Tres Cerritos

NOISE IMPACT ANALYSIS
CITY OF HEMET

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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_{eq}	Equivalent continuous (average) sound level
L_{max}	Maximum level measured over the time interval
L_{min}	Minimum level measured over the time interval
mph	Miles per hour
NR	Noise Reduction
Project	Tres Cerritos
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 Tres Cerritos Development ("Project"). The Project site is located north of Rose Road, between Warren Road and Myers Street, in the City of Hemet. The Project consists of the development of up to 269 single-family residential dwelling units. This study has been prepared to satisfy the applicable City of Hemet standards and thresholds of significance based on Appendix G of the California Environmental Quality Act (CEQA) Guidelines. (1)

SUMMARY OF CEQA SIGNIFICANCE FINDINGS

The results of this Noise Impact Analysis is summarized below based on the significance criteria in Section 4 of this report, consistent with the City of Hemet noise standards and Appendix G of the California Environmental Quality Act (CEQA) Guidelines. (1). Table ES-1 shows the findings of significance for each potential noise and/or vibration impact under CEQA. Based on this Noise Impact Analysis, all noise and vibration impacts are considered *less than significant* under CEQA.

TABLE ES-1: SUMMARY OF CEQA SIGNIFICANCE FINDINGS

Analysis	Report Section	Significance Findings	
		Unmitigated	Mitigated
Off-Site Traffic Noise	7	*Significant*	*Less Than Significant*
[1]On-Site Traffic Noise	8	-	-
Operational Noise	10	*Less Than Significant*	-
Construction Noise	11	*Less Than Significant*	-
Construction Vibration		*Less Than Significant*	-

[1]CEQA does not evaluate the impacts of the environment on new developments.

OFF-SITE TRAFFIC NOISE ANALYSIS

Traffic generated by the operation of the Project will influence the traffic noise levels in the surrounding off-site areas. To quantify the traffic noise increases in the surrounding off-site areas, the changes in traffic noise levels on 22 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 *Tres Cerritos Traffic Impact Analysis* prepared by Urban Crossroads, Inc. (2)

The results of this analysis show that one segment, Old Warren Road north of Devonshire Road (Segment #22), will experience a *potentially significant* off-site traffic noise level increase. Mitigation Measure (MM) NOI-1 is identified below for existing and future noise-sensitive land uses adjacent to the potentially impacted off-site roadway segments:

MM NOI-1:   **OFF-SITE TRAFFIC EXTERIOR NOISE MITIGATION**

To reduce the *significant* Project-related off-site traffic noise level impacts at existing noise-sensitive land uses, Rubberized Hot-Mix Asphalt (RHMA) or Open-Graded Friction Course (OGFC) pavement is recommended as mitigation for Old Warren Road north of Devonshire Avenue, as shown in Exhibit ES-A.

With RHMA or OGFC pavement as a mitigation measure, the Project-related off-site traffic noise level increases would be reduced to *less than significant*.

EXHIBIT ES-A: SUMMARY OF NOISE MITIGATION MEASURES

1   INTRODUCTION

This noise analysis has been completed to determine the noise impacts associated with the development of the Tres Cerritos Development ("Project"). This noise study briefly describes the Project, provides information regarding noise fundamentals, sets out the local regulatory setting, presents the study methods and procedures for noise analysis, evaluates the future on-site noise environment, the future off-site Project-related traffic noise impacts, the potential Project-related long-term stationary-source operational noise impacts, as well as short-term construction noise and vibration impacts.

1.1   SITE LOCATION

The Project site is located north of Rose Road, between Warren Road and Myers Street, in the City of Hemet, as shown in Exhibit 1-A. The Project site is undeveloped and surrounded by agricultural land uses to the north, east, south, and west. The nearest residential land uses are located approximately 275 feet to the southwest of the Project site at 5862 Parkside Drive. The nearest airport is the Hemet-Ryan (HR) Airport, located approximately 1.6 miles northeast of the Project.

1.2   PROJECT DESCRIPTION

The Project involves developing 269 single-family detached residential dwelling units and approximately 4.15 acres of Parkland. Its anticipated Opening Year is 2029. A preliminary site plan for the Project is shown in Exhibit 1-B.

EXHIBIT 1-A: LOCATION MAP

URBAN
CROSSROADS
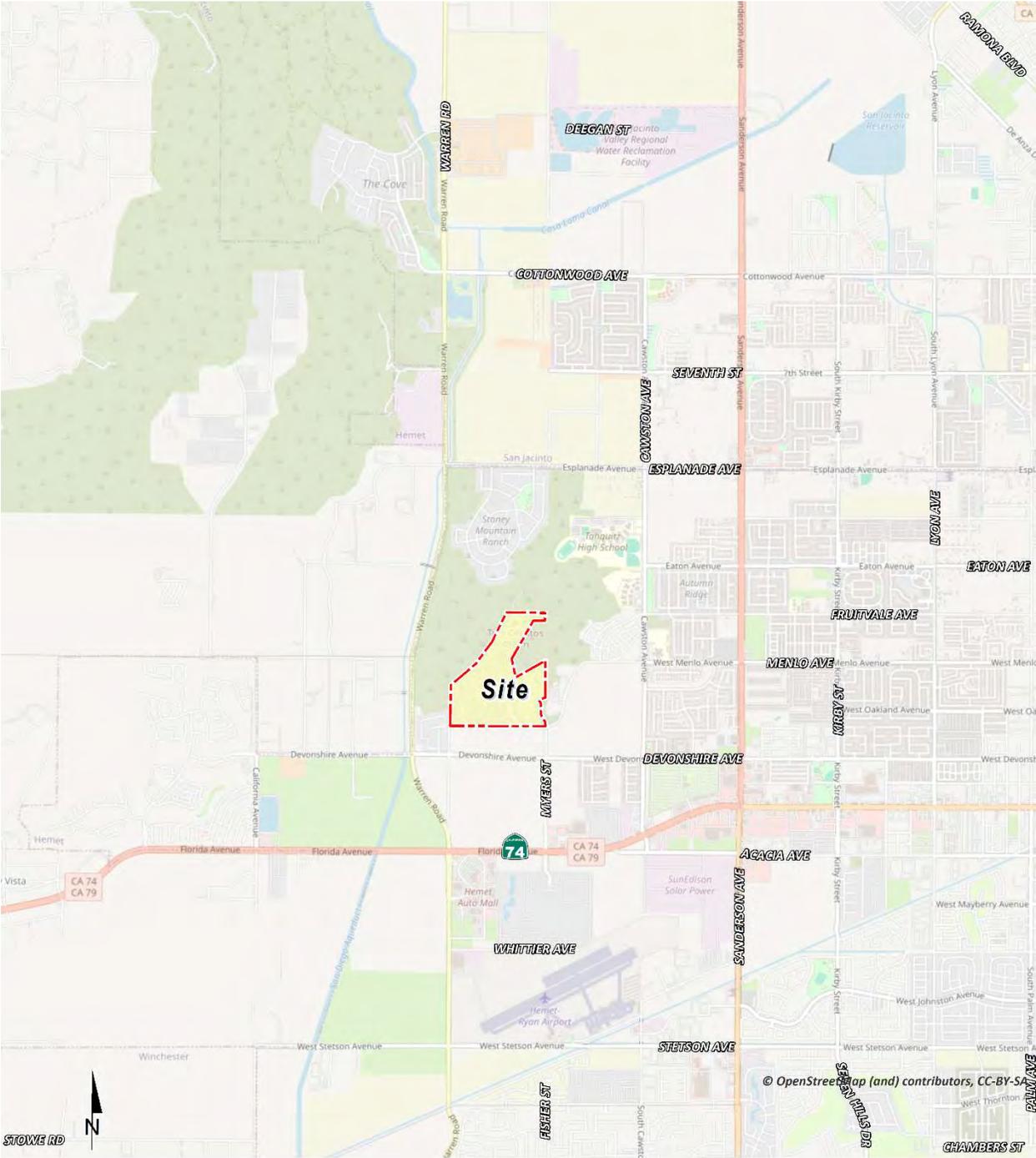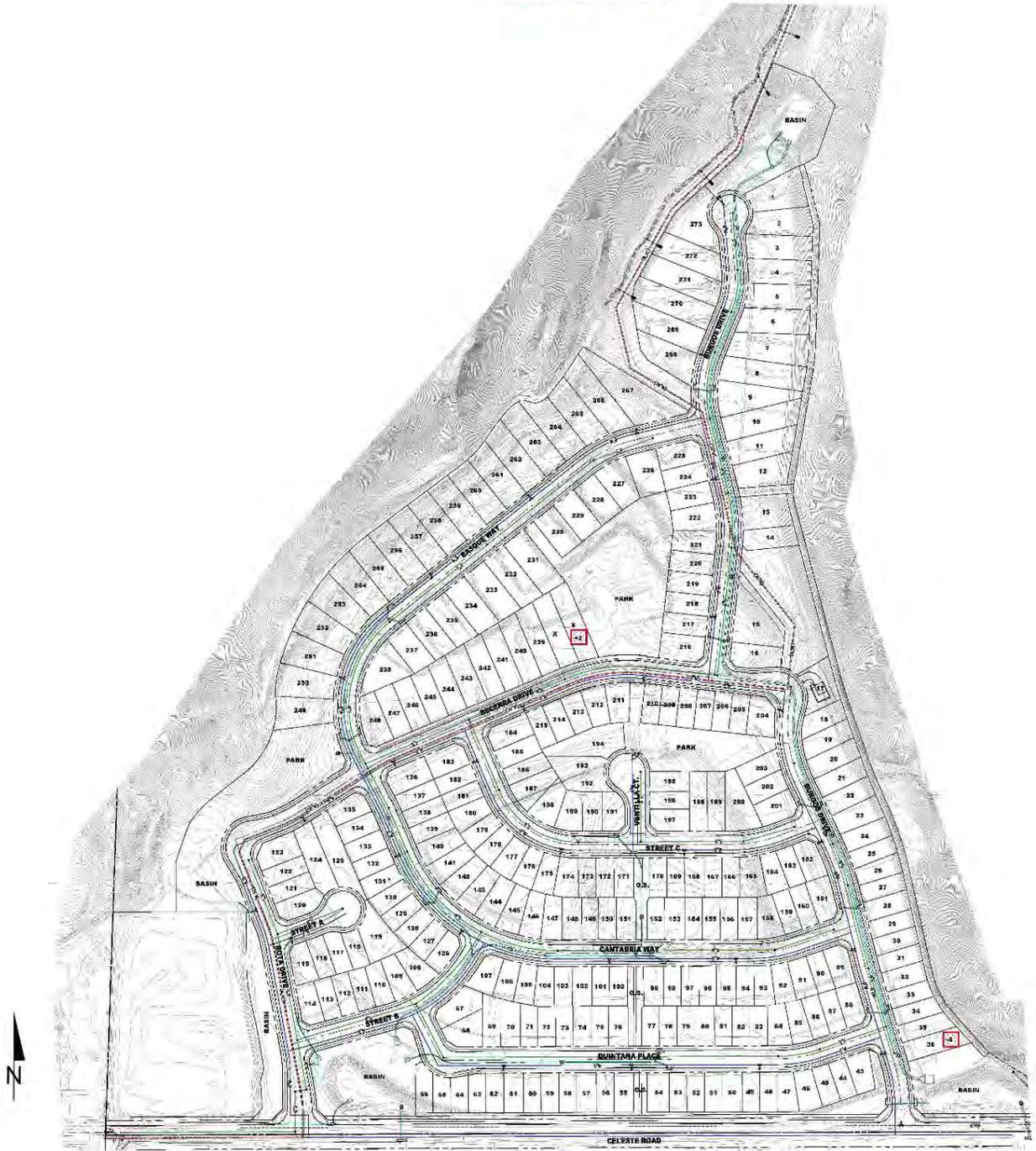
EXHIBIT 1-B: SITE PLAN

TRACT NO. 31513
DEVELOPMENT PLAN ALTERNATE H3
IN THE CITY OF HEMET, COUNTY OF RIVERSIDE, STATE OF CALIFORNIA
269 LOTS

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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. 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 sources 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, which are described in more detail below.

EXHIBIT 2-A: TYPICAL NOISE LEVELS

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

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

2.1   RANGE OF NOISE

Since the range of intensities that the human ear can detect is so large, the scale frequently used to measure intensity is a scale based on multiples of 10, the logarithmic scale. The scale for measuring intensity is the decibel scale. Each interval of 10 decibels indicates a sound energy ten times greater than before, which is perceived by the human ear as being roughly twice as loud. (3) The most common sounds vary between 40 dBA (very quiet) to 100 dBA (very loud). Normal conversation at three feet is roughly at 60 dBA, while loud jet engine noises equate to 110 dBA

at approximately 1,000 feet, which can cause serious discomfort. (4) Another important aspect of noise is the duration of the sound and the way it is described and distributed in time.

2.2   NOISE DESCRIPTORS

Environmental noise descriptors are generally based on averages rather than instantaneous noise levels. The most used 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 noise levels occurring 50 percent of the time, the L_{eq} accounts for the total energy (average) observed for the entire hour.

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

2.3   SOUND PROPAGATION

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

2.3.1   GEOMETRIC SPREADING

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

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

2.3.2 GROUND ABSORPTION

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

2.3.3 ATMOSPHERIC EFFECTS

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

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 residents. However, for vegetation to provide a substantial, or even noticeable, noise reduction, the vegetation area must be at least 15 feet in height, 100 feet wide, and dense enough to completely obstruct the line-of-sight between the source and the receiver. This size of vegetation may provide up to 5 dBA of noise reduction. The FHWA does not consider the planting of vegetation to be a noise abatement measure. (6)

2.4 TRAFFIC NOISE PREDICTION

Vehicle noise is a combination of the noise produced by the engine, exhaust, and tires on the roadway. Per the *Highway Traffic Noise Analysis and Abatement Policy and Guidance,* provided by the Federal Highway Administration (FHWA), the level of traffic noise depends on three primary factors: the volume of the traffic, the speed of the traffic, and the vehicle mix within the flow of traffic. Generally, the loudness of traffic noise is increased by heavier traffic volumes, higher speeds, and a greater number of trucks. (6) A doubling of the traffic volume, assuming

that the speed and vehicle mix do not change, results in a noise level increase of 3 dBA. The vehicle mix on a given roadway may also influence community noise levels. As the number of medium and heavy trucks increases and becomes a larger percentage of the vehicle mix, adjacent noise level impacts will increase.

2.5   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.

2.6   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 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 governments to regulate land development in such a way that noise-sensitive land uses are either prohibited from being located adjacent to a highway, or that the developments are planned, designed, and constructed in such a way that noise impacts are minimized. (6)

2.7   COMMUNITY RESPONSE TO NOISE

Approximately sixteen percent of the population has a very low tolerance for noise and will object to any noise not of their making. Consequently, even in the quietest environment, some complaints may occur. Twenty to thirty percent of the population will not complain even in very severe noise environments. (7 pp. 8-6) Thus, a variety of reactions can be expected from people exposed to any given noise environment.

Surveys have shown that community response to noise varies from no reaction to vigorous action for newly introduced noises, averaging from 10 dB below existing to 25 dB above existing. (8) According to research originally published in the Noise Effects Handbook (7), the percentage of high annoyance ranges from approximately 0 percent at 45 dB or less, 10 percent are highly annoyed around 60 dB, and increases rapidly to approximately 70 percent being highly annoyed at approximately 85 dB or greater. Despite this variability in behavior on an individual level, the population can be expected to exhibit the following responses to changes in noise levels as shown in Exhibit 2-B. A change of 3 dBA is considered barely perceptible, and changes of 5 dBA are considered readily perceptible. (6)

EXHIBIT 2-B: NOISE LEVEL INCREASE PERCEPTION
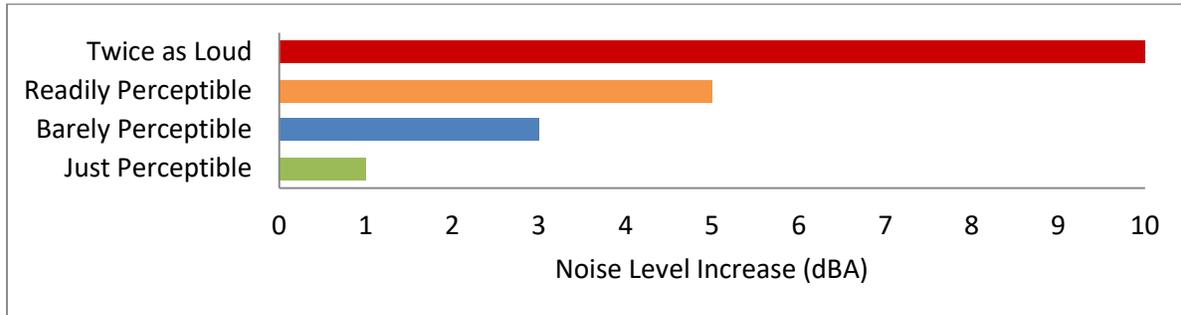
2.8   VIBRATION

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

Additionally, in contrast to airborne noise, ground-borne vibration outdoors is not a common environmental problem, and annoyance from ground-borne vibration is almost exclusively an indoor phenomenon (8). Therefore, the effects of vibrations should only be evaluated at a structure, and the effects of the building structure on the vibration should be considered. Wood-frame buildings, such as typical residential structures, are more easily excited by ground vibration than heavier buildings. In contrast, large masonry buildings with spread footings have a low response to ground vibration (8). In general, the heavier a building is, the lower the response will be to the incident vibration energy. However, all structures reduce vibration levels due to the coupling of the building to the soil.

There are several different methods that are used to quantify vibration. The peak particle velocity (PPV) is defined as the maximum instantaneous peak of the vibration signal (8). The PPV is most frequently used to describe vibration impacts to buildings but is not always suitable for evaluating human response (annoyance) because it takes some time for the human body to respond to vibration signals. Instead, the human body responds to average vibration amplitude, often described as the root mean square (RMS). The RMS amplitude is defined as the average of the squared amplitude of the signal and is most frequently used to describe the effect of vibration on the human body (8). However, the RMS amplitude and PPV are related mathematically, and the RMS amplitude of equipment is typically calculated from the PPV reference level. The RMS amplitude is approximately 70% of the PPV (9). Thus, either can be used in the description of vibration impacts.

While not universally accepted, vibration decibel notation (VdB) is another vibration notation developed and used by the FTA in their guidance manual to describe vibration levels and provide

a background of common vibration levels and set vibration limits (10). Decibel notation (VdB) serves to reduce the range of numbers used to describe vibration levels and is used in this report to describe vibration levels.

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

EXHIBIT 2-C: TYPICAL LEVELS OF GROUND-BORNE VIBRATION
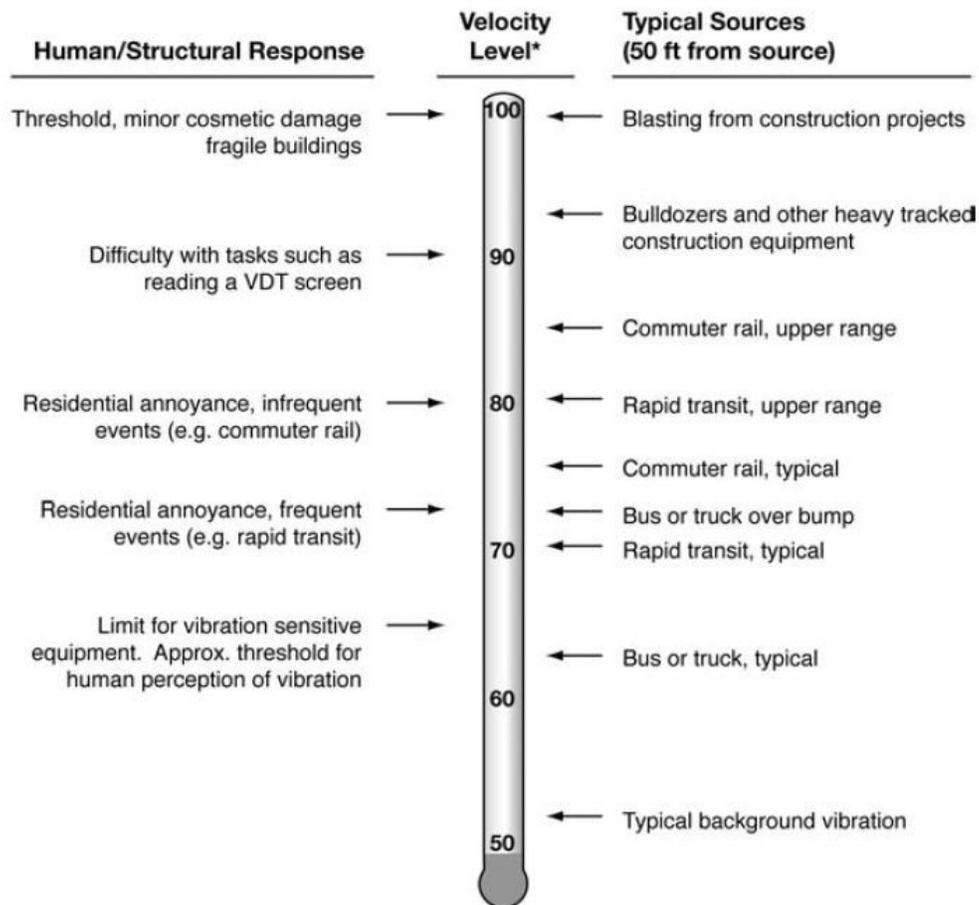
Source: Federal Transit Administration (FTA) Transit Noise and Vibration Impact Assessment Manual.

3   REGULATORY SETTING

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

3.1   STATE OF CALIFORNIA NOISE REQUIREMENTS

The State of California regulates freeway noise, sets standards for sound transmission, provides occupational noise control criteria, identifies noise standards, and provides guidance for local land use compatibility. State law requires that each county and city adopt a General Plan that includes a Noise Element, which is to be prepared per guidelines adopted by the Governor's Office of Planning and Research. (11) 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 are codified in the California Code of Regulations, Title 24, Building Standards Administrative Code, Part 2, and the California Building Code. These noise standards are applied to new construction in California for controlling interior noise levels resulting from exterior noise sources. The regulations specify that acoustical studies must be prepared when noise-sensitive structures, such as residential buildings, schools, or hospitals, are developed near major transportation noise sources, and where such noise sources create an exterior noise level of 60 dBA CNEL or higher. Acoustical studies that accompany building plans for noise-sensitive land uses must demonstrate that the structure has been designed to limit interior noise in habitable rooms to acceptable noise levels. For new residential buildings, schools, and hospitals, the acceptable interior noise limit for new construction is 45 dBA CNEL.

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3.3   CITY OF HEMET GENERAL PLAN PUBLIC SAFETY ELEMENT

The City of Hemet General Plan Public Safety Element, Section 6.10 *Noise*, sets goals, policies, and implementation programs to address existing and future noise conditions. (5) To protect City of Hemet residents from excessive noise levels, the Public Safety Element contains the following goals:

> *PS-4*   *Protect lives and property from the potential dangers associated with the use of Hemet-Ryan Airport while recognizing and maintaining its function as a part of Hemet's transportation system.*
>
> *PS-11*   *Manage noise levels through land use planning and development review.*
> *PS-12*   *Minimize noise conflicts from transportation sources and airports.*
> *PS-13*   *Minimize noise conflicts with stationary noise generators.*

The noise policies specified in the City of Hemet Public Safety Element provide the guidelines necessary to satisfy these goals. To ensure that residents are not exposed to excessive noise levels from the Hemet-Ryan Airport (Goal PS-4), Policies 4.1, 4.6, and 4.10 new developments must demonstrate a reduction of the noise levels due to aircraft activity. Goal PS-11 and Policies 11.1 to 11.4 require new developments to satisfy the noise standards of the Public Safety Element and incorporate design techniques as a means to minimize noise. Table 6.4 includes the *Land Use Compatibility Standards for Exterior and Interior Noise* to satisfy Goal PS-12 and Policies 12.1 to 12.4 for transportation-related noise sources. To prevent noise conflicts with stationary noise generators (Goal PS-13), Policies 13.1 to 13.3 restrict the locations of sensitive land uses in relation to major noise sources in the City of Hemet. (5)

3.3.1   LAND USE COMPATIBILITY

The noise criteria identified in the City of Hemet Public Safety Element (Table 6.3) are guidelines to evaluate the land use compatibility of transportation-related noise. The compatibility criteria, shown in Exhibit 3-A, provides the City with a planning tool to gauge the compatibility of land uses relative to existing and future exterior noise levels.

The *Land Use Compatibility for Community Noise Environments* (Table 6.3) matrix indicates that noise-sensitive land uses such as single-family residences are considered *normally acceptable* with exterior noise levels below 60 dBA CNEL and *conditionally acceptable* with noise levels below 70 dBA CNEL. . (5)

EXHIBIT 3-A: LAND USE COMPATIBILITY FOR COMMUNITY NOISE ENVIRONMENTS

Community Noise Exposure
CNEL, dBA

Land Use Category	55	60	65	70	75	80
Residential						
Transient lodging: hotels, motels						
Schools, libraries, churches, hospitals, nursing homes						
Auditoriums, concert halls, amphitheaters						
Sports arena, outdoor spectator sports						
Playgrounds, neighborhood parks						
Golf courses, riding stables, Water Recreation, Cemeteries						
Office buildings, business commercial and professional						
Industrial, manufacturing, utilities, agriculture						

Notes: CNEL = community noise equivalent level; dBA = A-weighted decibel.

Normally Acceptable—Specified land use is satisfactory, based on the assumption that any buildings involved are of normal conventional construction, without any special noise requirements

Conditionally Acceptable—New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features are included in the design.

Normally Unacceptable—New construction or development should be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirement must be made and needed noise insulation features included in the design.

Clearly Unacceptable—New construction or development clearly should not be undertaken.

Source: City of Hemet General Plan Public Safety Element, Table 6.3.

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3.3.2 TRANSPORTATION NOISE STANDARDS

To encourage the reduction of noise from transportation-related noise sources such as motor vehicles, aircraft operations and railroad movements (Goal PS-12), Table 6.4 of the City of Hemet General Plan Public Safety Element, shown in Exhibit 3-B, identifies a maximum allowable exterior noise level of 65 dBA CNEL and an interior noise level limit of 45 dBA CNEL for new residential developments, and an exterior noise level of 70 dBA CNEL for commercial uses.

EXHIBIT 3-B: LAND USE COMPATIBILITY STANDARDS FOR EXTERIOR AND INTERIOR NOISE

Land Use	Maximum Allowable Noise (CNEL)	
	Exterior (dBA)	Interior (dBA)
Residential and mixed use with residential component	65	45
School classrooms	65	45
School playgrounds	70	--
Libraries	–	50
Hospitals, convalescent homes—sleeping areas	–	40
Hospitals, convalescent homes—living areas	–	50
Passive recreation areas	65	–
Active recreation areas	70	–
Commercial and industrial areas	70	–
Office areas	–	50

Notes: CNEL = community noise equivalent level; dBA = A-weighted decibel; – = not applicable/not available.
The acceptable interior noise level for other uses depends upon the specific nature of the indoor activity.

Source: City of Hemet General Plan Public Safety Element, Table 6.4.

3.3 OPERATIONAL NOISE STANDARDS

To analyze noise impacts originating from a designated fixed location or private property such as the Tres Cerritos Project, stationary-source (operational) noise such as the expected ground-mounted air conditioning units are typically evaluated against standards established under a jurisdiction's municipal code or general plan. The City of Hemet Municipal Code (HMC) included in Appendix 3.1, contains regulations to protect residents from exposure to excessive noise in

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Chapters 30, 53, and 90. According to HMC Section 30-32[a][42], *any noise that is made, generated, produced, or continued (whether from a human, animal, or device) in such a manner that it unreasonably disturbs the peace and quiet of any neighborhood of which causes any discomfort or annoyance to any reasonable person of normal sensitivities, or that otherwise violates any provision of the Hemet Municipal Code, including the noise limits set forth in the Hemet Zoning Code, or that violates the general plan (public safety element)*.

Section 53-4 of the HMC makes it unlawful for any person *willfully make or continue, or cause to be made or continued, any loud, unnecessary, and unusual noise which is greater than the level permissible for the applicable zone or which unreasonably disturbs the peace or quiet of any neighborhood or which would cause discomfort or annoyance to any reasonable person of normal sensitiveness residing in the area*. In addition, HMC Section 90-1048 outlines the following performance standard for noise. *No use, except a temporary construction operation, shall be permitted which creates noise of a maximum sound pressure level greater than the value established in the public safety element of the general plan, and adopted building codes, or as may be further determined by project specific mitigation measures. The general plan specifies land use compatibility standards to ensure that stationary noise sources (e.g., industrial uses) do not adversely affect noise-sensitive land uses and that community noise environments do not negatively affect land uses.* For stationary (operational) noise sources, Table 6.5 of City of Hemet General Plan Public Safety Element outlines the appropriate exterior performance standards to control the non-transportation stationary noise impacts. Table 6.5 identifies a daytime exterior noise level limit of 60 dBA L_{eq} and nighttime exterior noise level limit of 45 dBA L_{eq}.

3.4   CONSTRUCTION NOISE STANDARDS

To control noise impacts associated with the construction of the Project, the City of Hemet has established limits to the hours of construction activities. HMC Section 30-32[a][43], restricts construction activities to the approved hours of construction as set forth on a permit or other city entitlement as issued the building official, planning commission, or city council, or as otherwise prohibited by the Hemet Building Code. In addition, according to HMC Section 67-10, grading is allowed Monday through Friday between the hours of 6:00 a.m. and 6:00 p.m. from June 1 through September 30, and between the hours of 7:00 a.m. and 6:00 p.m. from October 1 through May 31. Grading is allowed on Saturdays between the hours of 7:00 a.m. and 6:00 p.m. year-round. Grading on Sundays is prohibited.

However, neither the City of Hemet General Plan nor the Municipal Code establish numeric maximum acceptable construction source noise levels at potentially affected receivers for CEQA analysis purposes. Therefore, to evaluate whether the Project will generate potentially significant short-term noise levels at nearby noise sensitive residential receiver locations, a daytime exterior construction noise level of 80 dBA L_{eq} is used as a reasonable threshold to assess construction noise level impacts based on the FTA detailed analysis construction noise criteria with a nighttime exterior construction noise level of 70 dBA L_{eq}. (8)

3.5   CONSTRUCTION VIBRATION STANDARDS

Construction activity can result in varying degrees of ground-borne vibration, depending on the equipment and methods used, distance to the affected structures and soil type. Construction vibration is generally associated with pile driving and rock blasting.   Other construction equipment such as air compressors, light trucks, hydraulic loaders, etc., generates little or no ground vibration. (8)   To analyze vibration impacts originating from the operation and construction of the Tres Cerritos, vibration-generating activities are appropriately evaluated against standards established under the Municipal Code if such standards exist. However, the City of Hemet does not identify specific construction vibration level limits. Therefore, for analysis purposes, the Caltrans *Transportation and Construction Vibration Guidance Manual*, (9 p. 38) Table 19, vibration damage are used in this noise study to assess potential temporary construction-related impacts at adjacent building locations. The nearest noise-sensitive buildings adjacent to the Project site can best be described as "older residential structures" with a maximum acceptable continuous vibration threshold of 0.3 PPV (in/sec).

3.6   CONSTRUCTION BLASTING STANDARDS

The construction of the 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 City of Hemet General Plan and Municipal Code 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 that preserves and enhances environmental and other values in accordance with the Act. (12)

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 of 129 dBA L_{max} for blasting activity measured at the location of any dwelling, public building, school, church, or community or institutional building outside the permit area. (12) The L_{max} threshold used in the noise analysis is suitable for single-event noise levels, such as blasting activities, since other noise regulations in L_{eq} (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 L_{max}, therefore, allows for the shorter-duration single-event noise levels to be evaluated against an appropriate threshold.

3.7   HEMET-RYAN AIRPORT LAND USE COMPATIBILITY

The Hemet-Ryan (HR) Airport runway is located approximately 1.6 miles northeast of the Project site. The *Riverside County Airport Land Use Compatibility Plan Policy Document* (RC ALUCP)

includes the policies for determining the land use compatibility of the Project. Policy 4.1.5 *Noise Exposure for Other Land Uses* of the RC ALUCP requires that land uses demonstrate compatibility with the acceptable noise levels in Table 2B. Table 2B Supporting Compatibility Criteria: The noise matrix is shown in Exhibit 3-C and indicates that the Project's residential land uses experience clearly acceptable exterior noise levels of 50 to 55 dBA CNEL. *Normally acceptable* noise levels for residential land uses range from 55 to 60 dBA CNEL. (13) The noise contour boundaries used to determine the potential aircraft-related noise impacts at the Project site are found in Exhibit HR-5 of the RC ALUCP. As shown in Exhibit 3-D, the Project site is located outside the 55 dBA CNEL noise level contour boundaries and is considered *clearly acceptable.* Therefore, based on the (RC ALUCP) compatibility criteria, *the activities associated with the specified land use can be carried out with essentially no interference from the noise exposure.*

EXHIBIT 3-C: RC ALUCP SUPPORTING COMPATIBILITY CRITERIA: NOISE

Land Use Category	CNEL (dB)				
	50–55	55–60	60–65	65–70	70–75
Residential *					
single-family, nursing homes, mobile homes	++	o	–	= =	– –
multi-family, apartments, condominiums	++	+	o	– –	– –
Public					
schools, libraries, hospitals	+	o	–	– –	– –
churches, auditoriums, concert halls	+	o	o	–	– –
transportation, parking, cemeteries	++	++	++	+	o
Commercial and Industrial					
offices, retail trade	++	+	o	o	–
service commercial, wholesale trade, warehousing, light industrial	++	++	+	o	o
general manufacturing, utilities, extractive industry	++	++	++	+	+
Agricultural and Recreational					
cropland	++	++	++	++	+
livestock breeding	++	+	o	o	–
parks, playgrounds, zoos	++	+	+	o	–
golf courses, riding stables, water recreation	++	++	+	o	o
outdoor spectator sports	++	+	+	o	–
amphitheaters	+	o	–	– –	– –

Land Use	Acceptability	Interpretation/Comments
++	*Clearly Acceptable*	The activities associated with the specified land use can be carried out with essentially no interference from the noise exposure.
+	*Normally Acceptable*	Noise is a factor to be considered in that slight interference with outdoor activities may occur. Conventional construction methods will eliminate most noise intrusions upon indoor activities.
o	*Marginally Acceptable*	The indicated noise exposure will cause moderate interference with outdoor activities and with indoor activities when windows are open. The land use is acceptable on the conditions that outdoor activities are minimal and construction features which provide sufficient noise attenuation are used (e.g., installation of air conditioning so that windows can be kept closed). Under other circumstances, the land use should be discouraged.
–	*Normally Unacceptable*	Noise will create substantial interference with both outdoor and indoor activities. Noise intrusion upon indoor activities can be mitigated by requiring special noise insulation construction. Land uses which have conventionally constructed structures and/or involve outdoor activities which would be disrupted by noise should generally be avoided.
– –	*Clearly Unacceptable*	Unacceptable noise intrusion upon land use activities will occur. Adequate structural noise insulation is not practical under most circumstances. The indicated land use should be avoided unless strong overriding factors prevail and it should be prohibited if outdoor activities are involved.

* Subtract 5 dB for low-activity outlying airports (Chiriaco Summit and Desert Center)

Source: Riverside County Airport Land Use Compatibility Plan, Table 2B.

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EXHIBIT 3-D: HEMET-RYAN AIRPORT NOISE LEVEL CONTOUR BOUNDARIES
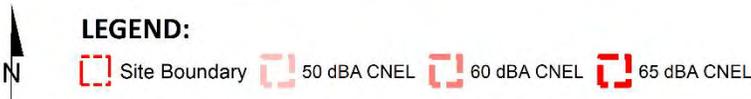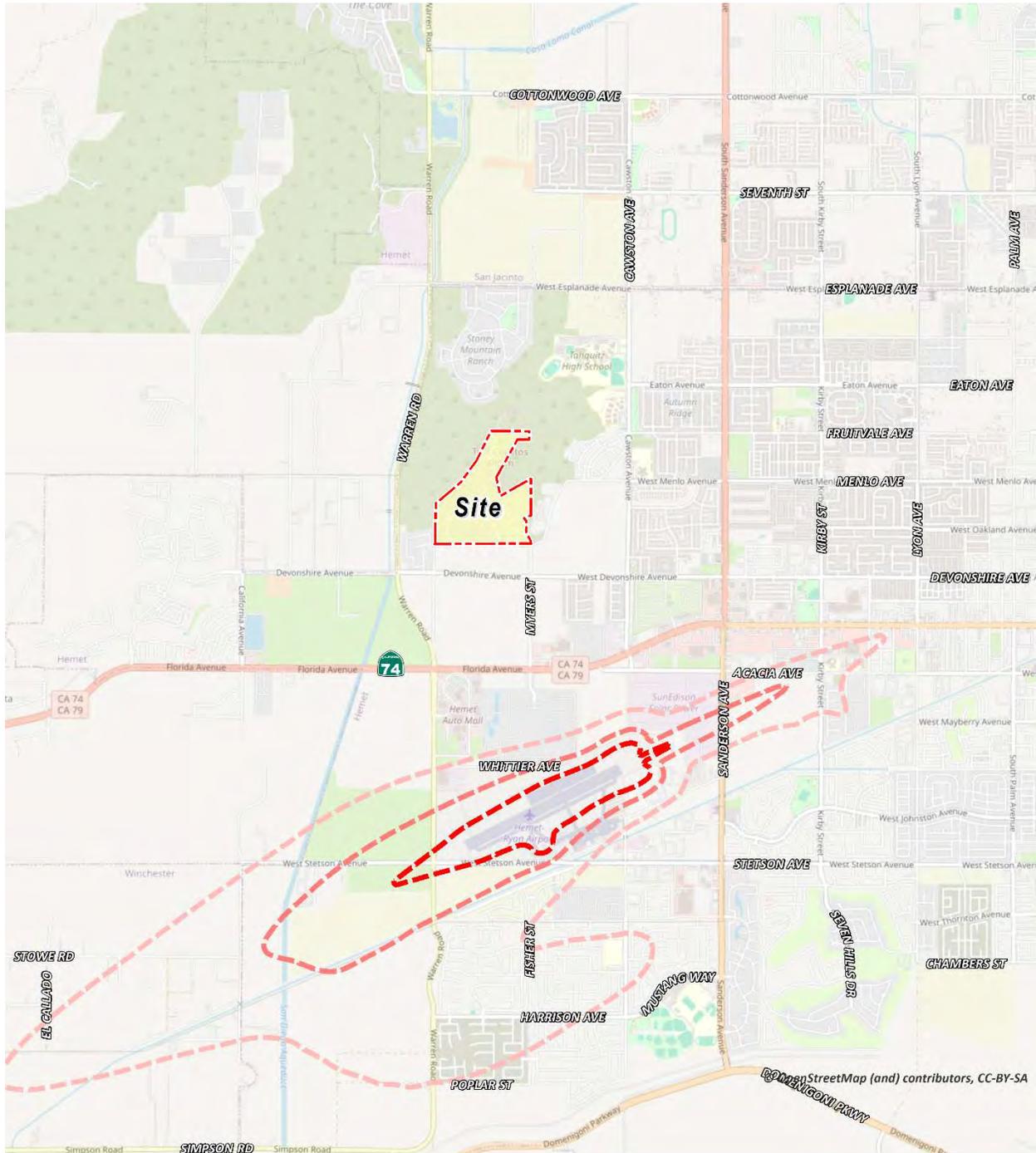
4   SIGNIFICANCE CRITERIA

The following significance criteria are based on currently adopted guidance provided by Appendix G of the State CEQA Guidelines. (14) 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. Under CEQA, consideration must be given to the magnitude of the increase, the existing baseline ambient noise levels, and the location of 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.* (15) This is primarily because of the wide variation in individual thresholds of annoyance and differing individual experiences with noise. In general, the more a new noise level exceeds the previously existing ambient noise level, the less acceptable the new noise level will typically be judged. 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. The *ambient noise level* is the composite of noise from all sources, excluding the alleged offensive noise. In this context, it represents the normal or existing level of environmental noise at a given location for a specified time of day or night.

4.1.1   TRANSPORTATION NOISE (SUBSTANTIAL PERMANENT NOISE LEVEL INCREASE)

The Federal Interagency Committee on Noise (FICON) (16) developed guidance to be used for the assessment of project-generated increases in noise levels that consider the ambient noise level. The FICON recommendations are based on studies that relate aircraft noise levels to the percentage of persons highly annoyed by aircraft noise. Although the FICON recommendations were specifically developed to assess aircraft noise impacts, these recommendations are often used in environmental noise impact assessments involving the use of cumulative noise exposure metrics, such as the average-daily noise level (CNEL) and equivalent continuous noise level (L_{eq}).

As previously stated, the approach used in this noise study recognizes *that there is no single noise increase that renders a noise impact significant*, based on a 2008 California Court of Appeal ruling on Gray v. County of Madera. (15) For example, if the ambient noise environment is quiet (<60 dBA) and the new noise source greatly increases the noise levels, an impact may occur if the noise criteria may be exceeded. Therefore, for this analysis, a *readily perceptible* 5 dBA or greater

project-related noise level increase is considered a significant impact when the without-project noise levels are below 60 dBA. Per the FICON, in areas where the without project noise levels range from 60 to 65 dBA, a 3 dBA *barely perceptible* noise level increase appears to be appropriate for most people. When the without-project noise levels already exceed 65 dBA, any increase in community noise louder than 1.5 dBA or greater is considered a significant impact if the noise criteria for a given land use is exceeded, since it likely contributes to an existing noise exposure exceedance.

The FICON guidance provides an established source of criteria to assess the impacts of substantial permanent increase in baseline ambient noise levels. Based on the FICON criteria, the amount to which a given noise level increase is considered acceptable is reduced when the without Project (baseline) noise levels are already shown to exceed certain land-use specific exterior noise level criteria. The specific levels are based on typical responses to noise level increases of 5 dBA or *readily perceptible*, 3 dBA or *barely perceptible*, and 1.5 dBA, depending on the underlying without Project noise levels for noise-sensitive uses. These levels of increases and their perceived acceptance at noise-sensitive receiver locations are consistent with guidance provided by both the Federal Highway Administration (17 p. 9) and Caltrans (18 p. 2_48).

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

4.1.2   NON-TRANSPORTATION NOISE (SUBSTANTIAL PERMANENT NOISE LEVEL INCREASE)

The FICON criteria are also used to determine if Project-related stationary source (operational) noise level increases are significant at off-site receiver locations. For non-transportation noise source activities, a substantial permanent noise level increase consists of increases of 5 dBA or *readily perceptible*, 3 dBA or *barely perceptible*, and 1.5 dBA, depending on the underlying ambient noise levels.

4.1.3 CONSTRUCTION NOISE (SUBSTANTIAL TEMPORARY NOISE LEVEL INCREASE)

In addition to absolute noise limits, the temporary noise level increases over the existing ambient conditions must be considered under CEQA Significance Threshold A. Recent court cases have also placed an emphasis on the increase as opposed to the noise level limit. However, limits and acceptable increases are not unrelated since, often, the noise level limits can subtly include the increase limit.

While specific noise ordinances can vary widely, many jurisdictions across California set construction noise level limits around 75 to 80 dBA L_{eq} and only allow construction during daytime hours (e.g., City and County of Los Angeles, City and County of San Diego, City and County of San Francisco, etc.) In contrast, everyday noise limits are stricter because they apply to continuous, long-term activities where excessive noise can greatly affect the quality of life over time. Thus, for everyday noise limits, many jurisdictions across California set residential daytime noise level limits around 55 dBA L_{eq} during daytime hours. This implies that during daytime hours, many California communities consider an increase of 20 dBA over the daytime limit an acceptable temporary increase for construction activities. This is also illustrated in the adoption of many CEQA documents statewide that use an 80 dBA L_{eq} limit for assessing construction impacts while using everyday noise level limits of local noise ordinances in assessing on-site operational impacts.

However, since an increase of 20 dBA could result in noise levels over 85 dBA L_{eq}, which the California Occupational Safety and Health Administration (CalOSHA) identifies as a potentially hazardous noise level, the increase should not be allowed to result in an absolute noise level greater than 80 dBA Leq at any residence, which is consistent with the FTA recommendations.

Therefore, if the Project-related construction noise levels generate a temporary noise level increase over the existing daytime ambient noise levels in excess of 20 dBA L_{eq}, and exceed 80 dBA L_{eq}, then the Project construction noise level increases will be considered a *significant* impact.

4.2 VIBRATION (THRESHOLD B)

As described in Section 3.5, the vibration impacts are appropriately evaluated using the Caltrans vibration damage thresholds to assess potential temporary construction-related impacts at adjacent building locations. The nearest noise-sensitive buildings adjacent to the Project site can best be described as "older residential structures" with a maximum acceptable continuous vibration threshold of 0.3 PPV (in/sec).

4.3 CEQA GUIDELINES NOT FURTHER ANALYZED (THRESHOLD C)

CEQA Noise Threshold C applies when there are nearby public and private airports and/or airstrips and focuses on land use compatibility of the Project to nearby airports and airstrips. The Project site is not located within two miles of an airport or airstrip. The closest airport is the Hemet Ryan Airport, located roughly 1.4 miles southeast of the Project site. As discussed in section 3.6, the Project site would not be exposed to excessive noise levels from airport

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operations, and therefore, impacts are considered *less than significant,* and no further noise analysis is conducted in relation to Appendix G to the CEQA Guidelines, Noise Threshold C.

4.4 SIGNIFICANCE CRITERIA SUMMARY

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

TABLE 4-1: SIGNIFICANCE CRITERIA SUMMARY

Analysis	Receiving Land Use	Condition(s)	Significance Criteria	
			Daytime	**Nighttime**
Off-Site Traffic	Noise-Sensitive[1]	If ambient is < 60 dBA CNEL	≥ 5 dBA CNEL Project increase	
		If ambient is 60 - 65 dBA CNEL	≥ 3 dBA CNEL Project increase	
		If ambient is > 65 dBA CNEL	≥ 1.5 dBA CNEL Project increase	
	Non-Noise-Sensitive[2]	If ambient is > 70 dBA CNEL	≥ 3 dBA CNEL Project increase	
On-Site Traffic	Residential[3]	Exterior Noise Threshold	65 dBA CNEL	
		Interior Noise Threshold	45 dBA CNEL	
Operational	Noise-Sensitive	Residential Exterior Noise Level[4]	60 dBA L_{eq}	45 dBA L_{eq}
		If ambient is < 60 dBA Leq[1]	≥ 5 dBA L_{eq} Project increase	
		If ambient is 60 - 65 dBA Leq[1]	≥ 3 dBA L_{eq} Project increase	
		If ambient is > 65 dBA Leq[1]	≥ 1.5 dBA L_{eq} Project increase	
Construction	Noise-Sensitive	Noise Level Threshold[5]	80 dBA L_{eq}	70 dBA L_{eq}
		Noise Level increase	20 dBA L_{eq}	
		Vibration Level Threshold[6]	0.3 PPV (in/sec)	

[1] FICON, 1992.
[2] City of Hemet General Plan Public Safety Element, Table 6.3.
[3] City of Hemet General Plan Public Safety Element, Table 6.3.
[4] City of Hemet General Plan Public Safety Element, Table 6.5.
[5] Federal Transit Administration, Transit Noise and Vibration Impact Assessment Manual.
[6] Caltrans Transportation and Construction Vibration Manual, April 2020 Table 19
   "Daytime" = 7:00 a.m. to 10:00 p.m.; "Nighttime" = 10:00 p.m. to 7:00 a.m.

5   EXISTING NOISE LEVEL MEASUREMENTS

To assess the existing noise level environment, 24-hour noise level measurements were taken at six locations to describe the noise levels at the nearest noise-sensitive receiver locations in the Project study area. The receiver locations were selected to describe and document the existing noise environment. Exhibit 5-A provides the boundaries of the Project study area and the noise level measurement locations.   To fully describe the existing noise conditions, noise level measurements were collected by Urban Crossroads, Inc. on Tuesday, November 5, 2024. Appendix 5.1 includes study area photos.

5.1   MEASUREMENT PROCEDURE AND CRITERIA

To describe the existing noise environment, the hourly noise levels were measured during typical weekday conditions over a 24-hour period.   By collecting individual hourly noise level measurements, it is possible to describe the equivalent daytime and nighttime hourly noise levels and calculate the 24-hour CNEL. The long-term noise readings were recorded using Piccolo Type 2 integrating sound level meter and dataloggers. The Piccolo sound level meters were calibrated using a Larson-Davis calibrator, Model CAL 150. All noise meters were programmed in "slow" mode to record noise levels in "A" weighted form. The sound level meters and microphones were equipped with a windscreen during all measurements.   All noise level measurement equipment satisfies the American National Standards Institute (ANSI) standard specifications for sound level meters ANSI S1.4-2014/IEC 61672-1:2013. (19)

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 equivalent hourly noise levels surrounding the Project site, as shown in Exhibit 5-A. Both Caltrans and the FTA recognize that it is not reasonable to collect noise level measurements that can fully represent every part of a private yard, patio, deck, or balcony normally used for human activity when estimating impacts for new development projects. This is demonstrated in the Caltrans general site location guidelines, which indicate that *sites must be free of noise contamination by sources other than sources of interest. Avoid sites located near sources such as barking dogs, lawnmowers, pool pumps, and air conditioners unless it is the express intent of the analyst to measure these sources*. (3) Further, FTA guidance states, t*hat it is not necessary nor recommended that existing noise exposure be determined by measuring at every noise-sensitive location in the project area.   Rather, the recommended approach is to characterize the noise environment for clusters of sites based on measurements or estimates at representative locations in the community*. (8)

Based on recommendations of Caltrans and the FTA, it is not necessary to collect measurements at each individual building or residence, because each receiver measurement represents a group of buildings that share acoustical equivalence. (8) In other words, the area represented by the receiver shares similar shielding, terrain, and geometric relationship to the reference noise source. Receivers represent a location of noise-sensitive areas and are used to estimate the future noise level impacts. Collecting noise level measurements at the nearby sensitive receiver

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locations allows for a comparison of the before and after Project noise levels and is necessary to assess potential noise increase due to the Project's contribution to the ambient noise levels. This approach is necessary to calculate the temporary or permanent increase in *ambient* noise levels as required by the CEQA Guidelines Environmental Checklist.

5.3   NOISE MEASUREMENT RESULTS

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

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

Location[1]	Description	Energy Average Noise Level (dBA L_{eq})[2]	
		Daytime	**Nighttime**
L1	Located west of the site near the residence at 5862 Parkside Dr	59.6	44.6
L2	Located west of the site near the residence at 5862 Parkside Dr	57.2	47.0
L3	Located southeast of the site near the residence at 5862 Parkside Dr	60.1	55.4
L4	Located east of the site near the residence at 685 Rose Rd	54.0	48.8
L5	Located east of the site near the residence at 792 Poppyseed Way	52.7	42.8
L6	Located north of the site near the residence at 5453 Viewstone Ct	58.9	42.6

[1] See Exhibit 5-A for the noise level measurement locations.
[2] 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 equivalent noise levels used to describe the daytime and nighttime ambient conditions. These daytime and nighttime energy average noise levels represent the average of all hourly noise levels observed during these time periods, expressed as a single number. Appendix 5.2 provides summary worksheets of the noise levels for each hour as well as the minimum, maximum, L_1, L_2, L_5, L_8, L_{25}, L_{50}, L_{90}, L_{95}, and L_{99} percentile noise levels observed during the daytime and nighttime periods.

EXHIBIT 5-A: NOISE MEASUREMENT LOCATIONS

LEGEND:

N

⬚ Site Boundary   ▲ Measurement Locations

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6   TRAFFIC NOISE METHODS AND PROCEDURES

The following section outlines the methods and procedures used to estimate and analyze the future traffic noise environment. Consistent with the City of Hemet *Land Use Compatibility for Community Noise Environments* (see Exhibit 3-A), all transportation-related noise levels are presented in terms of the 24-hour CNEL's.

6.1   FHWA TRAFFIC NOISE PREDICTION MODEL

The expected roadway noise level increases from vehicular traffic were calculated by Urban Crossroads, Inc. using a computer program that replicates the Federal Highway Administration (FHWA) Traffic Noise Prediction Model- FHWA-RD-77-108. (20) 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. (21) Adjustments are then made to the REMEL to account for: the roadway classification (e.g., collector, secondary, major or arterial), the roadway active width (i.e., the distance between the center of the outermost travel lanes on each side of the roadway), the total average daily traffic (ADT), the travel speed, the percentages of automobiles, medium trucks, and heavy trucks in the traffic volume, the roadway grade, the angle of view (e.g., whether the roadway view is blocked), the site conditions ("hard" or "soft" relates to the absorption of the ground, pavement, or landscaping), and the percentage of total ADT which flows each hour throughout a 24-hour period. Research conducted by Caltrans has shown that the use of soft site conditions is appropriate for the application of the FHWA traffic noise prediction model used in this analysis. (22)

6.1.1   OFF-SITE TRAFFIC NOISE PREDICTION MODEL INPUTS

Table 6-1 presents the roadway parameters used to assess the Project's off-site transportation noise impacts. Table 6-1 identifies the 22 off-site study area roadway segments, the distance from the centerline to adjacent land use based on the functional roadway classifications per the City of Hemet General Plan Circulation Element, and the vehicle speeds. The ADT volumes used in this study area, presented in Table 6-2, are based on *Tres Cerritos Traffic Analysis (TA)*, prepared by Urban Crossroads, Inc. (2)

- Existing Conditions
- Existing Conditions plus Project
- Existing And Ambient Without Project (2029) Conditions
- Existing And Ambient With Project (2029) Conditions
- Existing, Ambient, And Cumulative Without Project (2029) Conditions
- Existing, Ambient, And Cumulative With Project (2029) Conditions

The 2029 conditions reflect the analysis scenarios evaluated in the TA, consistent with the Project traffic study scoping agreement approved by the City of Hemet. The ADT volumes vary for each roadway segment based on the existing traffic volumes and the combination of project traffic distributions. This analysis relies on a comparative evaluation of the off-site traffic noise impacts

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at the boundary of the right-of-way of the receiving adjacent land use, without and with project ADT traffic volumes from the Project traffic study.

The Project is anticipated to generate a net total of 2,542 two-way trips per day (actual vehicles). Table 6-3 provides the time of day (daytime, evening, and nighttime) vehicle splits. The daily Project truck trip-ends were assigned to the individual off-site study area roadway segments based on the Project truck trip distribution percentages documented in the *Tres Cerritos TTM NO. 31513 Traffic Analysis Report*.

To quantify the off-site noise levels, the Project related truck trips were added to the heavy truck category in the FHWA noise prediction model. The addition of the Project-related truck trips increases the percentage of the existing heavy trucks in the vehicle mix (Table 6-4) when compared to the with Project vehicle mixes presented in Tables 6-5 and 6-6. This approach recognizes that the FHWA noise prediction model is significantly influenced by the number of heavy trucks in the vehicle mix. Using the Project truck trips in combination with the Project trip distribution, Urban Crossroads, Inc. calculated the number of additional Project truck trips and vehicle mix percentages for each of the study area roadway segments. Table 6-4 shows the traffic flow by vehicle type (vehicle mix) used for all without Project traffic scenarios, and Tables 6-5 to 6-6 show the vehicle mixes used for the with Project traffic scenarios. Due to the added Project truck trips, the increase in Project traffic volumes and the distributions of trucks on the study area road segments, the percentage of autos, medium trucks and heavy trucks will vary for each of the traffic scenarios. This explains why the existing and future traffic volumes and vehicle mixes vary between seemingly identical study area roadway segments

TABLE 6-1: OFF-SITE ROADWAY PARAMETERS

ID	Roadway	Segment	Classification[1]	Receiving Land Use[2]	Distance from Centerline to Receiving Land Use (Feet)[3]	Vehicle Speed (mph)
1	Florida Ave. (SR-74)	w/o Winchester Rd. (SR-79)	Arterial	Residential	65'	45
2	Florida Ave. (SR-74)	e/o Winchester Rd. (SR-79)	Arterial	Residential	65'	45
3	Florida Ave. (SR-74)	e/o Four Seasons Blvd.	Arterial	Residential	65'	45
4	Florida Ave. (SR-74)	e/o California Ave.	Arterial	Residential	65'	45
5	Florida Ave. (SR-74)	e/o Warren Rd.	Arterial	Residential	65'	45
6	Florida Ave. (SR-74)	e/o Myers St.	Arterial	Residential	65'	45
7	Florida Ave. (SR-74)	e/o Acacia Ave.	Arterial	Residential	65'	45
8	Florida Ave. (SR-74)	e/o Cawston Ave.	Arterial	Residential	65'	45
9	Devonshire Ave.	e/o California Ave.	Secondary	Residential	47'	45
10	Devonshire Ave.	e/o Warren Rd.	Secondary	Residential	47'	45
11	Devonshire Ave.	e/o Old Warren Rd.	Secondary	Residential	47'	45
12	Devonshire Ave.	e/o Myers St.	Secondary	Residential	47'	45
13	Devonshire Ave.	e/o Cawston Ave.	Secondary	Residential	47'	45
14	Winchester Rd. (SR-79)	s/o Devonshire Ave.	Expressway	Residential	110'	45
15	California Ave.	n/o Florida Ave. (SR-74)	Secondary	Residential	47'	45
16	Warren Rd.	s/o Florida Ave. (SR-74)	Arterial	Residential	65'	55
17	Warren Rd.	n/o Florida Ave. (SR-74)	Arterial	Residential	65'	55
18	Warren Rd.	n/o Devonshire Ave.	Arterial	Residential	65'	55
19	Myers St.	n/o Florida Ave. (SR-74)	Divided Secondary	Residential	47'	45
20	Myers St.	n/o Devonshire Ave.	Divided Secondary	Undeveloped	47'	45
21	Cawston Ave.	n/o Devonshire Ave.	Secondary	Residential	47'	30
22	Old Warren Rd.	n/o Devonshire Ave.	Local	Residential	30'	25

[1] City of Hemet General Plan, Circulation Element, Figure 4.1.

[2] Based on a review of existing aerial imagery, and the City of Hemet General Plan, Land Use Element, Figure 2.1.

