а	6227212.53	2270380.32	3.00
AC155		AC155	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	а	6227207.75	2270432.90	3.00
AC156		AC156	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	a	6227265.11	2270432.90	3.00
AC157		AC157	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	а	6227267.50	2270377.94	3.00
AC158		AC158	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	а	6227379.82	2270387.49	3.00
AC159		AC159	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	а	6227372.65	2270444.85	3.00
AC160		AC160	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	а	6227556.67	2270442.46	3.00
AC161		AC161	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	а	6227556.67	2270389.88	3.00
AC162		AC162	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	а	6227609.25	2270387.49	3.00
AC163		AC163	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	а	6227604.47	2270435.29	3.00
AC164		AC164	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	а	6227716.79	2270435.29	3.00
AC165		AC165	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	а	6227716.79	2270387.49	3.00
AC166		AC166	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	а	6227821.95	2270392.27	3.00
AC167		AC167	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	а	6227824.34	2270442.46	3.00

Name	M.	ID	R	esult. PW	'L		Lw/L	i	Оре	erating Ti	me	Heigh	t	C	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)
AC168		AC168	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	а	6227934.27	2270444.85	3.00
AC169		AC169	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	а	6227931.88	2270387.49	3.00
AC170		AC170	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	а	6227066.75	2270031.40	3.00
AC171		AC171	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	а	6227100.21	2269993.17	3.00
AC172		AC172	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	а	6227148.00	2269928.64	3.00
AC173		AC173	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	а	6227212.53	2269880.84	3.00
AC174		AC174	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	а	6227257.94	2269821.10	3.00
AC175		AC175	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	а	6227315.30	2269952.54	3.00
AC176		AC176	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	а	6227214.92	2269957.32	3.00
AC177		AC177	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	а	6227262.72	2269978.83	3.00
AC178		AC178	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	а	6227322.47	2270033.79	3.00
AC179		AC179	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	а	6227365.48	2269993.17	3.00
AC180		AC180	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	а	6227384.60	2270043.35	3.00
AC181		AC181	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	а	6227489.76	2270043.35	3.00
AC182		AC182	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	а	6227487.37	2269993.17	3.00
AC183		AC183	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	а	6227602.08	2269995.56	3.00
AC184		AC184	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	а	6227602.08	2270052.91	3.00
AC185		AC185	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	а	6227714.40	2270050.52	3.00
AC186		AC186	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	а	6227716.79	2269995.56	3.00
AC187		AC187	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	а	6227821.95	2270050.52	3.00
AC188		AC188	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	а	6227821.95	2269995.56	3.00
AC189		AC189	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	а	6227929.49	2270050.52	3.00
AC190		AC190	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	а	6227927.10	2269997.95	3.00
AC191		AC191	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	а	6228161.31	2270009.90	3.00
AC192		AC192	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	а	6228158.92	2269959.71	3.00
AC193		AC193	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	а	6228166.09	2269735.06	3.00
AC194		AC194	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	а	6228158.92	2269534.31	3.00
AC195		AC195	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	а	6228149.36	2269307.27	3.00
AC196		AC196	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	а	6228142.19	2269154.32	3.00
AC197		AC197	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	а	6227487.37	2269680.09	3.00
AC198		AC198	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	а	6227575.79	2269658.59	3.00
AC199		AC199	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	а	6227678.56	2269617.96	3.00
AC200		AC200	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	а	6227757.42	2269577.33	3.00
AC201		AC201	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	а	6227810.00	2269660.98	3.00
AC202		AC202	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	а	6227807.61	2269613.18	3.00
AC203		AC203	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	а	6227922.32	2269660.98	3.00
AC204		AC204	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	а	6227829.12	2269522.36	3.00
AC205		AC205	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	а	6227924.71	2269383.75	3.00
AC206		AC206	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	а	6227864.96	2269433.94	3.00
AC207		AC207	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	а	6227800.44	2269484.12	3.00
AC208		AC208	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	а	6227747.86	2269527.14	3.00
AC209		AC209	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	а	6227654.66	2269570.16	3.00
AC210		AC210	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	а	6227568.62	2269608.40	3.00
AC211		AC211	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	а	6227496.93	2269627.52	3.00
AC212		AC212	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	а	6227425.23	2269660.98	3.00
AC213		AC213	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	а	6227382.21	2269692.04	3.00
AC214		AC214	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	а	6226172.94	2269727.89	3.00