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

TABLE 6-2: AVERAGE DAILY TRAFFIC VOLUMES

ID	Roadway	Segment	Average Daily Traffic Volumes[1]					
			Existing		EA		EAC	
			Without Project	With Project	Without Project	With Project	Without Project	With Project
1	Florida Ave. (SR-74)	w/o Winchester Rd. (SR-79)	233,763	238,843	258,093	263,173	410,493	415,573
2	Florida Ave. (SR-74)	e/o Winchester Rd. (SR-79)	369,810	377,430	408,300	415,920	561,300	568,920
3	Florida Ave. (SR-74)	e/o Four Seasons Blvd.	306,019	313,639	337,870	345,490	499,070	506,690
4	Florida Ave. (SR-74)	e/o California Ave.	234,226	239,306	258,604	263,684	425,204	430,284
5	Florida Ave. (SR-74)	e/o Warren Rd.	235,497	238,057	260,008	262,568	402,708	405,268
6	Florida Ave. (SR-74)	e/o Myers St.	206,826	211,906	228,353	233,433	346,953	352,033
7	Florida Ave. (SR-74)	e/o Acacia Ave.	234,919	239,369	259,370	263,820	305,670	310,120
8	Florida Ave. (SR-74)	e/o Cawston Ave.	178,502	182,322	197,080	200,900	256,280	260,100
9	Devonshire Ave.	e/o California Ave.	86,361	88,901	95,349	97,889	114,934	117,474
10	Devonshire Ave.	e/o Warren Rd.	70,175	81,615	77,479	88,919	140,479	151,919
11	Devonshire Ave.	e/o Old Warren Rd.	65,898	65,898	72,756	72,756	123,956	123,956
12	Devonshire Ave.	e/o Myers St.	93,644	100,004	103,391	109,751	162,091	168,451
13	Devonshire Ave.	e/o Cawston Ave.	75,956	78,496	83,861	86,401	107,961	110,501
14	Winchester Rd. (SR-79)	s/o Devonshire Ave.	154,550	157,090	170,636	173,176	200,636	203,176
15	California Ave.	n/o Florida Ave. (SR-74)	95,031	97,571	104,922	107,462	123,222	125,762
16	Warren Rd.	s/o Florida Ave. (SR-74)	140,004	142,564	154,575	157,135	218,375	220,935
17	Warren Rd.	n/o Florida Ave. (SR-74)	87,401	92,501	96,498	101,598	172,398	177,498
18	Warren Rd.	n/o Devonshire Ave.	117,691	121,511	129,940	133,760	213,640	217,460
19	Myers St.	n/o Florida Ave. (SR-74)	32,140	39,760	35,485	43,105	85,985	93,605
20	Myers St.	n/o Devonshire Ave.	347	14,327	383	14,363	17,483	31,463
21	Cawston Ave.	n/o Devonshire Ave.	92,372	96,192	101,986	105,806	126,086	129,906
22	Old Warren Rd.	n/o Devonshire Ave.	1,340	12,780	1,479	12,919	7,679	19,119

[1] Tres Cerritos TTM No. 31513 Traffic Analysis, Urban Crossroads, Inc.

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TABLE 6-3: TIME OF DAY VEHICLE SPLITS

Vehicle Type	Time of Day Splits[1]			Total of Time of Day Splits
	Daytime	Evening	Nighttime	
Autos	77.50%	12.90%	9.60%	100.00%
Medium Trucks	84.80%	4.90%	10.30%	100.00%
Heavy Trucks	86.50%	2.70%	10.80%	100.00%

[1] Typical Southern California Mix rounded to the nearest one-hundredth. "Daytime" = 7:00 a.m. to 7:00 p.m.; "Evening" = 7:00 p.m. to 10:00 p.m.; "Nighttime" = 10:00 p.m. to 7:00 a.m.

TABLE 6-4: PROJECT VEHICLE MIX

Classification	Total % Traffic Flow[1]			Total
	Autos	Medium Trucks	Heavy Trucks	
[1]All Segments	97.42%	1.84%	0.74%	100.00%
Winchester Rd. (SR-79)	91.50%	5.31%	3.19%	100.00%
Florida Ave. (SR-74)	88.20%	7.79%	4.01%	100.00%

[1]Typical Southern California Mix. Values rounded to the nearest one-hundredth. Vehicle mix percentage values rounded to the nearest one-hundredth.

6.1.2   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 in Table 4-1. Based on the City of Hemet Circulation Element Figure 4.1, the segment of Rose Road used in the on-site analysis is considered a Local Road. (23) To predict the future on-site noise environment at the Project site, daily traffic volumes were obtained from the on *Tres Cerritos TTM NO. 31513 Traffic Analysis Report*, prepared by Urban Crossroads, Inc. (2) For the purposes of this analysis, soft site conditions were used to analyze the on-site traffic noise impacts for the Project study area. Soft site conditions account for the sound propagation loss over natural surfaces such as normal earth and ground vegetation. Research conducted by Caltrans has shown that the use of soft site conditions is appropriate for the application of the FHWA traffic noise prediction model used in this analysis. (22)

TABLE 6-5: ON-SITE ROADWAY PARAMETERS

Roadway	Lanes	Classification[1]	ADT[2]	Speed (MPH)	Site Conditions
Rose Rd.	2	Local	17,640	40	Soft

[1] City of Hemet Circulation Element Figure 4.1, January 2012
[2] Tres Cerritos TTM No. 31513 Traffic Analysis, Urban Crossroads, Inc.

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7   OFF-SITE TRAFFIC NOISE ANALYSIS

To assess the off-site transportation CNEL noise level impacts associated with the development of the Project, noise contours were developed based on the *Tres Cerritos TTM NO. 31513 Traffic Analysis* prepared by Urban Crossroads, Inc. (2) Noise contour boundaries represent the equal levels of noise exposure and are measured in CNEL from the center of the roadway.

7.1   TRAFFIC NOISE CONTOURS

Noise contours were used to assess the Project's incremental traffic-related noise impacts at land uses adjacent to roadways conveying Project traffic. The noise contours represent the distance to noise levels of a constant value and are measured from the center of the roadway for the 70, 65, and 60 dBA noise levels. The noise contours do not consider the effect of any existing noise barriers or topography that may attenuate ambient noise levels. In addition, because the noise contours reflect modeling of vehicular noise on area roadways, they appropriately do not reflect noise contributions from the surrounding stationary noise sources within the Project study area. Tables 7-1 to 7-6 present a summary of the exterior traffic noise levels for each traffic condition. Appendix 7.1 includes the traffic noise level contours worksheets for each traffic condition.

TABLE 7-1: EXISTING WITHOUT PROJECT NOISE LEVEL CONTOURS

ID	Road	Segment	CNEL at Receiving Land Use (dBA)[1]	Distance to Contour from Centerline (Feet)		
				70 dBA CNEL	65 dBA CNEL	60 dBA CNEL
1	Florida Ave. (SR-74)	w/o Winchester Rd. (SR-79)	82.4	436	939	2,022
2	Florida Ave. (SR-74)	e/o Winchester Rd. (SR-79)	84.4	591	1,274	2,745
3	Florida Ave. (SR-74)	e/o Four Seasons Blvd.	83.6	521	1,123	2,420
4	Florida Ave. (SR-74)	e/o California Ave.	82.4	436	940	2,025
5	Florida Ave. (SR-74)	e/o Warren Rd.	82.4	438	943	2,032
6	Florida Ave. (SR-74)	e/o Myers St.	81.9	402	865	1,864
7	Florida Ave. (SR-74)	e/o Acacia Ave.	82.4	437	942	2,029
8	Florida Ave. (SR-74)	e/o Cawston Ave.	81.2	364	784	1,689
9	Devonshire Ave.	e/o California Ave.	76.3	123	265	570
10	Devonshire Ave.	e/o Warren Rd.	75.4	107	231	497
11	Devonshire Ave.	e/o Old Warren Rd.	75.1	103	221	476
12	Devonshire Ave.	e/o Myers St.	76.6	130	279	602
13	Devonshire Ave.	e/o Cawston Ave.	75.7	113	243	524
14	Winchester Rd. (SR-79)	s/o Devonshire Ave.	75.9	272	586	1,262
15	California Ave.	n/o Florida Ave. (SR-74)	76.7	131	282	608
16	Warren Rd.	s/o Florida Ave. (SR-74)	78.4	237	511	1,101
17	Warren Rd.	n/o Florida Ave. (SR-74)	76.4	173	373	805
18	Warren Rd.	n/o Devonshire Ave.	77.7	211	455	981
19	Myers St.	n/o Florida Ave. (SR-74)	72.0	64	137	295
20	Myers St.	n/o Devonshire Ave.	52.3	RW	RW	RW
21	Cawston Ave.	n/o Devonshire Ave.	73.0	74	160	346
22	Old Warren Rd.	n/o Devonshire Ave.	55.0	RW	RW	RW

[1] The CNEL is calculated at the boundary of the right-of-way of the receiving adjacent land use.
"RW" = Location of the respective noise contour falls within the right-of-way of the road.

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TABLE 7-2: EXISTING WITH PROJECT NOISE LEVEL NOISE LEVEL CONTOURS

ID	Road	Segment	CNEL at Receiving Land Use (dBA)[1]	Distance to Contour from Centerline (Feet)		
				70 dBA CNEL	65 dBA CNEL	60 dBA CNEL
1	Florida Ave. (SR-74)	w/o Winchester Rd. (SR-79)	82.5	442	952	2,051
2	Florida Ave. (SR-74)	e/o Winchester Rd. (SR-79)	84.5	600	1,292	2,783
3	Florida Ave. (SR-74)	e/o Four Seasons Blvd.	83.7	530	1,142	2,460
4	Florida Ave. (SR-74)	e/o California Ave.	82.5	443	953	2,054
5	Florida Ave. (SR-74)	e/o Warren Rd.	82.5	441	950	2,047
6	Florida Ave. (SR-74)	e/o Myers St.	82.0	408	879	1,894
7	Florida Ave. (SR-74)	e/o Acacia Ave.	82.5	443	954	2,054
8	Florida Ave. (SR-74)	e/o Cawston Ave.	81.3	369	795	1,713
9	Devonshire Ave.	e/o California Ave.	76.4	125	270	581
10	Devonshire Ave.	e/o Warren Rd.	76.0	118	255	549
11	Devonshire Ave.	e/o Old Warren Rd.	75.1	103	221	476
12	Devonshire Ave.	e/o Myers St.	76.9	135	292	629
13	Devonshire Ave.	e/o Cawston Ave.	75.8	115	248	535
14	Winchester Rd. (SR-79)	s/o Devonshire Ave.	76.0	275	592	1,275
15	California Ave.	n/o Florida Ave. (SR-74)	76.8	133	287	619
16	Warren Rd.	s/o Florida Ave. (SR-74)	78.5	240	517	1,115
17	Warren Rd.	n/o Florida Ave. (SR-74)	76.6	180	388	836
18	Warren Rd.	n/o Devonshire Ave.	77.8	216	465	1,002
19	Myers St.	n/o Florida Ave. (SR-74)	72.9	73	158	340
20	Myers St.	n/o Devonshire Ave.	68.5	RW	80	172
21	Cawston Ave.	n/o Devonshire Ave.	73.2	77	165	355
22	Old Warren Rd.	n/o Devonshire Ave.	64.8	RW	RW	62

[1] The CNEL is calculated at the boundary of the right-of-way of the receiving adjacent land use.

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

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TABLE 7-3: EXISTING PLUS AMBIENT GROWTH (2029)
WITHOUT PROJECT NOISE LEVEL CONTOURS

ID	Road	Segment	CNEL at Receiving Land Use (dBA)[1]	Distance to Contour from Centerline (Feet)		
				70 dBA CNEL	65 dBA CNEL	60 dBA CNEL
1	Florida Ave. (SR-74)	w/o Winchester Rd. (SR-79)	82.8	465	1,003	2,160
2	Florida Ave. (SR-74)	e/o Winchester Rd. (SR-79)	84.8	632	1,361	2,933
3	Florida Ave. (SR-74)	e/o Four Seasons Blvd.	84.0	557	1,200	2,585
4	Florida Ave. (SR-74)	e/o California Ave.	82.8	466	1,004	2,163
5	Florida Ave. (SR-74)	e/o Warren Rd.	82.9	468	1,008	2,171
6	Florida Ave. (SR-74)	e/o Myers St.	82.3	429	924	1,991
7	Florida Ave. (SR-74)	e/o Acacia Ave.	82.8	467	1,006	2,167
8	Florida Ave. (SR-74)	e/o Cawston Ave.	81.7	389	838	1,805
9	Devonshire Ave.	e/o California Ave.	76.7	131	283	609
10	Devonshire Ave.	e/o Warren Rd.	75.8	114	246	531
11	Devonshire Ave.	e/o Old Warren Rd.	75.5	110	236	509
12	Devonshire Ave.	e/o Myers St.	77.0	139	298	643
13	Devonshire Ave.	e/o Cawston Ave.	76.1	120	260	559
14	Winchester Rd. (SR-79)	s/o Devonshire Ave.	76.3	290	626	1,348
15	California Ave.	n/o Florida Ave. (SR-74)	77.1	140	301	649
16	Warren Rd.	s/o Florida Ave. (SR-74)	78.9	253	546	1,177
17	Warren Rd.	n/o Florida Ave. (SR-74)	76.8	185	399	859
18	Warren Rd.	n/o Devonshire Ave.	78.1	226	486	1,048
19	Myers St.	n/o Florida Ave. (SR-74)	72.4	68	146	315
20	Myers St.	n/o Devonshire Ave.	52.7	RW	RW	RW
21	Cawston Ave.	n/o Devonshire Ave.	73.4	80	171	369
22	Old Warren Rd.	n/o Devonshire Ave.	55.4	RW	RW	RW

[1] The CNEL is calculated at the boundary of the right-of-way of the receiving adjacent land use.
"RW" = Location of the respective noise contour falls within the right-of-way of the road.

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TABLE 7-4: EXISTING PLUS AMBIENT GROWTH (2029)
WITH PROJECT NOISE LEVEL CONTOURS

ID	Road	Segment	CNEL at Receiving Land Use (dBA)[1]	Distance to Contour from Centerline (Feet)		
				70 dBA CNEL	65 dBA CNEL	60 dBA CNEL
1	Florida Ave. (SR-74)	w/o Winchester Rd. (SR-79)	82.9	471	1,016	2,188
2	Florida Ave. (SR-74)	e/o Winchester Rd. (SR-79)	84.9	640	1,378	2,969
3	Florida Ave. (SR-74)	e/o Four Seasons Blvd.	84.1	565	1,218	2,624
4	Florida Ave. (SR-74)	e/o California Ave.	82.9	472	1,017	2,191
5	Florida Ave. (SR-74)	e/o Warren Rd.	82.9	471	1,014	2,185
6	Florida Ave. (SR-74)	e/o Myers St.	82.4	435	938	2,020
7	Florida Ave. (SR-74)	e/o Acacia Ave.	82.9	472	1,017	2,192
8	Florida Ave. (SR-74)	e/o Cawston Ave.	81.7	394	848	1,828
9	Devonshire Ave.	e/o California Ave.	76.8	134	288	620
10	Devonshire Ave.	e/o Warren Rd.	76.4	125	270	582
11	Devonshire Ave.	e/o Old Warren Rd.	75.5	110	236	509
12	Devonshire Ave.	e/o Myers St.	77.3	144	311	669
13	Devonshire Ave.	e/o Cawston Ave.	76.3	123	265	571
14	Winchester Rd. (SR-79)	s/o Devonshire Ave.	76.4	293	632	1,361
15	California Ave.	n/o Florida Ave. (SR-74)	77.2	142	306	660
16	Warren Rd.	s/o Florida Ave. (SR-74)	78.9	256	552	1,190
17	Warren Rd.	n/o Florida Ave. (SR-74)	77.0	192	413	889
18	Warren Rd.	n/o Devonshire Ave.	78.2	230	496	1,068
19	Myers St.	n/o Florida Ave. (SR-74)	73.2	77	167	359
20	Myers St.	n/o Devonshire Ave.	68.5	RW	80	172
21	Cawston Ave.	n/o Devonshire Ave.	73.6	82	176	378
22	Old Warren Rd.	n/o Devonshire Ave.	64.8	RW	RW	63

[1] The CNEL is calculated at the boundary of the right-of-way of the receiving adjacent land use.
"RW" = Location of the respective noise contour falls within the right-of-way of the road.

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**TABLE 7-5: EXISTING PLUS AMBIENT GROWTH PLUS CUMULATIVE (2029)
WITHOUT PROJECT NOISE LEVEL CONTOURS**

ID	Road	Segment	CNEL at Receiving Land Use (dBA)[1]	Distance to Contour from Centerline (Feet)		
				70 dBA CNEL	65 dBA CNEL	60 dBA CNEL
1	Florida Ave. (SR-74)	w/o Winchester Rd. (SR-79)	84.8	634	1,366	2,943
2	Florida Ave. (SR-74)	e/o Winchester Rd. (SR-79)	86.2	781	1,683	3,626
3	Florida Ave. (SR-74)	e/o Four Seasons Blvd.	85.7	722	1,556	3,353
4	Florida Ave. (SR-74)	e/o California Ave.	85.0	649	1,399	3,013
5	Florida Ave. (SR-74)	e/o Warren Rd.	84.8	626	1,349	2,906
6	Florida Ave. (SR-74)	e/o Myers St.	84.1	567	1,221	2,631
7	Florida Ave. (SR-74)	e/o Acacia Ave.	83.6	521	1,122	2,418
8	Florida Ave. (SR-74)	e/o Cawston Ave.	82.8	463	998	2,150
9	Devonshire Ave.	e/o California Ave.	77.5	149	320	690
10	Devonshire Ave.	e/o Warren Rd.	78.4	170	366	789
11	Devonshire Ave.	e/o Old Warren Rd.	77.8	156	337	726
12	Devonshire Ave.	e/o Myers St.	79.0	187	403	868
13	Devonshire Ave.	e/o Cawston Ave.	77.2	143	307	662
14	Winchester Rd. (SR-79)	s/o Devonshire Ave.	77.0	323	697	1,501
15	California Ave.	n/o Florida Ave. (SR-74)	77.8	156	336	723
16	Warren Rd.	s/o Florida Ave. (SR-74)	80.4	319	688	1,481
17	Warren Rd.	n/o Florida Ave. (SR-74)	79.3	273	587	1,265
18	Warren Rd.	n/o Devonshire Ave.	80.3	315	678	1,460
19	Myers St.	n/o Florida Ave. (SR-74)	76.2	123	264	569
20	Myers St.	n/o Devonshire Ave.	69.3	RW	91	197
21	Cawston Ave.	n/o Devonshire Ave.	74.4	92	197	425
22	Old Warren Rd.	n/o Devonshire Ave.	62.6	RW	RW	44

[1] The CNEL is calculated at the boundary of the right-of-way of the receiving adjacent land use.
"RW" = Location of the respective noise contour falls within the right-of-way of the road.

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**TABLE 7-6: EXISTING PLUS AMBIENT GROWTH PLUS CUMULATIVE (2029)
WITH PROJECT NOISE LEVEL CONTOURS**

ID	Road	Segment	CNEL at Receiving Land Use (dBA)[2]	Distance to Contour from Centerline (Feet)		
				70 dBA CNEL	65 dBA CNEL	60 dBA CNEL
1	Florida Ave. (SR-74)	w/o Winchester Rd. (SR-79)	84.9	639	1,377	2,968
2	Florida Ave. (SR-74)	e/o Winchester Rd. (SR-79)	86.3	788	1,698	3,659
3	Florida Ave. (SR-74)	e/o Four Seasons Blvd.	85.8	730	1,572	3,387
4	Florida Ave. (SR-74)	e/o California Ave.	85.0	654	1,410	3,037
5	Florida Ave. (SR-74)	e/o Warren Rd.	84.8	629	1,355	2,918
6	Florida Ave. (SR-74)	e/o Myers St.	84.2	572	1,233	2,657
7	Florida Ave. (SR-74)	e/o Acacia Ave.	83.6	526	1,133	2,441
8	Florida Ave. (SR-74)	e/o Cawston Ave.	82.9	468	1,008	2,171
9	Devonshire Ave.	e/o California Ave.	77.6	151	325	700
10	Devonshire Ave.	e/o Warren Rd.	78.7	179	386	831
11	Devonshire Ave.	e/o Old Warren Rd.	77.8	156	337	726
12	Devonshire Ave.	e/o Myers St.	79.2	192	413	890
13	Devonshire Ave.	e/o Cawston Ave.	77.3	145	312	672
14	Winchester Rd. (SR-79)	s/o Devonshire Ave.	77.1	326	703	1,514
15	California Ave.	n/o Florida Ave. (SR-74)	77.9	158	340	733
16	Warren Rd.	s/o Florida Ave. (SR-74)	80.4	322	693	1,493
17	Warren Rd.	n/o Florida Ave. (SR-74)	79.5	278	599	1,290
18	Warren Rd.	n/o Devonshire Ave.	80.3	318	686	1,477
19	Myers St.	n/o Florida Ave. (SR-74)	76.6	130	279	602
20	Myers St.	n/o Devonshire Ave.	71.9	63	135	291
21	Cawston Ave.	n/o Devonshire Ave.	74.5	93	201	434
22	Old Warren Rd.	n/o Devonshire Ave.	66.5	RW	38	82

[1] The CNEL is calculated at the boundary of the right-of-way of the receiving adjacent land use.
"RW" = Location of the respective noise contour falls within the right-of-way of the road.

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7.2   EXISTING PROJECT TRAFFIC NOISE LEVEL INCREASES

An analysis of existing traffic noise levels plus traffic noise generated by the Project has been included in this report for informational purposes and to fully analyze all the existing traffic scenarios identified in the Traffic Analysis prepared by Urban Crossroads, Inc. However, the analysis of existing off-site traffic noise levels plus traffic noise generated by the Project scenario will not actually occur since the Project will not be fully constructed and operational until the Year 2025. Table 7-1 shows the Existing without Project conditions CNEL noise levels. The Existing without Project exterior noise levels range from 52.3 to 84.4 dBA CNEL without accounting for any noise attenuation features such as noise barriers or topography. Table 7-2 shows the Existing with Project conditions ranging from 64.8 to 84.5 dBA CNEL. Table 7-7 shows that the Project off-site traffic noise level increases range from less than 0.1 to 16.2 dBA CNEL on the study area roadway segments. Based on the significance criteria for off-site traffic noise presented in Table 4-1, one of the study area roadway segments, Old Warren Road north of Devonshire Avenue (Segment #22), is shown to experience *significant* off-site traffic noise level increases due to the Project traffic volumes. The segments are described below.

Section 7.5 describes the off-site traffic noise mitigation measures considered in this analysis. All other roadway segments would experience *less than significant* noise level increases due to the Project traffic increases.

7.3   EXISTING PLUS AMBIENT GROWTH (2029) TRAFFIC NOISE LEVEL INCREASES

Table 7-3 presents the Existing Plus Ambient Growth (EA) without Project conditions CNEL noise levels. The EA without Project exterior noise levels range from 52.7 to 84.8 dBA CNEL, without accounting for any noise attenuation features such as noise barriers or topography. Table 7-4 shows that the EA with Project conditions will range from 64.8 to 84.9 dBA CNEL. Table 7-8 shows that the Project off-site traffic noise level increases range from less than 0.1 to 15.8 dBA CNEL. Based on the significance criteria for off-site traffic noise presented in Table 4-1, one study area roadway segment, Old Warren Road north of Devonshire Avenue (Segment #22), is shown to experience *significant* off-site traffic noise level increases due to the Project traffic volumes.

Section 7.5 describes the off-site traffic noise mitigation measures considered in this analysis. All other roadway segments would experience *less than significant* noise level increases due to the Project traffic increases.

7.4   EXISTING PLUS AMBIENT GROWTH PLUS CUMULATIVE (2029) TRAFFIC NOISE LEVEL INCREASES

Table 7-5 presents the Existing Plus Ambient Growth Plus Cumulative (EAC) without Project conditions CNEL noise levels. The EAC without Project exterior noise levels range from 62.6 to 86.2 dBA CNEL, without accounting for any noise attenuation features such as noise barriers or topography. Table 7-6 shows that the EAC with Project conditions will range from 66.5 to 86.3 dBA CNEL. Table 7-9 shows that the Project off-site traffic noise level increases range from less than 0.1 to 3.9 dBA CNEL. Based on the significance criteria for off-site traffic noise presented in Table 4-1, one study area roadway segment, Old Warren Road north of Devonshire Avenue

(Segment #22), is shown to experience *significant* off-site traffic noise level increases due to the Project traffic noise level increases.

Section 7.5 describes the off-site traffic noise mitigation measures considered in this analysis. All other roadway segments would experience *less than significant* noise level increases due to the with Project traffic.

7.5   OFF-SITE TRAFFIC NOISE MITIGATION

To reduce the *significant* Project traffic noise level increases on the study area roadway segment, potential noise mitigation measures are considered in this analysis. Potential mitigation measures discussed below include off-site noise barriers and quiet pavements for the existing residential uses adjacent to roadway segments with significant noise level increases.

7.5.1   OFF-SITE NOISE BARRIERS

Existing noise-sensitive receiving land uses are located adjacent to the impacted roadway segment in the Project study area that will experience substantial permanent traffic noise level increases. Therefore, off-site noise barriers were considered as a potential traffic noise mitigation measure to reduce the impacts. Off-site noise barriers are estimated to provide a minimum 5 dBA reduction, which, according to the FHWA, will provide a *readily perceptible* decrease in noise levels and is *simple* to attain when blocking the line of sight from the noise source to the receiver. (17)

However, noise barriers are not considered feasible as barriers would require openings for driveway access to individual residential lots fronting the road, thus greatly reducing their effectiveness. As such, off-site noise barriers would not be expected to lower the off-site traffic noise levels below a level of significance, and therefore, noise barriers are not considered as mitigation for the Project.

7.5.2   QUIET PAVEMENT

The application of quieter pavements reduces traffic noise levels at the tire-pavement interface, which has been shown to be the primary source of traffic noise when vehicles travel faster than about 30 mph. (24) Additionally, quiet pavements do not have the same physical site limitations as barriers and typically has a lower upfront cost. The noise performance of quieter pavement can degrade over time, typically 10 years, resulting in increased maintenance and rehabilitation needs for purposes of noise reduction. Rubberized Hot-Mix Asphalt (RHMA) or Open-Graded Friction Course (OGFC) pavement is considered a mitigation measure for the Project-related roadway improvements associated with Project construction. Changing the pavement type of a roadway has been shown to reduce the amount of tire/pavement noise produced at the source under both near-term and long-term conditions. Traffic noise is generated primarily by the interaction of the tires and pavement, the engine, and exhaust systems. For automobile noise, as much as 75 to 90 percent of traffic noise is generated by the interaction of the tires and pavement, especially when traveling at higher speeds. (24) According to research conducted by Caltrans, RHMA and OGFC pavements typically provide noise attenuation of 6 dBA for automobile traffic noise levels. (24)

To reduce the off-site traffic noise impacts at adjacent existing noise-sensitive land uses, quieter pavement mitigation is required for Old Warren Road. The use of RHMA or PGFC by the Project would serve to reduce the noise level increases at neighboring noise-sensitive land uses along these locations by approximately 6 dBA. Therefore, the increase under future conditions would be reduced to acceptable levels, i.e., less than 5 dBA, in the opening year and less than 3 dBA in the. The RHMA or OGFC pavement mitigation measure, MM NOI-1, is outlined below.

MM NOI-1:   OFF-SITE TRAFFIC EXTERIOR NOISE MITIGATION

To reduce the *significant* Project-related off-site traffic noise level impacts at existing noise-sensitive land uses, Rubberized Hot-Mix Asphalt (RHMA) or Open-Graded Friction Course (OGFC) pavement is recommended as mitigation for Old Warren Road north of Devonshire Avenue, as shown in Exhibit ES-A.

With RHMA or OGFC pavement as a mitigation measure, the Project-related off-site traffic noise level increases would be reduced to *less than significant*.

TABLE 7-7: EXISTING WITH PROJECT TRAFFIC NOISE LEVEL INCREASES

ID	Road	Segment	Receiving Land Use[1]	CNEL at Receiving Land Use (dBA)[2]			Incremental Noise Level Increase Threshold[3]	
				No Project	With Project	Project Addition	Limit	Exceeded?
1	Florida Ave. (SR-74)	w/o Winchester Rd. (SR-79)	Residential	82.4	82.5	0.1	1.5	No
2	Florida Ave. (SR-74)	e/o Winchester Rd. (SR-79)	Residential	84.4	84.5	0.1	1.5	No
3	Florida Ave. (SR-74)	e/o Four Seasons Blvd.	Residential	83.6	83.7	0.1	1.5	No
4	Florida Ave. (SR-74)	e/o California Ave.	Residential	82.4	82.5	0.1	1.5	No
5	Florida Ave. (SR-74)	e/o Warren Rd.	Residential	82.4	82.5	0.1	1.5	No
6	Florida Ave. (SR-74)	e/o Myers St.	Residential	81.9	82.0	0.1	1.5	No
7	Florida Ave. (SR-74)	e/o Acacia Ave.	Residential	82.4	82.5	0.1	1.5	No
8	Florida Ave. (SR-74)	e/o Cawston Ave.	Residential	81.2	81.3	0.1	1.5	No
9	Devonshire Ave.	e/o California Ave.	Residential	76.3	76.4	0.1	1.5	No
10	Devonshire Ave.	e/o Warren Rd.	Residential	75.4	76.0	0.6	1.5	No
11	Devonshire Ave.	e/o Old Warren Rd.	Residential	75.1	75.1	0.0	1.5	No
12	Devonshire Ave.	e/o Myers St.	Residential	76.6	76.9	0.3	1.5	No
13	Devonshire Ave.	e/o Cawston Ave.	Residential	75.7	75.8	0.1	1.5	No
14	Winchester Rd. (SR-79)	s/o Devonshire Ave.	Residential	75.9	76.0	0.1	1.5	No
15	California Ave.	n/o Florida Ave. (SR-74)	Residential	76.7	76.8	0.1	1.5	No
16	Warren Rd.	s/o Florida Ave. (SR-74)	Residential	78.4	78.5	0.1	1.5	No
17	Warren Rd.	n/o Florida Ave. (SR-74)	Residential	76.4	76.6	0.2	1.5	No
18	Warren Rd.	n/o Devonshire Ave.	Residential	77.7	77.8	0.1	1.5	No
19	Myers St.	n/o Florida Ave. (SR-74)	Residential	72.0	72.9	0.9	1.5	No
20	Myers St.	n/o Devonshire Ave.	Undeveloped	52.3	68.5	16.2	n/a	No
21	Cawston Ave.	n/o Devonshire Ave.	Residential	73.0	73.2	0.2	1.5	No
22	Old Warren Rd.	n/o Devonshire Ave.	Residential	55.0	64.8	9.8	5.0	**Yes**

[1] Based on a review of existing aerial imagery, and the City of Hemet General Plan, Land Use Element, Figure 2.1. Noise sensitive uses limited to existing residential land uses.
[2] The CNEL is calculated at the boundary of the right-of-way of each roadway and the property line of the receiving land use.
[3] Does the Project create an incremental noise level increase exceeding the significance criteria (Table 4-1)?

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**TABLE 7-8: EXISTING PLUS AMBIENT GROWTH
WITH PROJECT TRAFFIC NOISE LEVEL INCREASES**

ID	Road	Segment	Receiving Land Use[1]	CNEL at Receiving Land Use (dBA)[2]			Incremental Noise Level Increase Threshold[3]	
				No Project	With Project	Project Addition	Limit	Exceeded?
1	Florida Ave. (SR-74)	w/o Winchester Rd. (SR-79)	Residential	82.8	82.9	0.1	1.5	No
2	Florida Ave. (SR-74)	e/o Winchester Rd. (SR-79)	Residential	84.8	84.9	0.1	1.5	No
3	Florida Ave. (SR-74)	e/o Four Seasons Blvd.	Residential	84.0	84.1	0.1	1.5	No
4	Florida Ave. (SR-74)	e/o California Ave.	Residential	82.8	82.9	0.1	1.5	No
5	Florida Ave. (SR-74)	e/o Warren Rd.	Residential	82.9	82.9	0.0	1.5	No
6	Florida Ave. (SR-74)	e/o Myers St.	Residential	82.3	82.4	0.1	1.5	No
7	Florida Ave. (SR-74)	e/o Acacia Ave.	Residential	82.8	82.9	0.1	1.5	No
8	Florida Ave. (SR-74)	e/o Cawston Ave.	Residential	81.7	81.7	0.0	1.5	No
9	Devonshire Ave.	e/o California Ave.	Residential	76.7	76.8	0.1	1.5	No
10	Devonshire Ave.	e/o Warren Rd.	Residential	75.8	76.4	0.6	1.5	No
11	Devonshire Ave.	e/o Old Warren Rd.	Residential	75.5	75.5	0.0	1.5	No
12	Devonshire Ave.	e/o Myers St.	Residential	77.0	77.3	0.3	1.5	No
13	Devonshire Ave.	e/o Cawston Ave.	Residential	76.1	76.3	0.2	1.5	No
14	Winchester Rd. (SR-79)	s/o Devonshire Ave.	Residential	76.3	76.4	0.1	1.5	No
15	California Ave.	n/o Florida Ave. (SR-74)	Residential	77.1	77.2	0.1	1.5	No
16	Warren Rd.	s/o Florida Ave. (SR-74)	Residential	78.9	78.9	0.0	1.5	No
17	Warren Rd.	n/o Florida Ave. (SR-74)	Residential	76.8	77.0	0.2	1.5	No
18	Warren Rd.	n/o Devonshire Ave.	Residential	78.1	78.2	0.1	1.5	No
19	Myers St.	n/o Florida Ave. (SR-74)	Residential	72.4	73.2	0.8	1.5	No
20	Myers St.	n/o Devonshire Ave.	Undeveloped	52.7	68.5	15.8	n/a	No
21	Cawston Ave.	n/o Devonshire Ave.	Residential	73.4	73.6	0.2	1.5	No
22	Old Warren Rd.	n/o Devonshire Ave.	Residential	55.4	64.8	9.4	5.0	**Yes**

[1] Based on a review of existing aerial imagery, and the City of Hemet General Plan, Land Use Element, Figure 2.1. Noise sensitive uses limited to existing residential land uses.
[2] The CNEL is calculated at the boundary of the right-of-way of each roadway and the property line of the receiving land use.
[3] Does the Project create an incremental noise level increase exceeding the significance criteria (Table 4-1)?

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**TABLE 7-9: EXISTING PLUS AMBIENT GROWTH PLUS CUMULATIVE
WITH PROJECT TRAFFIC NOISE LEVEL INCREASES**

ID	Road	Segment	Receiving Land Use[1]	CNEL at Receiving Land Use (dBA)[2]			Incremental Noise Level Increase Threshold[3]	
				No Project	With Project	Project Addition	Limit	Exceeded?
1	Florida Ave. (SR-74)	w/o Winchester Rd. (SR-79)	Residential	84.8	84.9	0.1	1.5	No
2	Florida Ave. (SR-74)	e/o Winchester Rd. (SR-79)	Residential	86.2	86.3	0.1	1.5	No
3	Florida Ave. (SR-74)	e/o Four Seasons Blvd.	Residential	85.7	85.8	0.1	1.5	No
4	Florida Ave. (SR-74)	e/o California Ave.	Residential	85.0	85.0	0.0	1.5	No
5	Florida Ave. (SR-74)	e/o Warren Rd.	Residential	84.8	84.8	0.0	1.5	No
6	Florida Ave. (SR-74)	e/o Myers St.	Residential	84.1	84.2	0.1	1.5	No
7	Florida Ave. (SR-74)	e/o Acacia Ave.	Residential	83.6	83.6	0.0	1.5	No
8	Florida Ave. (SR-74)	e/o Cawston Ave.	Residential	82.8	82.9	0.1	1.5	No
9	Devonshire Ave.	e/o California Ave.	Residential	77.5	77.6	0.1	1.5	No
10	Devonshire Ave.	e/o Warren Rd.	Residential	78.4	78.7	0.3	1.5	No
11	Devonshire Ave.	e/o Old Warren Rd.	Residential	77.8	77.8	0.0	1.5	No
12	Devonshire Ave.	e/o Myers St.	Residential	79.0	79.2	0.2	1.5	No
13	Devonshire Ave.	e/o Cawston Ave.	Residential	77.2	77.3	0.1	1.5	No
14	Winchester Rd. (SR-79)	s/o Devonshire Ave.	Residential	77.0	77.1	0.1	1.5	No
15	California Ave.	n/o Florida Ave. (SR-74)	Residential	77.8	77.9	0.1	1.5	No
16	Warren Rd.	s/o Florida Ave. (SR-74)	Residential	80.4	80.4	0.0	1.5	No
17	Warren Rd.	n/o Florida Ave. (SR-74)	Residential	79.3	79.5	0.2	1.5	No
18	Warren Rd.	n/o Devonshire Ave.	Residential	80.3	80.3	0.0	1.5	No
19	Myers St.	n/o Florida Ave. (SR-74)	Residential	76.2	76.6	0.4	1.5	No
20	Myers St.	n/o Devonshire Ave.	Undeveloped	69.3	71.9	2.6	n/a	No
21	Cawston Ave.	n/o Devonshire Ave.	Residential	74.4	74.5	0.1	1.5	No
22	Old Warren Rd.	n/o Devonshire Ave.	Residential	62.6	66.5	3.9	3.0	**Yes**

[1] Based on a review of existing aerial imagery, and the City of Hemet General Plan, Land Use Element, Figure 2.1. Noise sensitive uses limited to existing residential land uses.
[2] The CNEL is calculated at the boundary of the right-of-way of each roadway and the property line of the receiving land use.
[3] Does the Project create an incremental noise level increase exceeding the significance criteria (Table 4-1)?

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8   ON-SITE NOISE ANALYSIS

An on-site exterior noise impact analysis has been completed to determine the noise exposure levels that would result from adjacent transportation noise sources in the Project study area and to identify potential noise attenuation measures that would achieve acceptable Project exterior and interior noise levels. The primary source of transportation noise affecting the Project site is anticipated to be Rose Road. The Project will also experience some background traffic noise impacts from the Project's internal local streets; however, due to the distance and low traffic volume/speed, traffic noise from these roads will not make a significant contribution to the noise environment.

8.1   ON-SITE TRAFFIC NOISE ANALYSIS

Using the FHWA traffic noise prediction model and the parameters outlined in Tables 6-3 to 6-5, the expected future exterior noise levels for the on-site Project land uses were estimated. Table 8-1 presents a summary of future on-site exterior traffic noise levels at future building facades. The on-site traffic noise analysis calculations are provided in Appendix 8.1.

TABLE 8-1: EXTERIOR TRAFFIC NOISE LEVELS

Lots	Roadway	Unmitigated Noise Level (dBA CNEL)
114	Rose Rd.	50.7
55-66	Rose Rd.	62.2
47-54	Rose Rd.	62.2
45-46	Rose Rd.	62.1
43-44	Rose Rd.	59.3
36	Rose Rd.	53.8

[1] Exterior noise level calculations are included in Appendix 8.1.

8.2   ON-SITE NOISE ANALYSIS

The on-site exterior traffic noise analysis indicates that on-site locations will experience exterior noise levels ranging from 50.7 to 62.2 dBA CNEL from all transportation sources.

8.3   EXTERIOR NOISE LEVEL COMPATIBILITY

Based on City of Hemet *Land Use Compatibility for Community Noise Exposure* shown in Exhibit 3-A, residential uses are considered as *normally acceptable to conditionally acceptable* with unmitigated exterior noise levels of less than 70 dBA CNEL. This noise analysis shows that the Project will satisfy the City of Hemet 65 dBA CNEL exterior noise level standards for residential land uses without additional noise abatement measures.

8.4   INTERIOR NOISE ANALYSIS

To ensure that the interior noise levels comply with the interior noise level standards, future exterior noise levels were calculated at the estimated at first- and second-floor building façade locations. Based on the Project plans and as analyzed in Section 10, the Project will provide mechanical ventilation to all units, therefore, all interior noise analysis assumes the windows can be placed in a closed position.

8.4.1   NOISE REDUCTION METHODOLOGY

The interior noise level is the difference between the predicted exterior noise level at the building facade 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." (17) (25) 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 assemblies free of cut-outs or openings.

8.4.2   INTERIOR NOISE LEVEL ASSESSMENT

Table 8-2 shows that the future unmitigated noise levels at the first-floor building façade are expected to range from 50.4 to 60.9 dBA CNEL. The first-floor interior noise level analysis shows that the City of Hemet 45 dBA CNEL interior noise standards can be satisfied with a windows-closed condition and standard construction.

Table 8-3 shows the future unmitigated noise levels at the second-floor building façade are expected to range from 50.4 to 60.7 dBA CNEL. The second-floor interior noise level analysis shows that the City of Hemet 45 dBA CNEL interior noise standards can be satisfied with a windows-closed condition and standard construction.

8.4.3   INTERIOR TRAFFIC NOISE LEVEL COMPLIANCE

Tables 8-2 and 8-3 show that on-site interior traffic noise levels will not exceed the 45 dBA CNEL interior noise level standard for residential land uses, and additional noise abatement measures are not needed.

TABLE 8-2: FIRST FLOOR INTERIOR NOISE LEVELS (CNEL)

Receiver Location	Noise Level at Façade[1]	Required Interior Noise Reduction[2]	Estimated Interior Noise Reduction[3]	Upgraded Windows[4]	Recommended STC	Interior Noise Level[5]
114	50.4	5.4	25.0	No	27	25.4
55-66	60.9	15.9	25.0	No	27	35.9
47-54	60.8	15.8	25.0	No	27	35.8
45-46	60.8	15.8	25.0	No	27	35.8
43-44	58.4	13.4	25.0	No	27	33.4
36	53.4	8.4	25.0	No	27	28.4

[1] Exterior noise level at the facade with a windows closed condition requiring a means of mechanical ventilation (e.g. air conditioning).
[2] Noise reduction required to satisfy the 45 dBA CNEL interior noise standards.
[3] A minimum of 25 dBA noise reduction is assumed with standard building construction; 12 dBA assumes open windows.
[4] Does the required interior noise reduction trigger upgraded with a minimum STC rating of greater than 27?
[5] Estimated interior noise level with minimum STC rating for all windows.

TABLE 8-3: SECOND FLOOR INTERIOR NOISE LEVELS (CNEL)

Receiver Location	Noise Level at Façade[1]	Required Interior Noise Reduction[2]	Estimated Interior Noise Reduction[3]	Upgraded Windows[4]	Recommended STC	Interior Noise Level[5]
114	50.4	5.4	25.0	No	27	25.4
55-66	60.7	15.7	25.0	No	27	35.7
47-54	60.7	15.7	25.0	No	27	35.7
45-46	60.6	15.6	25.0	No	27	35.6
43-44	58.3	13.3	25.0	No	27	33.3
36	53.4	8.4	25.0	No	27	28.4

[1] Exterior noise level at the facade with a windows closed condition requiring a means of mechanical ventilation (e.g. air conditioning).
[2] Noise reduction required to satisfy the 45 dBA CNEL interior noise standards.
[3] A minimum of 25 dBA noise reduction is assumed with standard building construction; 12 dBA assumes open windows.
[4] Does the required interior noise reduction trigger upgraded with a minimum STC rating of greater than 27?
[5] Estimated interior noise level with minimum STC rating for all windows.

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9   RECEIVER LOCATIONS

To assess the potential for long-term operational and short-term construction noise impacts, the following sensitive receiver locations, as shown in 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, six receiver locations in the vicinity of the Project site were identified. The selection of receiver locations is based on FHWA guidelines and is consistent with additional guidance provided by Caltrans and the FTA, as previously described in Section 5.2. Other sensitive land uses in the Project study area that are located at greater distances than those identified in this noise study will experience lower noise levels than those presented in this report due to the additional attenuation from distance and the shielding of intervening structures. Distance is measured in a straight line from the project boundary to each receiver location.

R1:   Location R1 represents the existing residence at 5862 Parkside Drive, approximately 41 feet west of the Project site. R1 is placed in the private outdoor living area 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 residence at 418 Vernal Lane, approximately 26 feet west of the Project site. R2 is placed in the private outdoor living space 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 residence at 297 Appaloosa Drive, approximately 1,319 feet southeast of the Project site. Receiver R3 is placed at the building façade 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 residence at 685 Rose Road, approximately 179 feet east of the Project site. R4 is placed in the private outdoor living space 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 residence at 792 Dill Seed Lane, approximately 1,181 feet east of the Project site. Receiver R5 is placed at the building façade facing the Project site. A 24-hour noise measurement was taken near this location, L5, to describe the existing ambient noise environment.

R6:   Location R6 represents the existing residence at 5423 Viewstone Court, approximately 795 feet north of the Project site. Receiver R6 is placed at the building façade facing the Project site. A 24-hour noise measurement was taken near this location, L6, to describe the existing ambient noise environment.

EXHIBIT 9-A: RECEIVER LOCATIONS
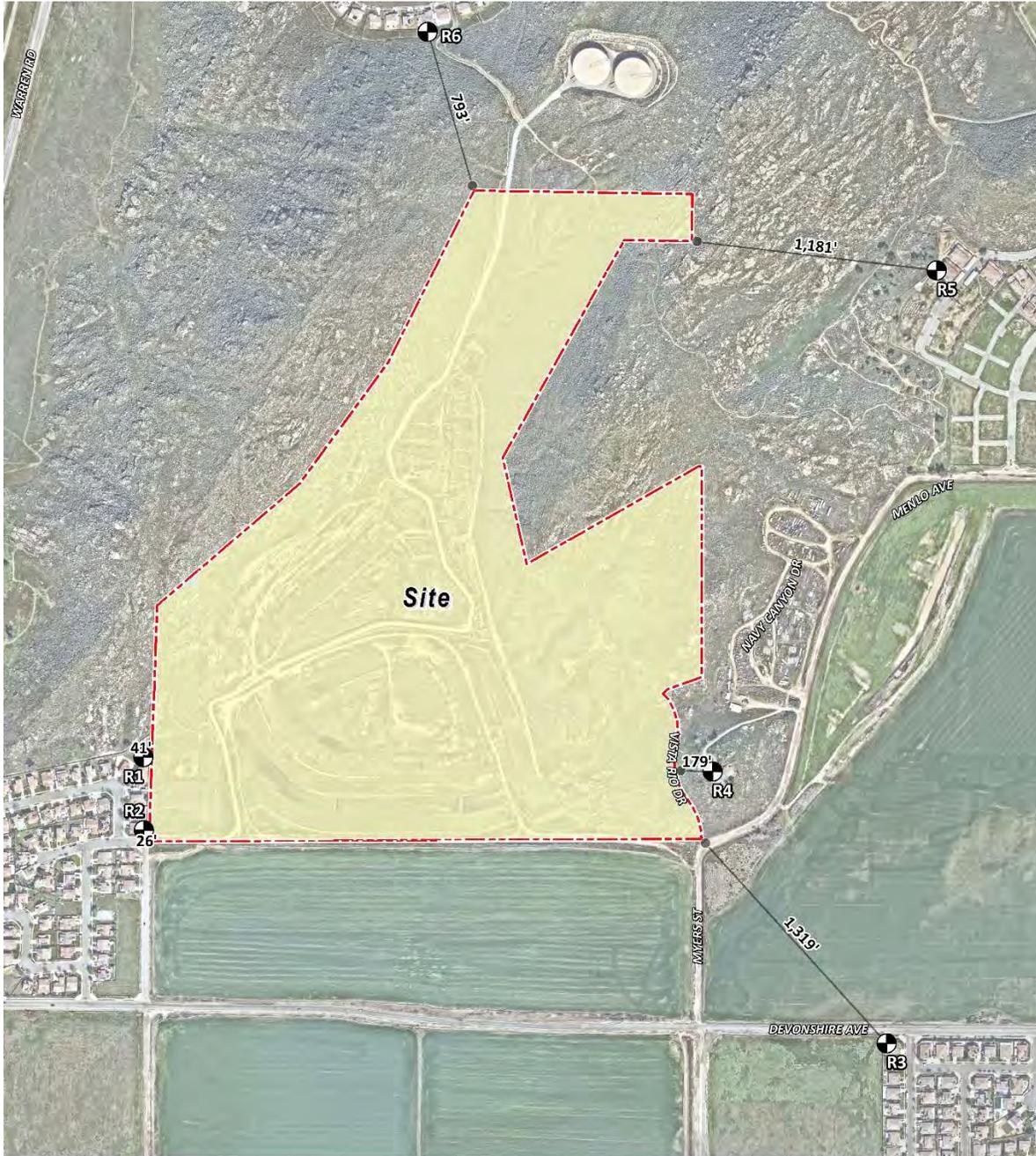
10   OPERATIONAL NOISE IMPACTS

This section analyzes the potential stationary-source operational noise impacts at the nearest receiver locations, identified in Section 9, resulting from the operation of the Project. Exhibit 10-A shows the location of the modeled noise sources.

10.1   OPERATIONAL NOISE SOURCES

This operational noise analysis is intended to describe noise level impacts associated with the expected typical daytime and nighttime activities at the Project site. The on-site Project-related noise sources are expected to include: ground-mounted air conditioning units.

10.2   REFERENCE NOISE LEVELS

To estimate the Project operational noise impacts, reference noise level measurements were collected from similar types of activities or manufacturers' specifications to represent the noise levels expected with the development of the Project. This section provides a detailed description of the reference noise levels shown in Table 10-1, used to estimate the Project's operational noise impacts. It is important to note that the following projected noise levels assume a reasonable worst-case noise environment with the typical noise sources operating at the same time. These sources of noise activity will likely vary throughout the day.

10.2.1 ROOF-TOP AIR CONDITIONING UNITS

To assess the noise levels created by the air conditioning units, reference noise levels were taken from equipment specifications for a 1.5- to 5-ton residential heat pump unit (Carrier Model 25HCE4). The manufacturer's specifications are included in Appendix 10.1. At a uniform reference distance of 50 feet, the units would generate a reference noise level of 47.4 dBA L_{eq}. The air conditioning units were modeled 3 feet above ground level, operating 45 minutes per hour during the daytime and 30 minutes at nighttime, which represents the typical maximum operating time for properly sized AC systems.

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EXHIBIT 10-A: OPERATIONAL NOISE SOURCE LOCATIONS
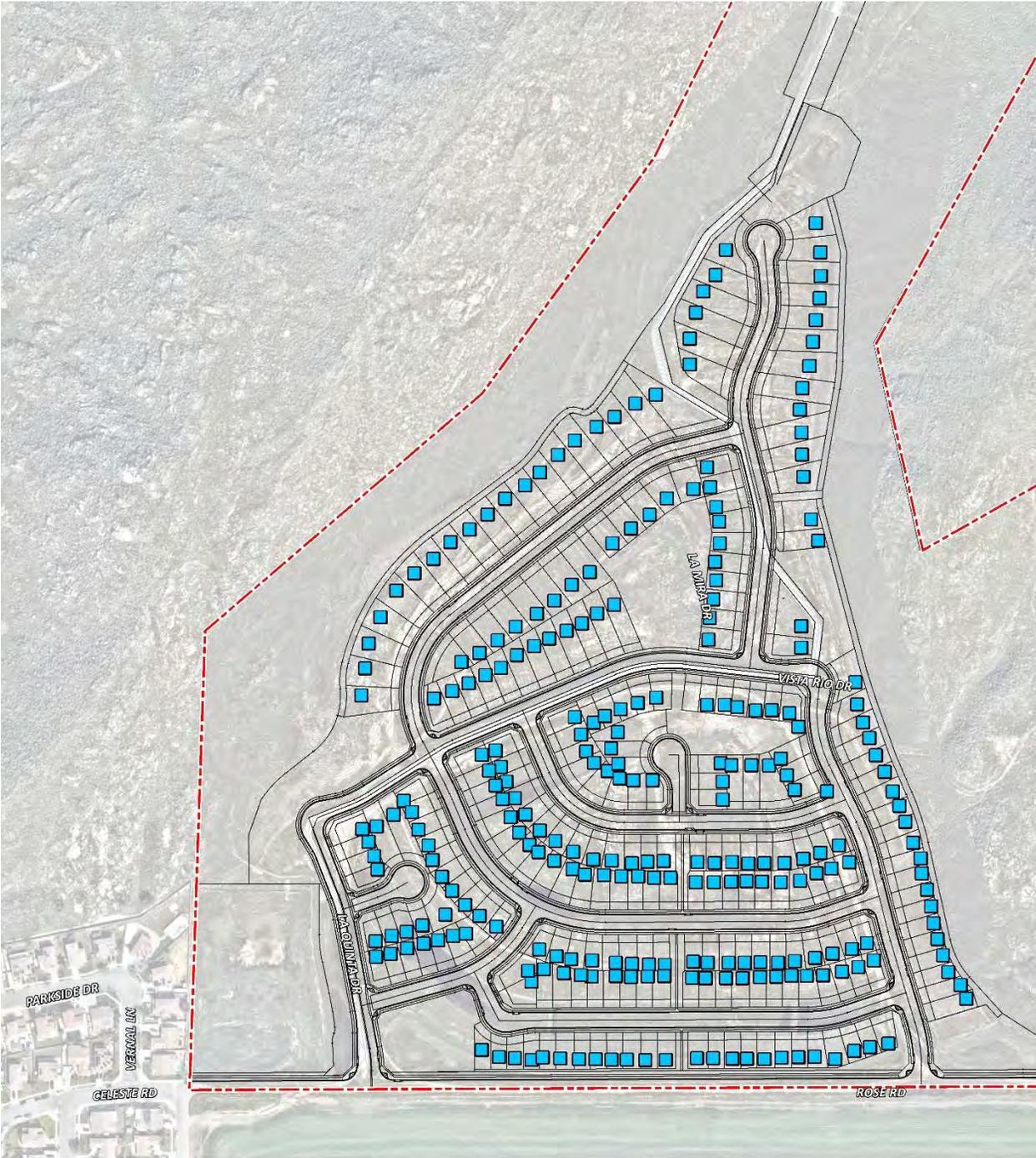
LEGEND:

N

🟦 Ground-Mounted Air Conditioning Unit

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TABLE 10-1: REFERENCE NOISE LEVEL MEASUREMENTS

Reference Noise Source	Noise Source Height (Feet)	Min./ Hour[2]		Reference Noise Level (dBA L$_{eq}$) @ 50 Feet	Sound Power Level (dBA)[3]
		Day	Night		
Roof-Top Air Conditioning Units[1]	3'	45	30	47.4	79.0

[1] Carrier Madel 25HCE4, Appendix 10.1.

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

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

10.3   CADNAA NOISE PREDICTION MODEL

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

While sound pressure levels (e.g., L$_{eq}$) quantify in decibels the intensity of given sound sources at a reference distance, sound power levels (L$_w$) are connected to the sound source and are independent of distance. Sound pressure levels vary substantially with distance from the source and diminish because of intervening obstacles and barriers, air absorption, wind, and other factors. Sound power is the acoustical energy emitted by the sound source and is an absolute value that is not affected by the environment. The operational noise level calculations provided in this noise study account for the distance attenuation provided due to geometric spreading when sound from a localized stationary source (i.e., a point source) propagates uniformly outward in a spherical pattern. A default ground attenuation factor of 0.5 was used in the CadnaA noise analysis to account for mixed ground representing a combination of hard and soft surfaces. Appendix 10.2 includes the detailed noise model inputs, including the planned screen walls used to estimate the Project's operational noise levels presented in this section.

10.4   PROJECT OPERATIONAL NOISE LEVELS

Using the reference noise levels to represent the Project operations that include ground-mounted air conditioning 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 7:00 a.m. to 10:00 p.m. The daytime hourly noise levels at the off-site receiver are expected to range from 26.0 to 36.7 dBA L_{eq}.

TABLE 10-2: DAYTIME PROJECT OPERATIONAL NOISE LEVELS

Noise Source[1]	Operational Noise Levels by Receiver Location (dBA Leq)					
	R1	R2	R3	R4	R5	R6
Roof-Top Air Conditioning Units	36.7	35.5	27.2	33.5	26.0	26.8
Total (All Noise Sources)	**36.7**	**35.5**	**27.2**	**33.5**	**26.0**	**26.8**

[1] 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 10:00 p.m. to 7:00 a.m. The nighttime hourly noise levels at the off-site receiver locations are expected to range from 23.2 to 33.9 dBA L_{eq}. The minor differences between the daytime and nighttime noise levels are largely related to the estimated duration of noise activity, as outlined in Table 10-1 and Appendix 10.2.

TABLE 10-3: NIGHTTIME PROJECT OPERATIONAL NOISE LEVELS

Noise Source[1]	Operational Noise Levels by Receiver Location (dBA Leq)						
	R1	R2	R3	R4	R5	R6	
Roof-Top Air Conditioning Units	33.9	32.8	24.5	30.7	23.2	24.1	
Total (All Noise Sources)	**33.9**	**32.8**	**24.5**	**30.7**	**23.2**	**24.1**	

[1] 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 City of Hemet exterior noise level standards at nearby noise-sensitive receiver locations. Table 10-4 shows that the operational noise levels associated with the Project will not exceed the applicable City of Hemet 60 dBA L_{eq} daytime and 45 dBA L_{eq} nighttime exterior noise level standards. Therefore, the operational noise impacts are considered *less than significant* at the nearby noise-sensitive receiver locations.

TABLE 10-4: OPERATIONAL NOISE LEVEL COMPLIANCE

Receiver Location[1]	Project Operational Noise Levels (dBA Leq)[2]		Noise Level Standards (dBA Leq)[3]		Noise Level Standards Exceeded?[4]	
	Daytime	Nighttime	Daytime	Nighttime	Daytime	Nighttime
R1	36.7	33.9	60	45	No	No
R2	35.5	32.8	60	45	No	No
R3	27.2	24.5	60	45	No	No
R4	33.5	30.7	60	45	No	No
R5	26.0	23.2	60	45	No	No
R6	26.8	24.1	60	45	No	No

[1] See Exhibit 10-A for the receiver locations.
[2] Project unmitigated operational noise levels as shown in Tables 10-2 and 10-3.
[3] Exterior noise level standards, as shown in Table 4-1.
[4] Do the estimated Project operational noise source activities exceed the noise level standards?
"Daytime" = 7:00 a.m. - 10:00 p.m.; "Nighttime" = 10:00 p.m. - 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 that may be potentially impacted by Project operational noise sources. Since the units used to measure noise, decibels (dB), are logarithmic units, the Project-operational and existing ambient noise levels cannot be combined using standard arithmetic equations. (3) Instead, they must be logarithmically added using the following base equation:

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

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 in Tables 10-5 and 10-6, respectively. As indicated in Table 10-5, the Project will generate a daytime operational noise level increase ranging from less than 0.0 to 0.4 dBA L_{eq} at the nearest receiver locations. Table 10-6 shows that the Project will generate a nighttime operational noise level increase ranging from 0.0 to 0.2 dBA L_{eq} at the nearest receiver locations. Project-related operational noise level increases will not exceed the operational noise level increase significance criteria presented in Table 4-1, and, therefore, the increases at the sensitive receiver locations will be *less than significant.*

TABLE 10-5: DAYTIME PROJECT OPERATIONAL NOISE LEVEL INCREASES

Receiver Location[1]	Total Project Operational Noise Level[2]	Measurement Location[3]	Reference Ambient Noise Levels[4]	Combined Project and Ambient[5]	Project Increase[6]	Increase Criteria[7]	Increase Criteria Exceeded?
R1	33.9	L1	59.6	59.6	0.0	5.0	No
R2	32.8	L2	57.2	57.2	0.0	5.0	No
R3	24.5	L3	60.1	60.1	0.0	5.0	No
R4	30.7	L4	54.0	54.0	0.0	5.0	No
R5	23.2	L5	52.7	52.7	0.0	5.0	No
R6	24.1	L6	58.9	58.9	0.0	5.0	No

[1] See Exhibit 10-A for the receiver locations.
[2] Total Project daytime operational noise levels as shown in Table 10-2.
[3] Reference noise level measurement locations as shown in Exhibit 5-A.
[4] Observed daytime ambient noise levels as shown in Table 5-1.
[5] Represents the combined ambient conditions plus the Project activities.
[6] The noise level increase expected with the addition of the Project activities.
[7] Significance increase criteria as shown in Table 4-1.

TABLE 10-6: NIGHTTIME OPERATIONAL NOISE LEVEL INCREASES

Receiver Location[1]	Total Project Operational Noise Level[2]	Measurement Location[3]	Reference Ambient Noise Levels[4]	Combined Project and Ambient[5]	Project Increase[6]	Increase Criteria[7]	Increase Criteria Exceeded?
R1	33.9	L1	44.6	45.0	0.4	5.0	No
R2	32.8	L2	47.0	47.2	0.2	5.0	No
R3	24.5	L3	55.4	55.4	0.0	5.0	No
R4	30.7	L4	48.8	48.9	0.1	5.0	No
R5	23.2	L5	42.8	42.8	0.0	5.0	No
R6	24.1	L6	42.6	42.7	0.1	5.0	No

[1] See Exhibit 10-A for the receiver locations.
[2] Total Project nighttime operational noise levels as shown in Table 10-3.
[3] Reference noise level measurement locations as shown in Exhibit 5-A.
[4] Observed nighttime ambient noise levels as shown in Table 5-1.
[5] Represents the combined ambient conditions plus the Project activities.
[6] The noise level increase expected with the addition of the Project activities.
[7] Significance increase criteria as shown in Table 4-1.