### Line Source(s)

Name	M.	ID	R	esult. PW	/L	R	esult. PW	Ľ		Lw/L	i	Ор	erating Ti	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)	

Name	ID	F	leig	ht		Coordinat	tes	
		Begin		End	x	У	z	Ground
		(ft)		(ft)	(ft)	(ft)	(ft)	(ft)

## Area Source(s)

Name	М.	ID	R	esult. PW	L	Re	esult. PW	L''		Lw/L	i	Op	erating Ti	ime	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)	
										-					
Name	ID		Hei	ght			Coor	dinates							

Iname	סון	ne	igin		Coorumat	.es	
		Begin	End	х	у	z	Ground
		(ft)	(ft)	(ft)	(ft)	(ft)	(ft)

## Barrier(s)

Name	Sel.	М.	ID	Abso	rption	Z-Ext.	Canti	lever	Hei	ght		Coordinat	es	_
				left	right		horz.	vert.	Begin	End	х	у	z	Ground
						(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)

# Building(s)

Name	Sel.	M.	ID	RB	Residents	Absorption	Height		Coordinat	es	
							Begin	х	у	z	Ground
							(ft)	(ft)	(ft)	(ft)	(ft)

### Ground Absorption(s)

Name	Sel.	М.	ID	G	Coord	inates
					х	У
					(ft)	(ft)

## Contour(s)

Name	Sel.	М.	ID	OnlyPts	Hei	ght	C	Coordinates	
					Begin	End	х	У	z
					(ft)	(ft)	(ft)	(ft)	(ft)

### Vertical Area Source(s)

Name	ID	Н	eight		Coordinat	es	_
		Begin	End	х	У	z	Ground
		(ft)	(ft)	(ft)	(ft)	(ft)	(ft)

### Rail

Name	Sel.	М.	ID	L	v'	Train Class	Correct.	Vmax
				Day	Night		Track	
				(dBA)	(dBA)		(dB)	(km(mph)

### Sound Level Spectra

Name	ID	Туре					Okta	ve Spe	ctrum (o	iB)					Source
			Weight.	31.5	63	125	250	500	1000	2000	4000	8000	A	lin	

### Roads

Name	Sel.	M.	ID		Lme		Cour	nt Data		e	xact Cou	nt Data			Speed	l Limit	SCS	Surf	face	Gradient	Mul	t. Reflec	tion
				Day	Evening	Night	DTV	Str.class.		М			p (%)		Auto	Truck	Dist.	Dstro	Type		Drefl	Hbuild	Dist.
				(dBA)	(dBA)	(dBA)			Day Evening Night		Day	Evening	Night	(mph)	(mph)		(dB)		(%)	(dB)	(ft)	(ft)	

#### RoadsGeo

Name	He	eight		Coordinat	es		Dist	LSlope
	Begin	End	х	У	z	Ground	(ft)	(%)
	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)		

APPENDIX 11.1:

**CONSTRUCTION NOISE CALCULATIONS** 

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## 14577 - Arroyo Vista

CadnaA Noise Prediction Model: 14577-02\_Construction.cna Date: 02.05.23 Analyst: B. Maddux

#### **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	mit. Val	ue		Lanc	l 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)
R1		R1	52.8	49.4	56.6	0.0	0.0	0.0		x	Total	5.00	r	6227063.78	2270948.36	5.00
R2		R2	47.2	43.7	50.9	0.0	0.0	0.0		x	Total	5.00	r	6228371.46	2271009.86	5.00
R3		R3	51.0	43.9	52.2	0.0	0.0	0.0		x	Total	5.00	r	6228303.46	2269214.00	5.00
R4		R4	50.3	42.6	51.1	0.0	0.0	0.0		x	Total	5.00	r	6228115.94	2268158.46	5.00
R5		R5	51.5	46.0	53.7	0.0	0.0	0.0		x	Total	5.00	r	6226736.83	2268160.29	5.00

### Point Source(s)

	-															
Name	М.	ID	R	esult. PW	/L		Lw/L	i	Op	erating T	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)