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11   CONSTRUCTION ANALYSIS

This section analyzes potential impacts resulting from the short-term construction activities associated with the development of the Project. Exhibits 11-A, 11-B, and 11-C show the boundaries for construction activity, rock crushing, and blasting, respectively, in relation to the nearest sensitive receiver locations previously described in Section 6. Neither the General Plan nor the Municipal Code establish numeric maximum acceptable construction source noise levels at potentially affected receivers for CEQA analysis purposes. Therefore, if the Project-related construction noise levels generate a temporary noise level increase over the existing daytime ambient noise levels in excess of 20 dBA L_{eq} and exceed 80 dBA L_{eq}, then the Project construction noise level increases will be considered a *significant* impact.

11.1   CONSTRUCTION NOISE LEVELS

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

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

11.2   CONSTRUCTION REFERENCE NOISE LEVELS

To describe construction noise activities, this construction noise analysis was prepared using reference construction equipment noise levels from the Federal Highway Administration (FHWA) published the Roadway Construction Noise Model (RCNM), which includes a national database of construction equipment reference noise emission levels. (26) The RCNM equipment database provides a comprehensive list of the noise-generating characteristics of 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. According to the EPA, FTA, and FHWA, the overall construction noise level is governed primarily by the noisiest pieces of equipment. The quieter pieces do not affect the overall level, but they do reduce the magnitude of the fluctuations in the noise level. Therefore, a rough estimate of the noise level needs only include the noisiest pieces of equipment expected at the site. (27) (8) (28) Consistent with FHWA and FTA guidance for detailed construction noise assessment, Table 11-1

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EXHIBIT 11-A: CONSTRUCTION NOISE SOURCE LOCATIONS

EXHIBIT 11-B: ROCK CRUSHING ACTIVITY AND RECEIVER LOCATIONS

LEGEND:

N

⬚ Site Boundary   ▨ Blasting Area   ◕ Receiver Locations   ●— Distance to Blasting

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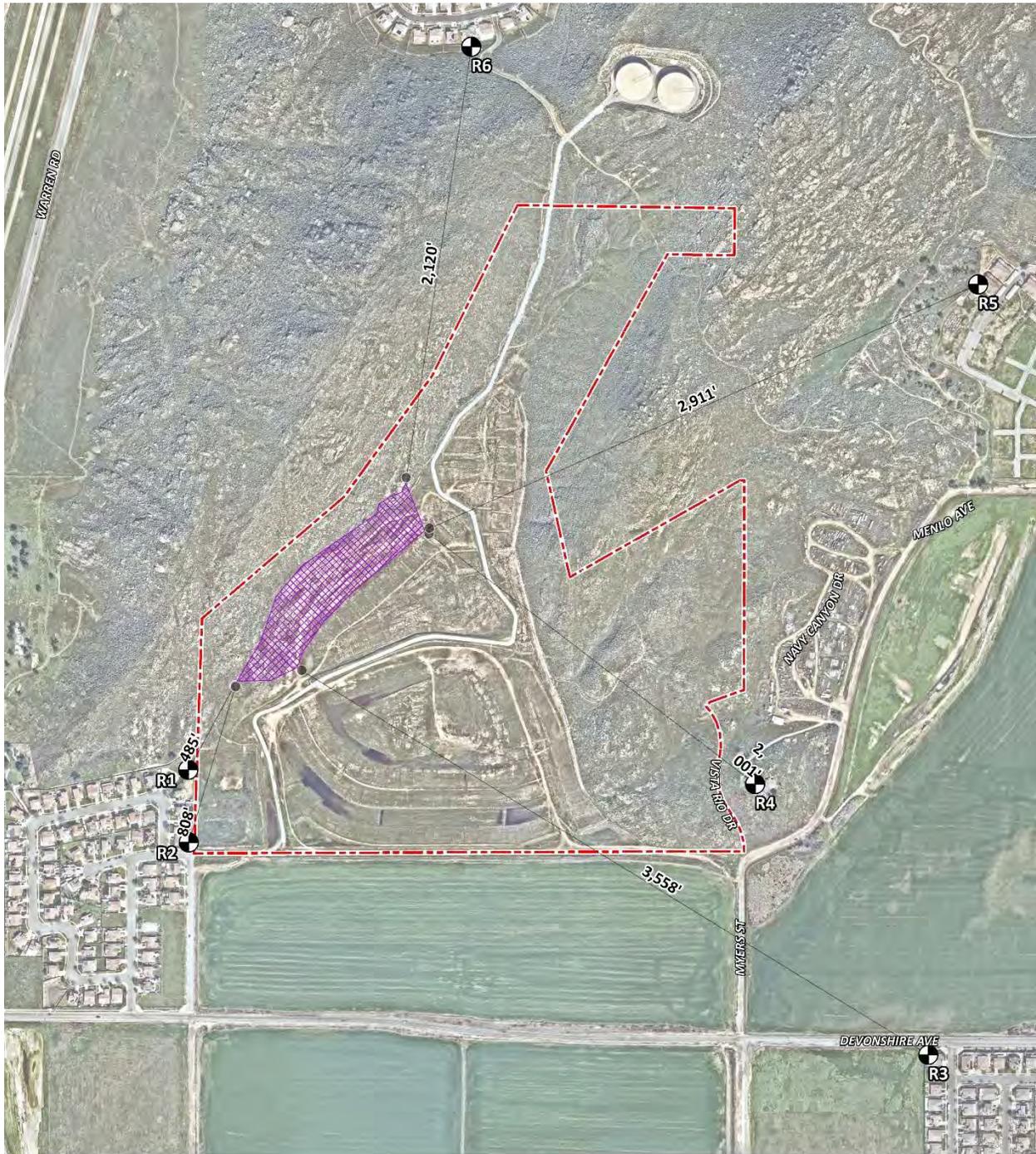
EXHIBIT 11-C: BLASTING ACTIVITY AND RECEIVER LOCATIONS
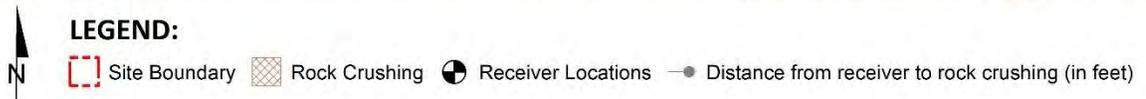
TABLE 11-1: CONSTRUCTION REFERENCE NOISE LEVELS

Construction Stage	Reference Construction Equipmnet[1]	Reference Noise Level @ 50 Feet (dBA L$_{eq}$)	Composite Reference Noise Level (dBA L$_{eq}$)	Reference Power Level (dBA L$_w$)
Site Preparation	Tractor	80	84.0	115.6
	Backhoe	74		
	Grader	81		
Grading	Scraper	80	83.3	114.9
	Excavator	77		
	Dozer	78		
Blasting	Blasting	74	79.1	110.8
	Rock Drill	74		
	Front End Loader	75		
Rock Crushing	Rock Crusher	89	89.8	121.4
	Front End Loader	75		
	Hydra Break Ram	80		
Building Construction	Crane	73	80.6	112.2
	Generator	78		
	Front End Loader	75		
Paving	Paver	74	77.8	109.5
	Dump Truck	72		
	Roller	73		
Architectural Coating	Man Lift	68	76.2	107.8
	Compressor (air)	74		
	Generator (<25kVA)	70		

[1] FHWA Road Construction Noise Model.
[2] University District Rock Crusher Conditional Use Permit, San Marcos

11.3 GENERAL CONSTRUCTION NOISE ANALYSIS

Construction projects involve various stages, and activities frequently shift from one location to another. For example, during site clearing and grading, noise-generating activities may concentrate in an area for a short period to remove an obstruction, while the majority of the grading involves the equipment moving back and forth in a predictable pattern throughout the site; building construction and foundation work generally concentrate near the building footprint, while paving generally involves a predictable pattern of movement throughout the site. Therefore, general construction activities are best evaluated as multiple moving point sources within the construction area since the speed and power of the equipment vary, and the equipment constantly changes position in terms of its distance and direction relative to the receivers. (10) (29)

Using the reference construction equipment noise levels and the CadnaA noise prediction model, calculations of the Project construction noise level impacts by phase at the nearby sensitive

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receiver locations were completed. To account for the dynamic nature of construction activities, the CadnaA construction noise analysis evaluates the noise source activities as multiple moving point sources, or construction crews, within the limits of general construction. Rock crushing and blasting assume a single source within the identified boundaries. General construction impacts are based on the loudest activity and the highest noise level calculated at each receiver location. As shown in Table 11-2, the construction noise levels are expected to range from 38.4 to 61.6 dBA L_{eq}, and the highest construction levels are expected to range from 46.5 to 61.6 dBA L_{eq} at the nearby receiver locations. Appendix 11.1 includes the detailed CadnaA construction noise model inputs.

TABLE 11-2: GENERAL CONSTRUCTION EQUIPMENT NOISE LEVEL SUMMARY

Receiver Location[1]	Construction Noise Levels (dBA L_{eq})					
	Site Preparation	Grading	Building Construction	Paving	Architectural Coating	Highest Levels[2]
R1	59.2	58.5	55.8	53.1	51.4	59.2
R2	58.6	57.9	55.2	52.5	50.8	58.6
R3	47.1	46.4	43.7	41.0	39.3	47.1
R4	56.2	55.5	52.8	50.1	48.4	56.2
R5	47.9	47.2	44.5	41.8	40.1	47.9
R6	49.4	48.7	46.0	43.3	41.6	49.4

[1] Construction noise source and receiver locations are shown in Exhibit 11-A.

[2] Construction noise level calculations based on distance from the construction activity, which is measured from the Project site boundary to the nearest receiver locations. CadnaA construction noise model inputs are included in Appendix 11.1.

11.4 ROCK CRUSHING NOISE LEVEL ANALYSIS

Rock crushing is a process that reduces the size of large rocks into smaller pieces, like gravel or sand. This is achieved through the use of machinery that applies force to the rocks, causing them to break. The process generally includes a series of crushers.

- Primary Crushers: Reduce the large rocks to a manageable size (e.g., 4-6 inches). Common types include jaw, gyratory, and impact crushers.

- Secondary Crushers: Further reduce the rock, often into sand-sized particles. Examples include cone crushers, roll crushers, and hammer mills.

- Tertiary/Quaternary Crushers: Fine-tune the size and shape to produce the desired marketable product. Vertical shaft impactors (VSIs) and other specialized machines are used at this stage.

Screening is conducted between the crushing stages and after final crushing, screens separate the crushed material into different sizes. Conveyors generally move the material between the screening and crushers.

Using the reference construction equipment noise levels and the CadnaA noise prediction model, calculations of the Project rock crushing noise level impacts at the nearby sensitive receiver locations were completed. Unlike general construction, while rock crushing involves dynamic movement of construction equipment, rock crushing is limited to a smaller location. The CadnaA construction noise analysis evaluates the noise source activities as multiple moving point sources,

or pieces of equipment, within the limits of the rock crushing. Rock crushing impacts are calculated at each receiver location. As shown in Table 11-3, the rock crushing noise levels are expected to range from 52.9 to 59.6 dBA L_{eq}.

TABLE 11-3: ROCK CRUSHING NOISE LEVEL SUMMARY

Receiver Location[1]	Distance to Rock Crushing (Feet)[2]	Rock Crushing Noise Levels	Highest Noise Levels[2]
		(dBA Lmax)	(dBA Lmax)
R1	1,614 '	89.80	59.62
R2	1,877 '	89.80	58.31
R3	3,494 '	89.80	52.91
R4	2,001 '	89.80	57.75
R5	2,740 '	89.80	55.02
R6	2,014 '	89.80	57.70

[1] Construction noise source and receiver locations are shown in Exhibit 11-B.
[2] Construction noise level calculations based on distance from the rock crushing activity, which is measured from the Project site boundary to the nearest receiver locations.

11.5   GENERAL CONSTRUCTION NOISE LEVEL COMPLIANCE

To evaluate whether the Project will generate potentially significant short-term noise levels at the nearest receiver locations during general construction or rock crushing, the City of Hemet has identified a construction-related daytime noise level threshold of 80 dBA L_{eq} to assess the daytime construction noise level impacts. The construction noise analysis shows that the nearest receiver locations will be below the daytime 80 dBA L_{eq} significance threshold during Project construction activities, as shown in Table 11-4. Therefore, the noise impacts due to the Project construction noise are considered *less than significant*.

TABLE 11-4: CONSTRUCTION NOISE LEVEL COMPLIANCE

Receiver Location[1]	Construction Noise Levels (dBA L_{eq})		
	Highest Construction Noise Levels[2]	Threshold[3]	Threshold Exceeded?[4]
R1	63.4	80	No
R2	62.9	80	No
R3	52.9	80	No
R4	57.8	80	No
R5	55.0	80	No
R6	57.7	80	No

[1] Construction noise source and receiver locations are shown in Exhibit 11-A.
[2] Highest construction noise level calculations based on distance from the construction noise source activity to the nearest receiver locations, as shown in Tables 11-2 and 11-3.
[3] Construction noise level thresholds as shown in Table 4-1.
[4] Do the estimated Project construction noise levels exceed the construction noise level threshold?

11.6 TEMPORARY CONSTRUCTION NOISE LEVEL INCREASES

To describe the temporary Project construction noise level contributions to the existing ambient noise environment, the Project construction noise levels were combined with the existing ambient noise level measurements at the nearest off-site receiver locations. The difference between the combined Project-construction and ambient noise levels is used to describe the construction noise level contributions. Temporary noise level increases that would be experienced at sensitive receiver locations when Project construction-source noise is added to the ambient daytime conditions are presented in Table 11-5. A temporary noise level increase of 20 dBA is considered a *potentially significant* impact.

TABLE 11-5: DAYTIME CONSTRUCTION NOISE LEVEL INCREASES

Receiver Location[1]	Total Project Construction Noise Level[2]	Measurement Location[3]	Reference Ambient Noise Levels[4]	Combined Project and Ambient[5]	Project Increase[6]	Increase Criteria	Increase Criteria Exceeded?
R1	63.4	L1	59.6	64.9	5.3	20	No
R2	62.9	L2	57.2	63.9	6.7	20	No
R3	52.9	L3	60.1	60.9	0.8	20	No
R4	57.8	L4	54.0	59.3	5.3	20	No
R5	55.0	L5	52.7	57.0	4.3	20	No
R6	57.7	L6	58.9	61.4	2.5	20	No

[1] Construction noise source and receiver locations are shown in Exhibit 11-A.
[2] Total Project daytime construction noise levels as shown in Table 11-4.
[3] Reference noise level measurement locations as shown in Exhibit 5-A.
[4] Observed daytime ambient noise levels as shown in Table 5-1.
[5] Represents the combined ambient conditions plus the Project construction activities.
[6] The noise level increase expected with the addition of the proposed Project construction activities.

As indicated in Table 11-5, the Project construction will contribute to noise level increases ranging from 0.8 to 6.7 dBA L_{eq} during the daytime hours at the nearest receiver locations. The unmitigated construction noise analysis shows that the nearest receiver locations will not exceed the Caltrans *substantial* 20 dBA L_{eq} noise level increase significance threshold during Project construction activities. The temporary construction noise level increase analysis shows that the noise impacts due to the Project construction noise are considered *less than significant*.

11.7 CONSTRUCTION VIBRATION ANALYSIS

Construction activity can result in varying degrees of ground vibration, depending on the equipment and methods employed. The operation of construction equipment causes ground vibrations that spread through the ground and diminish in strength with distance. Ground vibration levels associated with various types of construction equipment are summarized in Table 11-6. Based on the representative vibration levels presented for various construction equipment types, it is possible to estimate the potential for human response (annoyance) and building damage using the following vibration assessment methods defined by the FTA. To describe the

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vibration impacts the FTA provides the following equation: PPV (in/sec)$_{equip}$ = PPV (in/sec)$_{ref}$ x (25/D)$^{1.1}$

TABLE 11-6: VIBRATION SOURCE LEVELS FOR CONSTRUCTION EQUIPMENT

Equipment	PPV (in/sec) (in/sec) at 25 feet
Small bulldozer	0.003
Jackhammer	0.035
Loaded Trucks	0.076
Large bulldozer	0.089
Vibratory Roller	0.210

Federal Transit Administration, Transit Noise and Vibration Impact Assessment Manual

Table 11-7 presents the expected Project related vibration levels at the nearby receiver locations. At distances ranging from 26 to 1,319 feet from Project construction activities, construction vibration velocity levels are estimated to range from less than 0.01 to 0.20 PPV (in/sec). Based on the maximum acceptable continuous vibration threshold of 0.30 PPV (in/sec), the typical Project construction vibration levels will fall below the building damage thresholds at all the noise-sensitive receiver locations. Therefore, the Project-related vibration impacts are considered less than significant during construction and rock crushing activities at the Project site.

TABLE 11-7: PROJECT CONSTRUCTION VIBRATION LEVELS

Location[1]	Distance to Const. Activity (Feet)[2]	Typical Construction Vibration Levels PPV (in/sec)[3]						Thresholds PPV (in/sec)[4]	Thresholds Exceeded?[5]
		Small bulldozer	Jack-hammer	Loaded Trucks	Large bulldozer	Vibratory Roller	Highest Vibration Level		
R1	41'	0.00	0.02	0.04	0.04	0.10	0.10	0.30	No
R2	26'	0.00	0.03	0.07	0.08	0.20	0.20	0.30	No
R3	1,319'	0.00	0.00	0.00	0.00	0.00	0.00	0.30	No
R4	179'	0.00	0.00	0.00	0.00	0.01	0.01	0.30	No
R5	1,181'	0.00	0.00	0.00	0.00	0.00	0.00	0.30	No
R6	793'	0.00	0.00	0.00	0.00	0.00	0.00	0.30	No

[1] Construction noise source and receiver locations are shown in Exhibit 11-A.
[2] Distance from receiver to limits of construction activity.
[3] Based on the Vibration Source Levels of Construction Equipment, Table 11-5.
[4] Caltrans Transportation and Construction Vibration Guidance Manual, April 2020, Table 19, p. 38.
[5] Does the peak vibration exceed the acceptable vibration thresholds?
"PPV" = Peak Particle Velocity

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11.8 BLASTING NOISE ANALYSIS

A blasting contractor would be required to complete all blasting-related activities in compliance with applicable regulations of the City of Hemet Police 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. Non-electric 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.

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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 94.1 dBA L_{max} is used at a reference distance of 50 feet. (30) Each blast represents a point source of noise that 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 485 feet. With the distance attenuation from the closest blasting activities, the unmitigated noise levels at nearby receiver locations would range from 57.1 to 74.4 dBA L_{max} based on the RCNM reference noise level, as shown in Table 11-8. 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.

TABLE 11-8: BLASTING CONSTRUCTION NOISE LEVELS

Receiver Location[1]	Distance to Blasting (Feet)[2]	Blasting Noise Levels (dBA Lmax)	Highest Levels[2] (dBA Lmax)
R1	485 '	94.1	74.4
R2	808 '	94.1	69.9
R3	3,558 '	94.1	57.1
R4	2,001 '	94.1	62.1
R5	2,911 '	94.1	58.8
R6	2,120 '	94.1	61.5

[1] Construction noise source and receiver locations are shown in Exhibit 11-C.
[2] Construction noise level calculations based on distance from the blasting activity, which is measured from the Project site boundary to the nearest receiver locations.

The City of Hemet General Plan and Municipal 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_{max} at nearby sensitive uses is used in this analysis as discussed in Section 3.6. (12) Based on the reference blasting noise level, the closest residential receiver will experience noise levels approaching 74.3 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.

11.9 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 City of Hemet Police 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 nearest existing residential homes surrounding the Project site, shown on Exhibit 11-C.

Therefore, the Project Specific Plan includes a blasting control measure in Chapter IV, Infrastructure Plan, Grading, Project Wide Standards. Measure 15 states:

"Prior to approval of any grading permits that require blasting activities and a blasting permit, the Project Applicant shall prepare and submit for City 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 (3) 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 the City of Hemet, 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 linear-scale 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 the City of Hemet

- 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 non-rippable 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 City'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 City of Hemet. 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 City of Hemet 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. The City of Hemet shall review all monitoring reports to ensure compliance with the Noise and Vibration Abatement Plan. The City of Hemet 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 the Noise and Vibration Abatement Plan and/or the above-listed requirements."

Measure 15 of the Infrastructure Plan for Project Wide Standards under Grading would mitigate potential vibration impacts. With the implementation of the identified vibration controls blasting activities at sensitive receivers would be *less than significant*.

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11   REFERENCES

1. **State of California.** *California Environmental Quality Act, Environmental Checklist Form Appendix G.* 2019.

2. **Urban Crossroads, Inc.** *Tres Cerritos TTM No. 31513 Traffic Analysis.* 2025.

3. **California Department of Transportation Environmental Program.** *Technical Noise Supplement - A Technical Supplement to the Traffic Noise Analysis Protocol.* Sacramento, CA : s.n., September 2013.

4. **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.* March, 1974. EPA/ONAC 550/9/74-004.

5. **City of Hemet.** *General Plan Public Safety Element.* January 2012.

6. **U.S. Department of Transportation, Federal Highway Administration, Office of Environment and Planning, Noise and Air Quality Branch.** *Highway Traffic Noise Analysis and Abatement Policy and Guidance.* December 2011.

7. **U.S. Environmental Protection Agency Office of Noise Abatement and Control.** *Noise Effects Handbook-A Desk Reference to Health and Welfare Effects of Noise.* October 1979 (revised July 1981). EPA 550/9/82/106.

8. **U.S. Department of Transportation, Federal Transit Administration.** *Transit Noise and Vibration Impact Assessment Manual, FTA Report No. 0123.* September 2018.

9. **California Department of Transportation.** *Transportation and Construction Vibration Guidance Manual.* April 2020.

10. **U.S. Department of Transportation, Federal Transit Administration.** *Transit Noise and Vibration Impact Assessment Manual, FTA-VA-90-1003-06.* May 2006.

11. **Office of Planning and Research.** *State of California General Plan Guidlines.* 2017.

12. **Regulations, Code of Federal.** *30 CFR 816.67 - Use of Explosives: Contorl of Adverse Effects.* July 2013.

13. **County of Riverside.** *Airport Land Use Compatibility Plan.* October 2004.

14. **California Natural Resources Agency.** *2024 California Environmental Quality Act (CEQA) Statue and Guidelines.* s.l. : Association of Environmental Professionals.

15. **California Court of Appeal.** *Gray v. County of Madera, F053661.* 167 Cal.App.4th 1099; - Cal.Rptr.3d, October 2008.

16. **Federal Interagency Committee on Noise.** *Federal Agency Review of Selected Airport Noise Analysis Issues.* August 1992.

17. **U.S. Department of Transportation, Federal Highway Administration, Office of Environment and Planning, Noise and Air Quality Branch.** *Highway Traffic Noise Analysis and Abatement Policy and Guidance.* December 2011.

18. **California Department of Transportation.** *Technical Noise Supplement.* November 2009.

19. **American National Standards Institute (ANSI).** *Specification for Sound Level Meters ANSI S1.4-2014/IEC 61672-1:2013.*

20. **U.S. Department of Transportation, Federal Highway Administration.** *FHWA Highway Traffic Noise Prediction Model.* December 1978. FHWA-RD-77-108.

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21. **California Department of Transportation Environmental Program, Office of Environmental Engineering.** *Use of California Vehicle Noise Reference Energy Mean Emission Levels (Calveno REMELs) in FHWA Highway Traffic Noise Prediction.* September 1995. TAN 95-03.

22. **California Department of Transportation.** *Traffic Noise Attenuation as a Function of Ground and Vegetation Final Report.* June 1995. FHWA/CA/TL-95/23.

23. **City of Hemet.** *City of Hemet General Plan, Circulation Element.* January 2012.

24. **California Department of Transportation.** *Quieter Pavement: Acoustic Measurement and Performance.* 2018. CTHWANP-RT-18-365.01.1.

25. —. *Traffic Noise Analysis Protocol.* May 2011.

26. **FHWA.** *Roadway Construction Noise Model.* January 2006.

27. **U.S. Environmental Protection Agency.** *Noise from Construction Equipment and Operations, Building Equipment, and Home Appliances.* 1971. NTID300.1.

28. **U.S. Department of Transportation, Federal Highway Administration.** Special Report - Measurement, Prediction, and Mitigation. *Office of Planning, Environment, and Realty - Environment - Noise.* [Online] 2017. https://www.fhwa.dot.gov/environment/noise/construction_noise/special_report/hcn00.cfm.

29. —. *FHWA Highway Construction Noise Handbook.* Final Report August 2006.

30. **U.S. Department of Transportation, Federal Highway Administration, Office of Environment and Planning.** *FHWA Roadway Construction Noise Model.* January, 2006.

12   CERTIFICATION

The contents of this noise study report represent an accurate depiction of the noise environment and impacts associated with the 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.

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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
INCE – Institute of Noise Control Engineers

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:

CITY OF HEMET MUNICIPAL CODE

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Sec. 30-32[.1]. - Prohibited public nuisance conditions.

The city council finds and declares that, notwithstanding any other provision of the Municipal Code, it is a public nuisance and unlawful for any person to allow, cause, create, maintain, or suffer, or permit others to cause, create, or maintain the following:

(a) Any real property or premises in the city in such a manner that any one or more of the following conditions are found to exist thereon:

(1) Land, the topography, geology or configuration of which, whether in natural state or as a result of the grading operations, excavation or fill, causes erosion, subsidence, or surface water drainage problems of such magnitude as to be injurious or potentially injurious to the public health, safety and welfare, or to adjacent properties.

(2) Buildings or other structures, or portions thereof, that are partially constructed or destroyed or allowed to remain in a state of partial construction or destruction for an unreasonable period of time. As used in this section, the term "unreasonable period" means any portion of time exceeding the period given to a responsible person by the city for the complete abatement of this nuisance condition with all required city approvals, permits and inspections. One or more of the following factors may be used by the city to establish a reasonable period for the complete abatement of this nuisance:

a. The degree of partial construction or destruction and the cause therefor.

b. Whether or not this condition constitutes an attractive nuisance or if it otherwise poses or promotes a hazard to the health, safety, or welfare of the occupants or the general public.

c. The degree of visibility, if any, of this condition from public or adjoining private real property.

d. The scope and type of work that is needed to abate this nuisance.

e. The existence of any current and valid approvals, permits, or other entitlements for the partially constructed or destroyed building or structure.

f. The promptness with which a responsible person has applied for and obtained all required city approvals and permits in order to lawfully commence the nuisance abatement actions.

g. Whether or not a responsible person has complied with other required technical code requirements, including requesting and passing required inspections in a timely manner, while completing nuisance abatement actions.

h. Whether or not a responsible person has applied for extensions to a technical code permit or renewed an expired permit, as well as the number of extensions and renewals that a responsible person has previously sought or obtained from the city.

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       i. Whether or not a responsible person has made substantial progress, as determined by the city, in performing nuisance abatement actions under a technical code permit that has expired, or is about to expire.

      j. Whether delays in completing nuisance abatement actions under a technical code permit have occurred, and the reasons for such delays.

(3) Real property, or any building or structure thereon, that is abandoned, uninhabited, or vacant (irrespective of whether said structure is secured against unauthorized entry) for a period of more than six months.

(4) Exterior portions of buildings or structures (including, but not limited to, roofs, balconies, decks, fences, stairs, stairways, walls, signs and fixtures) and any detached or freestanding structure (including, but not limited to, fences and walls) that have become defective, cracked, broken, unsightly, or no longer viable; or are maintained in a condition of dilapidation, deterioration or disrepair to such an extent as to result in, or tend to result in, a diminution in property values; or where such condition creates a hazard to persons using said building, structure, or way; or where such condition interferes with the peaceful use, possession and/or enjoyment of adjacent properties; or where such condition otherwise violates, or is contrary to, the Hemet Municipal Code, or other applicable law.

(5) Sidewalks, walkways, pedestrian ways, driveways, and parking areas that have become defective, cracked, broken, unsightly, or no longer viable; or are maintained in a condition of dilapidation, deterioration or disrepair to such an extent as to result in, or tend to result in, a diminution in property values; or where such condition creates a hazard to persons using said building, structure, or way; or where such condition interferes with the peaceful use, possession and/or enjoyment of adjacent properties; or where such condition otherwise violates, or is contrary to, the Hemet Municipal Code, or other applicable law.

(6) Failure to provide and maintain adequate weather protection to buildings or structures (including but not limited to, fences, walls, and retaining walls) in such a manner that results in or tends to result in the existence of cracked, peeling, warped, rotted, deteriorated, or severely damaged paint, stucco or other exterior covering or that otherwise results in or tends to result in the decay, deterioration, or dilapidation of the building or structure.

(7) Broken, defective, damaged, dilapidated, or missing windows, doors, or vents in a building or structure, and/or broken, defective, damaged, dilapidated, or missing screens for windows, doors, or crawl spaces in a building or structure.

(8)

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Windows or doors that remain boarded up or sealed after 15 calendar days of written city notice to a responsible person requesting the removal of these coverings and the installation of fully functional or operable windows or doors. City actions to board up or seal windows or doors in order to deter unauthorized entry into structures shall not relieve responsible persons from installing fully functional or operational windows or doors.

(9) Obstructions of any kind, cause or form that interfere with required light or ventilation for a building or structure, or that interfere with, hinder, delay, or impede ingress therein and/or egress therefrom.

(10) Abandoned, broken, or neglected personal property that is visible from public or private property.

(11) Any form of an attractive nuisance.

(12) Interior portions of buildings or structures (including, but not limited to, attics, ceilings, walls floors, basements, mezzanines, and common areas) that have become defective, unsightly, or are maintained in a condition of dilapidation, deterioration or disrepair to such an extent as to result in, or tend to result in, a diminution in property values; or where such condition interferes with the peaceful use, possession and/or enjoyment of properties in the vicinity; or where such condition otherwise violates, or is contrary to, the Hemet Municipal Code or other applicable law.

(13) Items of junk, trash, debris, waste, or other personal property that are kept, placed, or stored inside of a structure or on exterior portions of real property that constitute a fire or safety hazard or a violation of any provision of the Hemet Municipal Code; or items of junk, trash, debris, waste, or other personal property that are visible from public or private real property, or that are otherwise out of conformity with neighboring community standards to such an extent as to result in, or tend to result in, a diminution in property values. Notwithstanding the foregoing, the existence of a junkyard is not a nuisance when such use and the premises on which such use occurs are in full compliance with all provisions of the Hemet Zoning Code (including all approvals and permits required thereby), and all other applicable provisions of the Hemet Municipal Code and any future amendments and additions thereto, as well as applicable county, state, and/or federal laws and regulations.

(14) The keeping or disposing of, or the scattering or accumulating of flammable, combustible or other materials including, but not limited to, composting, firewood, lumber, junk, trash, debris, packing boxes, pallets, plant cuttings, tree trimmings or wood chips, discarded items, or other personal property on exterior portions of real property, or within any building or structure thereon, when such items or accumulations:

a.

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Render premises unsanitary or substandard as defined by the Hemet Housing Code, the state housing law, the Hemet Building Code, or other applicable local, state, or federal law, rule, or regulation;

    b. Violate the Hemet Health Code, Riverside County Health Code, or other any other health code adopted by and/or applicable in the City of Hemet;

    c. Cause, create, or tend to contribute to, a fire or safety hazard;

    d. Harbor, promote, or tend to contribute to, the presence of rats, vermin and/or insects;

    e. Cause, create, or tend to contribute to, an offensive odor; or

    f. Cause the premises to be out of conformity with neighboring community standards to such an extent as to result in, or tend to result in, a diminution of property values; provided, however, that this use of land or condition shall not constitute a nuisance when expressly permitted under the applicable zone classification and the premises are in full compliance with all provisions of the Hemet Zoning Code, and all other applicable provisions of the Hemet Municipal Code and any future amendments and additions thereto, as well as applicable county, state, and/or federal laws and regulations.

(15) Unsanitary, polluted or unhealthful pools, ponds, standing water or excavations containing water that constitutes an attractive nuisance or that is otherwise likely to attract or harbor mosquitoes, insects or other vectors. The likelihood of insect harborage is evidenced by any of the following conditions: water which is unclear, murky, clouded or green; water containing bacterial growth, algae, insect larvae, insect remains, or animal remains; or, bodies of water which are abandoned, neglected, unfiltered or otherwise improperly maintained.

(16) The hanging, drying, or airing of clothing or household fabrics on fences, trees, or shrubberies, or the existence of clotheslines, in front yard areas of any real property.

(17) Canopies, tents, tarps, or other similar membrane structures located in the front yard of any real property or in any yard area that is visible from a public vantage in excess of 72 hours, unless otherwise authorized pursuant to a permit or other entitlement from the city;

(18) Overgrown vegetation, including, but not limited to, any one of the following:

    a. Vegetation likely to harbor, or promote the presence of, rats, vermin and/or insects.

    b. Vegetation causing detriment to neighboring properties, or that is out of conformity with neighboring community standards to such an extent as to result in, or contribute to, a diminution of property values, including, but not limited to:

        1. Lawns with grass in excess of six inches in height.

        2.

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Hedges, trees, lawns, plants, or other vegetation that are not maintained in a neat, orderly, and healthy manner as a result of lack of adequate mowing, grooming, trimming, pruning, fertilizing, watering, and/or replacement.

    c. Vegetation that creates, or tends to create, the existence of a fire hazard.

    d. Vegetation that overhangs or grows onto or into any public property, including, but not limited to, any public alley, highway, land, sidewalk, street or other right-of-way, so as to cause an obstruction to any person or vehicle using such public property.

(19) Dead, decayed, diseased or hazardous trees, weeds, ground cover, and other vegetation, or the absence of healthful vegetation, that causes, contributes to, or tends to cause or contribute to, any one of the following conditions or consequences:

    a. An attractive nuisance;

    b. A fire hazard;

    c. The creation or promotion of dust or soil erosion;

    d. A diminution in property values; or

    e. A detriment to public health, safety or welfare.

(20) Lack of landscaping or other approved ground cover in any yard area as otherwise required by the Hemet Zoning Code or other provisions of the City Municipal Code, as well as design guidelines or specific plans adopted by the city council, or so as to otherwise cause or promote the existence of excessive dust or to allow the accumulation of debris. Visible front and side yards shall be mowed, landscaped and otherwise maintained to the satisfaction of the community development director or his or her designee. Landscape includes, but is not limited to, grass, ground covers, bushes, shrubs, hedges or similar plantings, decorative rock, bark, artificial turf, and sod. Weeds, dirt, gravel, broken concrete, asphalt, decomposed granite, plastic sheeting, mulch, indoor-outdoor carpet or any similar materials are not acceptable landscaping or ground cover. Maintenance of landscaping includes, but is not limited to, regular watering, irrigation, cutting, pruning and mowing of required landscape and removal of all trimmings.

(21) Waste containers, yard waste containers, and recycling containers that are kept, placed or stored in driveways or parking areas, or in front or side yards, such that said containers are visible from public streets, except when located in places of collection at times permitted and in full compliance with this Code.

(22) The use, parking, or storing of any recreational vehicle as temporary or permanent living space, unless otherwise authorized in accordance with section 90-1422(e) or other applicable provisions of this Code.

(23)

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Vehicles, trailers, campers, boats, recreational vehicles, and/or other mobile equipment placed, parked or stored in front yards of private real property (except when placed, parked, or stored on an approved driveway) or as otherwise in violation of any provision of the Hemet Municipal Code.

(24) Vehicles, trailers, campers, boats, recreational vehicles, and/or other mobile equipment placed, parked or stored on any portion of an undeveloped or vacant property, except as otherwise authorized by a current and valid city permit.

(25) Vehicles, trailers, campers, boats, recreational vehicles, and/or other mobile equipment placed, parked, or stored on any unpaved surface, or on any paved surface that does not have continuously paved access to an adjacent street, alley, highway, or other public right-of-way for vehicular travel.

(26) Parking spaces required by the Hemet Municipal Code, including the Hemet Zoning Code, that are not maintained in such a manner that said spaces are continuously free and accessible for vehicle parking without the movement of real or personal property.

(27) Abandoned, dismantled, inoperable or wrecked boats, campers, motorcycles, trailers, vehicles, or parts thereof, unless kept, placed, parked, or stored inside of a completely enclosed, lawfully constructed building or structure.

(28) Vehicles, construction equipment, or other machinery exceeding the permissible gross vehicle weight for the streets or public property upon which they are located. A nuisance also exists under this provision when a vehicle, construction equipment, or other machinery is stopped, kept, placed, parked, or stored on private real property and when such vehicle, equipment, or machinery exceeds the permissible gross vehicle weight for the streets or public property that were utilized in its placement on said private real property unless pursuant to a valid permit issued by the city.

(29) Any equipment, machinery, storage bin, or vehicle of any type or description that is designed, used, or maintained for construction-type activities that is kept, parked, placed, or stored on public or private real property except when such item is being used during excavation, construction, or demolition operations at the site where said equipment, machinery, or vehicle is located pursuant to an active permit issued by the city and is otherwise in compliance with all conditions of said permit and all applicable laws, rules, and regulations.

(30) Construction activity and/or the construction sites that are not conducted or maintained in accordance with accepted and approved best management practices, as determined by the directors of building and safety, engineering, and/or public works divisions.

(31) Maintenance of signs, or sign structures, on real property relating to uses no longer lawfully conducted or products no longer lawfully sold thereon, or signs and their structures that are in disrepair or which are otherwise in violation of, or contrary to, the

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Hemet Municipal Code, including the Hemet Zoning Code.

(32) Specialty structures that have been constructed for a specific single use only, and which are unfeasible to convert to other uses, and which are abandoned, partially destroyed or are permitted to remain in a state of partial destruction or disrepair. Such specialty structures include, but are not limited to, the following: tanks for gas or liquids, lateral support structures and bulkheads, utility high-voltage towers and poles, utility high-rise support structures, electronic transmitting antennas and towers, structures which support or house mechanical and utility equipment and are located above the roof lines of existing buildings, high-rise freestanding chimneys and smokestacks, and recreational structures such as tennis courts and cabanas.

(33) Any personal property or structure that obstructs or encroaches on any public property, including, but not limited to, any public alley, highway, land, sidewalk, street or other right-of-way, unless a valid encroachment permit or other city approval has been issued authorizing said encroachment or obstruction.

(34) The presence of graffiti or other defacement of real or personal property on a building, structure or vehicle, or portion thereof, or the presence of graffiti on a building, structure, or vehicle that has been painted over with a color that does not match the exterior of the remaining portion of the building or structure, in such instances where the paint, graffiti, or defacement is visible from a public right-of-way or from private real property.

(35) Storage of hazardous or toxic materials or substances, as so classified by any local, state or federal laws or regulations, on real property in such a manner as to be injurious, or potentially injurious or hazardous, to the public health, safety or welfare, or to adjacent properties, or that otherwise violates local, state or federal laws or regulations.

(36) Accumulations of grease, oil, or other hazardous material on paved or unpaved surfaces, driveways, buildings, walls, or fences that are not stored in accordance with applicable laws.

(37) The disposing of, depositing of, or discharge of any substance or material other than stormwater which enters, or could possibly enter, the city's storm sewer system in violation of the Hemet Municipal Code.

(38) Maintenance of any tarpaulin (plastic, vinyl, canvas, or other similar material) or similar covering on or over any graded surface or hillside, except in the following circumstances:

   a. A state of emergency has been declared by local, county, state, or federal officials directly impacting the area to be covered; and/or

   b. Covering with a tarp performed pursuant to an active building or grading permit.

(39)

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Maintenance of any tarpaulin (plastic, vinyl, canvas, or other similar material) or similar covering on or over any roof of any structure, except during periods of active rainfall, or when specifically permitted under an active roofing or building permit.

(40) Maintenance of any tarpaulin (plastic, vinyl, canvas, or other similar non-durable material) or similar covering attached to, affixed to, or located on a fence for purposes of screening or for providing shade, except as otherwise approved pursuant to a current and valid city approval or permit.

(41) The keeping, maintaining, or suffering of any animal, reptile, or insect in a manner that poses a threat, disturbance, or menace to persons or property, or in such a manner or quantity that otherwise violates any provision of the Hemet Municipal Code.

(42) Any noise that is made, generated, produced, or continued (whether from a human, animal, or device) in such a manner that it unreasonably disturbs the peace and quiet of any neighborhood of which causes any discomfort or annoyance to any reasonable person of normal sensitivities, or that otherwise violates any provision of the Hemet Municipal Code, including the noise limits set forth in the Hemet Zoning Code, or that violates the general plan (public safety element). Factors which shall be considered in determining whether the noise is a nuisance shall include, but not be limited to the following:

   a. The volume of the noise;

   b. The intensity of the noise;

   c. Whether the nature of the noise is usual or unusual;

   d. Whether the origin of the noise is natural or unnatural;

   e. The volume and intensity of the background noise, if any;

   f. The proximity of the noise to residential sleeping facilities;

   g. The nature of the zoning of the area from which the noise emanates;

   h. The density of inhabitation of the area from which the noise emanates;

   i. The time of day or night the noise occurs;

   j. The duration of the noise;

   k. Whether the noise is recurrent, intermittent, or constant;

   l. Whether the noise is produced by commercial or noncommercial activity; and

   m. Whether the noise is a consequence or expected result of an otherwise lawful use.

(43) Construction activities that occur outside of the approved hours of construction as set forth on a permit or other city entitlement as issued the building official, planning commission, or city council, or as otherwise prohibited by the Hemet Building Code.

(44)

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Maintenance of premises so out of harmony or conformity with the maintenance standards of properties in the vicinity as to cause, or that tends to cause, substantial diminution of the enjoyment, use, or property values of such properties in the vicinity.

    (45) Any condition recognized in local or state law or in equity as constituting a public nuisance, or any condition existing on real property that constitutes, or tends to constitute, blight, or that is a health or safety hazard to the community or neighboring properties.

(b) Any dangerous building, unsafe building, unsafe structure, substandard building, or substandard property as defined by the Uniform Code for the Abatement of Dangerous Buildings, Uniform Housing Code, California Building Code, or California Residential Code, as adopted and amended by the Hemet Municipal Code.

(c) Any building or structure, or portion thereof, or the premises on which the same is located, in which there exists any of the conditions listed in Health and Safety Code § 17920.3, and any future amendments thereto.

(d) Any building or structure used by any person to engage in acts which are prohibited pursuant to the laws of the United States or the State of California, the provisions of the Hemet Municipal Code, or any other ordinance of the city, including, but not limited to, the following acts:

    (1) Unlawful possession, use, and/or sale of controlled substances;

    (2) Prostitution; and/or

    (3) Unlawful gambling.

(e) Any chronic nuisance as prohibited by section 46-65.

(f) Any condition, use, or activity that constitutes a public nuisance as defined by Civil Code § 3479 or 3480, and any future amendments thereto.

(g) Any building, structure, or use of real property that violates or fails to comply with:

    (i) Any applicable approval, permit, license, or entitlement or condition relating thereto;

    (ii) Any ordinance of the city, including, but not limited to, any provision of this Code; or

    (iii) Any applicable county, state, or federal law or regulation.

(Ord. No. 1865, § 2(Exh. A), 7-9-13)

Sec. 53-4. - Noise.

No person shall willfully make or continue, or cause to be made or continued, any loud, unnecessary, and unusual noise which is greater than the level permissible for the applicable zone or which unreasonably disturbs the peace or quiet of any neighborhood or which would cause discomfort or annoyance to any reasonable person of normal sensitiveness residing in the area.

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The word "unreasonably" as used herein shall include but not be limited to, consideration of the hour, place, nature, and circumstances of any loud, unnecessary, and unusual noise.

(Ord. No. 1687 § 2, 7-8-03)

Sec. 90-1048. - Performance standards.

All uses established or placed into operation shall comply at all times with the performance standards set out in this section. The director may require submission of evidence of ability to comply with the required conditions.

(1) *Noise.* No use, except a temporary construction operation, shall be permitted which creates noise of a maximum sound pressure level greater than the value established in the public safety element of the general plan, and adopted building codes, or as may be further determined by project specific mitigation measures. The general plan specifies land use compatibility standards to ensure that stationary noise sources (e.g., industrial uses) do not adversely affect noise-sensitive land uses and that community noise environments do not negatively affect land uses.

(2) *Fire, toxic materials, and explosion hazards.* The storage and handling of hazardous materials including flammable liquids, liquid petroleum gases and explosives shall comply with the state rules and regulations and with the ordinances of the city.

(3) *Air contaminants.* No use shall emit any air contaminant except in compliance with the rules and regulations of the south coast air management district and local regulations.

(4) *Odor.* No use shall be permitted which creates annoying odor in such quantities as to be readily detectable beyond the boundaries of the site.

(5) *Radioactivity and electrical disturbances.* The use of radioactive materials shall be limited to measuring, gauging and calibration devices such as tracer elements, use in X-ray and like apparatus, and use in connection with the processing and preservation of food. No use shall emit dangerous radioactivity or produce electric or magnetic fields that adversely affect public health, safety, and welfare including interference with normal radio, telephone, or television reception off-site.

(6) *Dust, heat, cold, glare and electrical disturbance.* No use, except a temporary construction operation, shall be permitted which creates dust, changes in temperature or direct or sky-reflecting glare detectable by the human senses without the aid of instruments beyond the boundaries of the site. No use shall be permitted which creates electrical disturbances that affect the operation of any equipment beyond the boundaries of the site.

(7) *Vibration.* No use, except a temporary construction operation, shall be permitted which creates vibration sufficient to cause a displacement of 0.003 inch beyond the boundaries of the site.

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(8) *Wastewater discharge.* No liquids of any kind shall be discharged into a public or private sewage or drainage system, water course, body of water, or into ground except in compliance with federal, state, regional, and local laws, rules and regulations.

(9) *Sustainable design.* All new development proposals shall demonstrate best management practices in project design and implementation to maximum the efficient use of resources and reduce deleterious environmental impacts on the community.

(Ord. No. 1553, § 2, 1-28-97; Ord. No. 1875, § 1(Exh. 1A), 1-14-14)

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APPENDIX 5.1:

STUDY AREA PHOTOS

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15939 - Tres Cerritos

15939_L1_B 1.North
33, 45' 14.160000",117, 2' 0.110000"

15939_L1_B 2.South
33, 45' 13.840000",117, 2' 0.030000"

15939_L1_B 3.East
33, 45' 13.800000",117, 2' 0.030000"

15939_L1_B 4.West
33, 45' 13.800000",117, 2' 0.050000"

15939 - Tres Cerritos

15939_L2_C 1.North
33, 45' 12.460000",117, 1' 59.940000"

15939_L2_C 2.South
33, 45' 12.240000",117, 1' 59.940000"

15939_L2_C 3.East
33, 45' 12.260000",117, 1' 59.940000"

15939_L2_C 4.West
33, 45' 12.210000",117, 1' 59.970000"

15939 - Tres Cerritos

15939_L3_E 1.North
33, 45' 2.940000",117, 1' 14.900000"

15939_L3_E 2.South
33, 45' 2.770000",117, 1' 15.010000"

15939_L3_E 3.East
33, 45' 2.930000",117, 1' 14.930000"

15939_L3_E 4.West
33, 45' 2.830000",117, 1' 14.930000"

15939 - Tres Cerritos

15939_L4_G 1.North
33, 45' 11.950000",117, 1' 26.760000"

15939_L4_G 2.South
33, 45' 11.980000",117, 1' 26.760000"

15939_L4_G 3.East
33, 45' 11.870000",117, 1' 26.680000"

15939_L4_G 4.West
33, 45' 11.880000",117, 1' 26.740000"

15939 - Tres Cerritos

15939_L5_H 1.North
33, 45' 37.660000",117, 1' 13.720000"

15939_L5_H 2.South
33, 45' 37.550000",117, 1' 13.720000"

15939_L5_H 3.East
33, 45' 37.550000",117, 1' 13.750000"

15939_L5_H 4.West
33, 45' 37.490000",117, 1' 13.940000"

15939 - Tres Cerritos

15939_L6_I 1.North
33, 45' 51.660000",117, 1' 43.710000"

15939_L6_I 2.South
33, 45' 51.720000",117, 1' 43.710000"

15939_L6_I 3.East
33, 45' 51.770000",117, 1' 43.600000"

15939_L6_I 4.West
33, 45' 51.760000",117, 1' 43.630000"

APPENDIX 5.2:

NOISE LEVEL MEASUREMENT WORKSHEETS

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24-Hour Noise Level Measurement Summary
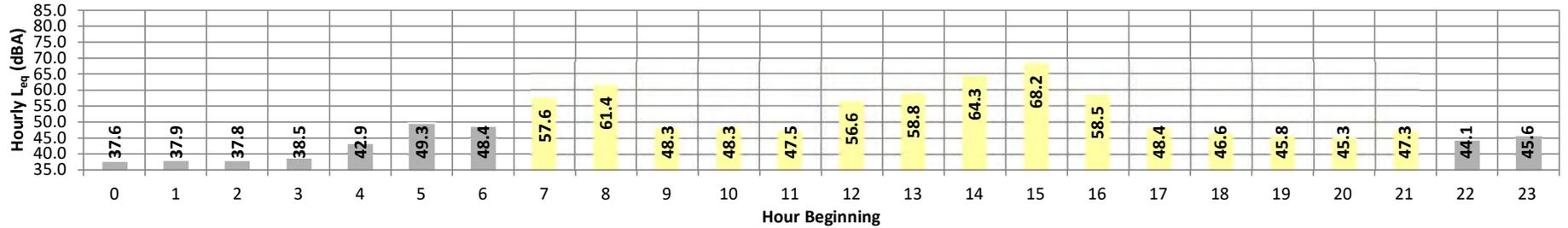
Date: Tuesday, November 5, 2024
Project: Tres Cerritos

Location: L1 - Located west of the site near the residence at 5862
Source: Parkside Dr

Meter: Piccolo II

JN: 15939
Analyst: Z. Ibrahim

Hourly L$_{eq}$ dBA Readings (unadjusted)

Timeframe	Hour	L$_{eq}$	L$_{max}$	L$_{min}$	L1%	L2%	L5%	L8%	L25%	L50%	L90%	L95%	L99%	L$_{eq}$	Adj.	Adj. L$_{eq}$
Night	0	37.6	41.6	35.6	41.3	40.8	39.9	39.4	38.1	37.1	36.0	35.9	35.7	37.6	10.0	47.6
	1	37.9	41.3	36.6	41.0	40.7	39.9	39.5	38.2	37.5	36.8	36.7	36.6	37.9	10.0	47.9
	2	37.8	40.7	36.5	40.3	40.1	39.7	39.3	38.2	37.5	36.7	36.6	36.5	37.8	10.0	47.8
	3	38.5	40.8	37.3	40.6	40.4	40.0	39.8	39.0	38.3	37.5	37.4	37.3	38.5	10.0	48.5
	4	42.9	46.0	40.7	45.7	45.4	44.8	44.5	43.5	42.6	41.3	41.0	40.8	42.9	10.0	52.9
	5	49.3	54.8	43.4	54.6	54.5	53.8	53.4	51.4	47.0	44.0	43.7	43.5	49.3	10.0	59.3
	6	48.4	57.4	44.5	56.5	55.8	53.0	51.1	48.0	46.7	45.2	44.9	44.6	48.4	10.0	58.4
Day	7	57.6	70.8	47.5	69.9	68.9	65.6	62.2	52.4	50.1	48.4	47.9	47.6	57.6	0.0	57.6
	8	61.4	70.8	47.4	70.7	70.5	69.5	68.0	59.9	55.0	48.4	48.0	47.5	61.4	0.0	61.4
	9	48.3	56.3	43.1	55.3	54.4	52.3	51.2	48.8	46.9	44.4	44.0	43.4	48.3	0.0	48.3
	10	48.3	56.8	42.3	56.3	55.9	55.1	54.5	46.8	45.1	42.9	42.6	42.4	48.3	0.0	48.3
	11	47.5	56.9	42.6	55.6	54.5	52.6	51.5	47.5	45.0	43.1	42.9	42.7	47.5	0.0	47.5
	12	56.6	63.6	48.2	62.8	61.9	60.7	59.7	57.3	55.8	51.2	50.7	48.6	56.6	0.0	56.6
	13	58.8	67.4	46.8	66.6	65.5	63.9	62.8	59.8	57.0	51.6	47.8	47.0	58.8	0.0	58.8
	14	64.3	75.2	48.9	74.1	73.0	70.1	68.5	64.6	60.7	54.6	53.0	49.9	64.3	0.0	64.3
	15	68.2	77.3	51.3	76.7	76.1	74.4	73.2	68.6	64.5	55.5	53.5	51.7	68.2	0.0	68.2
	16	58.5	70.4	43.9	69.0	67.7	65.5	63.7	57.5	53.2	46.9	45.7	44.5	58.5	0.0	58.5
	17	48.4	59.3	39.8	58.1	56.8	54.3	52.4	48.0	45.0	41.5	41.0	40.1	48.4	0.0	48.4
	18	46.6	55.4	40.7	54.8	53.8	52.0	50.7	47.2	43.9	41.3	41.0	40.8	46.6	0.0	46.6
	19	45.8	53.5	41.9	52.3	51.3	49.5	48.6	46.3	44.5	42.7	42.4	42.0	45.8	5.0	50.8
	20	45.3	51.2	42.4	50.5	49.7	48.5	47.8	45.8	44.6	43.0	42.7	42.5	45.3	5.0	50.3
	21	47.3	59.3	40.8	58.0	57.0	53.3	50.8	46.3	43.5	41.4	41.2	40.9	47.3	5.0	52.3
Night	22	44.1	52.4	40.1	51.9	51.4	49.4	47.6	43.5	42.3	40.8	40.6	40.2	44.1	10.0	54.1
	23	45.6	54.1	39.1	53.4	52.5	50.4	49.4	46.0	44.0	40.3	39.6	39.2	45.6	10.0	55.6

Timeframe	Hour	L$_{eq}$	L$_{max}$	L$_{min}$	L1%	L2%	L5%	L8%	L25%	L50%	L90%	L95%	L99%	24-Hour CNEL	Leq (dBA)	
															Daytime (7am-10pm)	Nighttime (10pm-7am)
Day	Min	45.3	51.2	39.8	50.5	49.7	48.5	47.8	45.8	43.5	41.3	41.0	40.1			
	Max	68.2	77.3	51.3	76.7	76.1	74.4	73.2	68.6	64.5	55.5	53.5	51.7			
Energy Average		59.6		Average:	62.0	61.1	59.1	57.7	53.1	50.3	46.5	45.6	44.8	**58.4**	**59.6**	**44.6**
Night	Min	37.6	40.7	35.6	40.3	40.1	39.7	39.3	38.1	37.1	36.0	35.9	35.7			
	Max	49.3	57.4	44.5	56.5	55.8	53.8	53.4	51.4	47.0	45.2	44.9	44.6			
Energy Average		44.6		Average:	47.3	46.8	45.7	44.9	42.9	41.4	39.9	39.6	39.4			

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URBAN CROSSROADS

24-Hour Noise Level Measurement Summary
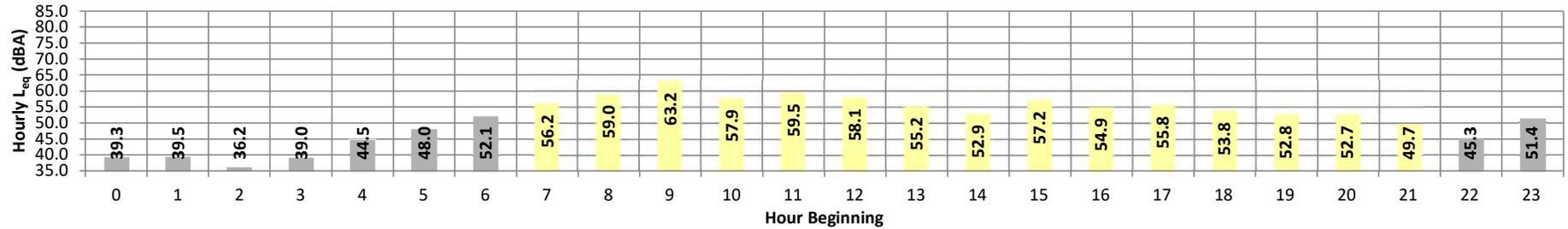
Date: Tuesday, November 5, 2024 **Location:** L2 - Located west of the site near the residence at 5862 **Meter:** Piccolo II **JN:** 15939

Project: Tres Cerritos **Source:** Parkside Dr **Analyst:** Z. Ibrahim

Hourly L$_{eq}$ dBA Readings (unadjusted)

Hour Beginning	L$_{eq}$ (dBA)
0	39.3
1	39.5
2	36.2
3	39.0
4	44.5
5	48.0
6	52.1
7	56.2
8	59.0
9	63.2
10	57.9
11	59.5
12	58.1
13	55.2
14	52.9
15	57.2
16	54.9
17	55.8
18	53.8
19	52.8
20	52.7
21	49.7
22	45.3
23	51.4

Timeframe	Hour	L$_{eq}$	L$_{max}$	L$_{min}$	L1%	L2%	L5%	L8%	L25%	L50%	L90%	L95%	L99%	L$_{eq}$	Adj.	Adj. L$_{eq}$
Night	0	39.3	49.3	33.6	49.1	48.5	46.0	43.6	38.0	35.8	34.2	33.9	33.7	39.3	10.0	49.3
	1	39.5	50.7	32.7	50.1	49.2	46.0	43.4	38.0	35.5	33.3	33.0	32.8	39.5	10.0	49.5
	2	36.2	40.2	34.3	39.9	39.4	38.5	38.1	36.7	35.8	34.7	34.5	34.4	36.2	10.0	46.2
	3	39.0	48.3	34.5	47.8	47.1	44.5	41.9	38.4	36.9	35.1	34.8	34.5	39.0	10.0	49.0
	4	44.5	52.9	39.5	52.6	52.0	49.9	47.9	44.2	42.6	40.5	40.0	39.6	44.5	10.0	54.5
	5	48.0	57.1	42.4	56.7	56.1	53.8	52.0	47.3	45.4	43.3	42.9	42.5	48.0	10.0	58.0
	6	52.1	61.6	45.6	61.1	60.4	58.4	56.7	51.7	48.8	46.4	46.1	45.7	52.1	10.0	62.1
Day	7	56.2	64.8	47.6	64.5	64.0	62.1	60.7	56.8	53.1	48.8	48.3	47.7	56.2	0.0	56.2
	8	59.0	67.6	44.2	67.4	67.1	66.0	65.0	59.5	54.3	46.2	45.3	44.4	59.0	0.0	59.0
	9	63.2	71.7	49.2	71.4	71.1	70.0	69.1	63.2	58.2	51.0	50.1	49.4	63.2	0.0	63.2
	10	57.9	65.0	49.1	64.7	64.2	62.9	62.1	58.6	56.0	51.3	50.5	49.5	57.9	0.0	57.9
	11	59.5	74.9	41.6	73.4	71.5	65.8	61.8	54.5	49.6	43.3	42.5	41.8	59.5	0.0	59.5
	12	58.1	71.8	43.1	70.7	69.1	65.2	61.9	55.0	50.0	44.6	43.9	43.3	58.1	0.0	58.1
	13	55.2	62.7	45.4	62.2	61.7	60.2	59.3	56.2	53.5	47.4	46.5	45.7	55.2	0.0	55.2
	14	52.9	62.0	42.3	61.8	61.2	59.2	57.7	53.4	49.0	43.5	43.0	42.4	52.9	0.0	52.9
	15	57.2	67.5	45.4	67.0	66.6	64.6	62.7	56.2	52.2	47.3	46.5	45.6	57.2	0.0	57.2
	16	54.9	64.5	44.7	63.8	63.0	61.0	59.5	55.2	51.9	47.0	46.0	45.1	54.9	0.0	54.9
	17	55.8	66.0	43.2	65.4	64.7	62.4	60.8	55.7	51.8	45.2	44.3	43.4	55.8	0.0	55.8
	18	53.8	62.4	42.7	62.1	61.5	60.1	58.9	54.6	50.1	43.9	43.2	42.8	53.8	0.0	53.8
	19	52.8	63.8	42.9	63.3	62.4	60.0	57.2	51.8	47.8	43.9	43.4	43.0	52.8	5.0	57.8
	20	52.7	62.4	41.5	62.1	61.6	60.1	58.7	51.2	47.3	42.5	42.0	41.6	52.7	5.0	57.7
	21	49.7	59.6	41.0	59.3	58.9	57.0	55.3	48.4	44.7	41.7	41.4	41.1	49.7	5.0	54.7
Night	22	45.3	55.4	39.4	54.9	54.3	51.9	49.3	43.8	41.9	40.1	39.8	39.5	45.3	10.0	55.3
	23	51.4	61.0	46.9	60.2	59.3	56.1	53.9	51.1	49.5	47.6	47.4	47.1	51.4	10.0	61.4

Timeframe	Hour	L$_{eq}$	L$_{max}$	L$_{min}$	L1%	L2%	L5%	L8%	L25%	L50%	L90%	L95%	L99%			
Day	Min	49.7	59.6	41.0	59.3	58.9	57.0	55.3	48.4	44.7	41.7	41.4	41.1			
	Max	63.2	74.9	49.2	73.4	71.5	70.0	69.1	63.2	58.2	51.3	50.5	49.5			
Energy Average		57.2	Average:		65.3	64.6	62.4	60.7	55.3	51.3	45.8	45.1	44.4			
Night	Min	36.2	40.2	32.7	39.9	39.4	38.5	38.1	36.7	35.5	33.3	33.0	32.8			
	Max	52.1	61.6	46.9	61.1	60.4	58.4	56.7	51.7	49.5	47.6	47.4	47.1			
Energy Average		47.0	Average:		52.5	51.8	49.5	47.4	43.3	41.4	39.5	39.2	38.9			

	Leq (dBA)	
24-Hour CNEL	**Daytime (7am-10pm)**	**Nighttime (10pm-7am)**
57.5	**57.2**	**47.0**

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URBAN CROSSROADS

24-Hour Noise Level Measurement Summary

Hourly L_{eq} dBA Readings (unadjusted)

Bar chart values by Hour Beginning (0–23): 49.9, 46.7, 48.7, 51.1, 55.5, 57.4, 60.8, 61.7, 61.4, 59.2, 58.1, 59.3, 61.4, 59.4, 59.0, 60.6, 61.2, 61.0, 60.4, 59.8, 58.7, 56.6, 56.4, 52.9
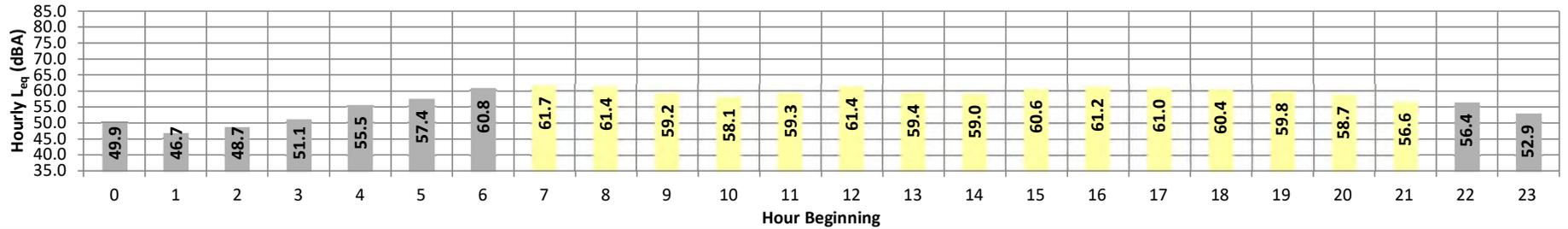
Timeframe	Hour	L_{eq}	L_{max}	L_{min}	L1%	L2%	L5%	L8%	L25%	L50%	L90%	L95%	L99%	L_{eq}	Adj.	Adj. L_{eq}
Night	0	49.9	62.0	36.3	61.4	60.7	58.2	55.0	46.7	41.2	37.0	36.7	36.4	49.9	10.0	59.9
	1	46.7	58.8	36.0	58.4	57.6	54.4	51.4	43.1	39.2	36.4	36.2	36.0	46.7	10.0	56.7
	2	48.7	60.3	37.0	59.9	59.0	56.3	54.0	46.6	41.3	38.4	37.7	37.1	48.7	10.0	58.7
	3	51.1	60.8	38.7	60.6	60.0	57.9	56.4	51.3	45.1	39.4	39.0	38.8	51.1	10.0	61.1
	4	55.5	65.1	42.7	64.4	63.7	61.9	60.7	55.9	51.2	44.1	43.4	42.8	55.5	10.0	65.5
	5	57.4	66.3	47.2	66.0	65.6	63.9	62.4	57.8	53.2	48.6	48.1	47.4	57.4	10.0	67.4
	6	60.8	69.7	48.3	69.4	68.9	67.3	66.1	61.2	56.7	49.9	49.1	48.4	60.8	10.0	70.8
Day	7	61.7	68.6	53.9	68.3	67.8	66.3	65.3	62.7	60.3	55.9	54.9	54.0	61.7	0.0	61.7
	8	61.4	68.4	53.3	68.0	67.4	66.1	65.1	62.6	60.0	55.3	54.3	53.6	61.4	0.0	61.4
	9	59.2	66.2	48.8	65.9	65.4	64.1	63.2	60.5	57.6	51.2	50.0	49.0	59.2	0.0	59.2
	10	58.1	65.5	48.8	65.0	64.4	62.8	61.9	59.2	56.5	51.2	50.2	49.1	58.1	0.0	58.1
	11	59.3	67.8	49.8	67.4	66.8	65.0	63.5	59.7	56.9	52.0	50.9	50.0	59.3	0.0	59.3
	12	61.4	72.6	51.1	71.8	70.8	67.8	65.2	60.5	58.1	53.1	52.1	51.3	61.4	0.0	61.4
	13	59.4	67.8	49.4	67.1	66.4	64.4	63.4	60.7	57.3	51.5	50.4	49.5	59.4	0.0	59.4
	14	59.0	67.0	49.5	66.6	66.0	64.2	63.0	59.8	57.1	52.0	50.7	49.7	59.0	0.0	59.0
	15	60.6	69.5	52.9	69.0	68.4	65.5	63.8	60.9	58.7	54.8	54.0	53.1	60.6	0.0	60.6
	16	61.2	69.0	53.2	68.6	68.0	66.4	65.4	61.9	59.3	55.1	54.2	53.4	61.2	0.0	61.2
	17	61.0	68.8	52.7	68.3	67.6	65.9	64.6	61.7	59.4	54.8	53.8	52.9	61.0	0.0	61.0
	18	60.4	68.8	50.4	68.4	67.7	65.1	63.9	61.4	58.6	52.8	51.7	50.6	60.4	0.0	60.4
	19	59.8	67.8	49.6	67.3	66.8	65.6	64.1	60.7	57.5	51.7	50.8	49.8	59.8	5.0	64.8
	20	58.7	67.5	48.5	67.2	66.5	64.5	63.1	59.6	55.8	49.9	49.1	48.6	58.7	5.0	63.7
	21	56.6	66.1	44.1	65.8	65.1	62.9	61.3	57.1	52.5	45.8	45.1	44.3	56.6	5.0	61.6
Night	22	56.4	66.9	43.6	66.6	65.8	63.7	61.8	55.5	50.8	44.7	44.2	43.7	56.4	10.0	66.4
	23	52.9	63.4	41.9	63.1	62.4	60.3	58.2	51.7	47.0	42.7	42.3	42.0	52.9	10.0	62.9

Timeframe	Hour	L_{eq}	L_{max}	L_{min}	L1%	L2%	L5%	L8%	L25%	L50%	L90%	L95%	L99%	24-Hour CNEL	Leq (dBA) Daytime (7am-10pm)	Leq (dBA) Nighttime (10pm-7am)
Day	Min	56.6	65.5	44.1	65.0	64.4	62.8	61.3	57.1	52.5	45.8	45.1	44.3			
	Max	61.7	72.6	53.9	71.8	70.8	67.8	65.4	62.7	60.3	55.9	54.9	54.0			
Energy Average		60.1		Average:	67.6	67.0	65.1	63.8	60.6	57.7	52.5	51.5	50.6	**63.3**	**60.1**	**55.4**
Night	Min	46.7	58.8	36.0	58.4	57.6	54.4	51.4	43.1	39.2	36.4	36.2	36.0			
	Max	60.8	69.7	48.3	69.4	68.9	67.3	66.1	61.2	56.7	49.9	49.1	48.4			
Energy Average		55.4		Average:	63.3	62.6	60.4	58.4	52.2	47.3	42.4	41.8	41.4			

URBAN CROSSROADS

24-Hour Noise Level Measurement Summary

Date: Tuesday, November 5, 2024
Project: Tres Cerritos

Location:
Source: L4 - Located east of the site near the residence at 685 Rose Rd

Meter: Piccolo II

JN: 15939
Analyst: Z. Ibrahim

Hourly L_{eq} dBA Readings (unadjusted)
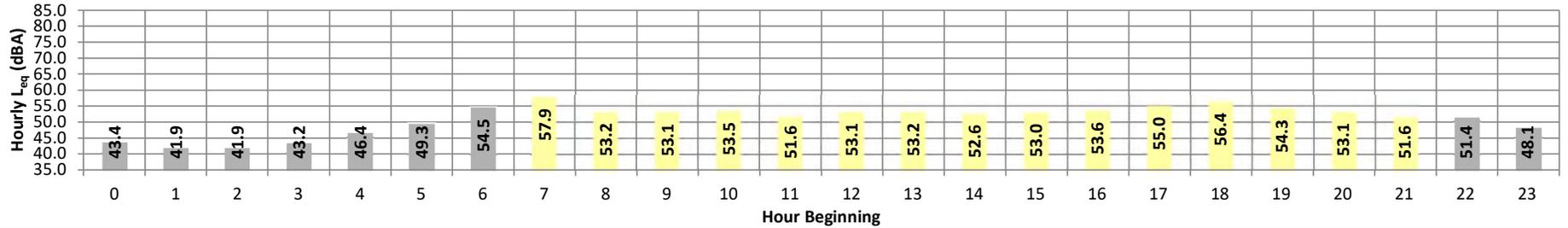
Timeframe	Hour	L_{eq}	L_{max}	L_{min}	L1%	L2%	L5%	L8%	L25%	L50%	L90%	L95%	L99%	L_{eq}	Adj.	Adj. L_{eq}
Night	0	43.4	49.8	39.7	49.5	49.0	47.6	46.6	43.7	42.2	40.3	40.0	39.7	43.4	10.0	53.4
	1	41.9	47.9	38.5	47.5	47.0	45.9	45.3	42.2	40.5	39.0	38.8	38.6	41.9	10.0	51.9
	2	41.9	46.7	39.7	46.4	46.0	45.1	44.4	42.2	41.0	40.0	39.9	39.8	41.9	10.0	51.9
	3	43.2	48.4	40.4	48.1	47.6	46.5	45.8	43.6	42.4	41.0	40.8	40.5	43.2	10.0	53.2
	4	46.4	51.4	42.5	51.1	50.8	49.8	49.1	47.2	45.6	43.4	43.0	42.6	46.4	10.0	56.4
	5	49.3	54.3	45.6	54.0	53.6	52.8	52.0	50.0	48.7	46.5	46.2	45.7	49.3	10.0	59.3
	6	54.5	62.3	49.9	61.6	60.9	58.8	57.5	54.6	53.0	51.1	50.6	50.1	54.5	10.0	64.5
Day	7	57.9	64.9	51.7	64.5	63.9	62.3	61.5	58.4	57.0	52.8	52.3	51.9	57.9	0.0	57.9
	8	53.2	62.5	48.0	62.1	61.3	59.0	57.0	52.6	50.7	48.7	48.4	48.1	53.2	0.0	53.2
	9	53.1	61.7	46.1	61.2	60.7	59.6	58.8	52.0	49.3	47.0	46.6	46.2	53.1	0.0	53.1
	10	53.5	61.5	46.6	61.1	60.7	60.0	59.3	52.3	50.1	47.6	47.1	46.7	53.5	0.0	53.5
	11	51.6	58.5	46.7	58.0	57.5	56.2	55.1	52.1	50.1	47.7	47.2	46.8	51.6	0.0	51.6
	12	53.1	63.3	47.4	62.7	61.6	58.2	56.3	52.6	50.6	48.3	47.9	47.6	53.1	0.0	53.1
	13	53.2	63.3	48.0	61.6	60.0	57.6	56.5	53.3	51.3	48.8	48.5	48.1	53.2	0.0	53.2
	14	52.6	59.9	48.0	59.4	58.8	56.9	55.7	52.9	51.3	49.0	48.6	48.2	52.6	0.0	52.6
	15	53.0	59.4	48.4	59.0	58.4	57.3	56.2	53.4	51.9	49.6	49.0	48.5	53.0	0.0	53.0
	16	53.6	63.6	49.0	62.1	60.7	57.9	56.7	53.6	51.8	49.8	49.5	49.1	53.6	0.0	53.6
	17	55.0	62.1	50.5	61.3	60.8	59.7	58.7	55.1	53.5	51.5	51.1	50.7	55.0	0.0	55.0
	18	56.4	65.4	50.0	64.9	64.3	62.7	61.5	55.0	53.5	51.1	50.7	50.2	56.4	0.0	56.4
	19	54.3	61.7	49.1	60.7	59.8	58.5	57.6	54.9	52.9	50.3	49.8	49.3	54.3	5.0	59.3
	20	53.1	60.0	48.2	59.3	58.7	57.3	56.3	53.8	51.9	49.3	48.9	48.4	53.1	5.0	58.1
	21	51.6	56.9	47.3	56.3	55.9	54.9	54.2	52.4	50.8	48.5	47.9	47.4	51.6	5.0	56.6
Night	22	51.4	58.7	45.6	58.2	57.4	55.9	55.0	52.0	49.9	46.8	46.2	45.7	51.4	10.0	61.4
	23	48.1	58.1	42.0	57.7	57.0	54.8	52.6	46.5	44.8	42.7	42.4	42.1	48.1	10.0	58.1

Timeframe	Hour	L_{eq}	L_{max}	L_{min}	L1%	L2%	L5%	L8%	L25%	L50%	L90%	L95%	L99%	24-Hour CNEL	Leq (dBA)	
															Daytime (7am-10pm)	Nighttime (10pm-7am)
Day	Min	51.6	56.9	46.1	56.3	55.9	54.9	54.2	52.0	49.3	47.0	46.6	46.2			
	Max	57.9	65.4	51.7	64.9	64.3	62.7	61.5	58.4	57.0	52.8	52.3	51.9			
Energy Average		54.0	Average:		60.9	60.2	58.5	57.4	53.6	51.8	49.3	48.9	48.5	57.0	54.0	48.8
Night	Min	41.9	46.7	38.5	46.4	46.0	45.1	44.4	42.2	40.5	39.0	38.8	38.6			
	Max	54.5	62.3	49.9	61.6	60.9	58.8	57.5	54.6	53.0	51.1	50.6	50.1			
Energy Average		48.8	Average:		52.7	52.2	50.8	49.8	46.9	45.3	43.4	43.1	42.8			

URBAN CROSSROADS

Date: Tuesday, November 5, 2024   *Location:* L5 - Located east of the site near the residence at 792   *Meter:* Piccolo II   *JN:* 15939

Project: Tres Cerritos   *Source:* Poppyseed Way   *Analyst:* Z. Ibrahim

Hourly L$_{eq}$ dBA Readings (unadjusted)
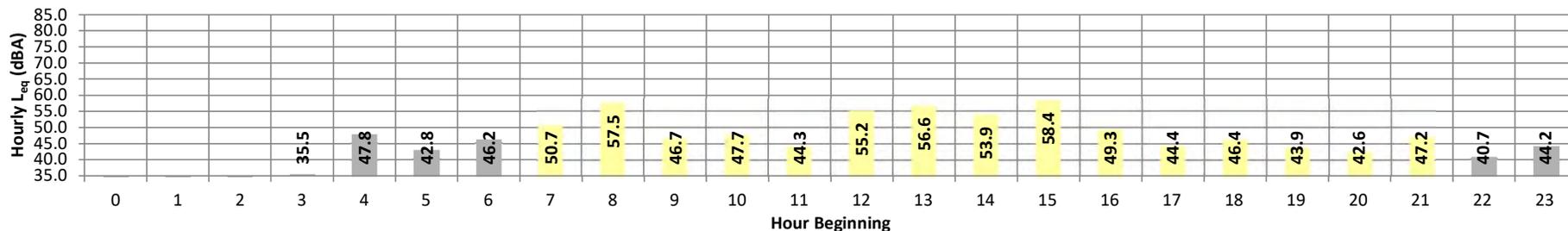
Timeframe	Hour	L$_{eq}$	L$_{max}$	L$_{min}$	L1%	L2%	L5%	L8%	L25%	L50%	L90%	L95%	L99%	L$_{eq}$	Adj.	Adj. L$_{eq}$
	0	34.1	38.4	31.6	38.0	37.6	36.9	36.3	34.6	33.4	32.1	31.9	31.7	34.1	10.0	44.1
	1	33.9	39.0	31.4	38.7	38.2	37.2	36.4	34.3	33.0	31.8	31.6	31.5	33.9	10.0	43.9
	2	34.5	38.8	32.8	38.3	37.9	37.2	36.6	34.9	34.0	33.0	32.9	32.8	34.5	10.0	44.5
Night	3	35.5	38.7	33.7	38.4	38.2	37.6	37.3	36.1	35.1	34.0	33.9	33.7	35.5	10.0	45.5
	4	47.8	54.9	43.9	54.3	54.0	52.6	51.0	48.6	45.3	44.5	44.2	44.0	47.8	10.0	57.8
	5	42.8	46.9	39.3	46.6	46.4	45.8	45.4	43.8	42.1	40.2	39.8	39.4	42.8	10.0	52.8
	6	46.2	55.9	41.7	54.9	54.3	50.8	48.8	45.7	44.3	42.5	42.1	41.8	46.2	10.0	56.2
	7	50.7	60.7	46.2	59.7	59.4	58.2	54.1	49.1	47.9	46.7	46.6	46.3	50.7	0.0	50.7
	8	57.5	66.6	45.1	66.5	66.3	65.0	63.9	56.6	52.4	45.9	45.5	45.2	57.5	0.0	57.5
	9	46.7	58.2	39.0	56.7	55.2	51.5	49.5	46.4	44.4	41.0	40.3	39.3	46.7	0.0	46.7
	10	47.7	57.9	35.6	57.5	57.0	56.1	55.1	43.1	40.4	36.6	36.2	35.7	47.7	0.0	47.7
	11	44.3	52.8	38.9	51.7	51.0	49.4	48.3	44.6	42.0	39.7	39.4	39.0	44.3	0.0	44.3
	12	55.2	59.9	45.5	59.6	59.3	58.7	58.2	56.2	54.5	50.1	49.3	45.9	55.2	0.0	55.2
	13	56.6	62.9	44.4	62.4	62.0	61.0	60.7	57.8	55.1	50.1	45.4	44.6	56.6	0.0	56.6
Day	14	53.9	63.7	42.0	62.6	61.4	59.6	58.4	54.5	50.9	45.6	44.4	42.6	53.9	0.0	53.9
	15	58.4	66.2	47.5	65.3	64.4	62.9	62.2	59.5	56.6	51.2	49.8	47.9	58.4	0.0	58.4
	16	49.3	59.4	41.5	58.4	57.1	54.7	53.3	49.5	46.7	43.0	42.3	41.7	49.3	0.0	49.3
	17	44.4	53.2	37.5	52.5	51.7	50.2	48.4	44.8	42.1	38.9	38.3	37.8	44.4	0.0	44.4
	18	46.4	53.7	38.4	53.3	52.8	51.7	51.2	47.3	43.7	39.2	38.9	38.5	46.4	0.0	46.4
	19	43.9	50.6	39.8	49.9	49.1	47.8	46.9	44.6	42.6	40.6	40.3	39.9	43.9	5.0	48.9
	20	42.6	47.4	39.8	47.0	46.6	45.8	45.2	43.2	41.9	40.4	40.2	39.9	42.6	5.0	47.6
	21	47.2	60.4	38.1	58.9	57.3	53.3	51.1	45.1	42.1	38.8	38.5	38.2	47.2	5.0	52.2
Night	22	40.7	48.5	37.2	47.9	46.9	44.9	43.6	40.6	39.5	38.0	37.7	37.3	40.7	10.0	50.7
	23	44.2	52.7	35.8	51.9	51.0	50.0	49.2	44.6	41.4	37.3	36.5	36.0	44.2	10.0	54.2

Timeframe	Hour	L$_{eq}$	L$_{max}$	L$_{min}$	L1%	L2%	L5%	L8%	L25%	L50%	L90%	L95%	L99%	24-Hour CNEL	Leq (dBA)	
															Daytime (7am-10pm)	Nighttime (10pm-7am)
Day	Min	42.6	47.4	35.6	47.0	46.6	45.8	45.2	43.1	40.4	36.6	36.2	35.7			
	Max	58.4	66.6	47.5	66.5	66.3	65.0	63.9	59.5	56.6	51.2	49.8	47.9			
Energy Average		52.7		Average:	57.5	56.7	55.1	53.8	49.5	46.9	43.2	42.3	41.5	**52.9**	**52.7**	**42.8**
Night	Min	33.9	38.4	31.4	38.0	37.6	36.9	36.3	34.3	33.0	31.8	31.6	31.5			
	Max	47.8	55.9	43.9	54.9	54.3	52.6	51.0	48.6	45.3	44.5	44.2	44.0			
Energy Average		42.8		Average:	45.5	44.9	43.7	42.7	40.4	38.7	37.0	36.7	36.5			

URBAN CROSSROADS

24-Hour Noise Level Measurement Summary

Date: Tuesday, November 5, 2024
Project: Tres Cerritos
Location: L6 - Located north of the site near the residence at 5453
Source: Viewstone Ct
Meter: Piccolo II
Analyst: Z. Ibrahim
JN: 15939

Hourly L$_{eq}$ dBA Readings (unadjusted)

Hour Beginning	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
Hourly L$_{eq}$ (dBA)	36.1	36.4	35.7	36.9	41.3	46.1	47.3	52.7	59.0	44.6	48.2	47.8	54.0	56.1	56.5	68.6	46.2	41.9	48.4	62.8	53.0	41.7	42.8	43.2
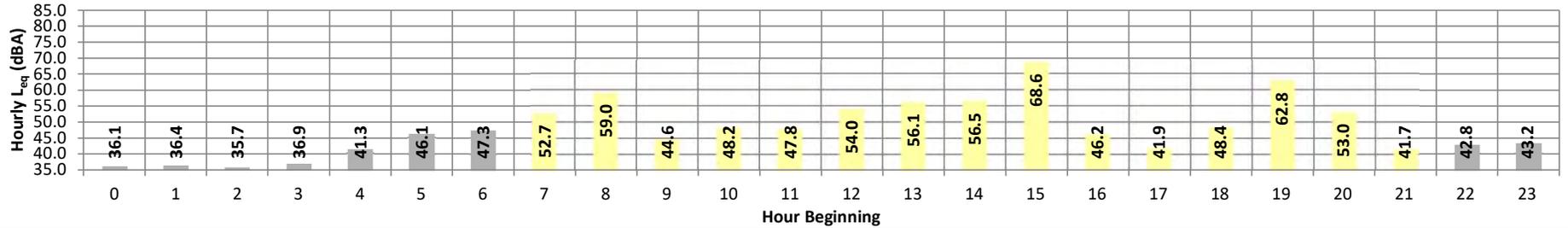
Timeframe	Hour	L$_{eq}$	L$_{max}$	L$_{min}$	L1%	L2%	L5%	L8%	L25%	L50%	L90%	L95%	L99%	L$_{eq}$	Adj.	Adj. L$_{eq}$
Night	0	36.1	40.2	33.7	39.8	39.3	38.5	38.1	36.7	35.7	34.2	34.0	33.8	36.1	10.0	46.1
	1	36.4	45.2	33.3	43.8	42.3	39.6	38.5	36.6	35.3	33.8	33.6	33.4	36.4	10.0	46.4
	2	35.7	39.3	33.6	39.0	38.7	38.1	37.7	36.3	35.3	34.0	33.8	33.7	35.7	10.0	45.7
	3	36.9	40.7	34.6	40.5	40.2	39.4	38.8	37.5	36.4	35.0	34.8	34.6	36.9	10.0	46.9
	4	41.3	44.8	38.8	44.6	44.2	43.6	43.2	41.9	41.0	39.5	39.3	38.9	41.3	10.0	51.3
	5	46.1	52.8	43.1	52.3	51.3	50.3	49.6	46.2	45.0	43.8	43.4	43.2	46.1	10.0	56.1
	6	47.3	54.0	44.1	53.1	52.3	50.6	49.7	47.7	46.6	44.8	44.5	44.2	47.3	10.0	57.3
Day	7	52.7	64.1	44.6	63.1	62.5	60.6	56.5	50.7	48.7	45.4	45.0	44.7	52.7	0.0	52.7
	8	59.0	67.1	45.1	66.8	66.4	65.2	63.9	58.8	56.3	48.9	46.5	45.3	59.0	0.0	59.0
	9	44.6	55.0	38.1	53.4	52.2	49.9	48.5	44.3	41.9	39.2	38.8	38.3	44.6	0.0	44.6
	10	48.2	62.0	37.4	60.1	57.9	54.7	52.2	46.5	43.1	38.8	38.2	37.6	48.2	0.0	48.2
	11	47.8	58.4	40.5	57.3	55.9	53.4	51.8	47.2	44.7	41.4	41.0	40.6	47.8	0.0	47.8
	12	54.0	59.6	45.0	59.1	58.7	58.0	57.3	54.6	53.3	49.6	49.0	45.2	54.0	0.0	54.0
	13	56.1	63.5	45.6	62.4	61.7	60.1	59.3	57.1	55.4	50.7	47.1	46.0	56.1	0.0	56.1
	14	56.5	69.6	43.0	68.1	66.3	62.4	60.6	55.5	51.8	45.9	44.8	43.5	56.5	0.0	56.5
	15	68.6	76.1	55.2	75.4	74.9	73.8	72.8	69.7	67.3	59.6	57.4	55.8	68.6	0.0	68.6
	16	46.2	56.2	40.4	55.3	54.2	51.6	49.6	46.0	43.9	41.5	41.0	40.6	46.2	0.0	46.2
	17	41.9	49.1	37.5	48.2	47.3	45.6	44.8	42.5	40.9	38.5	38.1	37.7	41.9	0.0	41.9
	18	48.4	56.8	39.6	56.3	55.8	54.6	53.6	48.9	45.8	40.6	40.1	39.8	48.4	0.0	48.4
	19	62.8	72.4	44.2	71.6	70.8	68.5	67.3	63.7	59.8	50.4	48.1	45.1	62.8	5.0	67.8
	20	53.0	61.2	40.9	60.8	60.3	59.0	57.6	54.3	49.8	42.6	41.9	41.2	53.0	5.0	58.0
	21	41.7	47.4	38.9	46.6	45.8	44.5	43.7	42.3	41.1	39.7	39.4	39.0	41.7	5.0	46.7
Night	22	42.8	49.6	40.1	48.8	47.9	46.2	45.2	42.9	41.8	40.6	40.4	40.1	42.8	10.0	52.8
	23	43.2	50.8	38.3	50.2	49.3	47.5	46.4	43.7	41.9	39.1	38.7	38.4	43.2	10.0	53.2

Timeframe	Hour	L$_{eq}$	L$_{max}$	L$_{min}$	L1%	L2%	L5%	L8%	L25%	L50%	L90%	L95%	L99%	24-Hour CNEL	Leq (dBA) Daytime (7am-10pm)	Leq (dBA) Nighttime (10pm-7am)
Day Min		41.7	47.4	37.4	46.6	45.8	44.5	43.7	42.3	40.9	38.5	38.1	37.6			
Day Max		68.6	76.1	55.2	75.4	74.9	73.8	72.8	69.7	67.3	59.6	57.4	55.8			
Energy Average		58.9	Average:		60.3	59.4	57.5	56.0	52.1	49.6	44.9	43.8	42.7	58.7	58.9	42.6
Night Min		35.7	39.3	33.3	39.0	38.7	38.1	37.7	36.3	35.3	33.8	33.6	33.4			
Night Max		47.3	54.0	44.1	53.1	52.3	50.6	49.7	47.7	46.6	44.8	44.5	44.2			
Energy Average		42.6	Average:		45.8	45.1	43.8	43.0	41.1	39.9	38.3	38.1	37.8			

APPENDIX 7.1:

OFF-SITE TRAFFIC NOISE LEVEL CALCULATIONS

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing
Road Name: Florida Ave. (SR-74)
Road Segment: w/o Winchester Rd. (SR-79)

Project Name: Tres Cerritos
Job Number: 15939

SITE SPECIFIC INPUT DATA	NOISE MODEL INPUTS

Highway Data

Average Daily Traffic (Adt):	###### vehicles
Peak Hour Percentage:	8.65%
Peak Hour Volume:	20,221 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	48 feet

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	65.0 feet
Centerline Dist. to Observer:	65.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	88.20%
Medium Trucks:	84.8%	4.9%	10.3%	7.79%
Heavy Trucks:	86.5%	2.7%	10.8%	4.01%

Noise Source Elevations (in feet)

Autos:	0.000	
Medium Trucks:	2.297	
Heavy Trucks:	8.006	*Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos:	60.614
Medium Trucks:	60.467
Heavy Trucks:	60.482

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	10.68	-1.36	-1.20	*-4.70*	0.000	0.000
Medium Trucks:	79.45	0.14	-1.34	-1.20	*-4.88*	0.000	0.000
Heavy Trucks:	84.25	-2.75	-1.34	-1.20	*-5.30*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	76.6	75.3	73.5	67.5	76.1	76.7
Medium Trucks:	77.0	76.2	69.8	68.3	76.7	77.0
Heavy Trucks:	79.0	78.2	69.1	70.4	78.7	78.9
Vehicle Noise:	82.4	81.5	76.1	73.7	82.1	82.4

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	417	899	1,936	4,172
CNEL:	436	939	2,022	4,357

Wednesday, January 22, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing	*Project Name:* Tres Cerritos
Road Name: Florida Ave. (SR-74)	*Job Number:* 15939
Road Segment: e/o Winchester Rd. (SR-79)	

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt): ###### vehicles	
Peak Hour Percentage: 8.65%	
Peak Hour Volume: 31,989 vehicles	
Vehicle Speed: 45 mph	
Near/Far Lane Distance: 48 feet	

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	65.0 feet
Centerline Dist. to Observer:	65.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	88.20%
Medium Trucks:	84.8%	4.9%	10.3%	7.79%
Heavy Trucks:	86.5%	2.7%	10.8%	4.01%

Noise Source Elevations (in feet)

Autos:	0.000	
Medium Trucks:	2.297	
Heavy Trucks:	8.006	*Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos:	60.614
Medium Trucks:	60.467
Heavy Trucks:	60.482

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	12.67	-1.36	-1.20	*-4.70*	0.000	0.000
Medium Trucks:	79.45	2.13	-1.34	-1.20	*-4.88*	0.000	0.000
Heavy Trucks:	84.25	-0.76	-1.34	-1.20	*-5.30*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	78.6	77.3	75.5	69.5	78.1	78.7
Medium Trucks:	79.0	78.2	71.8	70.3	78.7	78.9
Heavy Trucks:	81.0	80.2	71.1	72.4	80.7	80.9
Vehicle Noise:	84.4	83.5	78.1	75.7	84.1	84.4

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	566	1,220	2,629	5,664
CNEL:	591	1,274	2,745	5,915

Wednesday, January 22, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing	*Project Name:* Tres Cerritos
Road Name: Florida Ave. (SR-74)	*Job Number:* 15939
Road Segment: e/o Four Seasons Blvd.	

SITE SPECIFIC INPUT DATA	NOISE MODEL INPUTS

Highway Data

Average Daily Traffic (Adt): ###### vehicles	
Peak Hour Percentage: 8.65%	
Peak Hour Volume: 26,471 vehicles	
Vehicle Speed: 45 mph	
Near/Far Lane Distance: 48 feet	

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	65.0 feet
Centerline Dist. to Observer:	65.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	88.20%
Medium Trucks:	84.8%	4.9%	10.3%	7.79%
Heavy Trucks:	86.5%	2.7%	10.8%	4.01%

Noise Source Elevations (in feet)

Autos:	0.000	
Medium Trucks:	2.297	
Heavy Trucks:	8.006	*Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos:	60.614
Medium Trucks:	60.467
Heavy Trucks:	60.482

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	11.84	-1.36	-1.20	*-4.70*	0.000	0.000
Medium Trucks:	79.45	1.31	-1.34	-1.20	*-4.88*	0.000	0.000
Heavy Trucks:	84.25	-1.58	-1.34	-1.20	*-5.30*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	77.7	76.5	74.7	68.7	77.3	77.9
Medium Trucks:	78.2	77.3	71.0	69.4	77.9	78.1
Heavy Trucks:	80.1	79.3	70.3	71.6	79.9	80.0
Vehicle Noise:	83.6	82.7	77.2	74.8	83.3	83.6

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	499	1,076	2,317	4,993
CNEL:	521	1,123	2,420	5,213

Wednesday, January 22, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing	*Project Name:* Tres Cerritos
Road Name: Florida Ave. (SR-74)	*Job Number:* 15939
Road Segment: e/o California Ave.	

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt): ###### vehicles	
Peak Hour Percentage:	8.65%
Peak Hour Volume:	20,261 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	48 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	65.0 feet
Centerline Dist. to Observer:	65.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	88.20%
Medium Trucks:	84.8%	4.9%	10.3%	7.79%
Heavy Trucks:	86.5%	2.7%	10.8%	4.01%

Noise Source Elevations (in feet)

Autos:	0.000	
Medium Trucks:	2.297	
Heavy Trucks:	8.006	*Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos:	60.614
Medium Trucks:	60.467
Heavy Trucks:	60.482

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	10.68	-1.36	-1.20	*-4.70*	0.000	0.000
Medium Trucks:	79.45	0.14	-1.34	-1.20	*-4.88*	0.000	0.000
Heavy Trucks:	84.25	-2.74	-1.34	-1.20	*-5.30*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	76.6	75.3	73.6	67.5	76.1	76.7
Medium Trucks:	77.1	76.2	69.8	68.3	76.7	77.0
Heavy Trucks:	79.0	78.2	69.1	70.4	78.7	78.9
Vehicle Noise:	82.4	81.5	76.1	73.7	82.1	82.4

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	418	900	1,939	4,178
CNEL:	436	940	2,025	4,362

Wednesday, January 22, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing	*Project Name:* Tres Cerritos
Road Name: Florida Ave. (SR-74)	*Job Number:* 15939
Road Segment: e/o Warren Rd.	

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt): ###### vehicles	
Peak Hour Percentage: 8.65%	
Peak Hour Volume: 20,371 vehicles	
Vehicle Speed: 45 mph	
Near/Far Lane Distance: 48 feet	

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	65.0 feet
Centerline Dist. to Observer:	65.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	88.20%
Medium Trucks:	84.8%	4.9%	10.3%	7.79%
Heavy Trucks:	86.5%	2.7%	10.8%	4.01%

Noise Source Elevations (in feet)

Autos:	0.000	
Medium Trucks:	2.297	
Heavy Trucks:	8.006	*Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos:	60.614
Medium Trucks:	60.467
Heavy Trucks:	60.482

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	10.71	-1.36	-1.20	*-4.70*	0.000	0.000
Medium Trucks:	79.45	0.17	-1.34	-1.20	*-4.88*	0.000	0.000
Heavy Trucks:	84.25	-2.72	-1.34	-1.20	*-5.30*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	76.6	75.3	73.6	67.5	76.1	76.7
Medium Trucks:	77.1	76.2	69.8	68.3	76.8	77.0
Heavy Trucks:	79.0	78.2	69.2	70.4	78.8	78.9
Vehicle Noise:	82.5	81.5	76.1	73.7	82.1	82.4

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	419	903	1,946	4,193
CNEL:	438	943	2,032	4,378

Wednesday, January 22, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing	*Project Name:* Tres Cerritos
Road Name: Florida Ave. (SR-74)	*Job Number:* 15939
Road Segment: e/o Myers St.	

SITE SPECIFIC INPUT DATA	NOISE MODEL INPUTS

Highway Data

Average Daily Traffic (Adt): ###### vehicles	
Peak Hour Percentage: 8.65%	
Peak Hour Volume: 17,890 vehicles	
Vehicle Speed: 45 mph	
Near/Far Lane Distance: 48 feet	

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	65.0 feet
Centerline Dist. to Observer:	65.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	88.20%
Medium Trucks:	84.8%	4.9%	10.3%	7.79%
Heavy Trucks:	86.5%	2.7%	10.8%	4.01%

Noise Source Elevations (in feet)

Autos:	0.000	
Medium Trucks:	2.297	
Heavy Trucks:	8.006	*Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos:	60.614
Medium Trucks:	60.467
Heavy Trucks:	60.482

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	10.14	-1.36	-1.20	*-4.70*	0.000	0.000
Medium Trucks:	79.45	-0.40	-1.34	-1.20	*-4.88*	0.000	0.000
Heavy Trucks:	84.25	-3.28	-1.34	-1.20	*-5.30*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	76.0	74.8	73.0	67.0	75.6	76.2
Medium Trucks:	76.5	75.6	69.3	67.7	76.2	76.4
Heavy Trucks:	78.4	77.6	68.6	69.9	78.2	78.3
Vehicle Noise:	81.9	81.0	75.5	73.1	81.6	81.9

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	385	828	1,785	3,845
CNEL:	402	865	1,864	4,015

Wednesday, January 22, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing	*Project Name:* Tres Cerritos
Road Name: Florida Ave. (SR-74)	*Job Number:* 15939
Road Segment: e/o Acacia Ave.	

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	###### vehicles
Peak Hour Percentage:	8.65%
Peak Hour Volume:	20,321 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	48 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	65.0 feet
Centerline Dist. to Observer:	65.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	88.20%
Medium Trucks:	84.8%	4.9%	10.3%	7.79%
Heavy Trucks:	86.5%	2.7%	10.8%	4.01%

Noise Source Elevations (in feet)

Autos:	0.000	
Medium Trucks:	2.297	
Heavy Trucks:	8.006	*Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos:	60.614
Medium Trucks:	60.467
Heavy Trucks:	60.482

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	10.70	-1.36	-1.20	*-4.70*	0.000	0.000
Medium Trucks:	79.45	0.16	-1.34	-1.20	*-4.88*	0.000	0.000
Heavy Trucks:	84.25	-2.73	-1.34	-1.20	*-5.30*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	76.6	75.3	73.6	67.5	76.1	76.7
Medium Trucks:	77.1	76.2	69.8	68.3	76.7	77.0
Heavy Trucks:	79.0	78.2	69.2	70.4	78.8	78.9
Vehicle Noise:	82.4	81.5	76.1	73.7	82.1	82.4

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	419	902	1,943	4,186
CNEL:	437	942	2,029	4,371

Wednesday, January 22, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing
Road Name: Florida Ave. (SR-74)
Road Segment: e/o Cawston Ave.

Project Name: Tres Cerritos
Job Number: 15939

SITE SPECIFIC INPUT DATA	NOISE MODEL INPUTS

Highway Data

		Site Conditions (Hard = 10, Soft = 15)	
Average Daily Traffic (Adt): ###### vehicles		*Autos:* 15	
Peak Hour Percentage: 8.65%		*Medium Trucks (2 Axles):* 15	
Peak Hour Volume: 15,440 vehicles		*Heavy Trucks (3+ Axles):* 15	
Vehicle Speed: 45 mph			
Near/Far Lane Distance: 48 feet			

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	88.20%
Medium Trucks:	84.8%	4.9%	10.3%	7.79%
Heavy Trucks:	86.5%	2.7%	10.8%	4.01%

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	65.0 feet
Centerline Dist. to Observer:	65.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

Noise Source Elevations (in feet)

Autos:	0.000	
Medium Trucks:	2.297	
Heavy Trucks:	8.006	*Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos:	60.614
Medium Trucks:	60.467
Heavy Trucks:	60.482

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	9.50	-1.36	-1.20	*-4.70*	0.000	0.000
Medium Trucks:	79.45	-1.04	-1.34	-1.20	*-4.88*	0.000	0.000
Heavy Trucks:	84.25	-3.92	-1.34	-1.20	*-5.30*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	75.4	74.1	72.4	66.3	74.9	75.5
Medium Trucks:	75.9	75.0	68.6	67.1	75.5	75.8
Heavy Trucks:	77.8	77.0	68.0	69.2	77.6	77.7
Vehicle Noise:	81.3	80.3	74.9	72.5	80.9	81.2

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	349	751	1,618	3,485
CNEL:	364	784	1,689	3,640

Wednesday, January 22, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing
Road Name: Devonshire Ave.
Road Segment: e/o California Ave.

Project Name: Tres Cerritos
Job Number: 15939

SITE SPECIFIC INPUT DATA	NOISE MODEL INPUTS

Highway Data

Average Daily Traffic (Adt):	86,361 vehicles
Peak Hour Percentage:	8.65%
Peak Hour Volume:	7,470 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	12 feet

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	47.0 feet
Centerline Dist. to Observer:	47.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000	
Medium Trucks:	2.297	
Heavy Trucks:	8.006	*Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos:	46.883
Medium Trucks:	46.694
Heavy Trucks:	46.712

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	6.78	0.32	-1.20	-4.63	0.000	0.000
Medium Trucks:	79.45	-10.46	0.34	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-14.41	0.34	-1.20	-5.46	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	74.4	73.1	71.3	65.3	73.9	74.5
Medium Trucks:	68.1	67.3	60.9	59.4	67.8	68.0
Heavy Trucks:	69.0	68.2	59.2	60.4	68.8	68.9
Vehicle Noise:	76.2	75.1	71.9	67.3	75.8	76.3

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	115	247	532	1,146
CNEL:	123	265	570	1,229

Wednesday, January 22, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing	*Project Name:* Tres Cerritos
Road Name: Devonshire Ave.	*Job Number:* 15939
Road Segment: e/o Warren Rd.	

SITE SPECIFIC INPUT DATA	NOISE MODEL INPUTS

Highway Data

Average Daily Traffic (Adt):	70,175 vehicles
Peak Hour Percentage:	8.65%
Peak Hour Volume:	6,070 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	12 feet

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	47.0 feet
Centerline Dist. to Observer:	47.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000	
Medium Trucks:	2.297	
Heavy Trucks:	8.006	*Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos:	46.883
Medium Trucks:	46.694
Heavy Trucks:	46.712

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	5.88	0.32	-1.20	-4.63	0.000	0.000
Medium Trucks:	79.45	-11.36	0.34	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-15.31	0.34	-1.20	-5.46	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	73.5	72.2	70.4	64.4	73.0	73.6
Medium Trucks:	67.2	66.4	60.0	58.5	66.9	67.1
Heavy Trucks:	68.1	67.3	58.3	59.5	67.9	68.0
Vehicle Noise:	75.3	74.2	71.0	66.4	74.9	75.4

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	100	215	463	998
CNEL:	107	231	497	1,070

Wednesday, January 22, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing	*Project Name:* Tres Cerritos
Road Name: Devonshire Ave.	*Job Number:* 15939
Road Segment: e/o Old Warren Rd.	

SITE SPECIFIC INPUT DATA	NOISE MODEL INPUTS

Highway Data

Average Daily Traffic (Adt): 65,898 vehicles	
Peak Hour Percentage: 8.65%	
Peak Hour Volume: 5,700 vehicles	
Vehicle Speed: 45 mph	
Near/Far Lane Distance: 12 feet	

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	47.0 feet
Centerline Dist. to Observer:	47.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000	
Medium Trucks:	2.297	
Heavy Trucks:	8.006	*Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos:	46.883
Medium Trucks:	46.694
Heavy Trucks:	46.712

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	5.61	0.32	-1.20	-4.63	0.000	0.000
Medium Trucks:	79.45	-11.63	0.34	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-15.59	0.34	-1.20	-5.46	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	73.2	71.9	70.1	64.1	72.7	73.3
Medium Trucks:	67.0	66.1	59.7	58.2	66.6	66.9
Heavy Trucks:	67.8	67.0	58.0	59.2	67.6	67.7
Vehicle Noise:	75.0	73.9	70.8	66.1	74.6	75.1

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	96	206	444	957
CNEL:	103	221	476	1,026

Wednesday, January 22, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing
Road Name: Devonshire Ave.
Road Segment: e/o Myers St.

Project Name: Tres Cerritos
Job Number: 15939

SITE SPECIFIC INPUT DATA	NOISE MODEL INPUTS

Highway Data

Average Daily Traffic (Adt):	93,644 vehicles
Peak Hour Percentage:	8.65%
Peak Hour Volume:	8,100 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	12 feet

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	47.0 feet
Centerline Dist. to Observer:	47.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000	
Medium Trucks:	2.297	
Heavy Trucks:	8.006	*Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos:	46.883
Medium Trucks:	46.694
Heavy Trucks:	46.712

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	7.13	0.32	-1.20	-4.63	0.000	0.000
Medium Trucks:	79.45	-10.10	0.34	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-14.06	0.34	-1.20	-5.46	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	74.7	73.4	71.7	65.6	74.2	74.8
Medium Trucks:	68.5	67.6	61.2	59.7	68.2	68.4
Heavy Trucks:	69.3	68.5	59.5	60.8	69.1	69.2
Vehicle Noise:	76.6	75.4	72.3	67.6	76.2	76.6

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	121	260	561	1,209
CNEL:	130	279	602	1,297

Wednesday, January 22, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing	*Project Name:* Tres Cerritos
Road Name: Devonshire Ave.	*Job Number:* 15939
Road Segment: e/o Cawston Ave.	

SITE SPECIFIC INPUT DATA	NOISE MODEL INPUTS

Highway Data

Average Daily Traffic (Adt):	75,956 vehicles
Peak Hour Percentage:	8.65%
Peak Hour Volume:	6,570 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	12 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	47.0 feet
Centerline Dist. to Observer:	47.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000	
Medium Trucks:	2.297	
Heavy Trucks:	8.006	*Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos:	46.883
Medium Trucks:	46.694
Heavy Trucks:	46.712

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	6.22	0.32	-1.20	-4.63	0.000	0.000
Medium Trucks:	79.45	-11.01	0.34	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-14.97	0.34	-1.20	-5.46	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	73.8	72.5	70.8	64.7	73.3	73.9
Medium Trucks:	67.6	66.7	60.3	58.8	67.3	67.5
Heavy Trucks:	68.4	67.6	58.6	59.8	68.2	68.3
Vehicle Noise:	75.6	74.5	71.4	66.7	75.2	75.7

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	105	227	488	1,052
CNEL:	113	243	524	1,128

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing	*Project Name:* Tres Cerritos
Road Name: Winchester Rd. (SR-79)	*Job Number:* 15939
Road Segment: s/o Devonshire Ave.	

SITE SPECIFIC INPUT DATA | NOISE MODEL INPUTS

Highway Data

Average Daily Traffic (Adt): ###### vehicles	
Peak Hour Percentage: 8.65%	
Peak Hour Volume: 13,369 vehicles	
Vehicle Speed: 45 mph	
Near/Far Lane Distance: 12 feet	

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	110.0 feet
Centerline Dist. to Observer:	110.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	91.50%
Medium Trucks:	84.8%	4.9%	10.3%	5.31%
Heavy Trucks:	86.5%	2.7%	10.8%	3.19%

Noise Source Elevations (in feet)

Autos:	0.000
Medium Trucks:	2.297
Heavy Trucks:	8.006 *Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos:	109.950
Medium Trucks:	109.869
Heavy Trucks:	109.877

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	9.04	-5.24	-1.20	-4.78	0.000	0.000
Medium Trucks:	79.45	-3.33	-5.23	-1.20	-4.88	0.000	0.000
Heavy Trucks:	84.25	-5.54	-5.23	-1.20	-5.14	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	71.1	69.8	68.0	62.0	70.6	71.2
Medium Trucks:	69.7	68.8	62.5	60.9	69.4	69.6
Heavy Trucks:	72.3	71.5	62.5	63.7	72.1	72.2
Vehicle Noise:	75.9	74.9	69.9	67.1	75.6	75.9

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	259	558	1,203	2,592
CNEL:	272	586	1,262	2,718

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing	*Project Name:* Tres Cerritos
Road Name: California Ave.	*Job Number:* 15939
Road Segment: n/o Florida Ave. (SR-74)	

SITE SPECIFIC INPUT DATA	NOISE MODEL INPUTS

Highway Data

Average Daily Traffic (Adt):	95,031 vehicles
Peak Hour Percentage:	8.65%
Peak Hour Volume:	8,220 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	12 feet

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	47.0 feet
Centerline Dist. to Observer:	47.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000	
Medium Trucks:	2.297	
Heavy Trucks:	8.006	*Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos:	46.883
Medium Trucks:	46.694
Heavy Trucks:	46.712

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	7.20	0.32	-1.20	-4.63	0.000	0.000
Medium Trucks:	79.45	-10.04	0.34	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-14.00	0.34	-1.20	-5.46	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	74.8	73.5	71.7	65.7	74.3	74.9
Medium Trucks:	68.6	67.7	61.3	59.8	68.2	68.5
Heavy Trucks:	69.4	68.6	59.6	60.8	69.2	69.3
Vehicle Noise:	76.6	75.5	72.4	67.7	76.2	76.7

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	122	263	567	1,221
CNEL:	131	282	608	1,310

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing
Road Name: Warren Rd.
Road Segment: s/o Florida Ave. (SR-74)

Project Name: Tres Cerritos
Job Number: 15939

SITE SPECIFIC INPUT DATA	NOISE MODEL INPUTS

Highway Data

Average Daily Traffic (Adt):	###### vehicles
Peak Hour Percentage:	8.65%
Peak Hour Volume:	12,110 vehicles
Vehicle Speed:	55 mph
Near/Far Lane Distance:	12 feet

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	65.0 feet
Centerline Dist. to Observer:	65.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000
Medium Trucks:	2.297
Heavy Trucks:	8.006

Grade Adjustment: 0.0

Lane Equivalent Distance (in feet)

Autos:	64.915
Medium Trucks:	64.779
Heavy Trucks:	64.792

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	71.78	8.01	-1.80	-1.20	-4.70	0.000	0.000
Medium Trucks:	82.40	-9.23	-1.79	-1.20	-4.88	0.000	0.000
Heavy Trucks:	86.40	-13.19	-1.79	-1.20	-5.30	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	76.8	75.5	73.8	67.7	76.3	76.9
Medium Trucks:	70.2	69.3	62.9	61.4	69.9	70.1
Heavy Trucks:	70.2	69.4	60.4	61.6	70.0	70.1
Vehicle Noise:	78.4	77.2	74.3	69.4	78.0	78.4

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	221	475	1,024	2,206
CNEL:	237	511	1,101	2,373

Wednesday, January 22, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing	*Project Name:* Tres Cerritos
Road Name: Warren Rd.	*Job Number:* 15939
Road Segment: n/o Florida Ave. (SR-74)	

SITE SPECIFIC INPUT DATA	NOISE MODEL INPUTS

Highway Data

Average Daily Traffic (Adt):	87,401 vehicles
Peak Hour Percentage:	8.65%
Peak Hour Volume:	7,560 vehicles
Vehicle Speed:	55 mph
Near/Far Lane Distance:	12 feet

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	65.0 feet
Centerline Dist. to Observer:	65.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000	
Medium Trucks:	2.297	
Heavy Trucks:	8.006	*Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos:	64.915
Medium Trucks:	64.779
Heavy Trucks:	64.792

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	71.78	5.96	-1.80	-1.20	*-4.70*	0.000	0.000
Medium Trucks:	82.40	-11.28	-1.79	-1.20	*-4.88*	0.000	0.000
Heavy Trucks:	86.40	-15.23	-1.79	-1.20	*-5.30*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	74.7	73.5	71.7	65.7	74.3	74.9
Medium Trucks:	68.1	67.3	60.9	59.4	67.8	68.0
Heavy Trucks:	68.2	67.4	58.3	59.6	68.0	68.1
Vehicle Noise:	76.3	75.2	72.2	67.4	75.9	76.4

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	161	347	748	1,611
CNEL:	173	373	805	1,733

Wednesday, January 22, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing	*Project Name:* Tres Cerritos
Road Name: Warren Rd.	*Job Number:* 15939
Road Segment: n/o Devonshire Ave.	

SITE SPECIFIC INPUT DATA	NOISE MODEL INPUTS

Highway Data

Average Daily Traffic (Adt): ###### vehicles	
Peak Hour Percentage: 8.65%	
Peak Hour Volume: 10,180 vehicles	
Vehicle Speed: 55 mph	
Near/Far Lane Distance: 12 feet	

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	65.0 feet
Centerline Dist. to Observer:	65.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000	
Medium Trucks:	2.297	
Heavy Trucks:	8.006	*Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos:	64.915
Medium Trucks:	64.779
Heavy Trucks:	64.792

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	71.78	7.26	-1.80	-1.20	-4.70	0.000	0.000
Medium Trucks:	82.40	-9.98	-1.79	-1.20	-4.88	0.000	0.000
Heavy Trucks:	86.40	-13.94	-1.79	-1.20	-5.30	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	76.0	74.8	73.0	66.9	75.6	76.2
Medium Trucks:	69.4	68.6	62.2	60.6	69.1	69.3
Heavy Trucks:	69.5	68.7	59.6	60.9	69.2	69.4
Vehicle Noise:	77.6	76.5	73.5	68.7	77.2	77.7

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	196	423	912	1,965
CNEL:	211	455	981	2,114

Wednesday, January 22, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing	*Project Name:* Tres Cerritos
Road Name: Myers St.	*Job Number:* 15939
Road Segment: n/o Florida Ave. (SR-74)	

SITE SPECIFIC INPUT DATA	NOISE MODEL INPUTS

Highway Data

Average Daily Traffic (Adt):	32,140 vehicles
Peak Hour Percentage:	8.65%
Peak Hour Volume:	2,780 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	12 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	47.0 feet
Centerline Dist. to Observer:	47.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000	
Medium Trucks:	2.297	
Heavy Trucks:	8.006	*Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos:	46.883
Medium Trucks:	46.694
Heavy Trucks:	46.712

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	2.49	0.32	-1.20	-4.63	0.000	0.000
Medium Trucks:	79.45	-14.75	0.34	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-18.70	0.34	-1.20	-5.46	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	70.1	68.8	67.0	61.0	69.6	70.2
Medium Trucks:	63.8	63.0	56.6	55.1	63.5	63.8
Heavy Trucks:	64.7	63.9	54.9	56.1	64.5	64.6
Vehicle Noise:	71.9	70.8	67.6	63.0	71.5	72.0

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	59	128	275	593
CNEL:	64	137	295	636

Wednesday, January 22, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing	*Project Name:* Tres Cerritos
Road Name: Myers St.	*Job Number:* 15939
Road Segment: n/o Devonshire Ave.	

SITE SPECIFIC INPUT DATA	NOISE MODEL INPUTS

Highway Data

Average Daily Traffic (Adt):	347 vehicles
Peak Hour Percentage:	8.65%
Peak Hour Volume:	30 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	12 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	47.0 feet
Centerline Dist. to Observer:	47.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000	
Medium Trucks:	2.297	
Heavy Trucks:	8.006	*Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos:	46.883
Medium Trucks:	46.694
Heavy Trucks:	46.712

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	-17.18	0.32	-1.20	-4.63	0.000	0.000
Medium Trucks:	79.45	-34.42	0.34	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-38.37	0.34	-1.20	-5.46	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	50.4	49.1	47.4	41.3	49.9	50.5
Medium Trucks:	44.2	43.3	36.9	35.4	43.9	44.1
Heavy Trucks:	45.0	44.2	35.2	36.4	44.8	44.9
Vehicle Noise:	52.2	51.1	48.0	43.3	51.8	52.3

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	3	6	13	29
CNEL:	3	7	14	31

Wednesday, January 22, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing	*Project Name:* Tres Cerritos
Road Name: Cawston Ave.	*Job Number:* 15939
Road Segment: n/o Devonshire Ave.	

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	92,372 vehicles
Peak Hour Percentage:	8.65%
Peak Hour Volume:	7,990 vehicles
Vehicle Speed:	30 mph
Near/Far Lane Distance:	44 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	47.0 feet
Centerline Dist. to Observer:	47.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000	
Medium Trucks:	2.297	
Heavy Trucks:	8.006	*Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos:	41.833
Medium Trucks:	41.621
Heavy Trucks:	41.642

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	61.75	8.84	1.06	-1.20	-4.63	0.000	0.000
Medium Trucks:	73.48	-8.40	1.09	-1.20	-4.87	0.000	0.000
Heavy Trucks:	79.92	-12.36	1.09	-1.20	-5.46	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	70.4	69.2	67.4	61.4	70.0	70.6
Medium Trucks:	65.0	64.1	57.7	56.2	64.6	64.9
Heavy Trucks:	67.5	66.7	57.6	58.9	67.2	67.4
Vehicle Noise:	73.0	71.9	68.2	64.1	72.6	73.0

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	70	151	325	699
CNEL:	74	160	346	745

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing	*Project Name:* Tres Cerritos
Road Name: Old Warren Rd.	*Job Number:* 15939
Road Segment: n/o Devonshire Ave.	