### Line Source(s)

Name	М.	ID	R	lesult. PW	/L	R	esult. PW	Ľ		Lw/L	i	Op	erating Ti	ime		Moving	Pt. Src		Heig	,ht
			Day Evening Nig			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)	
Name	חו		Hei	aht			Coor	dinates												

Name	טון	пе	igni		Coorumat	.es	
		Begin	End	x	У	z	Ground
		(ft)	(ft)	(ft)	(ft)	(ft)	(ft)

## Area Source(s)

Name	М.	ID	R	esult. PW	'L	R	esult. PW	L"		Lw / Li		Op	erating Ti	me	Heigh	t
			Day	Evening	Night	Day	Evening	Night	Туре	Value	norm.	Day	Special	Night	(ft)	
			(dBA)	(dBA)	(dBA)	(dBA)	(dBA)	(dBA)			dB(A)	(min)	(min)	(min)		Γ
MainConstructionArea		CA1	115.6	15.6	15.6	58.0	-42.0	-42.0	PWL-Pt	115.6					0	a
RockCrushing		CA2	121.4	121.4	121.4	81.2	81.2	81.2	Lw	121.4					0.	а

Name	ID	I	lei	ght		Coordinat	es	
		Begin		End	x	У	z	Ground
		(ft)		(ft)	(ft)	(ft)	(ft)	(ft)
MainConstructionArea	CA1	0.00	а		6225585.73	2270877.17	0.00	0.00
					6228248.13	2270869.58	0.00	0.00
					6228215.15	2268213.75	0.00	0.00
					6228217.50	2267840.19	0.00	0.00
					6228189.03	2267840.19	0.00	0.00
					6228189.01	2268237.65	0.00	0.00
					6226224.57	2268230.22	0.00	0.00
					6226238.26	2269556.02	0.00	0.00
					6225574.20	2269557.22	0.00	0.00
RockCrushing	CA2	0.00	а		6225697.03	2270386.64	0.00	0.00
					6225774.07	2270354.09	0.00	0.00
					6225890.17	2270346.49	0.00	0.00
					6225901.02	2270241.24	0.00	0.00
					6225737.17	2269863.64	0.00	0.00
					6225595.03	2269922.23	0.00	0.00
					6225589.60	2270056.78	0.00	0.00
					6225596.11	2270210.86	0.00	0.00
					6225663.39	2270369.28	0.00	0.00

### Barrier(s)

Name	Sel.	М.	ID	Abso	rption	Z-Ext.	Cantilever		Height		Coordinates				
				left	right		horz. vert.		Begin	End	х	у	z	Ground	
						(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	

### Building(s)

Name	Sel.	М.	ID	RB	Residents	Absorption	Height		Coordinat	es	
							Begin	х	У	z	Ground
							(ft)	(ft)	(ft)	(ft)	(ft)

## Ground Absorption(s)

Name	Sel.	М.	ID	G	Coordinates					
					x	У				
					(ft)	(ft)				

### Vertical Area Source(s)

Name	ID	He	ight		Coordinates						
		Begin	End	x	У	z	Ground				
		(ft)	(ft)	(ft)	(ft)	(ft)	(ft)				

### Rail

Name	Sel.	М.	ID	L	v'	Train Class	Correct.	Vmax
				Day	Night		Track	
				(dBA)	(dBA)		(dB)	(km(mph)

APPENDIX 11.2:

**BLASTING NOISE CALCULATIONS** 



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## 14577 - Arroyo Vista

CadnaA Noise Prediction Model: 14577-02\_Blasting.cna Date: 04.04.23 Analyst: B. Maddux

## Calculation Configuration

Configuration										
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										
Reference Time Day (min)	960.00									
Reference Time Night (min)	480.00									
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		Limit. Value			Land Use			Height		C	oordinates	
			Day	Night	CNEL	Day	Night	CNEL	Type	Auto	Noise Type			Х	Y	Z
			(dBA)	(dBA)	(dBA)	(dBA)	(dBA)	(dBA)				(ft)		(ft)	(ft)	(ft)
R1		R1	61.1	61.1	67.8	0.0	0.0	0.0		x	Total	5.00	r	6227063.78	2270948.36	5.00
R2		R2	57.1	57.1	63.8	0.0	0.0	0.0		х	Total	5.00	r	6228371.46	2271009.86	5.00
R3		R3	62.4	62.4	69.1	0.0	0.0	0.0		x	Total	5.00	r	6228303.46	2269214.00	5.00
R4		R4	70.2	70.2	76.9	0.0	0.0	0.0		x	Total	5.00	r	6228115.94	2268158.46	5.00
R5		R5	61.8	61.8	68.5	0.0	0.0	0.0		x	Total	5.00	r	6226736.83	2268160.29	5.00