SITE SPECIFIC INPUT DATA	NOISE MODEL INPUTS

Highway Data

Average Daily Traffic (Adt):	1,340 vehicles
Peak Hour Percentage:	8.65%
Peak Hour Volume:	116 vehicles
Vehicle Speed:	25 mph
Near/Far Lane Distance:	12 feet

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	30.0 feet
Centerline Dist. to Observer:	30.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000	
Medium Trucks:	2.297	
Heavy Trucks:	8.006	*Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos:	29.816
Medium Trucks:	29.518
Heavy Trucks:	29.547

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	58.73	-8.76	3.26	-1.20	*-4.49*	0.000	0.000
Medium Trucks:	70.80	-26.00	3.33	-1.20	*-4.86*	0.000	0.000
Heavy Trucks:	77.97	-29.95	3.32	-1.20	*-5.77*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	52.0	50.8	49.0	43.0	51.6	52.2
Medium Trucks:	46.9	46.1	39.7	38.1	46.6	46.8
Heavy Trucks:	50.1	49.4	40.3	41.6	49.9	50.0
Vehicle Noise:	55.0	53.9	50.0	46.1	54.6	55.0

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	3	6	13	28
CNEL:	3	6	14	30

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: E + P
Road Name: Florida Ave. (SR-74)
Road Segment: w/o Winchester Rd. (SR-79)

Project Name: Tres Cerritos
Job Number: 15939

SITE SPECIFIC INPUT DATA	NOISE MODEL INPUTS

Highway Data

Average Daily Traffic (Adt):	###### vehicles
Peak Hour Percentage:	8.65%
Peak Hour Volume:	20,660 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	48 feet

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	65.0 feet
Centerline Dist. to Observer:	65.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	88.20%
Medium Trucks:	84.8%	4.9%	10.3%	7.79%
Heavy Trucks:	86.5%	2.7%	10.8%	4.01%

Noise Source Elevations (in feet)

Autos:	0.000
Medium Trucks:	2.297
Heavy Trucks:	8.006 *Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos:	60.614
Medium Trucks:	60.467
Heavy Trucks:	60.482

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	10.77	-1.36	-1.20	*-4.70*	0.000	0.000
Medium Trucks:	79.45	0.23	-1.34	-1.20	*-4.88*	0.000	0.000
Heavy Trucks:	84.25	-2.65	-1.34	-1.20	*-5.30*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	76.7	75.4	73.6	67.6	76.2	76.8
Medium Trucks:	77.1	76.3	69.9	68.4	76.8	77.0
Heavy Trucks:	79.1	78.3	69.2	70.5	78.8	79.0
Vehicle Noise:	82.5	81.6	76.2	73.8	82.2	82.5

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	423	912	1,964	4,232
CNEL:	442	952	2,051	4,419

Wednesday, January 22, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: E + P	*Project Name:* Tres Cerritos
Road Name: Florida Ave. (SR-74)	*Job Number:* 15939
Road Segment: e/o Winchester Rd. (SR-79)	

SITE SPECIFIC INPUT DATA	NOISE MODEL INPUTS

Highway Data

Average Daily Traffic (Adt): ###### vehicles	
Peak Hour Percentage: 8.65%	
Peak Hour Volume: 32,648 vehicles	
Vehicle Speed: 45 mph	
Near/Far Lane Distance: 48 feet	

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	65.0 feet
Centerline Dist. to Observer:	65.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	88.20%
Medium Trucks:	84.8%	4.9%	10.3%	7.79%
Heavy Trucks:	86.5%	2.7%	10.8%	4.01%

Noise Source Elevations (in feet)

Autos:	0.000	
Medium Trucks:	2.297	
Heavy Trucks:	8.006	*Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos:	60.614
Medium Trucks:	60.467
Heavy Trucks:	60.482

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	12.76	-1.36	-1.20	*-4.70*	0.000	0.000
Medium Trucks:	79.45	2.22	-1.34	-1.20	*-4.88*	0.000	0.000
Heavy Trucks:	84.25	-0.67	-1.34	-1.20	*-5.30*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	78.7	77.4	75.6	69.6	78.2	78.8
Medium Trucks:	79.1	78.2	71.9	70.3	78.8	79.0
Heavy Trucks:	81.0	80.3	71.2	72.5	80.8	80.9
Vehicle Noise:	84.5	83.6	78.1	75.7	84.2	84.5

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	574	1,237	2,665	5,742
CNEL:	600	1,292	2,783	5,996

Wednesday, January 22, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: E + P
Road Name: Florida Ave. (SR-74)
Road Segment: e/o Four Seasons Blvd.

Project Name: Tres Cerritos
Job Number: 15939

SITE SPECIFIC INPUT DATA	NOISE MODEL INPUTS

Highway Data

Average Daily Traffic (Adt): ###### vehicles	
Peak Hour Percentage: 8.65%	
Peak Hour Volume: 27,130 vehicles	
Vehicle Speed: 45 mph	
Near/Far Lane Distance: 48 feet	

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	65.0 feet
Centerline Dist. to Observer:	65.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	88.20%
Medium Trucks:	84.8%	4.9%	10.3%	7.79%
Heavy Trucks:	86.5%	2.7%	10.8%	4.01%

Noise Source Elevations (in feet)

Autos:	0.000
Medium Trucks:	2.297
Heavy Trucks:	8.006

Grade Adjustment: 0.0

Lane Equivalent Distance (in feet)

Autos:	60.614
Medium Trucks:	60.467
Heavy Trucks:	60.482

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	11.95	-1.36	-1.20	*-4.70*	0.000	0.000
Medium Trucks:	79.45	1.41	-1.34	-1.20	*-4.88*	0.000	0.000
Heavy Trucks:	84.25	-1.47	-1.34	-1.20	*-5.30*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	77.9	76.6	74.8	68.8	77.4	78.0
Medium Trucks:	78.3	77.4	71.1	69.5	78.0	78.2
Heavy Trucks:	80.2	79.4	70.4	71.7	80.0	80.1
Vehicle Noise:	83.7	82.8	77.3	74.9	83.4	83.7

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	508	1,093	2,356	5,075
CNEL:	530	1,142	2,460	5,300

Wednesday, January 22, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: E + P
Road Name: Florida Ave. (SR-74)
Road Segment: e/o California Ave.

Project Name: Tres Cerritos
Job Number: 15939

SITE SPECIFIC INPUT DATA	NOISE MODEL INPUTS

Highway Data

Average Daily Traffic (Adt):	###### vehicles
Peak Hour Percentage:	8.65%
Peak Hour Volume:	20,700 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	48 feet

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	88.20%
Medium Trucks:	84.8%	4.9%	10.3%	7.79%
Heavy Trucks:	86.5%	2.7%	10.8%	4.01%

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	65.0 feet
Centerline Dist. to Observer:	65.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

Noise Source Elevations (in feet)

Autos:	0.000
Medium Trucks:	2.297
Heavy Trucks:	8.006

Grade Adjustment: 0.0

Lane Equivalent Distance (in feet)

Autos:	60.614
Medium Trucks:	60.467
Heavy Trucks:	60.482

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	10.78	-1.36	-1.20	*-4.70*	0.000	0.000
Medium Trucks:	79.45	0.24	-1.34	-1.20	*-4.88*	0.000	0.000
Heavy Trucks:	84.25	-2.65	-1.34	-1.20	*-5.30*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	76.7	75.4	73.6	67.6	76.2	76.8
Medium Trucks:	77.1	76.3	69.9	68.4	76.8	77.1
Heavy Trucks:	79.1	78.3	69.2	70.5	78.8	79.0
Vehicle Noise:	82.5	81.6	76.2	73.8	82.2	82.5

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	424	913	1,967	4,238
CNEL:	443	953	2,054	4,425

Wednesday, January 22, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: E + P	*Project Name:* Tres Cerritos
Road Name: Florida Ave. (SR-74)	*Job Number:* 15939
Road Segment: e/o Warren Rd.	

SITE SPECIFIC INPUT DATA	NOISE MODEL INPUTS

Highway Data

Average Daily Traffic (Adt): ###### vehicles	
Peak Hour Percentage: 8.65%	
Peak Hour Volume: 20,592 vehicles	
Vehicle Speed: 45 mph	
Near/Far Lane Distance: 48 feet	

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	65.0 feet
Centerline Dist. to Observer:	65.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	88.20%
Medium Trucks:	84.8%	4.9%	10.3%	7.79%
Heavy Trucks:	86.5%	2.7%	10.8%	4.01%

Noise Source Elevations (in feet)

Autos:	0.000	
Medium Trucks:	2.297	
Heavy Trucks:	8.006	*Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos:	60.614
Medium Trucks:	60.467
Heavy Trucks:	60.482

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	10.75	-1.36	-1.20	*-4.70*	0.000	0.000
Medium Trucks:	79.45	0.21	-1.34	-1.20	*-4.88*	0.000	0.000
Heavy Trucks:	84.25	-2.67	-1.34	-1.20	*-5.30*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	76.7	75.4	73.6	67.6	76.2	76.8
Medium Trucks:	77.1	76.2	69.9	68.3	76.8	77.0
Heavy Trucks:	79.0	78.2	69.2	70.5	78.8	78.9
Vehicle Noise:	82.5	81.6	76.1	73.7	82.2	82.5

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	422	910	1,960	4,223
CNEL:	441	950	2,047	4,410

Wednesday, January 22, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: E + P
Road Name: Florida Ave. (SR-74)
Road Segment: e/o Myers St.

Project Name: Tres Cerritos
Job Number: 15939

SITE SPECIFIC INPUT DATA	NOISE MODEL INPUTS

Highway Data

Average Daily Traffic (Adt):	###### vehicles
Peak Hour Percentage:	8.65%
Peak Hour Volume:	18,330 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	48 feet

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	65.0 feet
Centerline Dist. to Observer:	65.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	88.20%
Medium Trucks:	84.8%	4.9%	10.3%	7.79%
Heavy Trucks:	86.5%	2.7%	10.8%	4.01%

Noise Source Elevations (in feet)

Autos:	0.000	
Medium Trucks:	2.297	
Heavy Trucks:	8.006	*Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos:	60.614
Medium Trucks:	60.467
Heavy Trucks:	60.482

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	10.25	-1.36	-1.20	*-4.70*	0.000	0.000
Medium Trucks:	79.45	-0.29	-1.34	-1.20	*-4.88*	0.000	0.000
Heavy Trucks:	84.25	-3.17	-1.34	-1.20	*-5.30*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	76.2	74.9	73.1	67.1	75.7	76.3
Medium Trucks:	76.6	75.7	69.4	67.8	76.3	76.5
Heavy Trucks:	78.5	77.7	68.7	70.0	78.3	78.4
Vehicle Noise:	82.0	81.1	75.6	73.2	81.7	82.0

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	391	842	1,814	3,908
CNEL:	408	879	1,894	4,081

Wednesday, January 22, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: E + P	*Project Name:* Tres Cerritos
Road Name: Florida Ave. (SR-74)	*Job Number:* 15939
Road Segment: e/o Acacia Ave.	

SITE SPECIFIC INPUT DATA	NOISE MODEL INPUTS

Highway Data

Average Daily Traffic (Adt): ###### vehicles	
Peak Hour Percentage: 8.65%	
Peak Hour Volume: 20,705 vehicles	
Vehicle Speed: 45 mph	
Near/Far Lane Distance: 48 feet	

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	65.0 feet
Centerline Dist. to Observer:	65.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	88.20%
Medium Trucks:	84.8%	4.9%	10.3%	7.79%
Heavy Trucks:	86.5%	2.7%	10.8%	4.01%

Noise Source Elevations (in feet)

Autos:	0.000	
Medium Trucks:	2.297	
Heavy Trucks:	8.006	*Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos:	60.614
Medium Trucks:	60.467
Heavy Trucks:	60.482

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	10.78	-1.36	-1.20	*-4.70*	0.000	0.000
Medium Trucks:	79.45	0.24	-1.34	-1.20	*-4.88*	0.000	0.000
Heavy Trucks:	84.25	-2.65	-1.34	-1.20	*-5.30*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	76.7	75.4	73.6	67.6	76.2	76.8
Medium Trucks:	77.1	76.3	69.9	68.4	76.8	77.1
Heavy Trucks:	79.1	78.3	69.2	70.5	78.8	79.0
Vehicle Noise:	82.5	81.6	76.2	73.8	82.2	82.5

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	424	913	1,967	4,238
CNEL:	443	954	2,054	4,426

Wednesday, January 22, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: E + P	*Project Name:* Tres Cerritos
Road Name: Florida Ave. (SR-74)	*Job Number:* 15939
Road Segment: e/o Cawston Ave.	

SITE SPECIFIC INPUT DATA	NOISE MODEL INPUTS

Highway Data

Average Daily Traffic (Adt): ###### vehicles	
Peak Hour Percentage: 8.65%	
Peak Hour Volume: 15,771 vehicles	
Vehicle Speed: 45 mph	
Near/Far Lane Distance: 48 feet	

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	65.0 feet
Centerline Dist. to Observer:	65.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	88.20%
Medium Trucks:	84.8%	4.9%	10.3%	7.79%
Heavy Trucks:	86.5%	2.7%	10.8%	4.01%

Noise Source Elevations (in feet)

Autos:	0.000	
Medium Trucks:	2.297	
Heavy Trucks:	8.006	*Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos:	60.614
Medium Trucks:	60.467
Heavy Trucks:	60.482

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	9.60	-1.36	-1.20	*-4.70*	0.000	0.000
Medium Trucks:	79.45	-0.94	-1.34	-1.20	*-4.88*	0.000	0.000
Heavy Trucks:	84.25	-3.83	-1.34	-1.20	*-5.30*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	75.5	74.2	72.5	66.4	75.0	75.6
Medium Trucks:	76.0	75.1	68.7	67.2	75.6	75.9
Heavy Trucks:	77.9	77.1	68.1	69.3	77.7	77.8
Vehicle Noise:	81.3	80.4	75.0	72.6	81.0	81.3

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	353	762	1,641	3,535
CNEL:	369	795	1,713	3,691

Wednesday, January 22, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: E + P	*Project Name:* Tres Cerritos
Road Name: Devonshire Ave.	*Job Number:* 15939
Road Segment: e/o California Ave.	

SITE SPECIFIC INPUT DATA	NOISE MODEL INPUTS

Highway Data

Average Daily Traffic (Adt):	88,901 vehicles
Peak Hour Percentage:	8.65%
Peak Hour Volume:	7,690 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	12 feet

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	47.0 feet
Centerline Dist. to Observer:	47.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

Noise Source Elevations (in feet)

Autos:	0.000	
Medium Trucks:	2.297	
Heavy Trucks:	8.006	*Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos:	46.883
Medium Trucks:	46.694
Heavy Trucks:	46.712

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	6.91	0.32	-1.20	-4.63	0.000	0.000
Medium Trucks:	79.45	-10.33	0.34	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-14.29	0.34	-1.20	-5.46	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	74.5	73.2	71.4	65.4	74.0	74.6
Medium Trucks:	68.3	67.4	61.0	59.5	67.9	68.2
Heavy Trucks:	69.1	68.3	59.3	60.5	68.9	69.0
Vehicle Noise:	76.3	75.2	72.1	67.4	75.9	76.4

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	117	252	542	1,168
CNEL:	125	270	581	1,253

Wednesday, January 22, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: E + P	*Project Name:* Tres Cerritos
Road Name: Devonshire Ave.	*Job Number:* 15939
Road Segment: e/o Warren Rd.	

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	81,615 vehicles
Peak Hour Percentage:	8.65%
Peak Hour Volume:	7,060 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	12 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	47.0 feet
Centerline Dist. to Observer:	47.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000	
Medium Trucks:	2.297	
Heavy Trucks:	8.006	*Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos:	46.883
Medium Trucks:	46.694
Heavy Trucks:	46.712

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	6.54	0.32	-1.20	-4.63	0.000	0.000
Medium Trucks:	79.45	-10.70	0.34	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-14.66	0.34	-1.20	-5.46	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	74.1	72.8	71.1	65.0	73.6	74.3
Medium Trucks:	67.9	67.0	60.7	59.1	67.6	67.8
Heavy Trucks:	68.7	67.9	58.9	60.2	68.5	68.6
Vehicle Noise:	76.0	74.8	71.7	67.0	75.6	76.0

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	110	238	512	1,103
CNEL:	118	255	549	1,183

Wednesday, January 22, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: E + P
Road Name: Devonshire Ave.
Road Segment: e/o Old Warren Rd.

Project Name: Tres Cerritos
Job Number: 15939

SITE SPECIFIC INPUT DATA	NOISE MODEL INPUTS

Highway Data

Average Daily Traffic (Adt):	65,898 vehicles
Peak Hour Percentage:	8.65%
Peak Hour Volume:	5,700 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	12 feet

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	47.0 feet
Centerline Dist. to Observer:	47.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000	
Medium Trucks:	2.297	
Heavy Trucks:	8.006	*Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos:	46.883
Medium Trucks:	46.694
Heavy Trucks:	46.712

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	5.61	0.32	-1.20	-4.63	0.000	0.000
Medium Trucks:	79.45	-11.63	0.34	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-15.59	0.34	-1.20	-5.46	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	73.2	71.9	70.1	64.1	72.7	73.3
Medium Trucks:	67.0	66.1	59.7	58.2	66.6	66.9
Heavy Trucks:	67.8	67.0	58.0	59.2	67.6	67.7
Vehicle Noise:	75.0	73.9	70.8	66.1	74.6	75.1

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	96	206	444	957
CNEL:	103	221	476	1,026

Wednesday, January 22, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: E + P	*Project Name:* Tres Cerritos
Road Name: Devonshire Ave.	*Job Number:* 15939
Road Segment: e/o Myers St.	

SITE SPECIFIC INPUT DATA	NOISE MODEL INPUTS

Highway Data

Average Daily Traffic (Adt): ###### vehicles	
Peak Hour Percentage: 8.65%	
Peak Hour Volume: 8,650 vehicles	
Vehicle Speed: 45 mph	
Near/Far Lane Distance: 12 feet	

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	47.0 feet
Centerline Dist. to Observer:	47.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000	
Medium Trucks:	2.297	
Heavy Trucks:	8.006	*Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos:	46.883
Medium Trucks:	46.694
Heavy Trucks:	46.712

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	7.42	0.32	-1.20	-4.63	0.000	0.000
Medium Trucks:	79.45	-9.82	0.34	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-13.77	0.34	-1.20	-5.46	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	75.0	73.7	72.0	65.9	74.5	75.1
Medium Trucks:	68.8	67.9	61.5	60.0	68.4	68.7
Heavy Trucks:	69.6	68.8	59.8	61.0	69.4	69.5
Vehicle Noise:	76.8	75.7	72.6	67.9	76.4	76.9

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	126	272	586	1,263
CNEL:	135	292	629	1,355

Wednesday, January 22, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: E + P
Road Name: Devonshire Ave.
Road Segment: e/o Cawston Ave.

Project Name: Tres Cerritos
Job Number: 15939

SITE SPECIFIC INPUT DATA	NOISE MODEL INPUTS

Highway Data

Average Daily Traffic (Adt):	78,496 vehicles
Peak Hour Percentage:	8.65%
Peak Hour Volume:	6,790 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	12 feet

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	47.0 feet
Centerline Dist. to Observer:	47.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000
Medium Trucks:	2.297
Heavy Trucks:	8.006

Grade Adjustment: 0.0

Lane Equivalent Distance (in feet)

Autos:	46.883
Medium Trucks:	46.694
Heavy Trucks:	46.712

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	6.37	0.32	-1.20	-4.63	0.000	0.000
Medium Trucks:	79.45	-10.87	0.34	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-14.83	0.34	-1.20	-5.46	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	73.9	72.7	70.9	64.9	73.5	74.1
Medium Trucks:	67.7	66.8	60.5	58.9	67.4	67.6
Heavy Trucks:	68.6	67.8	58.7	60.0	68.3	68.5
Vehicle Noise:	75.8	74.7	71.5	66.8	75.4	75.8

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	107	232	499	1,075
CNEL:	115	248	535	1,153

Wednesday, January 22, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: E + P	*Project Name:* Tres Cerritos
Road Name: Winchester Rd. (SR-79)	*Job Number:* 15939
Road Segment: s/o Devonshire Ave.	

SITE SPECIFIC INPUT DATA	NOISE MODEL INPUTS

Highway Data

Average Daily Traffic (Adt): ###### vehicles	
Peak Hour Percentage: 8.65%	
Peak Hour Volume: 13,588 vehicles	
Vehicle Speed: 45 mph	
Near/Far Lane Distance: 12 feet	

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	110.0 feet
Centerline Dist. to Observer:	110.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	91.50%
Medium Trucks:	84.8%	4.9%	10.3%	5.31%
Heavy Trucks:	86.5%	2.7%	10.8%	3.19%

Noise Source Elevations (in feet)

Autos:	0.000	
Medium Trucks:	2.297	
Heavy Trucks:	8.006	*Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos:	109.950
Medium Trucks:	109.869
Heavy Trucks:	109.877

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	9.11	-5.24	-1.20	-4.78	0.000	0.000
Medium Trucks:	79.45	-3.25	-5.23	-1.20	-4.88	0.000	0.000
Heavy Trucks:	84.25	-5.47	-5.23	-1.20	-5.14	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	71.1	69.9	68.1	62.0	70.7	71.3
Medium Trucks:	69.8	68.9	62.5	61.0	69.4	69.7
Heavy Trucks:	72.4	71.6	62.5	63.8	72.1	72.3
Vehicle Noise:	76.0	75.0	70.0	67.2	75.7	76.0

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	262	565	1,216	2,620
CNEL:	275	592	1,275	2,748

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: E + P
Road Name: California Ave.
Road Segment: n/o Florida Ave. (SR-74)

Project Name: Tres Cerritos
Job Number: 15939

SITE SPECIFIC INPUT DATA	NOISE MODEL INPUTS

Highway Data

Average Daily Traffic (Adt):	97,571 vehicles
Peak Hour Percentage:	8.65%
Peak Hour Volume:	8,440 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	12 feet

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	47.0 feet
Centerline Dist. to Observer:	47.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000	
Medium Trucks:	2.297	
Heavy Trucks:	8.006	*Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos:	46.883
Medium Trucks:	46.694
Heavy Trucks:	46.712

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	7.31	0.32	-1.20	-4.63	0.000	0.000
Medium Trucks:	79.45	-9.93	0.34	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-13.88	0.34	-1.20	-5.46	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	74.9	73.6	71.9	65.8	74.4	75.0
Medium Trucks:	68.7	67.8	61.4	59.9	68.3	68.6
Heavy Trucks:	69.5	68.7	59.7	60.9	69.3	69.4
Vehicle Noise:	76.7	75.6	72.5	67.8	76.3	76.8

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	124	268	577	1,243
CNEL:	133	287	619	1,333

Wednesday, January 22, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: E + P	*Project Name:* Tres Cerritos
Road Name: Warren Rd.	*Job Number:* 15939
Road Segment: s/o Florida Ave. (SR-74)	

SITE SPECIFIC INPUT DATA	NOISE MODEL INPUTS

Highway Data

Average Daily Traffic (Adt): ###### vehicles	
Peak Hour Percentage: 8.65%	
Peak Hour Volume: 12,332 vehicles	
Vehicle Speed: 55 mph	
Near/Far Lane Distance: 12 feet	

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	65.0 feet
Centerline Dist. to Observer:	65.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000	
Medium Trucks:	2.297	
Heavy Trucks:	8.006	*Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos:	64.915
Medium Trucks:	64.779
Heavy Trucks:	64.792

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	71.78	8.09	-1.80	-1.20	*-4.70*	0.000	0.000
Medium Trucks:	82.40	-9.15	-1.79	-1.20	*-4.88*	0.000	0.000
Heavy Trucks:	86.40	-13.11	-1.79	-1.20	*-5.30*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	76.9	75.6	73.8	67.8	76.4	77.0
Medium Trucks:	70.3	69.4	63.0	61.5	69.9	70.2
Heavy Trucks:	70.3	69.5	60.5	61.7	70.1	70.2
Vehicle Noise:	78.4	77.3	74.4	69.5	78.0	78.5

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	223	481	1,036	2,233
CNEL:	240	517	1,115	2,402

Wednesday, January 22, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: E + P	*Project Name:* Tres Cerritos
Road Name: Warren Rd.	*Job Number:* 15939
Road Segment: n/o Florida Ave. (SR-74)	

SITE SPECIFIC INPUT DATA	NOISE MODEL INPUTS

Highway Data

Average Daily Traffic (Adt):	92,501 vehicles
Peak Hour Percentage:	8.65%
Peak Hour Volume:	8,001 vehicles
Vehicle Speed:	55 mph
Near/Far Lane Distance:	12 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	65.0 feet
Centerline Dist. to Observer:	65.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000
Medium Trucks:	2.297
Heavy Trucks:	8.006 *Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos:	64.915
Medium Trucks:	64.779
Heavy Trucks:	64.792

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	71.78	6.21	-1.80	-1.20	*-4.70*	0.000	0.000
Medium Trucks:	82.40	-11.03	-1.79	-1.20	*-4.88*	0.000	0.000
Heavy Trucks:	86.40	-14.99	-1.79	-1.20	*-5.30*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	75.0	73.7	72.0	65.9	74.5	75.1
Medium Trucks:	68.4	67.5	61.1	59.6	68.1	68.3
Heavy Trucks:	68.4	67.6	58.6	59.8	68.2	68.3
Vehicle Noise:	76.6	75.4	72.5	67.6	76.2	76.6

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	167	360	777	1,673
CNEL:	180	388	836	1,800

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: E + P	*Project Name:* Tres Cerritos
Road Name: Warren Rd.	*Job Number:* 15939
Road Segment: n/o Devonshire Ave.	

SITE SPECIFIC INPUT DATA	NOISE MODEL INPUTS

Highway Data

Average Daily Traffic (Adt): ###### vehicles	
Peak Hour Percentage: 8.65%	
Peak Hour Volume: 10,511 vehicles	
Vehicle Speed: 55 mph	
Near/Far Lane Distance: 12 feet	

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	65.0 feet
Centerline Dist. to Observer:	65.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

Noise Source Elevations (in feet)

Autos:	0.000
Medium Trucks:	2.297
Heavy Trucks:	8.006 *Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos:	64.915
Medium Trucks:	64.779
Heavy Trucks:	64.792

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	71.78	7.39	-1.80	-1.20	*-4.70*	0.000	0.000
Medium Trucks:	82.40	-9.84	-1.79	-1.20	*-4.88*	0.000	0.000
Heavy Trucks:	86.40	-13.80	-1.79	-1.20	*-5.30*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	76.2	74.9	73.1	67.1	75.7	76.3
Medium Trucks:	69.6	68.7	62.3	60.8	69.2	69.5
Heavy Trucks:	69.6	68.8	59.8	61.0	69.4	69.5
Vehicle Noise:	77.8	76.6	73.7	68.8	77.3	77.8

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	201	432	932	2,007
CNEL:	216	465	1,002	2,159

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: E + P	*Project Name:* Tres Cerritos
Road Name: Myers St.	*Job Number:* 15939
Road Segment: n/o Florida Ave. (SR-74)	

SITE SPECIFIC INPUT DATA	NOISE MODEL INPUTS

Highway Data

Average Daily Traffic (Adt):	39,760 vehicles
Peak Hour Percentage:	8.65%
Peak Hour Volume:	3,439 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	12 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	47.0 feet
Centerline Dist. to Observer:	47.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000	
Medium Trucks:	2.297	
Heavy Trucks:	8.006	*Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos:	46.883
Medium Trucks:	46.694
Heavy Trucks:	46.712

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	3.41	0.32	-1.20	-4.63	0.000	0.000
Medium Trucks:	79.45	-13.82	0.34	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-17.78	0.34	-1.20	-5.46	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	71.0	69.7	68.0	61.9	70.5	71.1
Medium Trucks:	64.8	63.9	57.5	56.0	64.4	64.7
Heavy Trucks:	65.6	64.8	55.8	57.0	65.4	65.5
Vehicle Noise:	72.8	71.7	68.6	63.9	72.4	72.9

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	68	147	317	683
CNEL:	73	158	340	733

Wednesday, January 22, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: E + P	*Project Name:* Tres Cerritos
Road Name: Myers St.	*Job Number:* 15939
Road Segment: n/o Devonshire Ave.	

SITE SPECIFIC INPUT DATA	NOISE MODEL INPUTS

Highway Data

Average Daily Traffic (Adt):	14,327 vehicles
Peak Hour Percentage:	8.65%
Peak Hour Volume:	1,239 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	12 feet

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	47.0 feet
Centerline Dist. to Observer:	47.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000	
Medium Trucks:	2.297	
Heavy Trucks:	8.006	*Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos:	46.883
Medium Trucks:	46.694
Heavy Trucks:	46.712

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	-1.02	0.32	-1.20	-4.63	0.000	0.000
Medium Trucks:	79.45	-18.26	0.34	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-22.21	0.34	-1.20	-5.46	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	66.6	65.3	63.5	57.5	66.1	66.7
Medium Trucks:	60.3	59.5	53.1	51.5	60.0	60.2
Heavy Trucks:	61.2	60.4	51.4	52.6	61.0	61.1
Vehicle Noise:	68.4	67.3	64.1	59.5	68.0	68.5

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	35	75	161	346
CNEL:	37	80	172	371

Wednesday, January 22, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: E + P
Road Name: Cawston Ave.
Road Segment: n/o Devonshire Ave.

Project Name: Tres Cerritos
Job Number: 15939

SITE SPECIFIC INPUT DATA	NOISE MODEL INPUTS

Highway Data

Average Daily Traffic (Adt):	96,192 vehicles
Peak Hour Percentage:	8.65%
Peak Hour Volume:	8,321 vehicles
Vehicle Speed:	30 mph
Near/Far Lane Distance:	44 feet

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	47.0 feet
Centerline Dist. to Observer:	47.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

Noise Source Elevations (in feet)

Autos:	0.000
Medium Trucks:	2.297
Heavy Trucks:	8.006

Grade Adjustment: 0.0

Lane Equivalent Distance (in feet)

Autos:	41.833
Medium Trucks:	41.621
Heavy Trucks:	41.642

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	61.75	9.01	1.06	-1.20	-4.63	0.000	0.000
Medium Trucks:	73.48	-8.23	1.09	-1.20	-4.87	0.000	0.000
Heavy Trucks:	79.92	-12.18	1.09	-1.20	-5.46	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	70.6	69.4	67.6	61.5	70.2	70.8
Medium Trucks:	65.1	64.3	57.9	56.4	64.8	65.1
Heavy Trucks:	67.6	66.8	57.8	59.0	67.4	67.5
Vehicle Noise:	73.1	72.1	68.4	64.2	72.8	73.2

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	72	155	333	718
CNEL:	77	165	355	765

Wednesday, January 22, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: E + P	*Project Name:* Tres Cerritos
Road Name: Old Warren Rd.	*Job Number:* 15939
Road Segment: n/o Devonshire Ave.	

SITE SPECIFIC INPUT DATA	NOISE MODEL INPUTS

Highway Data

Average Daily Traffic (Adt):	12,780 vehicles
Peak Hour Percentage:	8.65%
Peak Hour Volume:	1,105 vehicles
Vehicle Speed:	25 mph
Near/Far Lane Distance:	12 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	30.0 feet
Centerline Dist. to Observer:	30.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000	
Medium Trucks:	2.297	
Heavy Trucks:	8.006	*Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos:	29.816
Medium Trucks:	29.518
Heavy Trucks:	29.547

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	58.73	1.04	3.26	-1.20	*-4.49*	0.000	0.000
Medium Trucks:	70.80	-16.20	3.33	-1.20	*-4.86*	0.000	0.000
Heavy Trucks:	77.97	-20.16	3.32	-1.20	*-5.77*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	61.8	60.6	58.8	52.7	61.4	62.0
Medium Trucks:	56.7	55.8	49.5	47.9	56.4	56.6
Heavy Trucks:	59.9	59.1	50.1	51.4	59.7	59.8
Vehicle Noise:	64.7	63.7	59.8	55.9	64.4	64.8

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	13	27	59	127
CNEL:	13	29	62	134

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: EA	*Project Name:* Tres Cerritos
Road Name: Florida Ave. (SR-74)	*Job Number:* 15939
Road Segment: w/o Winchester Rd. (SR-79)	

SITE SPECIFIC INPUT DATA	NOISE MODEL INPUTS

Highway Data

Average Daily Traffic (Adt): ###### vehicles	
Peak Hour Percentage: 8.65%	
Peak Hour Volume: 22,325 vehicles	
Vehicle Speed: 45 mph	
Near/Far Lane Distance: 48 feet	

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	65.0 feet
Centerline Dist. to Observer:	65.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	88.20%
Medium Trucks:	84.8%	4.9%	10.3%	7.79%
Heavy Trucks:	86.5%	2.7%	10.8%	4.01%

Noise Source Elevations (in feet)

Autos:	0.000	
Medium Trucks:	2.297	
Heavy Trucks:	8.006	*Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos:	60.614
Medium Trucks:	60.467
Heavy Trucks:	60.482

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	11.11	-1.36	-1.20	*-4.70*	0.000	0.000
Medium Trucks:	79.45	0.57	-1.34	-1.20	*-4.88*	0.000	0.000
Heavy Trucks:	84.25	-2.32	-1.34	-1.20	*-5.30*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	77.0	75.7	74.0	67.9	76.5	77.1
Medium Trucks:	77.5	76.6	70.2	68.7	77.1	77.4
Heavy Trucks:	79.4	78.6	69.6	70.8	79.2	79.3
Vehicle Noise:	82.9	81.9	76.5	74.1	82.5	82.8

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	446	960	2,069	4,457
CNEL:	465	1,003	2,160	4,654

Wednesday, January 22, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: EA	*Project Name:* Tres Cerritos
Road Name: Florida Ave. (SR-74)	*Job Number:* 15939
Road Segment: e/o Winchester Rd. (SR-79)	

SITE SPECIFIC INPUT DATA	NOISE MODEL INPUTS

Highway Data

Average Daily Traffic (Adt): ###### vehicles
Peak Hour Percentage: 8.65%
Peak Hour Volume: 35,318 vehicles
Vehicle Speed: 45 mph
Near/Far Lane Distance: 48 feet

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	65.0 feet
Centerline Dist. to Observer:	65.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	88.20%
Medium Trucks:	84.8%	4.9%	10.3%	7.79%
Heavy Trucks:	86.5%	2.7%	10.8%	4.01%

Noise Source Elevations (in feet)

Autos:	0.000	
Medium Trucks:	2.297	
Heavy Trucks:	8.006	*Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos:	60.614
Medium Trucks:	60.467
Heavy Trucks:	60.482

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	13.10	-1.36	-1.20	*-4.70*	0.000	0.000
Medium Trucks:	79.45	2.56	-1.34	-1.20	*-4.88*	0.000	0.000
Heavy Trucks:	84.25	-0.33	-1.34	-1.20	*-5.30*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	79.0	77.7	76.0	69.9	78.5	79.1
Medium Trucks:	79.5	78.6	72.2	70.7	79.1	79.4
Heavy Trucks:	81.4	80.6	71.6	72.8	81.2	81.3
Vehicle Noise:	84.8	83.9	78.5	76.1	84.5	84.8

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	605	1,304	2,809	6,051
CNEL:	632	1,361	2,933	6,318

Wednesday, January 22, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: EA	*Project Name:* Tres Cerritos
Road Name: Florida Ave. (SR-74)	*Job Number:* 15939
Road Segment: e/o Four Seasons Blvd.	

SITE SPECIFIC INPUT DATA	NOISE MODEL INPUTS

Highway Data

Average Daily Traffic (Adt): ###### vehicles	
Peak Hour Percentage: 8.65%	
Peak Hour Volume: 29,226 vehicles	
Vehicle Speed: 45 mph	
Near/Far Lane Distance: 48 feet	

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	65.0 feet
Centerline Dist. to Observer:	65.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	88.20%
Medium Trucks:	84.8%	4.9%	10.3%	7.79%
Heavy Trucks:	86.5%	2.7%	10.8%	4.01%

Noise Source Elevations (in feet)

Autos:	0.000	
Medium Trucks:	2.297	
Heavy Trucks:	8.006	*Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos:	60.614
Medium Trucks:	60.467
Heavy Trucks:	60.482

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	12.27	-1.36	-1.20	*-4.70*	0.000	0.000
Medium Trucks:	79.45	1.74	-1.34	-1.20	*-4.88*	0.000	0.000
Heavy Trucks:	84.25	-1.15	-1.34	-1.20	*-5.30*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	78.2	76.9	75.1	69.1	77.7	78.3
Medium Trucks:	78.6	77.8	71.4	69.9	78.3	78.6
Heavy Trucks:	80.6	79.8	70.7	72.0	80.3	80.5
Vehicle Noise:	84.0	83.1	77.7	75.3	83.7	84.0

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	533	1,149	2,475	5,333
CNEL:	557	1,200	2,585	5,569

Wednesday, January 22, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: EA
Road Name: Florida Ave. (SR-74)
Road Segment: e/o California Ave.

Project Name: Tres Cerritos
Job Number: 15939

SITE SPECIFIC INPUT DATA	NOISE MODEL INPUTS

Highway Data

Average Daily Traffic (Adt): ###### vehicles
Peak Hour Percentage: 8.65%
Peak Hour Volume: 22,369 vehicles
Vehicle Speed: 45 mph
Near/Far Lane Distance: 48 feet

Site Conditions (Hard = 10, Soft = 15)

Autos: 15
Medium Trucks (2 Axles): 15
Heavy Trucks (3+ Axles): 15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	88.20%
Medium Trucks:	84.8%	4.9%	10.3%	7.79%
Heavy Trucks:	86.5%	2.7%	10.8%	4.01%

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	65.0 feet
Centerline Dist. to Observer:	65.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

Noise Source Elevations (in feet)

Autos: 0.000
Medium Trucks: 2.297
Heavy Trucks: 8.006   *Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos: 60.614
Medium Trucks: 60.467
Heavy Trucks: 60.482

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	11.11	-1.36	-1.20	*-4.70*	0.000	0.000
Medium Trucks:	79.45	0.57	-1.34	-1.20	*-4.88*	0.000	0.000
Heavy Trucks:	84.25	-2.31	-1.34	-1.20	*-5.30*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	77.0	75.7	74.0	67.9	76.5	77.2
Medium Trucks:	77.5	76.6	70.2	68.7	77.2	77.4
Heavy Trucks:	79.4	78.6	69.6	70.8	79.2	79.3
Vehicle Noise:	82.9	81.9	76.5	74.1	82.6	82.8

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	446	961	2,071	4,463
CNEL:	466	1,004	2,163	4,660

Wednesday, January 22, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: EA
Road Name: Florida Ave. (SR-74)
Road Segment: e/o Warren Rd.

Project Name: Tres Cerritos
Job Number: 15939

SITE SPECIFIC INPUT DATA	NOISE MODEL INPUTS

Highway Data

Average Daily Traffic (Adt):	###### vehicles
Peak Hour Percentage:	8.65%
Peak Hour Volume:	22,491 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	48 feet

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	65.0 feet
Centerline Dist. to Observer:	65.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	88.20%
Medium Trucks:	84.8%	4.9%	10.3%	7.79%
Heavy Trucks:	86.5%	2.7%	10.8%	4.01%

Noise Source Elevations (in feet)

Autos:	0.000	
Medium Trucks:	2.297	
Heavy Trucks:	8.006	*Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos:	60.614
Medium Trucks:	60.467
Heavy Trucks:	60.482

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	11.14	-1.36	-1.20	*-4.70*	0.000	0.000
Medium Trucks:	79.45	0.60	-1.34	-1.20	*-4.88*	0.000	0.000
Heavy Trucks:	84.25	-2.29	-1.34	-1.20	*-5.30*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	77.0	75.8	74.0	68.0	76.6	77.2
Medium Trucks:	77.5	76.6	70.3	68.7	77.2	77.4
Heavy Trucks:	79.4	78.6	69.6	70.8	79.2	79.3
Vehicle Noise:	82.9	82.0	76.5	74.1	82.6	82.9

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	448	965	2,079	4,479
CNEL:	468	1,008	2,171	4,677

Wednesday, January 22, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: EA	*Project Name:* Tres Cerritos
Road Name: Florida Ave. (SR-74)	*Job Number:* 15939
Road Segment: e/o Myers St.	

SITE SPECIFIC INPUT DATA	NOISE MODEL INPUTS

Highway Data

Average Daily Traffic (Adt): ###### vehicles	
Peak Hour Percentage: 8.65%	
Peak Hour Volume: 19,753 vehicles	
Vehicle Speed: 45 mph	
Near/Far Lane Distance: 48 feet	

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	65.0 feet
Centerline Dist. to Observer:	65.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	88.20%
Medium Trucks:	84.8%	4.9%	10.3%	7.79%
Heavy Trucks:	86.5%	2.7%	10.8%	4.01%

Noise Source Elevations (in feet)

Autos:	0.000
Medium Trucks:	2.297
Heavy Trucks:	8.006 *Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos:	60.614
Medium Trucks:	60.467
Heavy Trucks:	60.482

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	10.57	-1.36	-1.20	*-4.70*	0.000	0.000
Medium Trucks:	79.45	0.03	-1.34	-1.20	*-4.88*	0.000	0.000
Heavy Trucks:	84.25	-2.85	-1.34	-1.20	*-5.30*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	76.5	75.2	73.4	67.4	76.0	76.6
Medium Trucks:	76.9	76.1	69.7	68.2	76.6	76.9
Heavy Trucks:	78.9	78.1	69.0	70.3	78.6	78.8
Vehicle Noise:	82.3	81.4	76.0	73.6	82.0	82.3

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	411	885	1,906	4,107
CNEL:	429	924	1,991	4,289

Wednesday, January 22, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: EA	*Project Name:* Tres Cerritos
Road Name: Florida Ave. (SR-74)	*Job Number:* 15939
Road Segment: e/o Acacia Ave.	

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt): ###### vehicles	
Peak Hour Percentage: 8.65%	
Peak Hour Volume: 22,435 vehicles	
Vehicle Speed: 45 mph	
Near/Far Lane Distance: 48 feet	

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	65.0 feet
Centerline Dist. to Observer:	65.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	88.20%
Medium Trucks:	84.8%	4.9%	10.3%	7.79%
Heavy Trucks:	86.5%	2.7%	10.8%	4.01%

Noise Source Elevations (in feet)

Autos:	0.000
Medium Trucks:	2.297
Heavy Trucks:	8.006 *Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos:	60.614
Medium Trucks:	60.467
Heavy Trucks:	60.482

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	11.13	-1.36	-1.20	*-4.70*	0.000	0.000
Medium Trucks:	79.45	0.59	-1.34	-1.20	*-4.88*	0.000	0.000
Heavy Trucks:	84.25	-2.30	-1.34	-1.20	*-5.30*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	77.0	75.8	74.0	67.9	76.6	77.2
Medium Trucks:	77.5	76.6	70.3	68.7	77.2	77.4
Heavy Trucks:	79.4	78.6	69.6	70.8	79.2	79.3
Vehicle Noise:	82.9	81.9	76.5	74.1	82.6	82.8

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	447	963	2,075	4,471
CNEL:	467	1,006	2,167	4,669

Wednesday, January 22, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: EA	*Project Name:* Tres Cerritos
Road Name: Florida Ave. (SR-74)	*Job Number:* 15939
Road Segment: e/o Cawston Ave.	

SITE SPECIFIC INPUT DATA	NOISE MODEL INPUTS

Highway Data

Average Daily Traffic (Adt): ###### vehicles	
Peak Hour Percentage: 8.65%	
Peak Hour Volume: 17,047 vehicles	
Vehicle Speed: 45 mph	
Near/Far Lane Distance: 48 feet	

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	65.0 feet
Centerline Dist. to Observer:	65.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	88.20%
Medium Trucks:	84.8%	4.9%	10.3%	7.79%
Heavy Trucks:	86.5%	2.7%	10.8%	4.01%

Noise Source Elevations (in feet)

Autos:	0.000	
Medium Trucks:	2.297	
Heavy Trucks:	8.006	*Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos:	60.614
Medium Trucks:	60.467
Heavy Trucks:	60.482

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	9.93	-1.36	-1.20	*-4.70*	0.000	0.000
Medium Trucks:	79.45	-0.61	-1.34	-1.20	*-4.88*	0.000	0.000
Heavy Trucks:	84.25	-3.49	-1.34	-1.20	*-5.30*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	75.8	74.6	72.8	66.7	75.4	76.0
Medium Trucks:	76.3	75.4	69.1	67.5	76.0	76.2
Heavy Trucks:	78.2	77.4	68.4	69.6	78.0	78.1
Vehicle Noise:	81.7	80.7	75.3	72.9	81.4	81.7

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	372	802	1,728	3,723
CNEL:	389	838	1,805	3,888

Wednesday, January 22, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: EA
Road Name: Devonshire Ave.
Road Segment: e/o California Ave.

Project Name: Tres Cerritos
Job Number: 15939

SITE SPECIFIC INPUT DATA	NOISE MODEL INPUTS

Highway Data

Average Daily Traffic (Adt):	95,349 vehicles
Peak Hour Percentage:	8.65%
Peak Hour Volume:	8,248 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	12 feet

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	47.0 feet
Centerline Dist. to Observer:	47.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000	
Medium Trucks:	2.297	
Heavy Trucks:	8.006	*Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos:	46.883
Medium Trucks:	46.694
Heavy Trucks:	46.712

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	7.21	0.32	-1.20	-4.63	0.000	0.000
Medium Trucks:	79.45	-10.03	0.34	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-13.98	0.34	-1.20	-5.46	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	74.8	73.5	71.8	65.7	74.3	74.9
Medium Trucks:	68.6	67.7	61.3	59.8	68.2	68.5
Heavy Trucks:	69.4	68.6	59.6	60.8	69.2	69.3
Vehicle Noise:	76.6	75.5	72.4	67.7	76.2	76.7

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	122	264	568	1,224
CNEL:	131	283	609	1,313

Wednesday, January 22, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: EA
Road Name: Devonshire Ave.
Road Segment: e/o Warren Rd.

Project Name: Tres Cerritos
Job Number: 15939

SITE SPECIFIC INPUT DATA	NOISE MODEL INPUTS

Highway Data

Average Daily Traffic (Adt):	77,479 vehicles
Peak Hour Percentage:	8.65%
Peak Hour Volume:	6,702 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	12 feet

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	47.0 feet
Centerline Dist. to Observer:	47.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000	
Medium Trucks:	2.297	
Heavy Trucks:	8.006	*Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos:	46.883
Medium Trucks:	46.694
Heavy Trucks:	46.712

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	6.31	0.32	-1.20	-4.63	0.000	0.000
Medium Trucks:	79.45	-10.93	0.34	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-14.88	0.34	-1.20	-5.46	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	73.9	72.6	70.9	64.8	73.4	74.0
Medium Trucks:	67.7	66.8	60.4	58.9	67.3	67.6
Heavy Trucks:	68.5	67.7	58.7	59.9	68.3	68.4
Vehicle Noise:	75.7	74.6	71.5	66.8	75.3	75.8

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	107	230	495	1,066
CNEL:	114	246	531	1,143

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: EA
Road Name: Devonshire Ave.
Road Segment: e/o Old Warren Rd.

Project Name: Tres Cerritos
Job Number: 15939

SITE SPECIFIC INPUT DATA	NOISE MODEL INPUTS

Highway Data

Average Daily Traffic (Adt):	72,756 vehicles
Peak Hour Percentage:	8.65%
Peak Hour Volume:	6,293 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	12 feet

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	47.0 feet
Centerline Dist. to Observer:	47.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

Noise Source Elevations (in feet)

Autos:	0.000
Medium Trucks:	2.297
Heavy Trucks:	8.006 *Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos:	46.883
Medium Trucks:	46.694
Heavy Trucks:	46.712

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	6.04	0.32	-1.20	-4.63	0.000	0.000
Medium Trucks:	79.45	-11.20	0.34	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-15.16	0.34	-1.20	-5.46	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	73.6	72.3	70.6	64.5	73.1	73.8
Medium Trucks:	67.4	66.5	60.2	58.6	67.1	67.3
Heavy Trucks:	68.2	67.4	58.4	59.7	68.0	68.1
Vehicle Noise:	75.5	74.3	71.2	66.5	75.1	75.5

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	102	220	474	1,022
CNEL:	110	236	509	1,096

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: EA
Road Name: Devonshire Ave.
Road Segment: e/o Myers St.

Project Name: Tres Cerritos
Job Number: 15939

SITE SPECIFIC INPUT DATA	NOISE MODEL INPUTS

Highway Data

Average Daily Traffic (Adt):	###### vehicles
Peak Hour Percentage:	8.65%
Peak Hour Volume:	8,943 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	12 feet

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	47.0 feet
Centerline Dist. to Observer:	47.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

Noise Source Elevations (in feet)

Autos:	0.000
Medium Trucks:	2.297
Heavy Trucks:	8.006

Grade Adjustment: 0.0

Lane Equivalent Distance (in feet)

Autos:	46.883
Medium Trucks:	46.694
Heavy Trucks:	46.712

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	7.56	0.32	-1.20	-4.63	0.000	0.000
Medium Trucks:	79.45	-9.67	0.34	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-13.63	0.34	-1.20	-5.46	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	75.1	73.9	72.1	66.1	74.7	75.3
Medium Trucks:	68.9	68.0	61.7	60.1	68.6	68.8
Heavy Trucks:	69.8	69.0	59.9	61.2	69.5	69.7
Vehicle Noise:	77.0	75.9	72.7	68.0	76.6	77.0

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	129	278	599	1,292
CNEL:	139	298	643	1,385

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: EA
Road Name: Devonshire Ave.
Road Segment: e/o Cawston Ave.

Project Name: Tres Cerritos
Job Number: 15939

SITE SPECIFIC INPUT DATA	NOISE MODEL INPUTS

Highway Data

Average Daily Traffic (Adt):	83,861 vehicles
Peak Hour Percentage:	8.65%
Peak Hour Volume:	7,254 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	12 feet

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	47.0 feet
Centerline Dist. to Observer:	47.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000	
Medium Trucks:	2.297	
Heavy Trucks:	8.006	*Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos:	46.883
Medium Trucks:	46.694
Heavy Trucks:	46.712

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	6.65	0.32	-1.20	-4.63	0.000	0.000
Medium Trucks:	79.45	-10.58	0.34	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-14.54	0.34	-1.20	-5.46	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	74.2	73.0	71.2	65.1	73.8	74.4
Medium Trucks:	68.0	67.1	60.8	59.2	67.7	67.9
Heavy Trucks:	68.9	68.1	59.0	60.3	68.6	68.8
Vehicle Noise:	76.1	75.0	71.8	67.1	75.7	76.1

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	112	242	521	1,123
CNEL:	120	260	559	1,205

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: EA	*Project Name:* Tres Cerritos
Road Name: Winchester Rd. (SR-79)	*Job Number:* 15939
Road Segment: s/o Devonshire Ave.	

SITE SPECIFIC INPUT DATA	NOISE MODEL INPUTS

Highway Data

Average Daily Traffic (Adt): ###### vehicles	
Peak Hour Percentage: 8.65%	
Peak Hour Volume: 14,760 vehicles	
Vehicle Speed: 45 mph	
Near/Far Lane Distance: 12 feet	

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	110.0 feet
Centerline Dist. to Observer:	110.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	91.50%
Medium Trucks:	84.8%	4.9%	10.3%	5.31%
Heavy Trucks:	86.5%	2.7%	10.8%	3.19%

Noise Source Elevations (in feet)

Autos:	0.000	
Medium Trucks:	2.297	
Heavy Trucks:	8.006	*Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos:	109.950
Medium Trucks:	109.869
Heavy Trucks:	109.877

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	9.47	-5.24	-1.20	-4.78	0.000	0.000
Medium Trucks:	79.45	-2.90	-5.23	-1.20	-4.88	0.000	0.000
Heavy Trucks:	84.25	-5.11	-5.23	-1.20	-5.14	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	71.5	70.2	68.5	62.4	71.0	71.6
Medium Trucks:	70.1	69.2	62.9	61.3	69.8	70.0
Heavy Trucks:	72.7	71.9	62.9	64.1	72.5	72.6
Vehicle Noise:	76.3	75.4	70.4	67.6	76.0	76.3

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	277	597	1,285	2,769
CNEL:	290	626	1,348	2,903

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: EA
Road Name: California Ave.
Road Segment: n/o Florida Ave. (SR-74)

Project Name: Tres Cerritos
Job Number: 15939

SITE SPECIFIC INPUT DATA	NOISE MODEL INPUTS

Highway Data

Average Daily Traffic (Adt):	###### vehicles
Peak Hour Percentage:	8.65%
Peak Hour Volume:	9,076 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	12 feet

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	47.0 feet
Centerline Dist. to Observer:	47.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000	
Medium Trucks:	2.297	
Heavy Trucks:	8.006	*Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos:	46.883
Medium Trucks:	46.694
Heavy Trucks:	46.712

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	7.63	0.32	-1.20	-4.63	0.000	0.000
Medium Trucks:	79.45	-9.61	0.34	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-13.57	0.34	-1.20	-5.46	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	75.2	73.9	72.2	66.1	74.7	75.3
Medium Trucks:	69.0	68.1	61.7	60.2	68.7	68.9
Heavy Trucks:	69.8	69.0	60.0	61.2	69.6	69.7
Vehicle Noise:	77.0	75.9	72.8	68.1	76.6	77.1

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	130	281	605	1,304
CNEL:	140	301	649	1,399

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: EA	*Project Name:* Tres Cerritos
Road Name: Warren Rd.	*Job Number:* 15939
Road Segment: s/o Florida Ave. (SR-74)	

SITE SPECIFIC INPUT DATA	NOISE MODEL INPUTS

Highway Data

Average Daily Traffic (Adt): ###### vehicles	
Peak Hour Percentage: 8.65%	
Peak Hour Volume: 13,371 vehicles	
Vehicle Speed: 55 mph	
Near/Far Lane Distance: 12 feet	

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	65.0 feet
Centerline Dist. to Observer:	65.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000	
Medium Trucks:	2.297	
Heavy Trucks:	8.006	*Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos:	64.915
Medium Trucks:	64.779
Heavy Trucks:	64.792

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	71.78	8.44	-1.80	-1.20	*-4.70*	0.000	0.000
Medium Trucks:	82.40	-8.80	-1.79	-1.20	*-4.88*	0.000	0.000
Heavy Trucks:	86.40	-12.76	-1.79	-1.20	*-5.30*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	77.2	75.9	74.2	68.1	76.7	77.4
Medium Trucks:	70.6	69.7	63.4	61.8	70.3	70.5
Heavy Trucks:	70.6	69.9	60.8	62.1	70.4	70.6
Vehicle Noise:	78.8	77.7	74.7	69.8	78.4	78.9

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	236	508	1,094	2,356
CNEL:	253	546	1,177	2,535

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: EA	*Project Name:* Tres Cerritos
Road Name: Warren Rd.	*Job Number:* 15939
Road Segment: n/o Florida Ave. (SR-74)	

SITE SPECIFIC INPUT DATA	NOISE MODEL INPUTS

Highway Data

Average Daily Traffic (Adt):	96,498 vehicles
Peak Hour Percentage:	8.65%
Peak Hour Volume:	8,347 vehicles
Vehicle Speed:	55 mph
Near/Far Lane Distance:	12 feet

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	65.0 feet
Centerline Dist. to Observer:	65.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000	
Medium Trucks:	2.297	
Heavy Trucks:	8.006	*Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos:	64.915
Medium Trucks:	64.779
Heavy Trucks:	64.792

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	71.78	6.39	-1.80	-1.20	*-4.70*	0.000	0.000
Medium Trucks:	82.40	-10.85	-1.79	-1.20	*-4.88*	0.000	0.000
Heavy Trucks:	86.40	-14.80	-1.79	-1.20	*-5.30*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	75.2	73.9	72.1	66.1	74.7	75.3
Medium Trucks:	68.6	67.7	61.3	59.8	68.2	68.5
Heavy Trucks:	68.6	67.8	58.8	60.0	68.4	68.5
Vehicle Noise:	76.8	75.6	72.7	67.8	76.3	76.8

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	172	371	799	1,721
CNEL:	185	399	859	1,852

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: EA	*Project Name:* Tres Cerritos
Road Name: Warren Rd.	*Job Number:* 15939
Road Segment: n/o Devonshire Ave.	

SITE SPECIFIC INPUT DATA	NOISE MODEL INPUTS

Highway Data

Average Daily Traffic (Adt): ###### vehicles	
Peak Hour Percentage: 8.65%	
Peak Hour Volume: 11,240 vehicles	
Vehicle Speed: 55 mph	
Near/Far Lane Distance: 12 feet	

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	65.0 feet
Centerline Dist. to Observer:	65.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000	
Medium Trucks:	2.297	
Heavy Trucks:	8.006	*Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos:	64.915
Medium Trucks:	64.779
Heavy Trucks:	64.792

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	71.78	7.69	-1.80	-1.20	*-4.70*	0.000	0.000
Medium Trucks:	82.40	-9.55	-1.79	-1.20	*-4.88*	0.000	0.000
Heavy Trucks:	86.40	-13.51	-1.79	-1.20	*-5.30*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	76.5	75.2	73.4	67.4	76.0	76.6
Medium Trucks:	69.9	69.0	62.6	61.1	69.5	69.8
Heavy Trucks:	69.9	69.1	60.1	61.3	69.7	69.8
Vehicle Noise:	78.0	76.9	74.0	69.1	77.6	78.1

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	210	452	974	2,099
CNEL:	226	486	1,048	2,258

Wednesday, January 22, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: EA
Road Name: Myers St.
Road Segment: n/o Florida Ave. (SR-74)

Project Name: Tres Cerritos
Job Number: 15939

SITE SPECIFIC INPUT DATA	NOISE MODEL INPUTS

Highway Data

Average Daily Traffic (Adt):	35,485 vehicles
Peak Hour Percentage:	8.65%
Peak Hour Volume:	3,069 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	12 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	47.0 feet
Centerline Dist. to Observer:	47.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000	
Medium Trucks:	2.297	
Heavy Trucks:	8.006	*Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos:	46.883
Medium Trucks:	46.694
Heavy Trucks:	46.712

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	2.92	0.32	-1.20	-4.63	0.000	0.000
Medium Trucks:	79.45	-14.32	0.34	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-18.27	0.34	-1.20	-5.46	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	70.5	69.2	67.5	61.4	70.0	70.6
Medium Trucks:	64.3	63.4	57.0	55.5	63.9	64.2
Heavy Trucks:	65.1	64.3	55.3	56.5	64.9	65.0
Vehicle Noise:	72.3	71.2	68.1	63.4	71.9	72.4

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	63	136	294	633
CNEL:	68	146	315	679

Wednesday, January 22, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: EA
Road Name: Myers St.
Road Segment: n/o Devonshire Ave.

Project Name: Tres Cerritos
Job Number: 15939

SITE SPECIFIC INPUT DATA		NOISE MODEL INPUTS				

Highway Data

		Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt):	383 vehicles	*Autos:*	15			
Peak Hour Percentage:	8.65%	*Medium Trucks (2 Axles):*	15			
Peak Hour Volume:	33 vehicles	*Heavy Trucks (3+ Axles):*	15			
Vehicle Speed:	45 mph					
Near/Far Lane Distance:	12 feet					

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Site Data

		Noise Source Elevations (in feet)		
Barrier Height:	**0.0 feet**	*Autos:*	0.000	
Barrier Type (0-Wall, 1-Berm):	0.0	*Medium Trucks:*	2.297	
Centerline Dist. to Barrier:	47.0 feet	*Heavy Trucks:*	8.006	*Grade Adjustment:* 0.0
Centerline Dist. to Observer:	47.0 feet			
Barrier Distance to Observer:	0.0 feet	**Lane Equivalent Distance (in feet)**		
Observer Height (Above Pad):	5.0 feet	*Autos:*	46.883	
Pad Elevation:	0.0 feet	*Medium Trucks:*	46.694	
Road Elevation:	0.0 feet	*Heavy Trucks:*	46.712	
Road Grade:	0.0%			
Left View:	-90.0 degrees			
Right View:	90.0 degrees			

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	-16.75	0.32	-1.20	-4.63	0.000	0.000
Medium Trucks:	79.45	-33.99	0.34	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-37.94	0.34	-1.20	-5.46	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	50.8	49.6	47.8	41.7	50.4	51.0
Medium Trucks:	44.6	43.7	37.4	35.8	44.3	44.5
Heavy Trucks:	45.4	44.7	35.6	36.9	45.2	45.4
Vehicle Noise:	52.7	51.6	48.4	43.7	52.3	52.7

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	3	7	14	31
CNEL:	3	7	15	33

Wednesday, January 22, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: EA	*Project Name:* Tres Cerritos
Road Name: Cawston Ave.	*Job Number:* 15939
Road Segment: n/o Devonshire Ave.	

SITE SPECIFIC INPUT DATA	NOISE MODEL INPUTS

Highway Data

Average Daily Traffic (Adt): ###### vehicles	
Peak Hour Percentage: 8.65%	
Peak Hour Volume: 8,822 vehicles	
Vehicle Speed: 30 mph	
Near/Far Lane Distance: 44 feet	

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	47.0 feet
Centerline Dist. to Observer:	47.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000	
Medium Trucks:	2.297	
Heavy Trucks:	8.006	*Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos:	41.833
Medium Trucks:	41.621
Heavy Trucks:	41.642

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	61.75	9.27	1.06	-1.20	-4.63	0.000	0.000
Medium Trucks:	73.48	-7.97	1.09	-1.20	-4.87	0.000	0.000
Heavy Trucks:	79.92	-11.93	1.09	-1.20	-5.46	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	70.9	69.6	67.8	61.8	70.4	71.0
Medium Trucks:	65.4	64.5	58.2	56.6	65.1	65.3
Heavy Trucks:	67.9	67.1	58.1	59.3	67.7	67.8
Vehicle Noise:	73.4	72.3	68.7	64.5	73.0	73.4

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	75	161	347	747
CNEL:	80	171	369	796

Wednesday, January 22, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: EA	*Project Name:* Tres Cerritos
Road Name: Old Warren Rd.	*Job Number:* 15939
Road Segment: n/o Devonshire Ave.	

SITE SPECIFIC INPUT DATA	NOISE MODEL INPUTS

Highway Data

Average Daily Traffic (Adt):	1,479 vehicles
Peak Hour Percentage:	8.65%
Peak Hour Volume:	128 vehicles
Vehicle Speed:	25 mph
Near/Far Lane Distance:	12 feet

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	30.0 feet
Centerline Dist. to Observer:	30.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000	
Medium Trucks:	2.297	
Heavy Trucks:	8.006	*Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos:	29.816
Medium Trucks:	29.518
Heavy Trucks:	29.547

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	58.73	-8.33	3.26	-1.20	*-4.49*	0.000	0.000
Medium Trucks:	70.80	-25.57	3.33	-1.20	*-4.86*	0.000	0.000
Heavy Trucks:	77.97	-29.52	3.32	-1.20	*-5.77*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	52.5	51.2	49.4	43.4	52.0	52.6
Medium Trucks:	47.4	46.5	40.1	38.6	47.0	47.3
Heavy Trucks:	50.6	49.8	40.7	42.0	50.4	50.5
Vehicle Noise:	55.4	54.3	50.4	46.5	55.0	55.4

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	3	6	14	30
CNEL:	3	7	15	32

Wednesday, January 22, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: EAP	*Project Name:* Tres Cerritos
Road Name: Florida Ave. (SR-74)	*Job Number:* 15939
Road Segment: w/o Winchester Rd. (SR-79)	

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt): ###### vehicles	
Peak Hour Percentage: 8.65%	
Peak Hour Volume: 22,765 vehicles	
Vehicle Speed: 45 mph	
Near/Far Lane Distance: 48 feet	

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	65.0 feet
Centerline Dist. to Observer:	65.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	88.20%
Medium Trucks:	84.8%	4.9%	10.3%	7.79%
Heavy Trucks:	86.5%	2.7%	10.8%	4.01%

Noise Source Elevations (in feet)

Autos:	0.000	
Medium Trucks:	2.297	
Heavy Trucks:	8.006	*Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos:	60.614
Medium Trucks:	60.467
Heavy Trucks:	60.482

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	11.19	-1.36	-1.20	*-4.70*	0.000	0.000
Medium Trucks:	79.45	0.65	-1.34	-1.20	*-4.88*	0.000	0.000
Heavy Trucks:	84.25	-2.23	-1.34	-1.20	*-5.30*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	77.1	75.8	74.1	68.0	76.6	77.2
Medium Trucks:	77.6	76.7	70.3	68.8	77.2	77.5
Heavy Trucks:	79.5	78.7	69.6	70.9	79.3	79.4
Vehicle Noise:	82.9	82.0	76.6	74.2	82.6	82.9

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	451	973	2,096	4,515
CNEL:	471	1,016	2,188	4,715

Wednesday, January 22, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: EAP	*Project Name:* Tres Cerritos
Road Name: Florida Ave. (SR-74)	*Job Number:* 15939
Road Segment: e/o Winchester Rd. (SR-79)	

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt): ###### vehicles	
Peak Hour Percentage: 8.65%	
Peak Hour Volume: 35,977 vehicles	
Vehicle Speed: 45 mph	
Near/Far Lane Distance: 48 feet	

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	65.0 feet
Centerline Dist. to Observer:	65.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	88.20%
Medium Trucks:	84.8%	4.9%	10.3%	7.79%
Heavy Trucks:	86.5%	2.7%	10.8%	4.01%

Noise Source Elevations (in feet)

Autos:	0.000	
Medium Trucks:	2.297	
Heavy Trucks:	8.006	*Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos:	60.614
Medium Trucks:	60.467
Heavy Trucks:	60.482

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	13.18	-1.36	-1.20	*-4.70*	0.000	0.000
Medium Trucks:	79.45	2.64	-1.34	-1.20	*-4.88*	0.000	0.000
Heavy Trucks:	84.25	-0.25	-1.34	-1.20	*-5.30*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	79.1	77.8	76.0	70.0	78.6	79.2
Medium Trucks:	79.5	78.7	72.3	70.8	79.2	79.5
Heavy Trucks:	81.5	80.7	71.6	72.9	81.2	81.4
Vehicle Noise:	84.9	84.0	78.6	76.2	84.6	84.9

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	613	1,320	2,843	6,126
CNEL:	640	1,378	2,969	6,397

Wednesday, January 22, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: EAP	*Project Name:* Tres Cerritos
Road Name: Florida Ave. (SR-74)	*Job Number:* 15939
Road Segment: e/o Four Seasons Blvd.	

SITE SPECIFIC INPUT DATA	NOISE MODEL INPUTS

Highway Data

Average Daily Traffic (Adt): ###### vehicles	
Peak Hour Percentage: 8.65%	
Peak Hour Volume: 29,885 vehicles	
Vehicle Speed: 45 mph	
Near/Far Lane Distance: 48 feet	

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	65.0 feet
Centerline Dist. to Observer:	65.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	88.20%
Medium Trucks:	84.8%	4.9%	10.3%	7.79%
Heavy Trucks:	86.5%	2.7%	10.8%	4.01%

Noise Source Elevations (in feet)

Autos:	0.000	
Medium Trucks:	2.297	
Heavy Trucks:	8.006	*Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos:	60.614
Medium Trucks:	60.467
Heavy Trucks:	60.482

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	12.37	-1.36	-1.20	*-4.70*	0.000	0.000
Medium Trucks:	79.45	1.83	-1.34	-1.20	*-4.88*	0.000	0.000
Heavy Trucks:	84.25	-1.05	-1.34	-1.20	*-5.30*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	78.3	77.0	75.2	69.2	77.8	78.4
Medium Trucks:	78.7	77.9	71.5	70.0	78.4	78.6
Heavy Trucks:	80.7	79.9	70.8	72.1	80.4	80.6
Vehicle Noise:	84.1	83.2	77.8	75.4	83.8	84.1

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	541	1,166	2,513	5,413
CNEL:	565	1,218	2,624	5,653

Wednesday, January 22, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: EAP	*Project Name:* Tres Cerritos
Road Name: Florida Ave. (SR-74)	*Job Number:* 15939
Road Segment: e/o California Ave.	

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt): ###### vehicles	
Peak Hour Percentage: 8.65%	
Peak Hour Volume: 22,809 vehicles	
Vehicle Speed: 45 mph	
Near/Far Lane Distance: 48 feet	

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	65.0 feet
Centerline Dist. to Observer:	65.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	88.20%
Medium Trucks:	84.8%	4.9%	10.3%	7.79%
Heavy Trucks:	86.5%	2.7%	10.8%	4.01%

Noise Source Elevations (in feet)

Autos:	0.000	
Medium Trucks:	2.297	
Heavy Trucks:	8.006	*Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos:	60.614
Medium Trucks:	60.467
Heavy Trucks:	60.482

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	11.20	-1.36	-1.20	*-4.70*	0.000	0.000
Medium Trucks:	79.45	0.66	-1.34	-1.20	*-4.88*	0.000	0.000
Heavy Trucks:	84.25	-2.23	-1.34	-1.20	*-5.30*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	77.1	75.8	74.1	68.0	76.6	77.2
Medium Trucks:	77.6	76.7	70.3	68.8	77.2	77.5
Heavy Trucks:	79.5	78.7	69.7	70.9	79.3	79.4
Vehicle Noise:	82.9	82.0	76.6	74.2	82.6	82.9

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	452	974	2,098	4,521
CNEL:	472	1,017	2,191	4,721

Wednesday, January 22, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: EAP	*Project Name:* Tres Cerritos
Road Name: Florida Ave. (SR-74)	*Job Number:* 15939
Road Segment: e/o Warren Rd.	

SITE SPECIFIC INPUT DATA	NOISE MODEL INPUTS

Highway Data

Average Daily Traffic (Adt): ###### vehicles	
Peak Hour Percentage: 8.65%	
Peak Hour Volume: 22,712 vehicles	
Vehicle Speed: 45 mph	
Near/Far Lane Distance: 48 feet	

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	65.0 feet
Centerline Dist. to Observer:	65.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	88.20%
Medium Trucks:	84.8%	4.9%	10.3%	7.79%
Heavy Trucks:	86.5%	2.7%	10.8%	4.01%

Noise Source Elevations (in feet)

Autos:	0.000	
Medium Trucks:	2.297	
Heavy Trucks:	8.006	*Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos:	60.614
Medium Trucks:	60.467
Heavy Trucks:	60.482

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	11.18	-1.36	-1.20	*-4.70*	0.000	0.000
Medium Trucks:	79.45	0.64	-1.34	-1.20	*-4.88*	0.000	0.000
Heavy Trucks:	84.25	-2.24	-1.34	-1.20	*-5.30*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	77.1	75.8	74.0	68.0	76.6	77.2
Medium Trucks:	77.5	76.7	70.3	68.8	77.2	77.5
Heavy Trucks:	79.5	78.7	69.6	70.9	79.2	79.4
Vehicle Noise:	82.9	82.0	76.6	74.2	82.6	82.9

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	451	971	2,092	4,508
CNEL:	471	1,014	2,185	4,707

Wednesday, January 22, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: EAP
Road Name: Florida Ave. (SR-74)
Road Segment: e/o Myers St.

Project Name: Tres Cerritos
Job Number: 15939

SITE SPECIFIC INPUT DATA	NOISE MODEL INPUTS

Highway Data

Average Daily Traffic (Adt):	###### vehicles
Peak Hour Percentage:	8.65%
Peak Hour Volume:	20,192 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	48 feet

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	65.0 feet
Centerline Dist. to Observer:	65.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	88.20%
Medium Trucks:	84.8%	4.9%	10.3%	7.79%
Heavy Trucks:	86.5%	2.7%	10.8%	4.01%

Noise Source Elevations (in feet)

Autos:	0.000	
Medium Trucks:	2.297	
Heavy Trucks:	8.006	*Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos:	60.614
Medium Trucks:	60.467
Heavy Trucks:	60.482

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	10.67	-1.36	-1.20	*-4.70*	0.000	0.000
Medium Trucks:	79.45	0.13	-1.34	-1.20	*-4.88*	0.000	0.000
Heavy Trucks:	84.25	-2.75	-1.34	-1.20	*-5.30*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	76.6	75.3	73.5	67.5	76.1	76.7
Medium Trucks:	77.0	76.2	69.8	68.3	76.7	76.9
Heavy Trucks:	79.0	78.2	69.1	70.4	78.7	78.9
Vehicle Noise:	82.4	81.5	76.1	73.7	82.1	82.4

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	417	898	1,935	4,168
CNEL:	435	938	2,020	4,352

Wednesday, January 22, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: EAP	*Project Name:* Tres Cerritos
Road Name: Florida Ave. (SR-74)	*Job Number:* 15939
Road Segment: e/o Acacia Ave.	

SITE SPECIFIC INPUT DATA	NOISE MODEL INPUTS

Highway Data

Average Daily Traffic (Adt): ###### vehicles
Peak Hour Percentage: 8.65%
Peak Hour Volume: 22,820 vehicles
Vehicle Speed: 45 mph
Near/Far Lane Distance: 48 feet

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	65.0 feet
Centerline Dist. to Observer:	65.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	88.20%
Medium Trucks:	84.8%	4.9%	10.3%	7.79%
Heavy Trucks:	86.5%	2.7%	10.8%	4.01%

Noise Source Elevations (in feet)

Autos:	0.000	
Medium Trucks:	2.297	
Heavy Trucks:	8.006	*Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos:	60.614
Medium Trucks:	60.467
Heavy Trucks:	60.482

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	11.20	-1.36	-1.20	*-4.70*	0.000	0.000
Medium Trucks:	79.45	0.66	-1.34	-1.20	*-4.88*	0.000	0.000
Heavy Trucks:	84.25	-2.22	-1.34	-1.20	*-5.30*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	77.1	75.8	74.1	68.0	76.6	77.2
Medium Trucks:	77.6	76.7	70.3	68.8	77.2	77.5
Heavy Trucks:	79.5	78.7	69.7	70.9	79.3	79.4
Vehicle Noise:	83.0	82.0	76.6	74.2	82.6	82.9

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	452	974	2,099	4,522
CNEL:	472	1,017	2,192	4,722

Wednesday, January 22, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: EAP	*Project Name:* Tres Cerritos
Road Name: Florida Ave. (SR-74)	*Job Number:* 15939
Road Segment: e/o Cawston Ave.	

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt): ###### vehicles	
Peak Hour Percentage: 8.65%	
Peak Hour Volume: 17,378 vehicles	
Vehicle Speed: 45 mph	
Near/Far Lane Distance: 48 feet	

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	65.0 feet
Centerline Dist. to Observer:	65.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	88.20%
Medium Trucks:	84.8%	4.9%	10.3%	7.79%
Heavy Trucks:	86.5%	2.7%	10.8%	4.01%

Noise Source Elevations (in feet)

Autos:	0.000	
Medium Trucks:	2.297	
Heavy Trucks:	8.006	*Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos:	60.614
Medium Trucks:	60.467
Heavy Trucks:	60.482

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	10.02	-1.36	-1.20	*-4.70*	0.000	0.000
Medium Trucks:	79.45	-0.52	-1.34	-1.20	*-4.88*	0.000	0.000
Heavy Trucks:	84.25	-3.41	-1.34	-1.20	*-5.30*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	75.9	74.7	72.9	66.8	75.5	76.1
Medium Trucks:	76.4	75.5	69.1	67.6	76.1	76.3
Heavy Trucks:	78.3	77.5	68.5	69.7	78.1	78.2
Vehicle Noise:	81.8	80.8	75.4	73.0	81.5	81.7

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	377	812	1,750	3,771
CNEL:	394	848	1,828	3,938

Wednesday, January 22, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: EAP	*Project Name:* Tres Cerritos
Road Name: Devonshire Ave.	*Job Number:* 15939
Road Segment: e/o California Ave.	

SITE SPECIFIC INPUT DATA	NOISE MODEL INPUTS

Highway Data

Average Daily Traffic (Adt):	97,889 vehicles
Peak Hour Percentage:	8.65%
Peak Hour Volume:	8,467 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	12 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	47.0 feet
Centerline Dist. to Observer:	47.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000	
Medium Trucks:	2.297	
Heavy Trucks:	8.006	*Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos:	46.883
Medium Trucks:	46.694
Heavy Trucks:	46.712

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	7.33	0.32	-1.20	-4.63	0.000	0.000
Medium Trucks:	79.45	-9.91	0.34	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-13.87	0.34	-1.20	-5.46	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	74.9	73.6	71.9	65.8	74.4	75.0
Medium Trucks:	68.7	67.8	61.4	59.9	68.4	68.6
Heavy Trucks:	69.5	68.7	59.7	60.9	69.3	69.4
Vehicle Noise:	76.7	75.6	72.5	67.8	76.3	76.8

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	125	268	578	1,245
CNEL:	134	288	620	1,336

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: EAP	*Project Name:* Tres Cerritos
Road Name: Devonshire Ave.	*Job Number:* 15939
Road Segment: e/o Warren Rd.	

SITE SPECIFIC INPUT DATA	NOISE MODEL INPUTS

Highway Data

Average Daily Traffic (Adt):	88,919 vehicles
Peak Hour Percentage:	8.65%
Peak Hour Volume:	7,692 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	12 feet

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	47.0 feet
Centerline Dist. to Observer:	47.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000	
Medium Trucks:	2.297	
Heavy Trucks:	8.006	*Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos:	46.883
Medium Trucks:	46.694
Heavy Trucks:	46.712

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	6.91	0.32	-1.20	-4.63	0.000	0.000
Medium Trucks:	79.45	-10.33	0.34	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-14.29	0.34	-1.20	-5.46	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	74.5	73.2	71.5	65.4	74.0	74.6
Medium Trucks:	68.3	67.4	61.0	59.5	67.9	68.2
Heavy Trucks:	69.1	68.3	59.3	60.5	68.9	69.0
Vehicle Noise:	76.3	75.2	72.1	67.4	75.9	76.4

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	117	252	542	1,168
CNEL:	125	270	582	1,253

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: EAP	*Project Name:* Tres Cerritos
Road Name: Devonshire Ave.	*Job Number:* 15939
Road Segment: e/o Old Warren Rd.	

SITE SPECIFIC INPUT DATA	NOISE MODEL INPUTS

Highway Data

Average Daily Traffic (Adt):	72,756 vehicles
Peak Hour Percentage:	8.65%
Peak Hour Volume:	6,293 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	12 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	47.0 feet
Centerline Dist. to Observer:	47.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000	
Medium Trucks:	2.297	
Heavy Trucks:	8.006	*Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos:	46.883
Medium Trucks:	46.694
Heavy Trucks:	46.712

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	6.04	0.32	-1.20	-4.63	0.000	0.000
Medium Trucks:	79.45	-11.20	0.34	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-15.16	0.34	-1.20	-5.46	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	73.6	72.3	70.6	64.5	73.1	73.8
Medium Trucks:	67.4	66.5	60.2	58.6	67.1	67.3
Heavy Trucks:	68.2	67.4	58.4	59.7	68.0	68.1
Vehicle Noise:	75.5	74.3	71.2	66.5	75.1	75.5

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	102	220	474	1,022
CNEL:	110	236	509	1,096

Wednesday, January 22, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: EAP	*Project Name:* Tres Cerritos
Road Name: Devonshire Ave.	*Job Number:* 15939
Road Segment: e/o Myers St.	

SITE SPECIFIC INPUT DATA	NOISE MODEL INPUTS

Highway Data

Average Daily Traffic (Adt): ###### vehicles	
Peak Hour Percentage: 8.65%	
Peak Hour Volume: 9,493 vehicles	
Vehicle Speed: 45 mph	
Near/Far Lane Distance: 12 feet	

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	47.0 feet
Centerline Dist. to Observer:	47.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000	
Medium Trucks:	2.297	
Heavy Trucks:	8.006	*Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos:	46.883
Medium Trucks:	46.694
Heavy Trucks:	46.712

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	7.82	0.32	-1.20	-4.63	0.000	0.000
Medium Trucks:	79.45	-9.42	0.34	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-13.37	0.34	-1.20	-5.46	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	75.4	74.1	72.4	66.3	74.9	75.5
Medium Trucks:	69.2	68.3	61.9	60.4	68.9	69.1
Heavy Trucks:	70.0	69.2	60.2	61.4	69.8	69.9
Vehicle Noise:	77.2	76.1	73.0	68.3	76.8	77.3

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	134	290	624	1,344
CNEL:	144	311	669	1,442

Wednesday, January 22, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: EAP	*Project Name:* Tres Cerritos
Road Name: Devonshire Ave.	*Job Number:* 15939
Road Segment: e/o Cawston Ave.	

SITE SPECIFIC INPUT DATA	NOISE MODEL INPUTS

Highway Data

Average Daily Traffic (Adt):	86,401 vehicles
Peak Hour Percentage:	8.65%
Peak Hour Volume:	7,474 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	12 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	47.0 feet
Centerline Dist. to Observer:	47.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000	
Medium Trucks:	2.297	
Heavy Trucks:	8.006	*Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos:	46.883
Medium Trucks:	46.694
Heavy Trucks:	46.712

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	6.78	0.32	-1.20	-4.63	0.000	0.000
Medium Trucks:	79.45	-10.45	0.34	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-14.41	0.34	-1.20	-5.46	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	74.4	73.1	71.3	65.3	73.9	74.5
Medium Trucks:	68.1	67.3	60.9	59.4	67.8	68.0
Heavy Trucks:	69.0	68.2	59.2	60.4	68.8	68.9
Vehicle Noise:	76.2	75.1	71.9	67.3	75.8	76.3

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	115	247	532	1,146
CNEL:	123	265	571	1,229

Wednesday, January 22, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: EAP	*Project Name:* Tres Cerritos
Road Name: Winchester Rd. (SR-79)	*Job Number:* 15939
Road Segment: s/o Devonshire Ave.	

SITE SPECIFIC INPUT DATA	NOISE MODEL INPUTS

Highway Data

Average Daily Traffic (Adt): ###### vehicles	
Peak Hour Percentage: 8.65%	
Peak Hour Volume: 14,980 vehicles	
Vehicle Speed: 45 mph	
Near/Far Lane Distance: 12 feet	

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	110.0 feet
Centerline Dist. to Observer:	110.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	91.50%
Medium Trucks:	84.8%	4.9%	10.3%	5.31%
Heavy Trucks:	86.5%	2.7%	10.8%	3.19%

Noise Source Elevations (in feet)

Autos:	0.000	
Medium Trucks:	2.297	
Heavy Trucks:	8.006	*Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos:	109.950
Medium Trucks:	109.869
Heavy Trucks:	109.877

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	9.53	-5.24	-1.20	-4.78	0.000	0.000
Medium Trucks:	79.45	-2.83	-5.23	-1.20	-4.88	0.000	0.000
Heavy Trucks:	84.25	-5.04	-5.23	-1.20	-5.14	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	71.6	70.3	68.5	62.5	71.1	71.7
Medium Trucks:	70.2	69.3	62.9	61.4	69.9	70.1
Heavy Trucks:	72.8	72.0	62.9	64.2	72.6	72.7
Vehicle Noise:	76.4	75.4	70.4	67.6	76.1	76.4

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	280	602	1,298	2,796
CNEL:	293	632	1,361	2,932

Wednesday, January 22, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: EAP	*Project Name:* Tres Cerritos
Road Name: California Ave.	*Job Number:* 15939
Road Segment: n/o Florida Ave. (SR-74)	

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt): ###### vehicles	
Peak Hour Percentage: 8.65%	
Peak Hour Volume: 9,295 vehicles	
Vehicle Speed: 45 mph	
Near/Far Lane Distance: 12 feet	

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	47.0 feet
Centerline Dist. to Observer:	47.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000	
Medium Trucks:	2.297	
Heavy Trucks:	8.006	*Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos:	46.883
Medium Trucks:	46.694
Heavy Trucks:	46.712

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	7.73	0.32	-1.20	-4.63	0.000	0.000
Medium Trucks:	79.45	-9.51	0.34	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-13.46	0.34	-1.20	-5.46	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	75.3	74.0	72.3	66.2	74.8	75.4
Medium Trucks:	69.1	68.2	61.8	60.3	68.8	69.0
Heavy Trucks:	69.9	69.1	60.1	61.4	69.7	69.8
Vehicle Noise:	77.2	76.0	72.9	68.2	76.8	77.2

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	133	286	615	1,325
CNEL:	142	306	660	1,422

Wednesday, January 22, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: EAP	*Project Name:* Tres Cerritos
Road Name: Warren Rd.	*Job Number:* 15939
Road Segment: s/o Florida Ave. (SR-74)	

SITE SPECIFIC INPUT DATA	NOISE MODEL INPUTS

Highway Data

Average Daily Traffic (Adt): ###### vehicles	
Peak Hour Percentage: 8.65%	
Peak Hour Volume: 13,592 vehicles	
Vehicle Speed: 55 mph	
Near/Far Lane Distance: 12 feet	

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	65.0 feet
Centerline Dist. to Observer:	65.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000	
Medium Trucks:	2.297	
Heavy Trucks:	8.006	*Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos:	64.915
Medium Trucks:	64.779
Heavy Trucks:	64.792

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	71.78	8.51	-1.80	-1.20	*-4.70*	0.000	0.000
Medium Trucks:	82.40	-8.73	-1.79	-1.20	*-4.88*	0.000	0.000
Heavy Trucks:	86.40	-12.68	-1.79	-1.20	*-5.30*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	77.3	76.0	74.3	68.2	76.8	77.4
Medium Trucks:	70.7	69.8	63.4	61.9	70.4	70.6
Heavy Trucks:	70.7	69.9	60.9	62.1	70.5	70.6
Vehicle Noise:	78.9	77.7	74.8	69.9	78.5	78.9

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	238	513	1,106	2,382
CNEL:	256	552	1,190	2,563

Wednesday, January 22, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: EAP	*Project Name:* Tres Cerritos
Road Name: Warren Rd.	*Job Number:* 15939
Road Segment: n/o Florida Ave. (SR-74)	

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	###### vehicles
Peak Hour Percentage:	8.65%
Peak Hour Volume:	8,788 vehicles
Vehicle Speed:	55 mph
Near/Far Lane Distance:	12 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	65.0 feet
Centerline Dist. to Observer:	65.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000	
Medium Trucks:	2.297	
Heavy Trucks:	8.006	*Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos:	64.915
Medium Trucks:	64.779
Heavy Trucks:	64.792

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	71.78	6.62	-1.80	-1.20	*-4.70*	0.000	0.000
Medium Trucks:	82.40	-10.62	-1.79	-1.20	*-4.88*	0.000	0.000
Heavy Trucks:	86.40	-14.58	-1.79	-1.20	*-5.30*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	75.4	74.1	72.4	66.3	74.9	75.5
Medium Trucks:	68.8	67.9	61.6	60.0	68.5	68.7
Heavy Trucks:	68.8	68.0	59.0	60.2	68.6	68.7
Vehicle Noise:	77.0	75.8	72.9	68.0	76.6	77.0

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	178	384	827	1,781
CNEL:	192	413	889	1,916

Wednesday, January 22, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: EAP	*Project Name:* Tres Cerritos
Road Name: Warren Rd.	*Job Number:* 15939
Road Segment: n/o Devonshire Ave.	

SITE SPECIFIC INPUT DATA	NOISE MODEL INPUTS

Highway Data

Site Conditions (Hard = 10, Soft = 15)

Average Daily Traffic (Adt): ###### vehicles	*Autos:*	15
Peak Hour Percentage: 8.65%	*Medium Trucks (2 Axles):*	15
Peak Hour Volume: 11,570 vehicles	*Heavy Trucks (3+ Axles):*	15
Vehicle Speed: 55 mph		
Near/Far Lane Distance: 12 feet		

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	65.0 feet
Centerline Dist. to Observer:	65.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

Noise Source Elevations (in feet)

Autos:	0.000	
Medium Trucks:	2.297	
Heavy Trucks:	8.006	*Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos:	64.915
Medium Trucks:	64.779
Heavy Trucks:	64.792

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	71.78	7.81	-1.80	-1.20	*-4.70*	0.000	0.000
Medium Trucks:	82.40	-9.43	-1.79	-1.20	*-4.88*	0.000	0.000
Heavy Trucks:	86.40	-13.38	-1.79	-1.20	*-5.30*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	76.6	75.3	73.6	67.5	76.1	76.7
Medium Trucks:	70.0	69.1	62.7	61.2	69.7	69.9
Heavy Trucks:	70.0	69.2	60.2	61.4	69.8	69.9
Vehicle Noise:	78.2	77.0	74.1	69.2	77.8	78.2

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	214	461	993	2,140
CNEL:	230	496	1,068	2,302

Wednesday, January 22, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: EAP	*Project Name:* Tres Cerritos
Road Name: Myers St.	*Job Number:* 15939
Road Segment: n/o Florida Ave. (SR-74)	

SITE SPECIFIC INPUT DATA	NOISE MODEL INPUTS

Highway Data

Average Daily Traffic (Adt):	43,105 vehicles
Peak Hour Percentage:	8.65%
Peak Hour Volume:	3,729 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	12 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	47.0 feet
Centerline Dist. to Observer:	47.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000	
Medium Trucks:	2.297	
Heavy Trucks:	8.006	*Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos:	46.883
Medium Trucks:	46.694
Heavy Trucks:	46.712

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	3.76	0.32	-1.20	-4.63	0.000	0.000
Medium Trucks:	79.45	-13.47	0.34	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-17.43	0.34	-1.20	-5.46	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	71.3	70.1	68.3	62.3	70.9	71.5
Medium Trucks:	65.1	64.2	57.9	56.3	64.8	65.0
Heavy Trucks:	66.0	65.2	56.1	57.4	65.7	65.9
Vehicle Noise:	73.2	72.1	68.9	64.2	72.8	73.2

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	72	155	335	721
CNEL:	77	167	359	773

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: EAP	*Project Name:* Tres Cerritos
Road Name: Myers St.	*Job Number:* 15939
Road Segment: n/o Devonshire Ave.	

SITE SPECIFIC INPUT DATA	NOISE MODEL INPUTS

Highway Data

Average Daily Traffic (Adt):	14,363 vehicles
Peak Hour Percentage:	8.65%
Peak Hour Volume:	1,242 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	12 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	47.0 feet
Centerline Dist. to Observer:	47.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000	
Medium Trucks:	2.297	
Heavy Trucks:	8.006	*Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos:	46.883
Medium Trucks:	46.694
Heavy Trucks:	46.712

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	-1.01	0.32	-1.20	-4.63	0.000	0.000
Medium Trucks:	79.45	-18.25	0.34	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-22.20	0.34	-1.20	-5.46	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	66.6	65.3	63.5	57.5	66.1	66.7
Medium Trucks:	60.3	59.5	53.1	51.6	60.0	60.3
Heavy Trucks:	61.2	60.4	51.4	52.6	61.0	61.1
Vehicle Noise:	68.4	67.3	64.1	59.5	68.0	68.5

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	35	75	161	346
CNEL:	37	80	172	372

Wednesday, January 22, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: EAP	*Project Name:* Tres Cerritos
Road Name: Cawston Ave.	*Job Number:* 15939
Road Segment: n/o Devonshire Ave.	

SITE SPECIFIC INPUT DATA	NOISE MODEL INPUTS

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt): ###### vehicles	
Peak Hour Percentage: 8.65%	
Peak Hour Volume: 9,152 vehicles	
Vehicle Speed: 30 mph	
Near/Far Lane Distance: 44 feet	

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	47.0 feet
Centerline Dist. to Observer:	47.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000	
Medium Trucks:	2.297	
Heavy Trucks:	8.006	*Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos:	41.833
Medium Trucks:	41.621
Heavy Trucks:	41.642

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	61.75	9.43	1.06	-1.20	-4.63	0.000	0.000
Medium Trucks:	73.48	-7.81	1.09	-1.20	-4.87	0.000	0.000
Heavy Trucks:	79.92	-11.77	1.09	-1.20	-5.46	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	71.0	69.8	68.0	61.9	70.6	71.2
Medium Trucks:	65.6	64.7	58.3	56.8	65.2	65.5
Heavy Trucks:	68.0	67.2	58.2	59.5	67.8	67.9
Vehicle Noise:	73.6	72.5	68.8	64.7	73.2	73.6

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	77	165	355	765
CNEL:	82	176	378	815

Wednesday, January 22, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: EAP	*Project Name:* Tres Cerritos
Road Name: Old Warren Rd.	*Job Number:* 15939
Road Segment: n/o Devonshire Ave.	

SITE SPECIFIC INPUT DATA	NOISE MODEL INPUTS

Highway Data

Average Daily Traffic (Adt):	12,919 vehicles
Peak Hour Percentage:	8.65%
Peak Hour Volume:	1,118 vehicles
Vehicle Speed:	25 mph
Near/Far Lane Distance:	12 feet

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	30.0 feet
Centerline Dist. to Observer:	30.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

Noise Source Elevations (in feet)

Autos:	0.000
Medium Trucks:	2.297
Heavy Trucks:	8.006 *Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos:	29.816
Medium Trucks:	29.518
Heavy Trucks:	29.547

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	58.73	1.08	3.26	-1.20	*-4.49*	0.000	0.000
Medium Trucks:	70.80	-16.15	3.33	-1.20	*-4.86*	0.000	0.000
Heavy Trucks:	77.97	-20.11	3.32	-1.20	*-5.77*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	61.9	60.6	58.8	52.8	61.4	62.0
Medium Trucks:	56.8	55.9	49.5	48.0	56.4	56.7
Heavy Trucks:	60.0	59.2	50.2	51.4	59.8	59.9
Vehicle Noise:	64.8	63.7	59.8	55.9	64.4	64.8

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	13	27	59	128
CNEL:	14	29	63	135

Wednesday, January 22, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: EAC	*Project Name:* Tres Cerritos
Road Name: Florida Ave. (SR-74)	*Job Number:* 15939
Road Segment: w/o Winchester Rd. (SR-79)	

SITE SPECIFIC INPUT DATA	NOISE MODEL INPUTS

Highway Data

Average Daily Traffic (Adt): ###### vehicles	
Peak Hour Percentage: 8.65%	
Peak Hour Volume: 35,508 vehicles	
Vehicle Speed: 45 mph	
Near/Far Lane Distance: 48 feet	

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	65.0 feet
Centerline Dist. to Observer:	65.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	88.20%
Medium Trucks:	84.8%	4.9%	10.3%	7.79%
Heavy Trucks:	86.5%	2.7%	10.8%	4.01%

Noise Source Elevations (in feet)

Autos:	0.000	
Medium Trucks:	2.297	
Heavy Trucks:	8.006	*Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos:	60.614
Medium Trucks:	60.467
Heavy Trucks:	60.482

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	13.12	-1.36	-1.20	*-4.70*	0.000	0.000
Medium Trucks:	79.45	2.58	-1.34	-1.20	*-4.88*	0.000	0.000
Heavy Trucks:	84.25	-0.30	-1.34	-1.20	*-5.30*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	79.0	77.8	76.0	69.9	78.6	79.2
Medium Trucks:	79.5	78.6	72.2	70.7	79.2	79.4
Heavy Trucks:	81.4	80.6	71.6	72.8	81.2	81.3
Vehicle Noise:	84.9	83.9	78.5	76.1	84.6	84.8

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	607	1,308	2,819	6,072
CNEL:	634	1,366	2,943	6,341

Wednesday, January 22, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: EAC
Road Name: Florida Ave. (SR-74)
Road Segment: e/o Winchester Rd. (SR-79)

Project Name: Tres Cerritos
Job Number: 15939

SITE SPECIFIC INPUT DATA	NOISE MODEL INPUTS

Highway Data

Average Daily Traffic (Adt):	###### vehicles
Peak Hour Percentage:	8.65%
Peak Hour Volume:	48,552 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	48 feet

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	88.20%
Medium Trucks:	84.8%	4.9%	10.3%	7.79%
Heavy Trucks:	86.5%	2.7%	10.8%	4.01%

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	65.0 feet
Centerline Dist. to Observer:	65.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

Noise Source Elevations (in feet)

Autos:	0.000
Medium Trucks:	2.297
Heavy Trucks:	8.006 *Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos:	60.614
Medium Trucks:	60.467
Heavy Trucks:	60.482

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	14.48	-1.36	-1.20	*-4.70*	0.000	0.000
Medium Trucks:	79.45	3.94	-1.34	-1.20	*-4.88*	0.000	0.000
Heavy Trucks:	84.25	1.06	-1.34	-1.20	*-5.30*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	80.4	79.1	77.3	71.3	79.9	80.5
Medium Trucks:	80.8	80.0	73.6	72.1	80.5	80.8
Heavy Trucks:	82.8	82.0	72.9	74.2	82.5	82.7
Vehicle Noise:	86.2	85.3	79.9	77.5	85.9	86.2

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	748	1,612	3,472	7,481
CNEL:	781	1,683	3,626	7,812

Wednesday, January 22, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: EAC	*Project Name:* Tres Cerritos
Road Name: Florida Ave. (SR-74)	*Job Number:* 15939
Road Segment: e/o Four Seasons Blvd.	

SITE SPECIFIC INPUT DATA	NOISE MODEL INPUTS

Highway Data

Average Daily Traffic (Adt): ###### vehicles	
Peak Hour Percentage: 8.65%	
Peak Hour Volume: 43,170 vehicles	
Vehicle Speed: 45 mph	
Near/Far Lane Distance: 48 feet	

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	65.0 feet
Centerline Dist. to Observer:	65.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	88.20%
Medium Trucks:	84.8%	4.9%	10.3%	7.79%
Heavy Trucks:	86.5%	2.7%	10.8%	4.01%

Noise Source Elevations (in feet)

Autos:	0.000	
Medium Trucks:	2.297	
Heavy Trucks:	8.006	*Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos:	60.614
Medium Trucks:	60.467
Heavy Trucks:	60.482

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	13.97	-1.36	-1.20	*-4.70*	0.000	0.000
Medium Trucks:	79.45	3.43	-1.34	-1.20	*-4.88*	0.000	0.000
Heavy Trucks:	84.25	0.55	-1.34	-1.20	*-5.30*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	79.9	78.6	76.8	70.8	79.4	80.0
Medium Trucks:	80.3	79.5	73.1	71.6	80.0	80.2
Heavy Trucks:	82.3	81.5	72.4	73.7	82.0	82.2
Vehicle Noise:	85.7	84.8	79.4	77.0	85.4	85.7

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	692	1,490	3,211	6,917
CNEL:	722	1,556	3,353	7,223

Wednesday, January 22, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: EAC	*Project Name:* Tres Cerritos
Road Name: Florida Ave. (SR-74)	*Job Number:* 15939
Road Segment: e/o California Ave.	

SITE SPECIFIC INPUT DATA	NOISE MODEL INPUTS

Highway Data

Average Daily Traffic (Adt): ###### vehicles	
Peak Hour Percentage: 8.65%	
Peak Hour Volume: 36,780 vehicles	
Vehicle Speed: 45 mph	
Near/Far Lane Distance: 48 feet	

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	65.0 feet
Centerline Dist. to Observer:	65.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	88.20%
Medium Trucks:	84.8%	4.9%	10.3%	7.79%
Heavy Trucks:	86.5%	2.7%	10.8%	4.01%

Noise Source Elevations (in feet)

Autos:	0.000	
Medium Trucks:	2.297	
Heavy Trucks:	8.006	*Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos:	60.614
Medium Trucks:	60.467
Heavy Trucks:	60.482

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	13.27	-1.36	-1.20	*-4.70*	0.000	0.000
Medium Trucks:	79.45	2.73	-1.34	-1.20	*-4.88*	0.000	0.000
Heavy Trucks:	84.25	-0.15	-1.34	-1.20	*-5.30*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	79.2	77.9	76.1	70.1	78.7	79.3
Medium Trucks:	79.6	78.8	72.4	70.9	79.3	79.6
Heavy Trucks:	81.6	80.8	71.7	73.0	81.3	81.5
Vehicle Noise:	85.0	84.1	78.7	76.3	84.7	85.0

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	622	1,339	2,886	6,217
CNEL:	649	1,399	3,013	6,492

Wednesday, January 22, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: EAC	*Project Name:* Tres Cerritos
Road Name: Florida Ave. (SR-74)	*Job Number:* 15939
Road Segment: e/o Warren Rd.	

SITE SPECIFIC INPUT DATA	NOISE MODEL INPUTS

Highway Data

Average Daily Traffic (Adt): ###### vehicles
Peak Hour Percentage: 8.65%
Peak Hour Volume: 34,834 vehicles
Vehicle Speed: 45 mph
Near/Far Lane Distance: 48 feet

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	88.20%
Medium Trucks:	84.8%	4.9%	10.3%	7.79%
Heavy Trucks:	86.5%	2.7%	10.8%	4.01%

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	65.0 feet
Centerline Dist. to Observer:	65.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

Noise Source Elevations (in feet)

Autos:	0.000	
Medium Trucks:	2.297	
Heavy Trucks:	8.006	*Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos:	60.614
Medium Trucks:	60.467
Heavy Trucks:	60.482

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	13.04	-1.36	-1.20	*-4.70*	0.000	0.000
Medium Trucks:	79.45	2.50	-1.34	-1.20	*-4.88*	0.000	0.000
Heavy Trucks:	84.25	-0.39	-1.34	-1.20	*-5.30*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	78.9	77.7	75.9	69.9	78.5	79.1
Medium Trucks:	79.4	78.5	72.2	70.6	79.1	79.3
Heavy Trucks:	81.3	80.5	71.5	72.7	81.1	81.2
Vehicle Noise:	84.8	83.9	78.4	76.0	84.5	84.8

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	600	1,292	2,783	5,995
CNEL:	626	1,349	2,906	6,261

Wednesday, January 22, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: EAC	*Project Name:* Tres Cerritos
Road Name: Florida Ave. (SR-74)	*Job Number:* 15939
Road Segment: e/o Myers St.	

SITE SPECIFIC INPUT DATA	NOISE MODEL INPUTS

Highway Data

Average Daily Traffic (Adt): ###### vehicles
Peak Hour Percentage: 8.65%
Peak Hour Volume: 30,011 vehicles
Vehicle Speed: 45 mph
Near/Far Lane Distance: 48 feet

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	88.20%
Medium Trucks:	84.8%	4.9%	10.3%	7.79%
Heavy Trucks:	86.5%	2.7%	10.8%	4.01%

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	65.0 feet
Centerline Dist. to Observer:	65.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

Noise Source Elevations (in feet)

Autos:	0.000
Medium Trucks:	2.297
Heavy Trucks:	8.006 *Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos:	60.614
Medium Trucks:	60.467
Heavy Trucks:	60.482

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	12.39	-1.36	-1.20	*-4.70*	0.000	0.000
Medium Trucks:	79.45	1.85	-1.34	-1.20	*-4.88*	0.000	0.000
Heavy Trucks:	84.25	-1.03	-1.34	-1.20	*-5.30*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	78.3	77.0	75.3	69.2	77.8	78.4
Medium Trucks:	78.8	77.9	71.5	70.0	78.4	78.7
Heavy Trucks:	80.7	79.9	70.8	72.1	80.5	80.6
Vehicle Noise:	84.1	83.2	77.8	75.4	83.8	84.1

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	543	1,170	2,520	5,428
CNEL:	567	1,221	2,631	5,669

Wednesday, January 22, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: EAC	*Project Name:* Tres Cerritos
Road Name: Florida Ave. (SR-74)	*Job Number:* 15939
Road Segment: e/o Acacia Ave.	

SITE SPECIFIC INPUT DATA	NOISE MODEL INPUTS

Highway Data

Average Daily Traffic (Adt): ###### vehicles	
Peak Hour Percentage: 8.65%	
Peak Hour Volume: 26,440 vehicles	
Vehicle Speed: 45 mph	
Near/Far Lane Distance: 48 feet	

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	88.20%
Medium Trucks:	84.8%	4.9%	10.3%	7.79%
Heavy Trucks:	86.5%	2.7%	10.8%	4.01%

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	65.0 feet
Centerline Dist. to Observer:	65.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

Noise Source Elevations (in feet)

Autos:	0.000	
Medium Trucks:	2.297	
Heavy Trucks:	8.006	*Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos:	60.614
Medium Trucks:	60.467
Heavy Trucks:	60.482

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	11.84	-1.36	-1.20	*-4.70*	0.000	0.000
Medium Trucks:	79.45	1.30	-1.34	-1.20	*-4.88*	0.000	0.000
Heavy Trucks:	84.25	-1.58	-1.34	-1.20	*-5.30*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	77.7	76.5	74.7	68.7	77.3	77.9
Medium Trucks:	78.2	77.3	71.0	69.4	77.9	78.1
Heavy Trucks:	80.1	79.3	70.3	71.5	79.9	80.0
Vehicle Noise:	83.6	82.7	77.2	74.8	83.3	83.6

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	499	1,075	2,316	4,989
CNEL:	521	1,122	2,418	5,209

Wednesday, January 22, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: EAC	*Project Name:* Tres Cerritos
Road Name: Florida Ave. (SR-74)	*Job Number:* 15939
Road Segment: e/o Cawston Ave.	

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt): ###### vehicles	
Peak Hour Percentage: 8.65%	
Peak Hour Volume: 22,168 vehicles	
Vehicle Speed: 45 mph	
Near/Far Lane Distance: 48 feet	

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	65.0 feet
Centerline Dist. to Observer:	65.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	88.20%
Medium Trucks:	84.8%	4.9%	10.3%	7.79%
Heavy Trucks:	86.5%	2.7%	10.8%	4.01%

Noise Source Elevations (in feet)

Autos:	0.000	
Medium Trucks:	2.297	
Heavy Trucks:	8.006	*Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos:	60.614
Medium Trucks:	60.467
Heavy Trucks:	60.482

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	11.07	-1.36	-1.20	*-4.70*	0.000	0.000
Medium Trucks:	79.45	0.54	-1.34	-1.20	*-4.88*	0.000	0.000
Heavy Trucks:	84.25	-2.35	-1.34	-1.20	*-5.30*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	77.0	75.7	73.9	67.9	76.5	77.1
Medium Trucks:	77.4	76.6	70.2	68.7	77.1	77.4
Heavy Trucks:	79.4	78.6	69.5	70.8	79.1	79.3
Vehicle Noise:	82.8	81.9	76.5	74.1	82.5	82.8

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	444	956	2,059	4,436
CNEL:	463	998	2,150	4,632

Wednesday, January 22, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: EAC	*Project Name:* Tres Cerritos
Road Name: Devonshire Ave.	*Job Number:* 15939
Road Segment: e/o California Ave.	

SITE SPECIFIC INPUT DATA	NOISE MODEL INPUTS

Highway Data

Average Daily Traffic (Adt): ###### vehicles	
Peak Hour Percentage: 8.65%	
Peak Hour Volume: 9,942 vehicles	
Vehicle Speed: 45 mph	
Near/Far Lane Distance: 12 feet	

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	47.0 feet
Centerline Dist. to Observer:	47.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000
Medium Trucks:	2.297
Heavy Trucks:	8.006 *Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos:	46.883
Medium Trucks:	46.694
Heavy Trucks:	46.712

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	8.02	0.32	-1.20	-4.63	0.000	0.000
Medium Trucks:	79.45	-9.21	0.34	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-13.17	0.34	-1.20	-5.46	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	75.6	74.3	72.6	66.5	75.1	75.7
Medium Trucks:	69.4	68.5	62.1	60.6	69.1	69.3
Heavy Trucks:	70.2	69.4	60.4	61.6	70.0	70.1
Vehicle Noise:	77.4	76.3	73.2	68.5	77.0	77.5

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	139	299	643	1,386
CNEL:	149	320	690	1,487

Wednesday, January 22, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: EAC	*Project Name:* Tres Cerritos
Road Name: Devonshire Ave.	*Job Number:* 15939
Road Segment: e/o Warren Rd.	

SITE SPECIFIC INPUT DATA	NOISE MODEL INPUTS

Highway Data

Average Daily Traffic (Adt): ###### vehicles	
Peak Hour Percentage: 8.65%	
Peak Hour Volume: 12,151 vehicles	
Vehicle Speed: 45 mph	
Near/Far Lane Distance: 12 feet	

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	47.0 feet
Centerline Dist. to Observer:	47.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000	
Medium Trucks:	2.297	
Heavy Trucks:	8.006	*Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos:	46.883
Medium Trucks:	46.694
Heavy Trucks:	46.712

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	8.90	0.32	-1.20	-4.63	0.000	0.000
Medium Trucks:	79.45	-8.34	0.34	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-12.30	0.34	-1.20	-5.46	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	76.5	75.2	73.4	67.4	76.0	76.6
Medium Trucks:	70.2	69.4	63.0	61.5	69.9	70.2
Heavy Trucks:	71.1	70.3	61.3	62.5	70.9	71.0
Vehicle Noise:	78.3	77.2	74.0	69.4	77.9	78.4

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	158	341	735	1,584
CNEL:	170	366	789	1,700

Wednesday, January 22, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: EAC
Road Name: Devonshire Ave.
Road Segment: e/o Old Warren Rd.

Project Name: Tres Cerritos
Job Number: 15939

SITE SPECIFIC INPUT DATA	NOISE MODEL INPUTS

Highway Data

Average Daily Traffic (Adt):	###### vehicles
Peak Hour Percentage:	8.65%
Peak Hour Volume:	10,722 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	12 feet

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	47.0 feet
Centerline Dist. to Observer:	47.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000	
Medium Trucks:	2.297	
Heavy Trucks:	8.006	*Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos:	46.883
Medium Trucks:	46.694
Heavy Trucks:	46.712

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	8.35	0.32	-1.20	-4.63	0.000	0.000
Medium Trucks:	79.45	-8.89	0.34	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-12.84	0.34	-1.20	-5.46	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	75.9	74.7	72.9	66.8	75.5	76.1
Medium Trucks:	69.7	68.8	62.5	60.9	69.4	69.6
Heavy Trucks:	70.5	69.8	60.7	62.0	70.3	70.5
Vehicle Noise:	77.8	76.7	73.5	68.8	77.4	77.8

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	146	314	677	1,458
CNEL:	156	337	726	1,563

Wednesday, January 22, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: EAC	*Project Name:* Tres Cerritos
Road Name: Devonshire Ave.	*Job Number:* 15939
Road Segment: e/o Myers St.	

SITE SPECIFIC INPUT DATA	NOISE MODEL INPUTS

Highway Data

Average Daily Traffic (Adt): ###### vehicles	
Peak Hour Percentage: 8.65%	
Peak Hour Volume: 14,021 vehicles	
Vehicle Speed: 45 mph	
Near/Far Lane Distance: 12 feet	

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	47.0 feet
Centerline Dist. to Observer:	47.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000	
Medium Trucks:	2.297	
Heavy Trucks:	8.006	*Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos:	46.883
Medium Trucks:	46.694
Heavy Trucks:	46.712

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	9.52	0.32	-1.20	-4.63	0.000	0.000
Medium Trucks:	79.45	-7.72	0.34	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-11.68	0.34	-1.20	-5.46	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	77.1	75.8	74.1	68.0	76.6	77.2
Medium Trucks:	70.9	70.0	63.6	62.1	70.5	70.8
Heavy Trucks:	71.7	70.9	61.9	63.1	71.5	71.6
Vehicle Noise:	78.9	77.8	74.7	70.0	78.5	79.0

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	174	376	809	1,743
CNEL:	187	403	868	1,870

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: EAC	*Project Name:* Tres Cerritos
Road Name: Devonshire Ave.	*Job Number:* 15939
Road Segment: e/o Cawston Ave.	

SITE SPECIFIC INPUT DATA	NOISE MODEL INPUTS

Highway Data

Average Daily Traffic (Adt): ###### vehicles
Peak Hour Percentage: 8.65%
Peak Hour Volume: 9,339 vehicles
Vehicle Speed: 45 mph
Near/Far Lane Distance: 12 feet

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	47.0 feet
Centerline Dist. to Observer:	47.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

Noise Source Elevations (in feet)

Autos:	0.000	
Medium Trucks:	2.297	
Heavy Trucks:	8.006	*Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos:	46.883
Medium Trucks:	46.694
Heavy Trucks:	46.712

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	7.75	0.32	-1.20	-4.63	0.000	0.000
Medium Trucks:	79.45	-9.49	0.34	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-13.44	0.34	-1.20	-5.46	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	75.3	74.1	72.3	66.2	74.9	75.5
Medium Trucks:	69.1	68.2	61.9	60.3	68.8	69.0
Heavy Trucks:	69.9	69.2	60.1	61.4	69.7	69.9
Vehicle Noise:	77.2	76.1	72.9	68.2	76.8	77.2

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	133	286	617	1,329
CNEL:	143	307	662	1,426

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: EAC
Road Name: Winchester Rd. (SR-79)
Road Segment: s/o Devonshire Ave.

Project Name: Tres Cerritos
Job Number: 15939

SITE SPECIFIC INPUT DATA	NOISE MODEL INPUTS

Highway Data

Average Daily Traffic (Adt): ###### vehicles
Peak Hour Percentage: 8.65%
Peak Hour Volume: 17,355 vehicles
Vehicle Speed: 45 mph
Near/Far Lane Distance: 12 feet

Site Conditions (Hard = 10, Soft = 15)

Autos: 15
Medium Trucks (2 Axles): 15
Heavy Trucks (3+ Axles): 15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	91.50%
Medium Trucks:	84.8%	4.9%	10.3%	5.31%
Heavy Trucks:	86.5%	2.7%	10.8%	3.19%

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	110.0 feet
Centerline Dist. to Observer:	110.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

Noise Source Elevations (in feet)

Autos:	0.000	
Medium Trucks:	2.297	
Heavy Trucks:	8.006	Grade Adjustment: 0.0

Lane Equivalent Distance (in feet)

Autos: 109.950
Medium Trucks: 109.869
Heavy Trucks: 109.877

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	10.17	-5.24	-1.20	-4.78	0.000	0.000
Medium Trucks:	79.45	-2.19	-5.23	-1.20	-4.88	0.000	0.000
Heavy Trucks:	84.25	-4.41	-5.23	-1.20	-5.14	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	72.2	70.9	69.2	63.1	71.7	72.3
Medium Trucks:	70.8	69.9	63.6	62.0	70.5	70.7
Heavy Trucks:	73.4	72.6	63.6	64.8	73.2	73.3
Vehicle Noise:	77.0	76.1	71.1	68.3	76.7	77.0

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	308	665	1,432	3,085
CNEL:	323	697	1,501	3,234

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: EAC	*Project Name:* Tres Cerritos
Road Name: California Ave.	*Job Number:* 15939
Road Segment: n/o Florida Ave. (SR-74)	

SITE SPECIFIC INPUT DATA	NOISE MODEL INPUTS

Highway Data

Average Daily Traffic (Adt): ###### vehicles	
Peak Hour Percentage: 8.65%	
Peak Hour Volume: 10,659 vehicles	
Vehicle Speed: 45 mph	
Near/Far Lane Distance: 12 feet	

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	47.0 feet
Centerline Dist. to Observer:	47.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000
Medium Trucks:	2.297
Heavy Trucks:	8.006 *Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos:	46.883
Medium Trucks:	46.694
Heavy Trucks:	46.712

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	8.33	0.32	-1.20	-4.63	0.000	0.000
Medium Trucks:	79.45	-8.91	0.34	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-12.87	0.34	-1.20	-5.46	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	75.9	74.6	72.9	66.8	75.4	76.0
Medium Trucks:	69.7	68.8	62.4	60.9	69.4	69.6
Heavy Trucks:	70.5	69.7	60.7	61.9	70.3	70.4
Vehicle Noise:	77.7	76.6	73.5	68.8	77.3	77.8

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	145	313	674	1,452
CNEL:	156	336	723	1,557

Wednesday, January 22, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: EAC	*Project Name:* Tres Cerritos
Road Name: Warren Rd.	*Job Number:* 15939
Road Segment: s/o Florida Ave. (SR-74)	

SITE SPECIFIC INPUT DATA	NOISE MODEL INPUTS

Highway Data

Average Daily Traffic (Adt): ###### vehicles	
Peak Hour Percentage: 8.65%	
Peak Hour Volume: 18,889 vehicles	
Vehicle Speed: 55 mph	
Near/Far Lane Distance: 12 feet	

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	65.0 feet
Centerline Dist. to Observer:	65.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000	
Medium Trucks:	2.297	
Heavy Trucks:	8.006	*Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos:	64.915
Medium Trucks:	64.779
Heavy Trucks:	64.792

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	71.78	9.94	-1.80	-1.20	*-4.70*	0.000	0.000
Medium Trucks:	82.40	-7.30	-1.79	-1.20	*-4.88*	0.000	0.000
Heavy Trucks:	86.40	-11.25	-1.79	-1.20	*-5.30*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	78.7	77.4	75.7	69.6	78.2	78.9
Medium Trucks:	72.1	71.2	64.9	63.3	71.8	72.0
Heavy Trucks:	72.2	71.4	62.3	63.6	71.9	72.1
Vehicle Noise:	80.3	79.2	76.2	71.3	79.9	80.4

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	297	639	1,377	2,967
CNEL:	319	688	1,481	3,192

Wednesday, January 22, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: EAC	*Project Name:* Tres Cerritos
Road Name: Warren Rd.	*Job Number:* 15939
Road Segment: n/o Florida Ave. (SR-74)	

SITE SPECIFIC INPUT DATA	NOISE MODEL INPUTS

Highway Data

Average Daily Traffic (Adt): ###### vehicles	
Peak Hour Percentage: 8.65%	
Peak Hour Volume: 14,912 vehicles	
Vehicle Speed: 55 mph	
Near/Far Lane Distance: 12 feet	

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	65.0 feet
Centerline Dist. to Observer:	65.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000	
Medium Trucks:	2.297	
Heavy Trucks:	8.006	*Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos:	64.915
Medium Trucks:	64.779
Heavy Trucks:	64.792

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	71.78	8.91	-1.80	-1.20	*-4.70*	0.000	0.000
Medium Trucks:	82.40	-8.33	-1.79	-1.20	*-4.88*	0.000	0.000
Heavy Trucks:	86.40	-12.28	-1.79	-1.20	*-5.30*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	77.7	76.4	74.7	68.6	77.2	77.8
Medium Trucks:	71.1	70.2	63.8	62.3	70.8	71.0
Heavy Trucks:	71.1	70.3	61.3	62.5	70.9	71.0
Vehicle Noise:	79.3	78.1	75.2	70.3	78.9	79.3

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	253	546	1,176	2,534
CNEL:	273	587	1,265	2,726

Wednesday, January 22, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: EAC	*Project Name:* Tres Cerritos
Road Name: Warren Rd.	*Job Number:* 15939
Road Segment: n/o Devonshire Ave.	

SITE SPECIFIC INPUT DATA	NOISE MODEL INPUTS

Highway Data

Average Daily Traffic (Adt): ###### vehicles	
Peak Hour Percentage: 8.65%	
Peak Hour Volume: 18,480 vehicles	
Vehicle Speed: 55 mph	
Near/Far Lane Distance: 12 feet	

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	65.0 feet
Centerline Dist. to Observer:	65.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000	
Medium Trucks:	2.297	
Heavy Trucks:	8.006	*Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos:	64.915
Medium Trucks:	64.779
Heavy Trucks:	64.792

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	71.78	9.84	-1.80	-1.20	*-4.70*	0.000	0.000
Medium Trucks:	82.40	-7.39	-1.79	-1.20	*-4.88*	0.000	0.000
Heavy Trucks:	86.40	-11.35	-1.79	-1.20	*-5.30*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	78.6	77.4	75.6	69.5	78.2	78.8
Medium Trucks:	72.0	71.1	64.8	63.2	71.7	71.9
Heavy Trucks:	72.1	71.3	62.2	63.5	71.8	72.0
Vehicle Noise:	80.2	79.1	76.1	71.2	79.8	80.3

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	292	630	1,357	2,924
CNEL:	315	678	1,460	3,145

Wednesday, January 22, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: EAC	*Project Name:* Tres Cerritos
Road Name: Myers St.	*Job Number:* 15939
Road Segment: n/o Florida Ave. (SR-74)	

SITE SPECIFIC INPUT DATA	NOISE MODEL INPUTS

Highway Data

Average Daily Traffic (Adt):	85,985 vehicles
Peak Hour Percentage:	8.65%
Peak Hour Volume:	7,438 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	12 feet

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	47.0 feet
Centerline Dist. to Observer:	47.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

Noise Source Elevations (in feet)

Autos:	0.000
Medium Trucks:	2.297
Heavy Trucks:	8.006

Grade Adjustment: 0.0

Lane Equivalent Distance (in feet)

Autos:	46.883
Medium Trucks:	46.694
Heavy Trucks:	46.712

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	6.76	0.32	-1.20	-4.63	0.000	0.000
Medium Trucks:	79.45	-10.47	0.34	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-14.43	0.34	-1.20	-5.46	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	74.3	73.1	71.3	65.3	73.9	74.5
Medium Trucks:	68.1	67.2	60.9	59.3	67.8	68.0
Heavy Trucks:	69.0	68.2	59.1	60.4	68.7	68.9
Vehicle Noise:	76.2	75.1	71.9	67.2	75.8	76.2

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	114	246	530	1,142
CNEL:	123	264	569	1,225

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: EAC	*Project Name:* Tres Cerritos
Road Name: Myers St.	*Job Number:* 15939
Road Segment: n/o Devonshire Ave.	