### Area Source(s)

Name	М.	ID	R	esult. PW	/L	R	esult. PW	L''		Lw/L	i	Op	erating Ti	me	Height	t
			Day	Evening	Night	Day	Evening	Night	Туре	Value	norm.	Day	Special	Night	(ft)	
			(dBA)	(dBA)	(dBA)	(dBA)	(dBA)	(dBA)			dB(A)	(min)	(min)	(min)		
Blasting1		Blasting1	125.7	125.7	125.7	85.7	85.7	85.7	Lw	125.7					1	а
Blasting2		Blasting2	125.6	125.6	125.6	83.0	83.0	83.0	Lw	125.6					0.	а
Blasting3		Blasting3	125.6	125.6	125.6	83.3	83.3	83.3	Lw	125.6					0.	а
Blasting4		Blasting4	125.6	125.6	125.6	85.9	85.9	85.9	Lw	125.6					0.	а

Name	ID	ŀ	lei	ght		Coordinates					
		Begin		End		х	У	z	Ground		
		(ft)	(ft) (ft)			(ft)	(ft)	(ft)	(ft)		
Blasting1	Blasting1	1.00	00 a			6227262.94	2270273.03	1.00	0.00		
						6227364.94	2270151.50	1.00	0.00		
						6227291.15	2269930.14	1.00	0.00		
						6227226.05	2269880.23	1.00	0.00		
						6227141.41	2269878.06	1.00	0.00		

Name	ID	Height				Coordinates					
		Begin		End		х	У	z	Ground		
		(ft)		(ft)		(ft)	(ft)	(ft)	(ft)		
						6227045.93	2269895.42	1.00	0.00		
						6226989.50	2270042.99	1.00	0.00		
						6227011.20	2270138.48	1.00	0.00		
						6227130.56	2270249.16	1.00	0.00		
Blasting2	Blasting2	0.00	а			6226603.22	2269819.47	0.00	0.00		
						6226640.11	2269802.11	0.00	0.00		
						6226700.87	2269665.39	0.00	0.00		
						6226650.96	2269489.61	0.00	0.00		
						6226579.35	2269385.44	0.00	0.00		
						6226505.56	2269346.38	0.00	0.00		
						6226418.76	2269344.21	0.00	0.00		
						6226334.12	2269376.76	0.00	0.00		
						6226262.51	2269452.71	0.00	0.00		
						6226177.87	2269580.75	0.00	0.00		
						6226214.76	2269697.94	0.00	0.00		
						6226260.34	2269799.94	0.00	0.00		
						6226399.23	2269847.68	0.00	0.00		
Blasting3	Blasting3	0.00	а			6227681.78	2268773.46	0.00	0.00		
						6227566.76	2268740.91	0.00	0.00		
						6227449.57	2268730.06	0.00	0.00		
						6227323.70	2268740.91	0.00	0.00		
						6227130.56	2268795.16	0.00	0.00		
						6227026.40	2268847.25	0.00	0.00		
						6227006.86	2268947.07	0.00	0.00		
						6227084.99	2269079.45	0.00	0.00		
						6227124.05	2269066.43	0.00	0.00		
						6227197.84	2269088.13	0.00	0.00		
						6227375.79	2269046.90	0.00	0.00		
						6227445.23	2269064.26	0.00	0.00		
						6227586.29	2269007.84	0.00	0.00		
						6227670.93	2268875.46	0.00	0.00		
Blasting4	Blasting4	0.00	а			6228046.36	2268241.78	0.00	0.00		
						6227768.58	2268237.44	0.00	0.00		
						6227696.97	2268269.99	0.00	0.00		
						6227690.46	2268322.07	0.00	0.00		
					_	6227696.97	2268460.96	0.00	0.00		
					_	6227746.88	2268552.11	0.00	0.00		
						6227794.62	2268567.30	0.00	0.00		
						6227911.81	2268534.75	0.00	0.00		
						6228044.19	2268467.47	0.00	0.00		