SITE SPECIFIC INPUT DATA	NOISE MODEL INPUTS

Highway Data

Average Daily Traffic (Adt):	17,483 vehicles
Peak Hour Percentage:	8.65%
Peak Hour Volume:	1,512 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	12 feet

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	47.0 feet
Centerline Dist. to Observer:	47.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000	
Medium Trucks:	2.297	
Heavy Trucks:	8.006	*Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos:	46.883
Medium Trucks:	46.694
Heavy Trucks:	46.712

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	-0.15	0.32	-1.20	-4.63	0.000	0.000
Medium Trucks:	79.45	-17.39	0.34	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-21.35	0.34	-1.20	-5.46	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	67.4	66.2	64.4	58.3	67.0	67.6
Medium Trucks:	61.2	60.3	54.0	52.4	60.9	61.1
Heavy Trucks:	62.0	61.3	52.2	53.5	61.8	61.9
Vehicle Noise:	69.3	68.2	65.0	60.3	68.9	69.3

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	39	85	183	395
CNEL:	42	91	197	424

Wednesday, January 22, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: EAC
Road Name: Cawston Ave.
Road Segment: n/o Devonshire Ave.

Project Name: Tres Cerritos
Job Number: 15939

SITE SPECIFIC INPUT DATA	NOISE MODEL INPUTS

Highway Data

Average Daily Traffic (Adt):	###### vehicles
Peak Hour Percentage:	8.65%
Peak Hour Volume:	10,906 vehicles
Vehicle Speed:	30 mph
Near/Far Lane Distance:	44 feet

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	47.0 feet
Centerline Dist. to Observer:	47.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000	
Medium Trucks:	2.297	
Heavy Trucks:	8.006	*Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos:	41.833
Medium Trucks:	41.621
Heavy Trucks:	41.642

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	61.75	10.19	1.06	-1.20	-4.63	0.000	0.000
Medium Trucks:	73.48	-7.05	1.09	-1.20	-4.87	0.000	0.000
Heavy Trucks:	79.92	-11.01	1.09	-1.20	-5.46	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	71.8	70.5	68.8	62.7	71.3	71.9
Medium Trucks:	66.3	65.4	59.1	57.5	66.0	66.2
Heavy Trucks:	68.8	68.0	59.0	60.2	68.6	68.7
Vehicle Noise:	74.3	73.2	69.6	65.4	73.9	74.4

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	86	185	399	860
CNEL:	92	197	425	916

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: EAC	*Project Name:* Tres Cerritos
Road Name: Old Warren Rd.	*Job Number:* 15939
Road Segment: n/o Devonshire Ave.	

SITE SPECIFIC INPUT DATA	NOISE MODEL INPUTS

Highway Data

Average Daily Traffic (Adt):	7,679 vehicles
Peak Hour Percentage:	8.65%
Peak Hour Volume:	664 vehicles
Vehicle Speed:	25 mph
Near/Far Lane Distance:	12 feet

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	30.0 feet
Centerline Dist. to Observer:	30.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000	
Medium Trucks:	2.297	
Heavy Trucks:	8.006	*Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos:	29.816
Medium Trucks:	29.518
Heavy Trucks:	29.547

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	58.73	-1.17	3.26	-1.20	*-4.49*	0.000	0.000
Medium Trucks:	70.80	-18.41	3.33	-1.20	*-4.86*	0.000	0.000
Heavy Trucks:	77.97	-22.37	3.32	-1.20	*-5.77*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	59.6	58.4	56.6	50.5	59.2	59.8
Medium Trucks:	54.5	53.6	47.3	45.7	54.2	54.4
Heavy Trucks:	57.7	56.9	47.9	49.1	57.5	57.6
Vehicle Noise:	62.5	61.5	57.6	53.7	62.2	62.6

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	9	19	42	90
CNEL:	10	21	44	96

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: EACP
Road Name: Florida Ave. (SR-74)
Road Segment: w/o Winchester Rd. (SR-79)

Project Name: Tres Cerritos
Job Number: 15939

SITE SPECIFIC INPUT DATA	NOISE MODEL INPUTS

Highway Data

Average Daily Traffic (Adt):	###### vehicles
Peak Hour Percentage:	8.65%
Peak Hour Volume:	35,947 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	48 feet

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	65.0 feet
Centerline Dist. to Observer:	65.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	88.20%
Medium Trucks:	84.8%	4.9%	10.3%	7.79%
Heavy Trucks:	86.5%	2.7%	10.8%	4.01%

Noise Source Elevations (in feet)

Autos:	0.000	
Medium Trucks:	2.297	
Heavy Trucks:	8.006	*Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos:	60.614
Medium Trucks:	60.467
Heavy Trucks:	60.482

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	13.17	-1.36	-1.20	*-4.70*	0.000	0.000
Medium Trucks:	79.45	2.63	-1.34	-1.20	*-4.88*	0.000	0.000
Heavy Trucks:	84.25	-0.25	-1.34	-1.20	*-5.30*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	79.1	77.8	76.0	70.0	78.6	79.2
Medium Trucks:	79.5	78.7	72.3	70.8	79.2	79.5
Heavy Trucks:	81.5	80.7	71.6	72.9	81.2	81.4
Vehicle Noise:	84.9	84.0	78.6	76.2	84.6	84.9

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	612	1,319	2,842	6,122
CNEL:	639	1,377	2,968	6,393

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: EACP
Road Name: Florida Ave. (SR-74)
Road Segment: e/o Winchester Rd. (SR-79)

Project Name: Tres Cerritos
Job Number: 15939

SITE SPECIFIC INPUT DATA	NOISE MODEL INPUTS

Highway Data

Average Daily Traffic (Adt):	###### vehicles
Peak Hour Percentage:	8.65%
Peak Hour Volume:	49,212 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	48 feet

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	65.0 feet
Centerline Dist. to Observer:	65.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	88.20%
Medium Trucks:	84.8%	4.9%	10.3%	7.79%
Heavy Trucks:	86.5%	2.7%	10.8%	4.01%

Noise Source Elevations (in feet)

Autos:	0.000	
Medium Trucks:	2.297	
Heavy Trucks:	8.006	*Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos:	60.614
Medium Trucks:	60.467
Heavy Trucks:	60.482

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	14.54	-1.36	-1.20	*-4.70*	0.000	0.000
Medium Trucks:	79.45	4.00	-1.34	-1.20	*-4.88*	0.000	0.000
Heavy Trucks:	84.25	1.11	-1.34	-1.20	*-5.30*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	80.4	79.2	77.4	71.4	80.0	80.6
Medium Trucks:	80.9	80.0	73.7	72.1	80.6	80.8
Heavy Trucks:	82.8	82.0	73.0	74.2	82.6	82.7
Vehicle Noise:	86.3	85.4	79.9	77.5	86.0	86.3

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	755	1,626	3,504	7,549
CNEL:	788	1,698	3,659	7,882

Wednesday, January 22, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: EACP	*Project Name:* Tres Cerritos
Road Name: Florida Ave. (SR-74)	*Job Number:* 15939
Road Segment: e/o Four Seasons Blvd.	

SITE SPECIFIC INPUT DATA	NOISE MODEL INPUTS

Highway Data

Average Daily Traffic (Adt): ###### vehicles	
Peak Hour Percentage: 8.65%	
Peak Hour Volume: 43,829 vehicles	
Vehicle Speed: 45 mph	
Near/Far Lane Distance: 48 feet	

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	88.20%
Medium Trucks:	84.8%	4.9%	10.3%	7.79%
Heavy Trucks:	86.5%	2.7%	10.8%	4.01%

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	65.0 feet
Centerline Dist. to Observer:	65.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

Noise Source Elevations (in feet)

Autos:	0.000	
Medium Trucks:	2.297	
Heavy Trucks:	8.006	*Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos:	60.614
Medium Trucks:	60.467
Heavy Trucks:	60.482

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	14.03	-1.36	-1.20	*-4.70*	0.000	0.000
Medium Trucks:	79.45	3.50	-1.34	-1.20	*-4.88*	0.000	0.000
Heavy Trucks:	84.25	0.61	-1.34	-1.20	*-5.30*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	79.9	78.7	76.9	70.8	79.5	80.1
Medium Trucks:	80.4	79.5	73.2	71.6	80.1	80.3
Heavy Trucks:	82.3	81.5	72.5	73.7	82.1	82.2
Vehicle Noise:	85.8	84.8	79.4	77.0	85.5	85.8

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	699	1,505	3,243	6,988
CNEL:	730	1,572	3,387	7,297

Wednesday, January 22, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: EACP
Road Name: Florida Ave. (SR-74)
Road Segment: e/o California Ave.

Project Name: Tres Cerritos
Job Number: 15939

SITE SPECIFIC INPUT DATA	NOISE MODEL INPUTS

Highway Data

Average Daily Traffic (Adt):	###### vehicles
Peak Hour Percentage:	8.65%
Peak Hour Volume:	37,220 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	48 feet

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	88.20%
Medium Trucks:	84.8%	4.9%	10.3%	7.79%
Heavy Trucks:	86.5%	2.7%	10.8%	4.01%

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	65.0 feet
Centerline Dist. to Observer:	65.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

Noise Source Elevations (in feet)

Autos:	0.000
Medium Trucks:	2.297
Heavy Trucks:	8.006 *Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos:	60.614
Medium Trucks:	60.467
Heavy Trucks:	60.482

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	13.32	-1.36	-1.20	-4.70	0.000	0.000
Medium Trucks:	79.45	2.79	-1.34	-1.20	-4.88	0.000	0.000
Heavy Trucks:	84.25	-0.10	-1.34	-1.20	-5.30	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	79.2	78.0	76.2	70.1	78.8	79.4
Medium Trucks:	79.7	78.8	72.5	70.9	79.4	79.6
Heavy Trucks:	81.6	80.8	71.8	73.0	81.4	81.5
Vehicle Noise:	85.1	84.1	78.7	76.3	84.8	85.0

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	627	1,350	2,908	6,266
CNEL:	654	1,410	3,037	6,543

Wednesday, January 22, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: EACP	*Project Name:* Tres Cerritos
Road Name: Florida Ave. (SR-74)	*Job Number:* 15939
Road Segment: e/o Warren Rd.	

SITE SPECIFIC INPUT DATA | NOISE MODEL INPUTS

Highway Data

Average Daily Traffic (Adt): ###### vehicles
Peak Hour Percentage: 8.65%
Peak Hour Volume: 35,056 vehicles
Vehicle Speed: 45 mph
Near/Far Lane Distance: 48 feet

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	65.0 feet
Centerline Dist. to Observer:	65.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	88.20%
Medium Trucks:	84.8%	4.9%	10.3%	7.79%
Heavy Trucks:	86.5%	2.7%	10.8%	4.01%

Noise Source Elevations (in feet)

Autos:	0.000
Medium Trucks:	2.297
Heavy Trucks:	8.006 *Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos:	60.614
Medium Trucks:	60.467
Heavy Trucks:	60.482

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	13.06	-1.36	-1.20	-4.70	0.000	0.000
Medium Trucks:	79.45	2.53	-1.34	-1.20	-4.88	0.000	0.000
Heavy Trucks:	84.25	-0.36	-1.34	-1.20	-5.30	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	79.0	77.7	75.9	69.9	78.5	79.1
Medium Trucks:	79.4	78.6	72.2	70.6	79.1	79.3
Heavy Trucks:	81.4	80.6	71.5	72.8	81.1	81.3
Vehicle Noise:	84.8	83.9	78.4	76.0	84.5	84.8

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	602	1,297	2,795	6,021
CNEL:	629	1,355	2,918	6,287

Wednesday, January 22, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: EACP	*Project Name:* Tres Cerritos
Road Name: Florida Ave. (SR-74)	*Job Number:* 15939
Road Segment: e/o Myers St.	

SITE SPECIFIC INPUT DATA	NOISE MODEL INPUTS

Highway Data

Average Daily Traffic (Adt): ###### vehicles	
Peak Hour Percentage: 8.65%	
Peak Hour Volume: 30,451 vehicles	
Vehicle Speed: 45 mph	
Near/Far Lane Distance: 48 feet	

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	65.0 feet
Centerline Dist. to Observer:	65.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	88.20%
Medium Trucks:	84.8%	4.9%	10.3%	7.79%
Heavy Trucks:	86.5%	2.7%	10.8%	4.01%

Noise Source Elevations (in feet)

Autos:	0.000	
Medium Trucks:	2.297	
Heavy Trucks:	8.006	*Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos:	60.614
Medium Trucks:	60.467
Heavy Trucks:	60.482

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	12.45	-1.36	-1.20	*-4.70*	0.000	0.000
Medium Trucks:	79.45	1.91	-1.34	-1.20	*-4.88*	0.000	0.000
Heavy Trucks:	84.25	-0.97	-1.34	-1.20	*-5.30*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	78.4	77.1	75.3	69.3	77.9	78.5
Medium Trucks:	78.8	77.9	71.6	70.0	78.5	78.7
Heavy Trucks:	80.7	79.9	70.9	72.2	80.5	80.6
Vehicle Noise:	84.2	83.3	77.8	75.4	83.9	84.2

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	548	1,181	2,544	5,481
CNEL:	572	1,233	2,657	5,724

Wednesday, January 22, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: EACP
Road Name: Florida Ave. (SR-74)
Road Segment: e/o Acacia Ave.

Project Name: Tres Cerritos
Job Number: 15939

SITE SPECIFIC INPUT DATA	NOISE MODEL INPUTS

Highway Data

Average Daily Traffic (Adt):	###### vehicles
Peak Hour Percentage:	8.65%
Peak Hour Volume:	26,825 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	48 feet

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	65.0 feet
Centerline Dist. to Observer:	65.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	88.20%
Medium Trucks:	84.8%	4.9%	10.3%	7.79%
Heavy Trucks:	86.5%	2.7%	10.8%	4.01%

Noise Source Elevations (in feet)

Autos:	0.000
Medium Trucks:	2.297
Heavy Trucks:	8.006

Grade Adjustment: 0.0

Lane Equivalent Distance (in feet)

Autos:	60.614
Medium Trucks:	60.467
Heavy Trucks:	60.482

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	11.90	-1.36	-1.20	*-4.70*	0.000	0.000
Medium Trucks:	79.45	1.36	-1.34	-1.20	*-4.88*	0.000	0.000
Heavy Trucks:	84.25	-1.52	-1.34	-1.20	*-5.30*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	77.8	76.5	74.8	68.7	77.3	77.9
Medium Trucks:	78.3	77.4	71.0	69.5	77.9	78.2
Heavy Trucks:	80.2	79.4	70.4	71.6	80.0	80.1
Vehicle Noise:	83.7	82.7	77.3	74.9	83.3	83.6

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	504	1,085	2,338	5,037
CNEL:	526	1,133	2,441	5,260

Wednesday, January 22, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: EACP	*Project Name:* Tres Cerritos
Road Name: Florida Ave. (SR-74)	*Job Number:* 15939
Road Segment: e/o Cawston Ave.	

SITE SPECIFIC INPUT DATA	NOISE MODEL INPUTS

Highway Data

Average Daily Traffic (Adt): ###### vehicles	
Peak Hour Percentage: 8.65%	
Peak Hour Volume: 22,499 vehicles	
Vehicle Speed: 45 mph	
Near/Far Lane Distance: 48 feet	

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	65.0 feet
Centerline Dist. to Observer:	65.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	88.20%
Medium Trucks:	84.8%	4.9%	10.3%	7.79%
Heavy Trucks:	86.5%	2.7%	10.8%	4.01%

Noise Source Elevations (in feet)

Autos:	0.000	
Medium Trucks:	2.297	
Heavy Trucks:	8.006	*Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos:	60.614
Medium Trucks:	60.467
Heavy Trucks:	60.482

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	11.14	-1.36	-1.20	*-4.70*	0.000	0.000
Medium Trucks:	79.45	0.60	-1.34	-1.20	*-4.88*	0.000	0.000
Heavy Trucks:	84.25	-2.28	-1.34	-1.20	*-5.30*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	77.0	75.8	74.0	68.0	76.6	77.2
Medium Trucks:	77.5	76.6	70.3	68.7	77.2	77.4
Heavy Trucks:	79.4	78.6	69.6	70.8	79.2	79.3
Vehicle Noise:	82.9	82.0	76.5	74.1	82.6	82.9

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	448	965	2,079	4,480
CNEL:	468	1,008	2,171	4,678

Wednesday, January 22, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: EACP	*Project Name:* Tres Cerritos
Road Name: Devonshire Ave.	*Job Number:* 15939
Road Segment: e/o California Ave.	

SITE SPECIFIC INPUT DATA	NOISE MODEL INPUTS

Highway Data

Average Daily Traffic (Adt): ###### vehicles	
Peak Hour Percentage: 8.65%	
Peak Hour Volume: 10,162 vehicles	
Vehicle Speed: 45 mph	
Near/Far Lane Distance: 12 feet	

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	47.0 feet
Centerline Dist. to Observer:	47.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000	
Medium Trucks:	2.297	
Heavy Trucks:	8.006	*Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos:	46.883
Medium Trucks:	46.694
Heavy Trucks:	46.712

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	8.12	0.32	-1.20	-4.63	0.000	0.000
Medium Trucks:	79.45	-9.12	0.34	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-13.08	0.34	-1.20	-5.46	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	75.7	74.4	72.7	66.6	75.2	75.8
Medium Trucks:	69.5	68.6	62.2	60.7	69.1	69.4
Heavy Trucks:	70.3	69.5	60.5	61.7	70.1	70.2
Vehicle Noise:	77.5	76.4	73.3	68.6	77.1	77.6

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	141	303	653	1,406
CNEL:	151	325	700	1,509

Wednesday, January 22, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: EACP	*Project Name:* Tres Cerritos
Road Name: Devonshire Ave.	*Job Number:* 15939
Road Segment: e/o Warren Rd.	

SITE SPECIFIC INPUT DATA	NOISE MODEL INPUTS

Highway Data

Average Daily Traffic (Adt): ###### vehicles
Peak Hour Percentage: 8.65%
Peak Hour Volume: 13,141 vehicles
Vehicle Speed: 45 mph
Near/Far Lane Distance: 12 feet

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	47.0 feet
Centerline Dist. to Observer:	47.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000	
Medium Trucks:	2.297	
Heavy Trucks:	8.006	*Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos:	46.883
Medium Trucks:	46.694
Heavy Trucks:	46.712

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	9.24	0.32	-1.20	-4.63	0.000	0.000
Medium Trucks:	79.45	-8.00	0.34	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-11.96	0.34	-1.20	-5.46	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	76.8	75.5	73.8	67.7	76.3	76.9
Medium Trucks:	70.6	69.7	63.3	61.8	70.3	70.5
Heavy Trucks:	71.4	70.6	61.6	62.9	71.2	71.3
Vehicle Noise:	78.7	77.5	74.4	69.7	78.3	78.7

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	167	360	775	1,669
CNEL:	179	386	831	1,791

Wednesday, January 22, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: EACP
Road Name: Devonshire Ave.
Road Segment: e/o Old Warren Rd.

Project Name: Tres Cerritos
Job Number: 15939

SITE SPECIFIC INPUT DATA	NOISE MODEL INPUTS

Highway Data

Average Daily Traffic (Adt):	###### vehicles
Peak Hour Percentage:	8.65%
Peak Hour Volume:	10,722 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	12 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	47.0 feet
Centerline Dist. to Observer:	47.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000	
Medium Trucks:	2.297	
Heavy Trucks:	8.006	*Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos:	46.883
Medium Trucks:	46.694
Heavy Trucks:	46.712

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	8.35	0.32	-1.20	-4.63	0.000	0.000
Medium Trucks:	79.45	-8.89	0.34	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-12.84	0.34	-1.20	-5.46	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	75.9	74.7	72.9	66.8	75.5	76.1
Medium Trucks:	69.7	68.8	62.5	60.9	69.4	69.6
Heavy Trucks:	70.5	69.8	60.7	62.0	70.3	70.5
Vehicle Noise:	77.8	76.7	73.5	68.8	77.4	77.8

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	146	314	677	1,458
CNEL:	156	337	726	1,563

Wednesday, January 22, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: EACP
Road Name: Devonshire Ave.
Road Segment: e/o Myers St.

Project Name: Tres Cerritos
Job Number: 15939

SITE SPECIFIC INPUT DATA	NOISE MODEL INPUTS

Highway Data

Average Daily Traffic (Adt):	###### vehicles
Peak Hour Percentage:	8.65%
Peak Hour Volume:	14,571 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	12 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	47.0 feet
Centerline Dist. to Observer:	47.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000	
Medium Trucks:	2.297	
Heavy Trucks:	8.006	*Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos:	46.883
Medium Trucks:	46.694
Heavy Trucks:	46.712

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	9.68	0.32	-1.20	-4.63	0.000	0.000
Medium Trucks:	79.45	-7.55	0.34	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-11.51	0.34	-1.20	-5.46	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	77.3	76.0	74.2	68.2	76.8	77.4
Medium Trucks:	71.0	70.2	63.8	62.3	70.7	70.9
Heavy Trucks:	71.9	71.1	62.1	63.3	71.7	71.8
Vehicle Noise:	79.1	78.0	74.8	70.2	78.7	79.2

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	179	385	830	1,788
CNEL:	192	413	890	1,918

Wednesday, January 22, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: EACP
Road Name: Devonshire Ave.
Road Segment: e/o Cawston Ave.

Project Name: Tres Cerritos
Job Number: 15939

SITE SPECIFIC INPUT DATA	NOISE MODEL INPUTS

Highway Data

Average Daily Traffic (Adt):	###### vehicles
Peak Hour Percentage:	8.65%
Peak Hour Volume:	9,558 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	12 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	47.0 feet
Centerline Dist. to Observer:	47.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000
Medium Trucks:	2.297
Heavy Trucks:	8.006

Grade Adjustment: 0.0

Lane Equivalent Distance (in feet)

Autos:	46.883
Medium Trucks:	46.694
Heavy Trucks:	46.712

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	7.85	0.32	-1.20	-4.63	0.000	0.000
Medium Trucks:	79.45	-9.39	0.34	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-13.34	0.34	-1.20	-5.46	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	75.4	74.2	72.4	66.3	75.0	75.6
Medium Trucks:	69.2	68.3	62.0	60.4	68.9	69.1
Heavy Trucks:	70.1	69.3	60.2	61.5	69.8	70.0
Vehicle Noise:	77.3	76.2	73.0	68.3	76.9	77.3

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	135	291	627	1,350
CNEL:	145	312	672	1,448

Wednesday, January 22, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: EACP	*Project Name:* Tres Cerritos
Road Name: Winchester Rd. (SR-79)	*Job Number:* 15939
Road Segment: s/o Devonshire Ave.	

SITE SPECIFIC INPUT DATA	NOISE MODEL INPUTS

Highway Data

Average Daily Traffic (Adt): ###### vehicles	
Peak Hour Percentage: 8.65%	
Peak Hour Volume: 17,575 vehicles	
Vehicle Speed: 45 mph	
Near/Far Lane Distance: 12 feet	

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	110.0 feet
Centerline Dist. to Observer:	110.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	91.50%
Medium Trucks:	84.8%	4.9%	10.3%	5.31%
Heavy Trucks:	86.5%	2.7%	10.8%	3.19%

Noise Source Elevations (in feet)

Autos:	0.000	
Medium Trucks:	2.297	
Heavy Trucks:	8.006	*Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos:	109.950
Medium Trucks:	109.869
Heavy Trucks:	109.877

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	10.23	-5.24	-1.20	-4.78	0.000	0.000
Medium Trucks:	79.45	-2.14	-5.23	-1.20	-4.88	0.000	0.000
Heavy Trucks:	84.25	-4.35	-5.23	-1.20	-5.14	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	72.2	71.0	69.2	63.2	71.8	72.4
Medium Trucks:	70.9	70.0	63.6	62.1	70.6	70.8
Heavy Trucks:	73.5	72.7	63.6	64.9	73.2	73.4
Vehicle Noise:	77.1	76.1	71.1	68.3	76.8	77.1

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	311	670	1,444	3,111
CNEL:	326	703	1,514	3,262

Wednesday, January 22, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: EACP	*Project Name:* Tres Cerritos
Road Name: California Ave.	*Job Number:* 15939
Road Segment: n/o Florida Ave. (SR-74)	

SITE SPECIFIC INPUT DATA	NOISE MODEL INPUTS

Highway Data

Average Daily Traffic (Adt): ###### vehicles	
Peak Hour Percentage: 8.65%	
Peak Hour Volume: 10,878 vehicles	
Vehicle Speed: 45 mph	
Near/Far Lane Distance: 12 feet	

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	47.0 feet
Centerline Dist. to Observer:	47.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000	
Medium Trucks:	2.297	
Heavy Trucks:	8.006	*Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos:	46.883
Medium Trucks:	46.694
Heavy Trucks:	46.712

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	8.41	0.32	-1.20	-4.63	0.000	0.000
Medium Trucks:	79.45	-8.82	0.34	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-12.78	0.34	-1.20	-5.46	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	76.0	74.7	73.0	66.9	75.5	76.1
Medium Trucks:	69.8	68.9	62.5	61.0	69.4	69.7
Heavy Trucks:	70.6	69.8	60.8	62.0	70.4	70.5
Vehicle Noise:	77.8	76.7	73.6	68.9	77.4	77.9

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	147	317	683	1,472
CNEL:	158	340	733	1,579

Wednesday, January 22, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: EACP	*Project Name:* Tres Cerritos
Road Name: Warren Rd.	*Job Number:* 15939
Road Segment: s/o Florida Ave. (SR-74)	

SITE SPECIFIC INPUT DATA	NOISE MODEL INPUTS

Highway Data

Average Daily Traffic (Adt): ###### vehicles	
Peak Hour Percentage: 8.65%	
Peak Hour Volume: 19,111 vehicles	
Vehicle Speed: 55 mph	
Near/Far Lane Distance: 12 feet	

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	65.0 feet
Centerline Dist. to Observer:	65.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000	
Medium Trucks:	2.297	
Heavy Trucks:	8.006	*Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos:	64.915
Medium Trucks:	64.779
Heavy Trucks:	64.792

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	71.78	9.99	-1.80	-1.20	*-4.70*	0.000	0.000
Medium Trucks:	82.40	-7.25	-1.79	-1.20	*-4.88*	0.000	0.000
Heavy Trucks:	86.40	-11.20	-1.79	-1.20	*-5.30*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	78.8	77.5	75.7	69.7	78.3	78.9
Medium Trucks:	72.2	71.3	64.9	63.4	71.8	72.1
Heavy Trucks:	72.2	71.4	62.4	63.6	72.0	72.1
Vehicle Noise:	80.3	79.2	76.3	71.4	79.9	80.4

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	299	644	1,388	2,990
CNEL:	322	693	1,493	3,216

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: EACP
Road Name: Warren Rd.
Road Segment: n/o Florida Ave. (SR-74)

Project Name: Tres Cerritos
Job Number: 15939

SITE SPECIFIC INPUT DATA	NOISE MODEL INPUTS

Highway Data

Average Daily Traffic (Adt):	###### vehicles
Peak Hour Percentage:	8.65%
Peak Hour Volume:	15,354 vehicles
Vehicle Speed:	55 mph
Near/Far Lane Distance:	12 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	65.0 feet
Centerline Dist. to Observer:	65.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000	
Medium Trucks:	2.297	
Heavy Trucks:	8.006	*Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos:	64.915
Medium Trucks:	64.779
Heavy Trucks:	64.792

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	71.78	9.04	-1.80	-1.20	*-4.70*	0.000	0.000
Medium Trucks:	82.40	-8.20	-1.79	-1.20	*-4.88*	0.000	0.000
Heavy Trucks:	86.40	-12.15	-1.79	-1.20	*-5.30*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	77.8	76.5	74.8	68.7	77.3	78.0
Medium Trucks:	71.2	70.3	64.0	62.4	70.9	71.1
Heavy Trucks:	71.3	70.5	61.4	62.7	71.0	71.2
Vehicle Noise:	79.4	78.3	75.3	70.4	79.0	79.5

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	258	557	1,199	2,584
CNEL:	278	599	1,290	2,780

Wednesday, January 22, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: EACP	*Project Name:* Tres Cerritos
Road Name: Warren Rd.	*Job Number:* 15939
Road Segment: n/o Devonshire Ave.	

SITE SPECIFIC INPUT DATA	NOISE MODEL INPUTS

Highway Data

Average Daily Traffic (Adt): ###### vehicles	
Peak Hour Percentage: 8.65%	
Peak Hour Volume: 18,810 vehicles	
Vehicle Speed: 55 mph	
Near/Far Lane Distance: 12 feet	

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	65.0 feet
Centerline Dist. to Observer:	65.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000	
Medium Trucks:	2.297	
Heavy Trucks:	8.006	*Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos:	64.915
Medium Trucks:	64.779
Heavy Trucks:	64.792

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	71.78	9.92	-1.80	-1.20	*-4.70*	0.000	0.000
Medium Trucks:	82.40	-7.32	-1.79	-1.20	*-4.88*	0.000	0.000
Heavy Trucks:	86.40	-11.27	-1.79	-1.20	*-5.30*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	78.7	77.4	75.7	69.6	78.2	78.8
Medium Trucks:	72.1	71.2	64.9	63.3	71.8	72.0
Heavy Trucks:	72.1	71.3	62.3	63.6	71.9	72.0
Vehicle Noise:	80.3	79.1	76.2	71.3	79.9	80.3

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	296	637	1,373	2,958
CNEL:	318	686	1,477	3,183

Wednesday, January 22, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: EACP
Road Name: Myers St.
Road Segment: n/o Florida Ave. (SR-74)

Project Name: Tres Cerritos
Job Number: 15939

SITE SPECIFIC INPUT DATA	NOISE MODEL INPUTS

Highway Data

Average Daily Traffic (Adt):	93,605 vehicles
Peak Hour Percentage:	8.65%
Peak Hour Volume:	8,097 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	12 feet

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	47.0 feet
Centerline Dist. to Observer:	47.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000	
Medium Trucks:	2.297	
Heavy Trucks:	8.006	*Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos:	46.883
Medium Trucks:	46.694
Heavy Trucks:	46.712

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	7.13	0.32	-1.20	-4.63	0.000	0.000
Medium Trucks:	79.45	-10.11	0.34	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-14.06	0.34	-1.20	-5.46	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	74.7	73.4	71.7	65.6	74.2	74.8
Medium Trucks:	68.5	67.6	61.2	59.7	68.2	68.4
Heavy Trucks:	69.3	68.5	59.5	60.8	69.1	69.2
Vehicle Noise:	76.6	75.4	72.3	67.6	76.2	76.6

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	121	260	561	1,209
CNEL:	130	279	602	1,297

Wednesday, January 22, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: EACP	*Project Name:* Tres Cerritos
Road Name: Myers St.	*Job Number:* 15939
Road Segment: n/o Devonshire Ave.	

SITE SPECIFIC INPUT DATA	NOISE MODEL INPUTS

Highway Data

Average Daily Traffic (Adt):	31,463 vehicles
Peak Hour Percentage:	8.65%
Peak Hour Volume:	2,722 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	12 feet

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	47.0 feet
Centerline Dist. to Observer:	47.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000	
Medium Trucks:	2.297	
Heavy Trucks:	8.006	*Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos:	46.883
Medium Trucks:	46.694
Heavy Trucks:	46.712

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	2.40	0.32	-1.20	-4.63	0.000	0.000
Medium Trucks:	79.45	-14.84	0.34	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-18.80	0.34	-1.20	-5.46	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	70.0	68.7	66.9	60.9	69.5	70.1
Medium Trucks:	63.8	62.9	56.5	55.0	63.4	63.7
Heavy Trucks:	64.6	63.8	54.8	56.0	64.4	64.5
Vehicle Noise:	71.8	70.7	67.6	62.9	71.4	71.9

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	58	126	271	584
CNEL:	63	135	291	627

Wednesday, January 22, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: EACP	*Project Name:* Tres Cerritos
Road Name: Cawston Ave.	*Job Number:* 15939
Road Segment: n/o Devonshire Ave.	

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt): ###### vehicles	
Peak Hour Percentage: 8.65%	
Peak Hour Volume: 11,237 vehicles	
Vehicle Speed: 30 mph	
Near/Far Lane Distance: 44 feet	

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	47.0 feet
Centerline Dist. to Observer:	47.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000	
Medium Trucks:	2.297	
Heavy Trucks:	8.006	*Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos:	41.833
Medium Trucks:	41.621
Heavy Trucks:	41.642

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	61.75	10.32	1.06	-1.20	-4.63	0.000	0.000
Medium Trucks:	73.48	-6.92	1.09	-1.20	-4.87	0.000	0.000
Heavy Trucks:	79.92	-10.88	1.09	-1.20	-5.46	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	71.9	70.7	68.9	62.8	71.5	72.1
Medium Trucks:	66.4	65.6	59.2	57.7	66.1	66.4
Heavy Trucks:	68.9	68.1	59.1	60.4	68.7	68.8
Vehicle Noise:	74.4	73.4	69.7	65.6	74.1	74.5

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	88	189	407	878
CNEL:	93	201	434	935

Wednesday, January 22, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: EACP
Road Name: Old Warren Rd.
Road Segment: n/o Devonshire Ave.

Project Name: Tres Cerritos
Job Number: 15939

SITE SPECIFIC INPUT DATA	NOISE MODEL INPUTS

Highway Data

Average Daily Traffic (Adt):	19,119 vehicles
Peak Hour Percentage:	8.65%
Peak Hour Volume:	1,654 vehicles
Vehicle Speed:	25 mph
Near/Far Lane Distance:	12 feet

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	30.0 feet
Centerline Dist. to Observer:	30.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000	
Medium Trucks:	2.297	
Heavy Trucks:	8.006	*Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos:	29.816
Medium Trucks:	29.518
Heavy Trucks:	29.547

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	58.73	2.79	3.26	-1.20	*-4.49*	0.000	0.000
Medium Trucks:	70.80	-14.45	3.33	-1.20	*-4.86*	0.000	0.000
Heavy Trucks:	77.97	-18.41	3.32	-1.20	*-5.77*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	63.6	62.3	60.6	54.5	63.1	63.7
Medium Trucks:	58.5	57.6	51.2	49.7	58.2	58.4
Heavy Trucks:	61.7	60.9	51.9	53.1	61.5	61.6
Vehicle Noise:	66.5	65.5	61.5	57.6	66.1	66.5

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	17	36	77	166
CNEL:	18	38	82	176

Wednesday, January 22, 2025

APPENDIX 8.1:

ON-SITE TRAFFIC NOISE LEVEL CALCULATIONS

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (CALVENO) - v5/13/24

Scenario: Backyard
Road Name: Rose Rd.

Project Name: Tres Cerritos
Job Number: 15939
Analyst: N. Johnson

SITE SPECIFIC INPUT DATA	NOISE MODEL INPUTS

Highway Data

Average Daily Traffic (Adt):	17,640 vehicles
Peak Hour Percentage:	7.10%
Peak Hour Volume:	1,252 vehicles
Vehicle Speed:	40 mph
Near/Far Lane Distance:	21 feet

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	267.0 feet
Centerline Dist. to Observer:	277.0 feet
Barrier Distance to Observer:	10.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	1,504.3 feet
Road Elevation:	1,503.0 feet
Barrier Elevation:	1,504.0 feet
Road Grade:	1.0%

Noise Source Elevations (in feet)

Autos:	0.00
Medium Trucks:	1,505.30
Heavy Trucks:	1,511.00 Grade Adjustment: 0.0

Lane Equivalent Distance (in feet)

Autos:	########
Medium Trucks:	266.323
Heavy Trucks:	266.299

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	67.36	-0.46	-22.42	-1.20	*4.29*	-14.803	-17.803
Medium Trucks:	76.31	-17.70	-11.00	-1.20	*-1.26*	0.000	0.000
Heavy Trucks:	81.16	-21.66	-11.00	-1.20	*-1.38*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	43.3	42.9	41.1	35.0	43.7	44.3
Medium Trucks:	46.4	46.4	40.0	38.5	46.9	47.2
Heavy Trucks:	47.3	47.4	38.3	39.6	47.9	48.1
Vehicle Noise:	50.7	50.7	44.7	42.9	51.3	51.6

Mitigated Noise Levels (with Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	28.5	28.1	26.3	20.2	28.9	29.5
Medium Trucks:	46.4	46.4	40.0	38.5	46.9	47.2
Heavy Trucks:	47.3	47.4	38.3	39.6	47.9	48.1
Vehicle Noise:	49.9	49.9	42.4	42.1	50.5	50.7

Tuesday, January 21, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (CALVENO) - v5/13/24

Scenario: Backyard With Wall
Road Name: Rose Rd.

Project Name: Tres Cerritos
Job Number: 15939
Analyst: N. Johnson

SITE SPECIFIC INPUT DATA	NOISE MODEL INPUTS

Highway Data

Average Daily Traffic (Adt):	17,640 vehicles
Peak Hour Percentage:	7.10%
Peak Hour Volume:	1,252 vehicles
Vehicle Speed:	40 mph
Near/Far Lane Distance:	21 feet

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	267.0 feet
Centerline Dist. to Observer:	277.0 feet
Barrier Distance to Observer:	10.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	1,504.3 feet
Road Elevation:	1,503.0 feet
Barrier Elevation:	1,504.0 feet
Road Grade:	1.0%

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.00	
Medium Trucks:	1,505.30	
Heavy Trucks:	1,511.00	Grade Adjustment: 0.0

Lane Equivalent Distance (in feet)

Autos:	########
Medium Trucks:	266.323
Heavy Trucks:	266.299

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	67.36	-0.46	-22.42	-1.20	*4.29*	-14.803	-17.803
Medium Trucks:	76.31	-17.70	-11.00	-1.20	*-1.26*	0.000	0.000
Heavy Trucks:	81.16	-21.66	-11.00	-1.20	*-1.38*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	43.3	42.9	41.1	35.0	43.7	44.3
Medium Trucks:	46.4	46.4	40.0	38.5	46.9	47.2
Heavy Trucks:	47.3	47.4	38.3	39.6	47.9	48.1
Vehicle Noise:	50.7	50.7	44.7	42.9	51.3	51.6

Mitigated Noise Levels (with Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	28.5	28.1	26.3	20.2	28.9	29.5
Medium Trucks:	46.4	46.4	40.0	38.5	46.9	47.2
Heavy Trucks:	47.3	47.4	38.3	39.6	47.9	48.1
Vehicle Noise:	49.9	49.9	42.4	42.1	50.5	50.7

Tuesday, January 21, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (CALVENO) - v5/13/24

Scenario: First Floor With Wall
Road Name: Rose Rd.

Project Name: Tres Cerritos
Job Number: 15939
Analyst: N. Johnson

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	17,640 vehicles
Peak Hour Percentage:	7.10%
Peak Hour Volume:	1,252 vehicles
Vehicle Speed:	40 mph
Near/Far Lane Distance:	21 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	267.0 feet
Centerline Dist. to Observer:	287.0 feet
Barrier Distance to Observer:	20.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	1,504.3 feet
Road Elevation:	1,503.0 feet
Barrier Elevation:	1,504.0 feet
Road Grade:	1.0%

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.00
Medium Trucks:	1,505.30
Heavy Trucks:	1,511.00

Grade Adjustment: 0.0

Lane Equivalent Distance (in feet)

Autos:	########
Medium Trucks:	276.330
Heavy Trucks:	276.306

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	67.36	-0.46	-22.46	-1.20	*11.73*	-17.308	-20.308
Medium Trucks:	76.31	-17.70	-11.24	-1.20	*-0.65*	0.000	0.000
Heavy Trucks:	81.16	-21.66	-11.24	-1.20	*-0.76*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	43.2	42.8	41.1	35.0	43.6	44.2
Medium Trucks:	46.2	46.2	39.8	38.2	46.7	46.9
Heavy Trucks:	47.1	47.1	38.1	39.3	47.7	47.8
Vehicle Noise:	50.5	50.5	44.6	42.7	51.1	51.4

Mitigated Noise Levels (with Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	25.9	25.5	23.8	17.7	26.3	26.9
Medium Trucks:	46.2	46.2	39.8	38.2	46.7	46.9
Heavy Trucks:	47.1	47.1	38.1	39.3	47.7	47.8
Vehicle Noise:	49.7	49.7	42.1	41.9	50.3	50.4

Tuesday, January 21, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (CALVENO) - v5/13/24

Scenario: Second Floor With Wall
Road Name: Rose Rd.

Project Name: Tres Cerritos
Job Number: 15939
Analyst: N. Johnson

SITE SPECIFIC INPUT DATA	NOISE MODEL INPUTS

Highway Data

Average Daily Traffic (Adt):	17,640 vehicles
Peak Hour Percentage:	7.10%
Peak Hour Volume:	1,252 vehicles
Vehicle Speed:	40 mph
Near/Far Lane Distance:	21 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	267.0 feet
Centerline Dist. to Observer:	287.0 feet
Barrier Distance to Observer:	20.0 feet
Observer Height (Above Pad):	14.0 feet
Pad Elevation:	1,504.3 feet
Road Elevation:	1,503.0 feet
Barrier Elevation:	1,504.0 feet
Road Grade:	1.0%

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.00
Medium Trucks:	1,505.30
Heavy Trucks:	1,511.00 Grade Adjustment: 0.0

Lane Equivalent Distance (in feet)

Autos:	########
Medium Trucks:	276.606
Heavy Trucks:	276.397

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	67.36	-0.46	-22.47	-1.20	6.88	-16.252	-19.252
Medium Trucks:	76.31	-17.70	-11.25	-1.20	-4.19	0.000	0.000
Heavy Trucks:	81.16	-21.66	-11.24	-1.20	-4.49	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	43.2	42.8	41.0	35.0	43.6	44.2
Medium Trucks:	46.2	46.1	39.8	38.2	46.7	46.9
Heavy Trucks:	47.1	47.1	38.1	39.3	47.7	47.8
Vehicle Noise:	50.5	50.5	44.6	42.7	51.1	51.3

Mitigated Noise Levels (with Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	27.0	26.6	24.8	18.7	27.4	28.0
Medium Trucks:	46.2	46.1	39.8	38.2	46.7	46.9
Heavy Trucks:	47.1	47.1	38.1	39.3	47.7	47.8
Vehicle Noise:	49.7	49.7	42.1	41.9	50.3	50.4

Tuesday, January 21, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (CALVENO) - v5/13/24

Scenario: Backyard
Road Name: Rose Rd.

Project Name: Tres Cerritos
Job Number: 15939
Analyst: N. Johnson

SITE SPECIFIC INPUT DATA	NOISE MODEL INPUTS

Highway Data

Average Daily Traffic (Adt):	17,640 vehicles
Peak Hour Percentage:	7.10%
Peak Hour Volume:	1,252 vehicles
Vehicle Speed:	40 mph
Near/Far Lane Distance:	21 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	47.0 feet
Centerline Dist. to Observer:	57.0 feet
Barrier Distance to Observer:	10.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	1,508.6 feet
Road Elevation:	1,504.8 feet
Barrier Elevation:	1,508.6 feet
Road Grade:	1.0%

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.00	
Medium Trucks:	1,507.10	
Heavy Trucks:	1,512.80	Grade Adjustment: 0.0

Lane Equivalent Distance (in feet)

Autos:	########
Medium Trucks:	45.763
Heavy Trucks:	45.306

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	67.36	-0.46	-22.35	-1.20	5.78	-15.768	-18.768
Medium Trucks:	76.31	-17.70	0.47	-1.20	-0.74	0.000	0.000
Heavy Trucks:	81.16	-21.66	0.54	-1.20	-1.38	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	43.4	42.9	41.2	35.1	43.7	44.3
Medium Trucks:	57.9	57.9	51.5	50.0	58.4	58.7
Heavy Trucks:	58.8	58.9	49.9	51.1	59.5	59.6
Vehicle Noise:	61.5	61.5	54.0	53.7	62.1	62.2

Mitigated Noise Levels (with Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	27.6	27.2	25.4	19.4	28.0	28.6
Medium Trucks:	57.9	57.9	51.5	50.0	58.4	58.7
Heavy Trucks:	58.8	58.9	49.9	51.1	59.5	59.6
Vehicle Noise:	61.4	61.4	53.8	53.6	62.0	62.2

Tuesday, January 21, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (CALVENO) - v5/13/24

Scenario: Backyard With Wall
Road Name: Rose Rd.

Project Name: Tres Cerritos
Job Number: 15939
Analyst: N. Johnson

SITE SPECIFIC INPUT DATA	NOISE MODEL INPUTS

Highway Data

Average Daily Traffic (Adt):	17,640 vehicles
Peak Hour Percentage:	7.10%
Peak Hour Volume:	1,252 vehicles
Vehicle Speed:	40 mph
Near/Far Lane Distance:	21 feet

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	47.0 feet
Centerline Dist. to Observer:	57.0 feet
Barrier Distance to Observer:	10.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	1,508.6 feet
Road Elevation:	1,504.8 feet
Barrier Elevation:	1,508.6 feet
Road Grade:	1.0%

Noise Source Elevations (in feet)

Autos:	0.00
Medium Trucks:	1,507.10
Heavy Trucks:	1,512.80

Grade Adjustment: 0.0

Lane Equivalent Distance (in feet)

Autos:	########
Medium Trucks:	45.763
Heavy Trucks:	45.306

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	67.36	-0.46	-22.35	-1.20	5.78	-15.768	-18.768
Medium Trucks:	76.31	-17.70	0.47	-1.20	-0.74	0.000	0.000
Heavy Trucks:	81.16	-21.66	0.54	-1.20	-1.38	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	43.4	42.9	41.2	35.1	43.7	44.3
Medium Trucks:	57.9	57.9	51.5	50.0	58.4	58.7
Heavy Trucks:	58.8	58.9	49.9	51.1	59.5	59.6
Vehicle Noise:	61.5	61.5	54.0	53.7	62.1	62.2

Mitigated Noise Levels (with Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	27.6	27.2	25.4	19.4	28.0	28.6
Medium Trucks:	57.9	57.9	51.5	50.0	58.4	58.7
Heavy Trucks:	58.8	58.9	49.9	51.1	59.5	59.6
Vehicle Noise:	61.4	61.4	53.8	53.6	62.0	62.2

Tuesday, January 21, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (CALVENO) - v5/13/24

Scenario: First Floor With Wall
Road Name: Rose Rd.

Project Name: Tres Cerritos
Job Number: 15939
Analyst: N. Johnson

SITE SPECIFIC INPUT DATA	NOISE MODEL INPUTS

Highway Data

Average Daily Traffic (Adt):	17,640 vehicles
Peak Hour Percentage:	7.10%
Peak Hour Volume:	1,252 vehicles
Vehicle Speed:	40 mph
Near/Far Lane Distance:	21 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	47.0 feet
Centerline Dist. to Observer:	67.0 feet
Barrier Distance to Observer:	20.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	1,508.6 feet
Road Elevation:	1,504.8 feet
Barrier Elevation:	1,508.6 feet
Road Grade:	1.0%

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.00
Medium Trucks:	1,507.10
Heavy Trucks:	1,512.80

Grade Adjustment: 0.0

Lane Equivalent Distance (in feet)

Autos:	########
Medium Trucks:	55.895
Heavy Trucks:	55.521

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	67.36	-0.46	-22.39	-1.20	14.68	-17.662	-20.662
Medium Trucks:	76.31	-17.70	-0.83	-1.20	-0.27	0.000	0.000
Heavy Trucks:	81.16	-21.66	-0.79	-1.20	-0.83	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	43.3	42.9	41.1	35.1	43.7	44.3
Medium Trucks:	56.6	56.6	50.2	48.7	57.1	57.3
Heavy Trucks:	57.5	57.6	48.5	49.8	58.2	58.3
Vehicle Noise:	60.2	60.2	52.8	52.4	60.8	60.9

Mitigated Noise Levels (with Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	25.6	25.2	23.5	17.4	26.0	26.6
Medium Trucks:	56.6	56.6	50.2	48.7	57.1	57.3
Heavy Trucks:	57.5	57.6	48.5	49.8	58.2	58.3
Vehicle Noise:	60.1	60.1	52.5	52.3	60.7	60.9

Tuesday, January 21, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (CALVENO) - v5/13/24

Scenario: Second Floor With Wall
Road Name: Rose Rd.

Project Name: Tres Cerritos
Job Number: 15939
Analyst: N. Johnson

SITE SPECIFIC INPUT DATA	NOISE MODEL INPUTS

Highway Data

Average Daily Traffic (Adt):	17,640 vehicles
Peak Hour Percentage:	7.10%
Peak Hour Volume:	1,252 vehicles
Vehicle Speed:	40 mph
Near/Far Lane Distance:	21 feet

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	47.0 feet
Centerline Dist. to Observer:	67.0 feet
Barrier Distance to Observer:	20.0 feet
Observer Height (Above Pad):	14.0 feet
Pad Elevation:	1,508.6 feet
Road Elevation:	1,504.8 feet
Barrier Elevation:	1,508.6 feet
Road Grade:	1.0%

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.00	
Medium Trucks:	1,507.10	
Heavy Trucks:	1,512.80	Grade Adjustment: 0.0

Lane Equivalent Distance (in feet)

Autos:	########
Medium Trucks:	57.640
Heavy Trucks:	56.373

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	67.36	-0.46	-22.40	-1.20	9.59	-17.018	-20.018
Medium Trucks:	76.31	-17.70	-1.03	-1.20	-2.30	0.000	0.000
Heavy Trucks:	81.16	-21.66	-0.88	-1.20	-3.73	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	43.3	42.9	41.1	35.1	43.7	44.3
Medium Trucks:	56.4	56.4	50.0	48.5	56.9	57.1
Heavy Trucks:	57.4	57.5	48.4	49.7	58.1	58.2
Vehicle Noise:	60.0	60.1	52.6	52.2	60.6	60.8

Mitigated Noise Levels (with Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	26.3	25.9	24.1	18.0	26.7	27.3
Medium Trucks:	56.4	56.4	50.0	48.5	56.9	57.1
Heavy Trucks:	57.4	57.5	48.4	49.7	58.1	58.2
Vehicle Noise:	59.9	60.0	52.3	52.1	60.5	60.7

Tuesday, January 21, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (CALVENO) - v5/13/24

Scenario: Backyard
Road Name: Rose Rd.

Project Name: Tres Cerritos
Job Number: 15939
Analyst: N. Johnson

SITE SPECIFIC INPUT DATA	NOISE MODEL INPUTS

Highway Data

Average Daily Traffic (Adt):	17,640 vehicles
Peak Hour Percentage:	7.10%
Peak Hour Volume:	1,252 vehicles
Vehicle Speed:	40 mph
Near/Far Lane Distance:	21 feet

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	47.0 feet
Centerline Dist. to Observer:	57.0 feet
Barrier Distance to Observer:	10.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	1,511.4 feet
Road Elevation:	1,506.4 feet
Barrier Elevation:	1,511.1 feet
Road Grade:	1.0%

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.00
Medium Trucks:	1,508.70
Heavy Trucks:	1,514.40

Grade Adjustment: 0.0

Lane Equivalent Distance (in feet)

Autos:	########
Medium Trucks:	45.949
Heavy Trucks:	45.343

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	67.36	-0.46	-22.36	-1.20	*5.62*	-15.672	-18.672
Medium Trucks:	76.31	-17.70	0.45	-1.20	*-0.75*	0.000	0.000
Heavy Trucks:	81.16	-21.66	0.53	-1.20	*-1.39*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	43.3	42.9	41.2	35.1	43.7	44.3
Medium Trucks:	57.9	57.8	51.5	49.9	58.4	58.6
Heavy Trucks:	58.8	58.9	49.9	51.1	59.5	59.6
Vehicle Noise:	61.5	61.5	54.0	53.6	62.0	62.2

Mitigated Noise Levels (with Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	27.7	27.3	25.5	19.4	28.1	28.7
Medium Trucks:	57.9	57.8	51.5	49.9	58.4	58.6
Heavy Trucks:	58.8	58.9	49.9	51.1	59.5	59.6
Vehicle Noise:	61.4	61.4	53.8	53.6	62.0	62.2

Tuesday, January 21, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (CALVENO) - v5/13/24

Scenario: Backyard With Wall
Road Name: Rose Rd.

Project Name: Tres Cerritos
Job Number: 15939
Analyst: N. Johnson

SITE SPECIFIC INPUT DATA	NOISE MODEL INPUTS

Highway Data

Average Daily Traffic (Adt):	17,640 vehicles
Peak Hour Percentage:	7.10%
Peak Hour Volume:	1,252 vehicles
Vehicle Speed:	40 mph
Near/Far Lane Distance:	21 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	47.0 feet
Centerline Dist. to Observer:	57.0 feet
Barrier Distance to Observer:	10.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	1,511.4 feet
Road Elevation:	1,506.4 feet
Barrier Elevation:	1,511.1 feet
Road Grade:	1.0%

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.00
Medium Trucks:	1,508.70
Heavy Trucks:	1,514.40

Grade Adjustment: 0.0

Lane Equivalent Distance (in feet)

Autos:	########
Medium Trucks:	45.949
Heavy Trucks:	45.343

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	67.36	-0.46	-22.36	-1.20	*5.62*	-15.672	-18.672
Medium Trucks:	76.31	-17.70	0.45	-1.20	*-0.75*	0.000	0.000
Heavy Trucks:	81.16	-21.66	0.53	-1.20	*-1.39*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	43.3	42.9	41.2	35.1	43.7	44.3
Medium Trucks:	57.9	57.8	51.5	49.9	58.4	58.6
Heavy Trucks:	58.8	58.9	49.9	51.1	59.5	59.6
Vehicle Noise:	61.5	61.5	54.0	53.6	62.0	62.2

Mitigated Noise Levels (with Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	27.7	27.3	25.5	19.4	28.1	28.7
Medium Trucks:	57.9	57.8	51.5	49.9	58.4	58.6
Heavy Trucks:	58.8	58.9	49.9	51.1	59.5	59.6
Vehicle Noise:	61.4	61.4	53.8	53.6	62.0	62.2

Tuesday, January 21, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (CALVENO) - v5/13/24

Scenario: First Floor With Wall
Road Name: Rose Rd.

Project Name: Tres Cerritos
Job Number: 15939
Analyst: N. Johnson

SITE SPECIFIC INPUT DATA	NOISE MODEL INPUTS

Highway Data

Average Daily Traffic (Adt):	17,640 vehicles
Peak Hour Percentage:	7.10%
Peak Hour Volume:	1,252 vehicles
Vehicle Speed:	40 mph
Near/Far Lane Distance:	21 feet

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	47.0 feet
Centerline Dist. to Observer:	67.0 feet
Barrier Distance to Observer:	20.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	1,511.4 feet
Road Elevation:	1,506.4 feet
Barrier Elevation:	1,511.1 feet
Road Grade:	1.0%

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.00	
Medium Trucks:	1,508.70	
Heavy Trucks:	1,514.40	Grade Adjustment: 0.0

Lane Equivalent Distance (in feet)

Autos:	########
Medium Trucks:	56.048
Heavy Trucks:	55.552

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	67.36	-0.46	-22.40	-1.20	14.46	-17.635	-20.635
Medium Trucks:	76.31	-17.70	-0.85	-1.20	-0.24	0.000	0.000
Heavy Trucks:	81.16	-21.66	-0.79	-1.20	-0.79	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	43.3	42.9	41.1	35.1	43.7	44.3
Medium Trucks:	56.6	56.5	50.2	48.6	57.1	57.3
Heavy Trucks:	57.5	57.6	48.5	49.8	58.1	58.3
Vehicle Noise:	60.2	60.2	52.8	52.3	60.8	60.9

Mitigated Noise Levels (with Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	25.7	25.3	23.5	17.4	26.1	26.7
Medium Trucks:	56.6	56.5	50.2	48.6	57.1	57.3
Heavy Trucks:	57.5	57.6	48.5	49.8	58.1	58.3
Vehicle Noise:	60.1	60.1	52.5	52.3	60.7	60.8

Tuesday, January 21, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (CALVENO) - v5/13/24

Scenario: Second Floor With Wall
Road Name: Rose Rd.

Project Name: Tres Cerritos
Job Number: 15939
Analyst: N. Johnson

SITE SPECIFIC INPUT DATA	NOISE MODEL INPUTS

Highway Data

Average Daily Traffic (Adt):	17,640 vehicles
Peak Hour Percentage:	7.10%
Peak Hour Volume:	1,252 vehicles
Vehicle Speed:	40 mph
Near/Far Lane Distance:	21 feet

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	47.0 feet
Centerline Dist. to Observer:	67.0 feet
Barrier Distance to Observer:	20.0 feet
Observer Height (Above Pad):	14.0 feet
Pad Elevation:	1,511.4 feet
Road Elevation:	1,506.4 feet
Barrier Elevation:	1,511.1 feet
Road Grade:	1.0%

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.00
Medium Trucks:	1,508.70
Heavy Trucks:	1,514.40 Grade Adjustment: 0.0

Lane Equivalent Distance (in feet)

Autos:	########
Medium Trucks:	57.974
Heavy Trucks:	56.594

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	67.36	-0.46	-22.42	-1.20	9.47	-16.994	-19.994
Medium Trucks:	76.31	-17.70	-1.07	-1.20	-2.20	0.000	0.000
Heavy Trucks:	81.16	-21.66	-0.91	-1.20	-3.60	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	43.3	42.9	41.1	35.1	43.7	44.3
Medium Trucks:	56.3	56.3	50.0	48.4	56.9	57.1
Heavy Trucks:	57.4	57.5	48.4	49.7	58.0	58.2
Vehicle Noise:	60.0	60.0	52.6	52.2	60.6	60.8

Mitigated Noise Levels (with Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	26.3	25.9	24.1	18.1	26.7	27.3
Medium Trucks:	56.3	56.3	50.0	48.4	56.9	57.1
Heavy Trucks:	57.4	57.5	48.4	49.7	58.0	58.2
Vehicle Noise:	59.9	59.9	52.3	52.1	60.5	60.7

Tuesday, January 21, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (CALVENO) - v5/13/24

Scenario: Backyard
Road Name: Rose Rd.

Project Name: Tres Cerritos
Job Number: 15939
Analyst: N. Johnson

SITE SPECIFIC INPUT DATA	NOISE MODEL INPUTS

Highway Data

Average Daily Traffic (Adt):	17,640 vehicles
Peak Hour Percentage:	7.10%
Peak Hour Volume:	1,252 vehicles
Vehicle Speed:	40 mph
Near/Far Lane Distance:	21 feet

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	47.0 feet
Centerline Dist. to Observer:	57.0 feet
Barrier Distance to Observer:	10.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	1,512.5 feet
Road Elevation:	1,505.2 feet
Barrier Elevation:	1,512.5 feet
Road Grade:	1.0%

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.00
Medium Trucks:	1,507.50
Heavy Trucks:	1,513.20 *Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos:	########
Medium Trucks:	46.390
Heavy Trucks:	45.502

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	67.36	-0.46	-22.36	-1.20	*5.78*	-15.768	-18.768
Medium Trucks:	76.31	-17.70	0.38	-1.20	*-0.45*	0.000	0.000
Heavy Trucks:	81.16	-21.66	0.51	-1.20	*-0.97*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	43.3	42.9	41.2	35.1	43.7	44.3
Medium Trucks:	57.8	57.8	51.4	49.9	58.3	58.6
Heavy Trucks:	58.8	58.9	49.8	51.1	59.4	59.6
Vehicle Noise:	61.4	61.4	53.9	53.6	62.0	62.2

Mitigated Noise Levels (with Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	27.6	27.2	25.4	19.3	28.0	28.6
Medium Trucks:	57.8	57.8	51.4	49.9	58.3	58.6
Heavy Trucks:	58.8	58.9	49.8	51.1	59.4	59.6
Vehicle Noise:	61.3	61.4	53.7	53.5	61.9	62.1

Tuesday, January 21, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (CALVENO) - v5/13/24

Scenario: Backyard With Wall
Road Name: Rose Rd.

Project Name: Tres Cerritos
Job Number: 15939
Analyst: N. Johnson

SITE SPECIFIC INPUT DATA	NOISE MODEL INPUTS

Highway Data

Average Daily Traffic (Adt):	17,640 vehicles
Peak Hour Percentage:	7.10%
Peak Hour Volume:	1,252 vehicles
Vehicle Speed:	40 mph
Near/Far Lane Distance:	21 feet

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	47.0 feet
Centerline Dist. to Observer:	57.0 feet
Barrier Distance to Observer:	10.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	1,512.5 feet
Road Elevation:	1,505.2 feet
Barrier Elevation:	1,512.5 feet
Road Grade:	1.0%

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.00	
Medium Trucks:	1,507.50	
Heavy Trucks:	1,513.20	*Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos:	########
Medium Trucks:	46.390
Heavy Trucks:	45.502

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	67.36	-0.46	-22.36	-1.20	*5.78*	-15.768	-18.768
Medium Trucks:	76.31	-17.70	0.38	-1.20	*-0.45*	0.000	0.000
Heavy Trucks:	81.16	-21.66	0.51	-1.20	*-0.97*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	43.3	42.9	41.2	35.1	43.7	44.3
Medium Trucks:	57.8	57.8	51.4	49.9	58.3	58.6
Heavy Trucks:	58.8	58.9	49.8	51.1	59.4	59.6
Vehicle Noise:	61.4	61.4	53.9	53.6	62.0	62.2

Mitigated Noise Levels (with Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	27.6	27.2	25.4	19.3	28.0	28.6
Medium Trucks:	57.8	57.8	51.4	49.9	58.3	58.6
Heavy Trucks:	58.8	58.9	49.8	51.1	59.4	59.6
Vehicle Noise:	61.3	61.4	53.7	53.5	61.9	62.1

Tuesday, January 21, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (CALVENO) - v5/13/24

Scenario: First Floor With Wall
Road Name: Rose Rd.

Project Name: Tres Cerritos
Job Number: 15939
Analyst: N. Johnson

SITE SPECIFIC INPUT DATA	NOISE MODEL INPUTS

Highway Data

Average Daily Traffic (Adt):	17,640 vehicles
Peak Hour Percentage:	7.10%
Peak Hour Volume:	1,252 vehicles
Vehicle Speed:	40 mph
Near/Far Lane Distance:	21 feet

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	47.0 feet
Centerline Dist. to Observer:	67.0 feet
Barrier Distance to Observer:	20.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	1,512.5 feet
Road Elevation:	1,505.2 feet
Barrier Elevation:	1,512.5 feet
Road Grade:	1.0%

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.00	
Medium Trucks:	1,507.50	
Heavy Trucks:	1,513.20	Grade Adjustment: 0.0

Lane Equivalent Distance (in feet)

Autos:	########
Medium Trucks:	56.410
Heavy Trucks:	55.682

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	67.36	-0.46	-22.40	-1.20	14.68	-17.662	-20.662
Medium Trucks:	76.31	-17.70	-0.89	-1.20	-0.08	0.000	0.000
Heavy Trucks:	81.16	-21.66	-0.80	-1.20	-0.45	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	43.3	42.9	41.1	35.1	43.7	44.3
Medium Trucks:	56.5	56.5	50.1	48.6	57.1	57.3
Heavy Trucks:	57.5	57.6	48.5	49.8	58.1	58.3
Vehicle Noise:	60.1	60.2	52.7	52.3	60.7	60.9

Mitigated Noise Levels (with Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	25.6	25.2	23.5	17.4	26.0	26.6
Medium Trucks:	56.5	56.5	50.1	48.6	57.1	57.3
Heavy Trucks:	57.5	57.6	48.5	49.8	58.1	58.3
Vehicle Noise:	60.1	60.1	52.4	52.2	60.6	60.8

Tuesday, January 21, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (CALVENO) - v5/13/24

Scenario: Second Floor With Wall
Road Name: Rose Rd.

Project Name: Tres Cerritos
Job Number: 15939
Analyst: N. Johnson

SITE SPECIFIC INPUT DATA	NOISE MODEL INPUTS

Highway Data

Average Daily Traffic (Adt):	17,640 vehicles
Peak Hour Percentage:	7.10%
Peak Hour Volume:	1,252 vehicles
Vehicle Speed:	40 mph
Near/Far Lane Distance:	21 feet

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	47.0 feet
Centerline Dist. to Observer:	67.0 feet
Barrier Distance to Observer:	20.0 feet
Observer Height (Above Pad):	14.0 feet
Pad Elevation:	1,512.5 feet
Road Elevation:	1,505.2 feet
Barrier Elevation:	1,512.5 feet
Road Grade:	1.0%

Noise Source Elevations (in feet)

Autos:	0.00
Medium Trucks:	1,507.50
Heavy Trucks:	1,513.20 Grade Adjustment: 0.0

Lane Equivalent Distance (in feet)

Autos:	########
Medium Trucks:	58.678
Heavy Trucks:	57.086

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	67.36	-0.46	-22.42	-1.20	*9.60*	-17.020	-20.020
Medium Trucks:	76.31	-17.70	-1.15	-1.20	*-1.61*	0.000	0.000
Heavy Trucks:	81.16	-21.66	-0.97	-1.20	*-2.81*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	43.3	42.9	41.1	35.0	43.7	44.3
Medium Trucks:	56.3	56.2	49.9	48.3	56.8	57.0
Heavy Trucks:	57.3	57.4	48.4	49.6	58.0	58.1
Vehicle Noise:	59.9	60.0	52.5	52.1	60.5	60.7

Mitigated Noise Levels (with Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	26.3	25.8	24.1	18.0	26.6	27.3
Medium Trucks:	56.3	56.2	49.9	48.3	56.8	57.0
Heavy Trucks:	57.3	57.4	48.4	49.6	58.0	58.1
Vehicle Noise:	59.8	59.9	52.2	52.0	60.4	60.6

Tuesday, January 21, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (CALVENO) - v5/13/24

Scenario: Backyard
Road Name: Rose Rd.

Project Name: Tres Cerritos
Job Number: 15939
Analyst: N. Johnson

SITE SPECIFIC INPUT DATA	NOISE MODEL INPUTS

Highway Data

Average Daily Traffic (Adt):	17,640 vehicles
Peak Hour Percentage:	7.10%
Peak Hour Volume:	1,252 vehicles
Vehicle Speed:	40 mph
Near/Far Lane Distance:	21 feet

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	72.0 feet
Centerline Dist. to Observer:	82.0 feet
Barrier Distance to Observer:	10.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	1,512.9 feet
Road Elevation:	1,504.6 feet
Barrier Elevation:	1,512.9 feet
Road Grade:	1.0%

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.00
Medium Trucks:	1,506.90
Heavy Trucks:	1,512.60

Grade Adjustment: 0.0

Lane Equivalent Distance (in feet)

Autos:	########
Medium Trucks:	71.576
Heavy Trucks:	70.923

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	67.36	-0.46	-22.37	-1.20	*5.62*	-15.672	-18.672
Medium Trucks:	76.31	-17.70	-2.44	-1.20	*-0.62*	0.000	0.000
Heavy Trucks:	81.16	-21.66	-2.38	-1.20	*-0.96*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	43.3	42.9	41.2	35.1	43.7	44.3
Medium Trucks:	55.0	55.0	48.6	47.0	55.5	55.7
Heavy Trucks:	55.9	56.0	47.0	48.2	56.6	56.7
Vehicle Noise:	58.6	58.6	51.3	50.8	59.2	59.4

Mitigated Noise Levels (with Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	27.7	27.2	25.5	19.4	28.0	28.7
Medium Trucks:	55.0	55.0	48.6	47.0	55.5	55.7
Heavy Trucks:	55.9	56.0	47.0	48.2	56.6	56.7
Vehicle Noise:	58.5	58.5	50.9	50.7	59.1	59.3

Tuesday, January 21, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (CALVENO) - v5/13/24

Scenario: Backyard With Wall
Road Name: Rose Rd.

Project Name: Tres Cerritos
Job Number: 15939
Analyst: N. Johnson

SITE SPECIFIC INPUT DATA	NOISE MODEL INPUTS

Highway Data

Average Daily Traffic (Adt):	17,640 vehicles
Peak Hour Percentage:	7.10%
Peak Hour Volume:	1,252 vehicles
Vehicle Speed:	40 mph
Near/Far Lane Distance:	21 feet

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	72.0 feet
Centerline Dist. to Observer:	82.0 feet
Barrier Distance to Observer:	10.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	1,512.9 feet
Road Elevation:	1,504.6 feet
Barrier Elevation:	1,512.9 feet
Road Grade:	1.0%

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.00
Medium Trucks:	1,506.90
Heavy Trucks:	1,512.60

Grade Adjustment: 0.0

Lane Equivalent Distance (in feet)

Autos:	########
Medium Trucks:	71.576
Heavy Trucks:	70.923

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	67.36	-0.46	-22.37	-1.20	*5.62*	-15.672	-18.672
Medium Trucks:	76.31	-17.70	-2.44	-1.20	*-0.62*	0.000	0.000
Heavy Trucks:	81.16	-21.66	-2.38	-1.20	*-0.96*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	43.3	42.9	41.2	35.1	43.7	44.3
Medium Trucks:	55.0	55.0	48.6	47.0	55.5	55.7
Heavy Trucks:	55.9	56.0	47.0	48.2	56.6	56.7
Vehicle Noise:	58.6	58.6	51.3	50.8	59.2	59.4

Mitigated Noise Levels (with Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	27.7	27.2	25.5	19.4	28.0	28.7
Medium Trucks:	55.0	55.0	48.6	47.0	55.5	55.7
Heavy Trucks:	55.9	56.0	47.0	48.2	56.6	56.7
Vehicle Noise:	58.5	58.5	50.9	50.7	59.1	59.3

Tuesday, January 21, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (CALVENO) - v5/13/24

Scenario: First Floor With Wall
Road Name: Rose Rd.

Project Name: Tres Cerritos
Job Number: 15939
Analyst: N. Johnson

SITE SPECIFIC INPUT DATA	NOISE MODEL INPUTS

Highway Data

Average Daily Traffic (Adt):	17,640 vehicles
Peak Hour Percentage:	7.10%
Peak Hour Volume:	1,252 vehicles
Vehicle Speed:	40 mph
Near/Far Lane Distance:	21 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	72.0 feet
Centerline Dist. to Observer:	92.0 feet
Barrier Distance to Observer:	20.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	1,512.9 feet
Road Elevation:	1,504.6 feet
Barrier Elevation:	1,512.9 feet
Road Grade:	1.0%

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.00
Medium Trucks:	1,506.90
Heavy Trucks:	1,512.60

Grade Adjustment: 0.0

Lane Equivalent Distance (in feet)

Autos:	########
Medium Trucks:	81.566
Heavy Trucks:	80.994

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	67.36	-0.46	-22.41	-1.20	*14.36*	-17.623	-20.623
Medium Trucks:	76.31	-17.70	-3.29	-1.20	*-0.16*	0.000	0.000
Heavy Trucks:	81.16	-21.66	-3.25	-1.20	*-0.43*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	43.3	42.9	41.1	35.1	43.7	44.3
Medium Trucks:	54.1	54.1	47.7	46.2	54.7	54.9
Heavy Trucks:	55.1	55.1	46.1	47.3	55.7	55.8
Vehicle Noise:	57.8	57.8	50.5	50.0	58.4	58.6

Mitigated Noise Levels (with Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	25.7	25.3	23.5	17.4	26.1	26.7
Medium Trucks:	54.1	54.1	47.7	46.2	54.7	54.9
Heavy Trucks:	55.1	55.1	46.1	47.3	55.7	55.8
Vehicle Noise:	57.6	57.7	50.0	49.8	58.2	58.4

Tuesday, January 21, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (CALVENO) - v5/13/24

Scenario: Second Floor With Wall
Road Name: Rose Rd.

Project Name: Tres Cerritos
Job Number: 15939
Analyst: N. Johnson

SITE SPECIFIC INPUT DATA	NOISE MODEL INPUTS

Highway Data

Average Daily Traffic (Adt):	17,640 vehicles
Peak Hour Percentage:	7.10%
Peak Hour Volume:	1,252 vehicles
Vehicle Speed:	40 mph
Near/Far Lane Distance:	21 feet

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	72.0 feet
Centerline Dist. to Observer:	92.0 feet
Barrier Distance to Observer:	20.0 feet
Observer Height (Above Pad):	14.0 feet
Pad Elevation:	1,512.9 feet
Road Elevation:	1,504.6 feet
Barrier Elevation:	1,512.9 feet
Road Grade:	1.0%

Noise Source Elevations (in feet)

Autos:	0.00	
Medium Trucks:	1,506.90	
Heavy Trucks:	1,512.60	*Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos:	########
Medium Trucks:	83.259
Heavy Trucks:	82.075

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	67.36	-0.46	-22.43	-1.20	*9.28*	-16.956	-19.956
Medium Trucks:	76.31	-17.70	-3.43	-1.20	*-2.24*	0.000	0.000
Heavy Trucks:	81.16	-21.66	-3.33	-1.20	*-3.10*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	43.3	42.9	41.1	35.0	43.7	44.3
Medium Trucks:	54.0	54.0	47.6	46.1	54.5	54.8
Heavy Trucks:	55.0	55.0	46.0	47.3	55.6	55.7
Vehicle Noise:	57.7	57.7	50.4	49.9	58.3	58.4

Mitigated Noise Levels (with Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	26.3	25.9	24.1	18.1	26.7	27.3
Medium Trucks:	54.0	54.0	47.6	46.1	54.5	54.8
Heavy Trucks:	55.0	55.0	46.0	47.3	55.6	55.7
Vehicle Noise:	57.5	57.5	49.9	49.7	58.1	58.3

Tuesday, January 21, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (CALVENO) - v5/13/24

Scenario: Backyard
Road Name: Rose Rd.

Project Name: Tres Cerritos
Job Number: 15939
Analyst: N. Johnson

SITE SPECIFIC INPUT DATA	NOISE MODEL INPUTS

Highway Data

Average Daily Traffic (Adt):	17,640 vehicles
Peak Hour Percentage:	7.10%
Peak Hour Volume:	1,252 vehicles
Vehicle Speed:	40 mph
Near/Far Lane Distance:	21 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	165.0 feet
Centerline Dist. to Observer:	175.0 feet
Barrier Distance to Observer:	10.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	1,513.1 feet
Road Elevation:	1,503.2 feet
Barrier Elevation:	1,513.1 feet
Road Grade:	1.0%

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.00	
Medium Trucks:	1,505.50	
Heavy Trucks:	1,511.20	*Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos:	########
Medium Trucks:	164.648
Heavy Trucks:	164.309

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	67.36	-0.46	-22.40	-1.20	*5.05*	-15.330	-18.330
Medium Trucks:	76.31	-17.70	-7.87	-1.20	*-0.87*	0.000	0.000
Heavy Trucks:	81.16	-21.66	-7.85	-1.20	*-1.02*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	43.3	42.9	41.1	35.1	43.7	44.3
Medium Trucks:	49.5	49.5	43.2	41.6	50.1	50.3
Heavy Trucks:	50.4	50.5	41.5	42.7	51.1	51.2
Vehicle Noise:	53.5	53.5	46.8	45.6	54.0	54.3

Mitigated Noise Levels (with Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	28.0	27.6	25.8	19.7	28.4	29.0
Medium Trucks:	49.5	49.5	43.2	41.6	50.1	50.3
Heavy Trucks:	50.4	50.5	41.5	42.7	51.1	51.2
Vehicle Noise:	53.0	53.1	45.5	45.2	53.6	53.8

Tuesday, January 21, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (CALVENO) - v5/13/24

Scenario: Backyard With Wall
Road Name: Rose Rd.

Project Name: Tres Cerritos
Job Number: 15939
Analyst: N. Johnson

SITE SPECIFIC INPUT DATA	NOISE MODEL INPUTS

Highway Data

Average Daily Traffic (Adt):	17,640 vehicles
Peak Hour Percentage:	7.10%
Peak Hour Volume:	1,252 vehicles
Vehicle Speed:	40 mph
Near/Far Lane Distance:	21 feet

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	165.0 feet
Centerline Dist. to Observer:	175.0 feet
Barrier Distance to Observer:	10.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	1,513.1 feet
Road Elevation:	1,503.2 feet
Barrier Elevation:	1,513.1 feet
Road Grade:	1.0%

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.00	
Medium Trucks:	1,505.50	
Heavy Trucks:	1,511.20	*Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos:	########
Medium Trucks:	164.648
Heavy Trucks:	164.309

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	67.36	-0.46	-22.40	-1.20	*5.05*	-15.330	-18.330
Medium Trucks:	76.31	-17.70	-7.87	-1.20	*-0.87*	0.000	0.000
Heavy Trucks:	81.16	-21.66	-7.85	-1.20	*-1.02*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	43.3	42.9	41.1	35.1	43.7	44.3
Medium Trucks:	49.5	49.5	43.2	41.6	50.1	50.3
Heavy Trucks:	50.4	50.5	41.5	42.7	51.1	51.2
Vehicle Noise:	53.5	53.5	46.8	45.6	54.0	54.3

Mitigated Noise Levels (with Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	28.0	27.6	25.8	19.7	28.4	29.0
Medium Trucks:	49.5	49.5	43.2	41.6	50.1	50.3
Heavy Trucks:	50.4	50.5	41.5	42.7	51.1	51.2
Vehicle Noise:	53.0	53.1	45.5	45.2	53.6	53.8

Tuesday, January 21, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (CALVENO) - v5/13/24

Scenario: First Floor With Wall	*Project Name:* Tres Cerritos
Road Name: Rose Rd.	*Job Number:* 15939
	Analyst: N. Johnson

SITE SPECIFIC INPUT DATA	NOISE MODEL INPUTS

Highway Data

Average Daily Traffic (Adt):	17,640 vehicles
Peak Hour Percentage:	7.10%
Peak Hour Volume:	1,252 vehicles
Vehicle Speed:	40 mph
Near/Far Lane Distance:	21 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	165.0 feet
Centerline Dist. to Observer:	185.0 feet
Barrier Distance to Observer:	20.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	1,513.1 feet
Road Elevation:	1,503.2 feet
Barrier Elevation:	1,513.1 feet
Road Grade:	1.0%

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.00
Medium Trucks:	1,505.50
Heavy Trucks:	1,511.20 *Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos:	########
Medium Trucks:	174.639
Heavy Trucks:	174.320

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	67.36	-0.46	-22.44	-1.20	*13.20*	-17.484	-20.484
Medium Trucks:	76.31	-17.70	-8.25	-1.20	*-0.34*	0.000	0.000
Heavy Trucks:	81.16	-21.66	-8.24	-1.20	*-0.48*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	43.3	42.8	41.1	35.0	43.6	44.3
Medium Trucks:	49.2	49.1	42.8	41.2	49.7	49.9
Heavy Trucks:	50.1	50.1	41.1	42.3	50.7	50.8
Vehicle Noise:	53.1	53.1	46.5	45.3	53.7	53.9

Mitigated Noise Levels (with Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	25.8	25.4	23.6	17.5	26.2	26.8
Medium Trucks:	49.2	49.1	42.8	41.2	49.7	49.9
Heavy Trucks:	50.1	50.1	41.1	42.3	50.7	50.8
Vehicle Noise:	52.7	52.7	45.1	44.8	53.2	53.4

Tuesday, January 21, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (CALVENO) - v5/13/24

Scenario: Second Floor With Wall
Road Name: Rose Rd.

Project Name: Tres Cerritos
Job Number: 15939
Analyst: N. Johnson

SITE SPECIFIC INPUT DATA	NOISE MODEL INPUTS

Highway Data

Average Daily Traffic (Adt):	17,640 vehicles
Peak Hour Percentage:	7.10%
Peak Hour Volume:	1,252 vehicles
Vehicle Speed:	40 mph
Near/Far Lane Distance:	21 feet

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	165.0 feet
Centerline Dist. to Observer:	185.0 feet
Barrier Distance to Observer:	20.0 feet
Observer Height (Above Pad):	14.0 feet
Pad Elevation:	1,513.1 feet
Road Elevation:	1,503.2 feet
Barrier Elevation:	1,513.1 feet
Road Grade:	1.0%

Noise Source Elevations (in feet)

Autos:	0.00
Medium Trucks:	1,505.50
Heavy Trucks:	1,511.20

Grade Adjustment: 0.0

Lane Equivalent Distance (in feet)

Autos:	########
Medium Trucks:	175.518
Heavy Trucks:	174.908

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	67.36	-0.46	-22.45	-1.20	*8.16*	-16.648	-19.648
Medium Trucks:	76.31	-17.70	-8.28	-1.20	*-3.20*	0.000	0.000
Heavy Trucks:	81.16	-21.66	-8.26	-1.20	*-3.62*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	43.2	42.8	41.1	35.0	43.6	44.2
Medium Trucks:	49.1	49.1	42.7	41.2	49.7	49.9
Heavy Trucks:	50.0	50.1	41.1	42.3	50.7	50.8
Vehicle Noise:	53.1	53.1	46.5	45.2	53.7	53.9

Mitigated Noise Levels (with Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	26.6	26.2	24.4	18.4	27.0	27.6
Medium Trucks:	49.1	49.1	42.7	41.2	49.7	49.9
Heavy Trucks:	50.0	50.1	41.1	42.3	50.7	50.8
Vehicle Noise:	52.6	52.7	45.0	44.8	53.2	53.4

Tuesday, January 21, 2025

APPENDIX 10.1:

CARRIER MODEL 25HCE4 PRODUCT DATA

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Carrier

turn to the experts™

Product Data

Puron.

Comfort
S E R I E S

Carrier heat pumps with Puron® refrigerant provide a collection of features unmatched by any other family of equipment. The 25HCE4 has been designed utilizing Carrier's Puron refrigerant. The environmentally sound refrigerant allows consumers to make a responsible decision in the protection of the earth's ozone layer.

NOTE: **Ratings contained in this document are subject to change at any time. Always refer to the AHRI directory (www.ahridirectory.org) for the most up-to-date ratings information.**

INDUSTRY LEADING FEATURES / BENEFITS

Efficiency
- 14 SEER / 11.5 - 11.7 EER / 8.2 HSPF
- Microtube Technology™ refrigeration system
- Indoor air quality accessories available

Sound
- Sound level as low as 69 dBA
- Sound levels as low as 68 dBA with accessory sound blanket

Comfort
- System supports CôR™, Edge® or standard thermostat controls

Reliability
- Puron® refrigerant - environmentally sound, won't deplete the ozone layer and low lifetime service cost.
- Scroll compressor
- Internal pressure relief valve
- Internal thermal overload
- High pressure switch
- Loss of charge switch
- Filter drier
- Balanced refrigeration system for maximum reliability

Durability
WeatherArmor™ protection package:
- Solid, durable sheet metal construction
- Dense wire coil guard
- Baked-on powder paint

Applications
- Long-line - up to 250 feet (76.20 m) total equivalent length, up to 200 feet (60.96 m) condenser above evaporator, or up to 80 ft. (24.38 m) evaporator above condenser (See Longline Guide for more information.)
- Low ambient (down to -20°F/-28.9°C) with accessory kit

MODEL NUMBER NOMENCLATURE

1	2	3	4	5	6	7	8	9	10	11	12	13
N	N	A	A	A/N	N	N	N	A/N	A/N	A/N	N	N
2	5	H	C	E	4	3	6	A	0	0	3	0
Product Series	Product Family	Tier	Major Series	SEER	Cooling Capacity		Grille Variations		Open	Open	Voltage	Minor Series
25 = HP	H = RES HP	C=Comfort	E = Puron	4=14 SEER			A=Dense Grille		0=Not Defined	0=Not Defined	3=208/230−1	0, 1, 2...

PURON

AHRI CERTIFIED™
www.ahridirectory.org

Use of the AHRI Certified TM Mark indicates a manufacturer's participation in the program For verification of certification for individual products, go to www.ahridirectory.org.

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STANDARD FEATURES

Feature	18	24	30	37	42	48	60
Puron Refrigerant	X	X	X	X	X	X	X
Scroll Compressor	X	X	X	X	X	X	X
Field Installed Filter Drier	X	X	X	X	X	X	X
Front Seating Service Valves	X	X	X	X	X	X	X
Internal Pressure Relief Valve	X	X	X	X	X	X	X
Internal Thermal Overload	X	X	X	X	X	X	X
Long Line capability	X	X	X	X	X	X	X
Low Ambient capability with Kit	X	X	X	X	X	X	X
Suction Line Accumulator	X	X	X	X	X	X	X
High Pressure Switch	X	X	X	X	X	X	X
Loss of Charge Switch	X	X	X	X	X	X	X

X = Standard

PHYSICAL DATA

UNIT SIZE SERIES	18−30	24−30	30−30	37−30	42−30	48−30	60−30
Compressor Type	Scroll						
REFRIGERANT	Puron® (R−410A)						
Control	TXV (Puron Hard Shutoff)						
Charge lb (kg)	5.3 (2.4)	5.6 (2.5)	6.4 (2.9)	7.67 (3.48)	8.25 (3.74)	8.68 (3.94)	10.6 (4.81)
COND FAN	Forward Swept or Propeller Type, Direct Drive						
Air Discharge	Vertical						
VALVE CONNECT. (In. ID)							
Vapor	5/8	5/8	3/4	3/4	7/8	7/8	7/8
Liquid	3/8						
REFRIGERANT TUBES* (In. OD)							
Rated Vapor	5/8	5/8	3/4	3/4	7/8	7/8	1−1/8
Max Liquid Line	3/8						

*Units are rated with 25 ft (7.6 m) of lineset length. See *Vapor Line Sizing and Cooling Capacity Loss* table when using other sizes and lengths of lineset.

Note: See unit Installation Instruction for proper installation.

VAPOR LINE SIZING AND COOLING CAPACITY LOSS

Acceptable vapor line diameters provide adequate oil return to the compressor while avoiding excessive capacity loss. The suction line diameters shown in the chart below are acceptable for HP systems with Puron refrigerant:

Vapor Line Sizing and Cooling Capacity Losses – Puron® Refrigerant 1- Stage Heat Pump Applications

Unit Nominal Size (Btuh)	Acceptable Vapor Line Diameters (In. OD)	Cooling Capacity Loss (%) Total Equivalent Line Length (ft)										
		Standard Application			Long Line Application Requries Accessories							
		25 (7.62)	50 (15.2)	80 (24.4)	80+ (24.4+)	100 (30.48)	125 (38.10)	150 (45.72)	175 (53.34)	200 (60.96)	225 (68.58)	250 (76.20)
18000 1−Stage HP	1/2	1	2	3	3	4	6	7	8	9	10	12
	5/8	0	0	1	1	1	1	2	2	3	3	3
24000 1−Stage HP	5/8	0	1	1	1	2	3	3	4	4	5	6
	3/4	0	0	0	0	0	1	1	1	1	1	2
30000 1−Stage HP	5/8	1	2	3	3	3	4	5	6	7	8	9
	3/4	0	0	1	1	1	1	2	2	2	3	3
	7/8	0	0	0	0	0	1	1	1	1	1	1
36000 1−Stage HP	5/8	1	2	4	4	5	6	7	9	10	11	13
	3/4	0	0	1	1	1	2	2	3	3	4	4
	7/8	0	0	0	0	0	1	1	1	1	2	2
42000 1−Stage HP	3/4	0	1	2	2	2	3	4	4	5	6	6
	7/8	0	0	1	1	1	1	2	2	2	3	3
48000 1−Stage HP	3/4	0	1	2	2	3	4	5	5	6	7	8
	7/8	0	0	1	1	1	2	2	2	3	3	4
60000 1−Stage Puron HP	3/4	1	2	4	4	5	6	7	9	10	11	12
	7/8	0	1	2	2	2	3	4	4	5	5	6
	1 1/8	0	0	0	0	1	1	1	1	1	1	2

Standard Length = 80 ft. (24.4 m) or less total equivalent length

Applications in this area are long line. Accessories are required as shown recommended on Long Line Application Guidelines

Applications in this area may have height restrictions that limit allowable total equivalent length, when outdoor unit is below indoor unit See Long Line Application Guidelines

REFRIGERANT PIPING LENGTH LIMITATIONS

Maximum Line Lengths:

The maximum allowable total equivalent length for heat pumps varies depending on the vertical separation. See the tables below for allowable lengths depending on whether the outdoor unit is on the same level, above or below the outdoor unit.

Maximum Line Lengths for Heat Pump Applications

	MAXIMUM ACTUAL LENGTH ft (m)	MAXIMUM EQUIVALENT LENGTH† ft (m)	MAXIMUM VERTICAL SEPARATION ft (m)
Units on equal level	200 (61)	250 (76.2)	N/A
Outdoor unit ABOVE indoor unit	200 (61)	250 (76.2)	200 (61)
Outdoor unit BELOW indoor unit	See Table 'Maximum Total Equivalent Length: Outdoor Unit BELOW Indoor Unit'		

† Total equivalent length accounts for losses due to elbows or fitting. See the Long Line Guideline for details.

Maximum Total Equivalent Length† – Outdoor Unit BELOW Indoor Unit

Size	Liquid Line Diameter w/ TXV	HP with Puron® Refrigerant – Maximum Total Equivalent Length† Vertical Separation ft (m) Outdoor unit BELOW indoor unit;						
		0–20 (0 – 6.1)	21–30 (6.4 – 9.1)	31–40 (9.4 – 12.2)	41–50 (12.5 – 15.2)	51–60 (15.5 – 18.3)	61–70 (18.6 – 21.3)	71–80 (21.6 – 24.4)
18000 HP with Puron	3/8	250*	250*	250*	250*	250*	250*	250*
24000 HP with Puron	3/8	250*	250*	250*	250*	250*	250*	250*
30000 HP with Puron	3/8	250*	250*	250*	250*	250*	250*	250*
36000 HP with Puron	3/8	250*	250*	250*	250*	250*	250*	250*
42000 HP with Puron	3/8	250*	250*	250*	250*	250*	250*	150
48000 HP with Puron	3/8	250*	250*	250*	250*	230	160	– –
60000 HP with Puron	3/8	250*	225*	190	150	110	– –	– –

* Maximum actual length not to exceed 200 ft (61 m)

† Total equivalent length accounts for losses due to elbows or fitting. See the Long Line Guideline for details.

– – = outside acceptable range

LONG LINE APPLICATIONS

An application is considered Long Line when the refrigerant level in the system requires the use of accessories to maintain acceptable refrigerant management for systems reliability. Defining a system as long line depends on the liquid line diameter, actual length of the tubing, and vertical separation between the indoor and outdoor units.

For Heat Pump systems, the chart below shows when an application is considered Long Line. Beyond these lengths, long line accessories are required:

HP WITH PURON® REFRIGERANT LONG LINE DESCRIPTION ft (m)
Beyond these lengths, long line accessories are required

Liquid Line Size	Units On Same Level	Outdoor Below Indoor	Outdoor Above Indoor
3/8	80 (24.4)	20 (6.1) vertical or 80 (24.4) total	80 (24.4)

Note: See Long Line Guideline for details

ACCESSORIES

ORDER NUMBER	DESCRIPTION	18−30	24−30	30−30	37−30	42−30	48−30	60−30
HC32GE234	BALL BEARING FAN MOTOR	X						
HC34GE240	BALL BEARING FAN MOTOR		X	X		X		
HC38GE219	BALL BEARING FAN MOTOR				X			
HC40GE228	BALL BEARING FAN MOTOR						X	X
KAACH1601AAA	CRKC HTR KIT						X	X
KAACH1701AAA	CRKC HTR KIT	X	X	X	X			
KAACS0201PTC	KIT PTC	X	X	X	X	X	X	X
KAAFT0101AAA	FRZ THERM KIT	X	X	X	X	X	X	X
KAATD0101TDR	TIME DELAY KIT	X	X	X	X	X	X	X
KHAIR0201AAA	ISLN RELAY KIT	X	X	X	X	X	X	X
KHALS0401LLS	SOL VALVE KIT	X	X	X	X	X	X	X
KHAOT0201SEC	OUTDR THERM KIT	X	X	X	X	X	X	X
KHAOT0301FST	OUTDR THERM KIT	X	X	X	X	X	X	X
KHASS0606MPK	SNOW STAND KIT	X	X	X	X	X	X	X
KSACY0101AAA	CYCLE PROTR KIT	X	X	X	X	X	X	X
KSAHS1701AAA	HARD START KIT	X	X	X	X	X	X	X
KSALA0301410	LOW AMBIENT KIT	X	X	X	X	X	X	X
KSALA0601AAA	MOTORMASTER KIT	X	X	X	X	X	X	X
KSASF0101AAA	SPRT FEET KIT			X	X	X	X	X
KSASF0201AAA	SPRT FEET KIT	X	X					
KSASH0601COP	SOUND BLKT KIT	X	X	X	X	X		
KSASH2101COP	SOUND BLKT KIT						X	X
KSATX0201PUR	TXV KIT (for copper coils)	X	X	X				
KSATX0301PUR	TXV KIT (for copper coils)				X	X		
KSATX0501PUR	TXV KIT (for copper coils)						X	X
KSBTX0201PUR	TXV KIT (for aluminum coils)	X	X	X				
KSBTX0301PUR	TXV KIT (for aluminum coils)				X	X		
KSBTX0401PUR	TXV KIT (for aluminum coils)						X	X

x = Accessory

ACCESSORY THERMOSTATS

Part Number	Description	Capabilities			Heat Stages	Cooling Stages
		Gas	Electric	Heat Pump		
TP−WEM01	CôR™, Wi−Fi Programmable Relative Humidity Thermostat	X	X	X	4	2
TP−PRH01−A	edge™ Programmable Relative Humidity Thermostat	X	X	X	3	2
TP−PHP01	edge™ Programmable Thermostat (HP or AC)		X	X	3	2
TP−NRH01	edge™ Non−Programmable Relative Humidity Thermostat	X	X	X	3	2
TP−NHP01	edge™ Non−Programmable Thermostat (HP or AC)		X	X	3	2
TC−WHS01	Wi−Fi® Programmable	X	X	X	3	2
TC−PHP01	Programmable Thermostat (HP or AC)		X	X	3	2
TC−NHP01	Non−Programmable Thermostat (HP or AC)		X	X	3	2
TB−PHP01	Programmable Thermostat (HP or AC)		X	X	2	1
TB−NHP01	Non−Programmable Thermostat (HP or AC)		X	X	2	1

Thermostat Accessories		
Part Number	Description	Used With
TP−EXP	EXP® Card for Programmable Thermostats	TP−Pxx
TSTATXXCNV10	Thermostat Conversion Kit (4 to 5 wire) 10 pack	All Carrier branded thermostats
TX−LBP01	Large Decorative Backplate	TP−Pxx, TP−Nxx, TC−Pxx
TX−MBP01	Medium Decorative Backplate	TC−Nxx, TB−Pxx
TX−SBP01	Small Decorative Backplate	TB−Nxx

ACCESSORY USAGE GUIDELINE

Accessory	REQUIRED FOR LOW−AMBIENT COOLING APPLICATIONS (Below 55°F / 12.8°C)	REQUIRED FOR LONG LINE APPLICATIONS*	REQUIRED FOR SEA COAST APPLICATIONS (Within 2 miles / 3.22 km)
Accumulator	Standard	Standard	Standard
Ball Bearing Fan Motor	Yes†	No	No
Compressor Start Assist Capacitor and Relay	Yes	Yes	No
Crankcase Heater	Yes	Yes	No
Evaporator Freeze Thermostat	Yes	No	No
Hard Shutoff TXV	Yes	Yes	No
Isolation Relay	Yes	No	No
Liquid Line Solenoid Valve	No	See Long−Line Application Guideline	No
Motor Master® Control or Low Ambient Switch	Yes	No	No
Support Feet	Recommended	No	Recommended

* For tubing line sets between 80 and 200 ft. (24.38 and 60.96 m) and/or 20 ft. (6.09 m) vertical differential, refer to Residential Split−System Longline Application Guideline.

† Additional requirement for Low−Ambient Controller (full modulation feature) MotorMaster® Control.

Accessory Description and Usage (Listed Alphabetically)

1. Ball-Bearing Fan Motor

A fan motor with ball bearings which permits speed reduction while maintaining bearing lubrication.

>   Usage Guideline:
>
>   Required on all units when using MotorMaster®

2. Compressor Start Assist - Capacitor and Relay

Start capacitor and relay gives a hard boost to compressor motor at each start up.

>   Usage Guideline:
>
>   Required for reciprocating compressors in the following applications:
>
>   Long line
>
>   Low ambient cooling
>
>   Hard shut off expansion valve on indoor coil
>
>   Liquid line solenoid on indoor coil
>
>   Required for single-phase scroll compressors in the following applications:
>
>   Long line
>
>   Low ambient cooling
>
>   Suggested for all compressors in areas with a history of low voltage problems.

3. Compressor Start Assist — PTC Type

Solid state electrical device which gives a soft boost to the compressor at each start-up.

>   Usage Guideline:
>
>   Suggested in installations with marginal power supply.

4. Crankcase Heater

An electric resistance heater which mounts to the base of the compressor to keep the lubricant warm during off cycles. Improves compressor lubrication on restart and minimizes the chance of liquid slugging.

>   Usage Guideline:
>
>   Required in low ambient cooling applications.
>
>   Required in long line applications.
>
>   Suggested in all commercial applications.

5. Evaporator Freeze Thermostat

An SPST temperature-actuated switch that stops unit operation when evaporator reaches freeze-up conditions.

>   Usage Guideline:
>
>   Required when low ambient kit has been added.

6. Isolation Relay

An SPDT relay which switches the low-ambient controller out of the outdoor fan motor circuit when the heat pump switches to heating mode.

>   Usage Guideline:
>
>   Required in all heat pumps where low ambient kit has been added.

7. Liquid-Line Solenoid Valve (LLS)

An electrically operated shutoff valve which stops and starts refrigerant liquid flow in response to compressor operation. It is to be installed at the outdoor unit to control refrigerant off cycle migration in the heating mode.

>   Usage Guideline:
>
>   An LLS is required in all long line heat pump applications to control refrigerant off cycle migration in the heating mode. See Long Line Guideline.

8. Low-Ambient Pressure Switch Kit

A long life pressure switch which is mounted to outdoor unit service valve. It is designed to cycle the outdoor fan motor in order to maintain head pressure within normal operating limits. The control will maintain working head pressure at low-ambient temperatures down to 0°F (-18°C) when properly installed.

>   Usage Guideline:
>
>   A Low-Ambient Pressure Switch or MotorMaster® Low-Ambient Controller must be used when cooling operation is used at outdoor temperatures below 55°F (12.8°C).

9. MotorMaster® Low-Ambient Controller

A fan-speed control device activated by a temperature sensor, designed to control condenser fan motor speed in response to the saturated, condensing temperature during operation in cooling mode only. For outdoor temperatures down to -20°F (-28.9°C), it maintains condensing temperature at 100°F ±10°F (37.8°C ± 6.5°C).

>   Usage Guideline:
>
>   A MotorMaster®   Low Ambient Controller or Low-Ambient Pressure Switch must be used when cooling operation is used at outdoor temperatures below 55°F (12.8°C).

Suggested for all commercial applications.

Accessory Description and Usage (Listed Alphabetically) – CONTINUED

10. Outdoor Air Temperature Sensor

Designed for use with Carrier Thermostats listed in this publication. This device enables the thermostat to display the outdoor temperature. This device also is required to enable special thermostat features such as auxiliary heat lock out.

> Usage Guideline:
>
> > Suggested for all Carrier thermostats listed in this publication.

11. Outdoor Thermostat

An SPDT temperature-actuated switch which turns on supplemental electric heaters when outdoor air temperature drops below a user-selected set point.

> Usage Guideline:
>
> > Electric supplemental heat applications in non-variable speed indoor units when electric heat staging is desired.

12. Secondary Outdoor Thermostat

An SPDT temperature-actuated switch which turns on third-stage of supplemental electric heaters when outdoor air temperature drops below the second-stage set point.

> Usage Guideline:
>
> > Outdoor thermostat applications where electric heater is capable of 3-stage operation.

13. Snow Stand Rack

Coated wire rack which supports unit 18 in. (457.2 mm) above mounting pad to allow for drainage from unit base.

> Usage Guideline:
>
> > Suggested in the following applications:
> >
> > > Heat pump installations in heavy snowfall areas.
> > >
> > > Heat pump installations in snow drift locations.
> > >
> > > Heat pump installations in areas of prolonged subfreezing temperatures.
> > >
> > > All commercial installations.

14. Sound Hood

Wraparound sound reducing cover for the compressor. Reduces the sound level by about 2 dBA.

> Usage Guideline:
>
> > Suggested when unit is installed closer than 15 ft. (4.577 m) to quiet areas, bedrooms, etc.
> >
> > Suggested when unit is installed between two houses less than 10 ft. (3.05 m) apart.

15. Thermostatic Expansion Valve (TXV) Bi-Flow

A modulating flow-control valve which meters refrigerant liquid flow rate into the evaporator in response to the superheat of the refrigerant gas leaving the evaporator.

> Usage Guideline:
>
> > Accessory required to meet AHRI rating and system reliability, where indoor not equipped.
> >
> > Required in all heat pump applications designed with Puron refrigerant.

16. Time-Delay Relay

An SPST delay relay which briefly continues operation of indoor blower motor to provide additional cooling after the compressor cycles off.

Note: Most indoor unit controls include this feature. For those that do not, use the guideline below.

> Usage Guideline:
>
> > Accessory required to meet AHRI rating, where indoor not equipped.

ELECTRICAL DATA

UNIT SIZE	V/PH	OPER VOLTS*		COMPR		FAN	MCA	MAX FUSE** or CKT BRK AMPS
		MAX	MIN	LRA	RLA	FLA		
18				48.0	9.0	0.50	11.8	20
24				62.9	10.9	0.60	14.2	25
30				72.5	13.5	1.40	16.9	30
37	208/230/1	253	197	75.0	14.7	1.10	19.5	30
42				105.1	18.1	1.10	24.0	40
48				108.0	19.0	1.40	25.2	40
60				144.2	24.4	1.52	32.0	50

*   Permissible limits of the voltage range at which the unit will operate satisfactorily

†   If wire is applied at ambient greater than 30°C, consult table 310−16 of the NEC (NFPA 70). The ampacity of non−metallic−sheathed cable (NM), trade name ROMEX, shall be that of 60°C conditions, per the NEC (NFPA 70) Article 336−26. If other than uncoated (no−plated), 60 or 75°C insulation, copper wire (solid wire for 10 AWG or smaller, stranded wire for larger than 10 AWG) is used, consult applicable tables of the NEC (NFPA 70).

‡   Length shown is as measured 1 way along wire path between unit and service panel for voltage drop not to exceed 2%.

**   Time−Delay fuse.

FLA − Full Load Amps
LRA − Locked Rotor Amps
MCA −   Minimum Circuit Amps
RLA − Rated Load Amps

NOTE: Control circuit is 24−V on all units and requires external power source. Copper wire must be used from service disconnect to unit.
All motors/compressors contain internal overload protection.
Complies with 2007 requirements of ASHRAE Standards 90.1

A-WEIGHTED SOUND POWER

UNIT SIZE	STANDARD RATING (dBA)	TYPICAL OCTAVE BAND SPECTRUM (dBA, without tone adjustment)						
		125	250	500	1000	2000	4000	8000
18	69	45	48	56	62	55	53	47
24	76	46	56	59	63	63	60	55
30	77	52	62	67	68	65	62	55
37	77	51	62	66	69	64	61	53
42	76	49	61	63	65	62	60	52
48	79	53	66	69	71	67	64	57
60	73	50	63	62	63	60	58	52

NOTE: Tested in accordance with AHRI Standard 270−08 (not listed in AHRI).

A-WEIGHTED SOUND POWER WITH SOUND HOOD

UNIT SIZE	STANDARD RATING	TYPICAL OCTAVE BAND SPECTRUM (dBA, without tone adjustment)						
		125	250	500	1000	2000	4000	8000
18	68	47	48	56	61	55	52	46
24	74	47	57	59	62	61	58	51
30	77	52	62	67	67	65	62	54
37	76	52	62	66	67	64	60	52
42	74	50	61	63	64	61	58	49
48	79	54	66	69	70	67	64	56
60	73	51	64	62	63	59	56	49

NOTE: Tested in accordance with AHRI Standard 270−08 (not listed in AHRI).

CHARGING SUBCOOLING (TXV-TYPE EXPANSION DEVICE)

UNIT SIZE−SERIES	REQUIRED SUBCOOLING °F (°C)
18	11 (6.1)
24	11 (6.1)
30	10 (5.6)
37	10 (5.6)
42	10 (5.6)
48	11 (6.1)
60	15 (8.3)

HP ONLY REPLACEMENT WITH PISTON INDOORS

When the 25HCE4 is used as a replacement component in a system with a piston fan coil, use the indoor piston size specified below:

UNIT SIZE	PISTON SIZE		
	FB4CNF	FFM	FPMA
18	0.052	0.050	0.050
24	0.057	0.057	0.056
30	0.067	0.070	0.067
37	0.070	0.072	0.069
42	0.078		
48	0.084		
60			
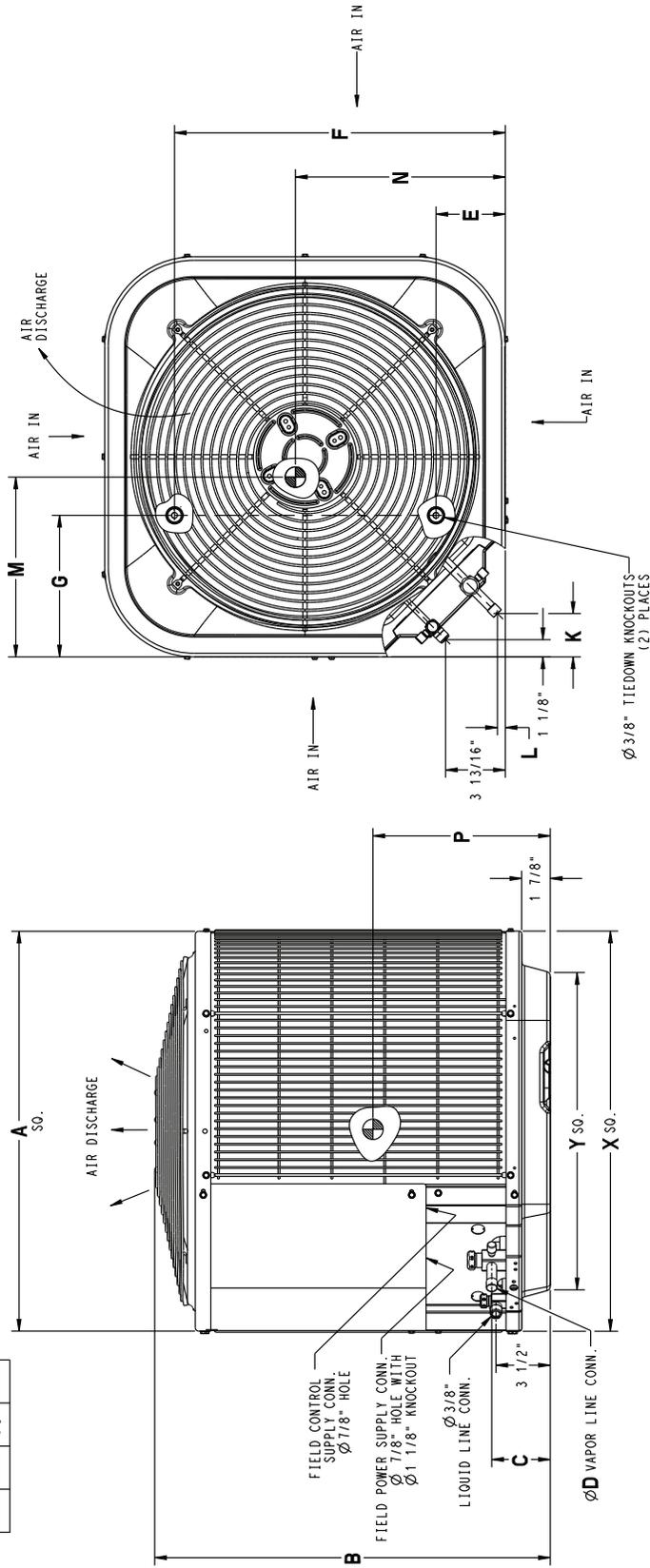
▓ = N/A

DIMENSIONS - ENGLISH

UNIT	SERIES	ELECTRICAL CHARACTERISTICS 208-230-1-60	230-1-60	208/230-3-60	460-3-60	A	B	C	D	E	F	G	K	L	M	N	P	OPERATING WEIGHT (lbs)	SHIPPING WEIGHT (lbs)	SHIPPING DIMENSIONS (L x W x H)
25HCE418	0	X	O	O	O	23 1/8"	35 1/4"	3 3/4"	5/8"	4 7/16"	18 1/16"	7 13/16"	2 13/16"	1/2"	11"	15 3/4"	12"	136	166	25 1/4" X 25 1/4" X 40"
25HCE424	0	X	O	O	O	25 3/4"	35 1/4"	3 3/4"	5/8"	4 7/16"	21 1/4"	9 1/8"	2 13/16"	1/2"	12"	13 1/4"	13 1/2"	144	175	27 7/8" X 27 7/8" X 40"
25HCE430	0	X	O	O	O	31 3/16"	31 13/16"	3 3/4"	3/4"	6 9/16"	24 11/16"	9 1/8"	2 15/16"	5/8"	15"	11"	16"	158	180	33 3/8" X 33 3/8" X 36 5/8"
25HCE437	0	X	O	O	O	31 3/16"	28 7/16"	3 3/4"	3/4"	6 9/16"	24 11/16"	9 1/8"	2 15/16"	5/8"	15 3/4"	14"	10 3/4"	170	201	33 3/8" X 33 3/8" X 33 1/4"
25HCE442	0	X	O	O	O	31 3/16"	39 1/8"	3 7/8"	7/8"	6 9/16"	24 11/16"	9 1/8"	2 15/16"	5/8"	15 1/2"	13 1/2"	14"	201	235	33 3/8" X 33 3/8" X 43 1/2"
25HCE448	0	X	O	O	O	31 3/16"	28 7/16"	3 7/8"	7/8"	6 9/16"	24 11/16"	9 1/8"	2 15/16"	5/8"	16 1/2"	11 1/2"	15"	197	232	33 3/8" X 33 3/8" X 33 1/4"
25HCE460	0	X	O	O	O	31 3/16"	31 13/16"	3 7/8"	7/8"	6 9/16"	24 11/16"	9 1/8"	2 15/16"	5/8"	14 3/4"	15 3/4"	16 1/4"	212	248	33 3/8" X 33 3/8" X 36 5/8"

X = YES
O = NO

UNIT SIZE	"X" MIN GROUND MOUNTING PAD APPLICATION DIMENSIONS	"Y" MIN ROOF-TOP MOUNTING PAD APPLICATION DIMENSIONS
18	23 1/8"	17 3/4"
24	25 3/4"	20 7/16"
30, 37, 42, 48, 60	31 3/16"	23"
-	35"	26 3/4"

AIR IN

AIR DISCHARGE

AIR IN

AIR IN

Ø 3/8" TIEDOWN KNOCKOUTS (2) PLACES

AIR IN

AIR DISCHARGE

FIELD CONTROL SUPPLY CONN. Ø 7/8" HOLE

FIELD POWER SUPPLY CONN. Ø 7/8" HOLE WITH Ø 1 1/8" KNOCKOUT

LIQUID LINE CONN. Ø 3/8"

ØD VAPOR LINE CONN.

When installing, allow sufficient space for airflow clearance, wiring, refrigerant piping, and service. Allow 24 in. (609.6 mm) clearance to service end of unit and 48 in. (1219.2 mm) (above unit. For proper airflow, a 6-in. (152.4 mm) clearance on 1 side of unit and 12-in. (304.8 mm) on all remaining sides must be maintained. Maintain a distance of 24 in. (609.6 mm) between units or 18 in. (457.2 mm) if no overhang within 12 ft. (3.66 m) Position so water, snow, or ice from roof or eaves cannot fall directly on unit.
NOTE: 18" (457.2 mm) clearance option described above is approved for outdoor units with wire grille coil guard only. Units with louver panels require 24" (609.6 mm) between units.
On rooftop applications, locate unit at least 6 in. (152.4 mm) above roof surface.

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DIMENSIONS – SI

UNIT	SERIES	ELECTRICAL CHARACTERISTICS				A	B	C	D	E	F	G	K	L	M	N	P	OPERATING WEIGHT (Kgs)	SHIPPING WEIGHT (Kgs)	SHIPPING DIMENSIONS (L x W x H)
		208-230-1-60	230-1-60	208/230-3-60	460-3-60															
25HCE418	0	X	O	O	O	587.4	895.4	95.2	15.9	112.7	458.8	198.4	71.4	12.7	279.4	400.1	304.8	61.7	75.3	641.5 X 641.5 X 1016.9
25HCE424	0	X	O	O	O	654.0	895.4	95.2	15.9	112.7	539.8	231.8	71.4	12.7	304.8	336.6	342.9	65.3	79.4	708.0 X 708.0 X 1016.9
25HCE430	0	X	O	O	O	792.2	808.0	95.2	19.0	166.7	627.1	231.8	74.6	15.9	381.0	279.4	406.4	71.7	81.6	846.6 X 846.6 X 930.6
25HCE437	0	X	O	O	O	792.2	722.3	95.2	19.0	166.7	627.1	231.8	74.6	15.9	400.1	355.6	273.1	77.1	91.2	846.6 X 846.6 X 844.2
25HCE442	0	X	O	O	O	792.2	993.8	98.4	22.2	166.7	627.1	231.8	74.6	15.9	393.7	342.9	355.6	91.2	106.6	846.6 X 846.6 X 1103.3
25HCE448	0	X	O	O	O	792.2	722.3	98.4	22.2	166.7	627.1	231.8	74.6	15.9	419.1	292.1	381.0	89.4	105.2	846.6 X 846.6 X 844.2
25HCE460	0	X	O	O	O	792.2	808.0	98.4	22.2	166.7	627.1	231.8	74.6	15.9	374.7	400.1	412.8	96.2	112.5	846.6 X 846.6 X 930.6
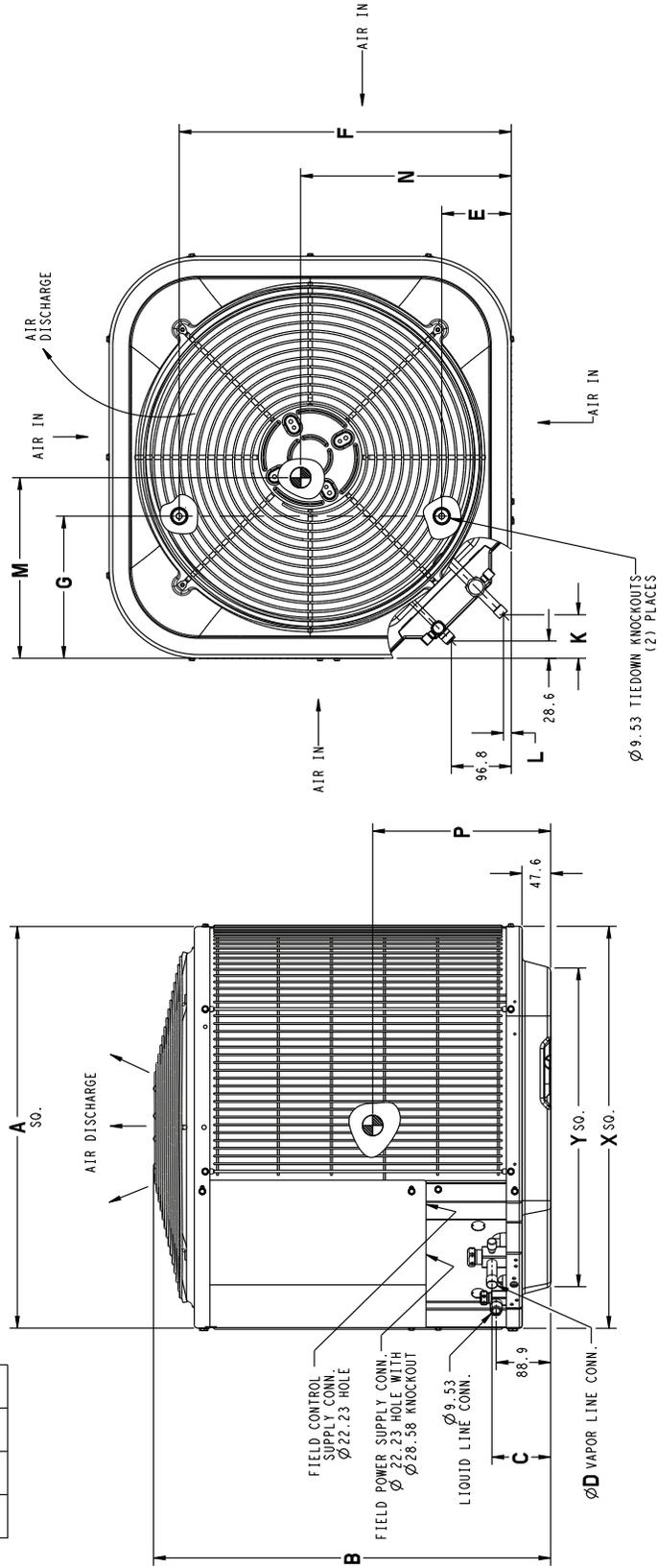
X = YES
O = NO

AIR IN
AIR DISCHARGE
AIR IN
Ø 9.53 TIEDOWN KNOCKOUTS (2) PLACES

FIELD CONTROL SUPPLY CONN. Ø 22.23 HOLE
FIELD POWER SUPPLY CONN. Ø 22.23 HOLE WITH Ø 28.58 KNOCKOUT
LIQUID LINE CONN. Ø 9.53
ØD VAPOR LINE CONN.

UNIT SIZE	"X" MIN GROUND MOUNTING PAD APPLICATION DIMENSIONS	"Y" MIN ROOF-TOP MOUNTING PAD APPLICATION DIMENSIONS
18	587.4	451.3
24	654.0	518.5
30,37,42,48,60	792.2	583.2
-	889.0	679.7

When installing, allow sufficient space for airflow clearance, wiring, refrigerant piping, and service. Allow 24 in. (609.6 mm) clearance to service end of unit and 48 in. (1219.2 mm) (above unit). For proper airflow, a 6–in. (152.4 mm) clearance on 1 side of unit and 12–in. (304.8 mm) on all remaining sides must be maintained. Maintain a distance of 24 in. (609.6 mm) between units or 18 in. (457.2 mm) if no overhang within 12 ft. (3.66 m) Position so water, snow, or ice from roof or eaves cannot fall directly on unit.
NOTE: 18" (457.2 mm) clearance option described above is approved for outdoor units with wire grille coil guard only. Units with louver panels require 24" (609.6 mm) between units.
On rooftop applications, locate unit at least 6 in. (152.4 mm) above roof surface.

APPENDIX 10.2:

CADNAA OPERATIONAL NOISE MODEL INPUTS

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15939 - Tres Cerritos

CadnaA Noise Prediction Model: 15939-02_Operation.cna
Date: 24.01.25
Analyst: B. Maddux

Calculation Configuration

Configuration	
Parameter	**Value**
General	
Max. Error (dB)	0.00
Max. Search Radius (ft)	6561.70
Min. Dist Src to Rcvr	0.00
Partition	
Raster Factor	0.50
Max. Length of Section (ft)	3280.80
Min. Length of Section (ft)	3.30
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	328.08
Search Radius Rcvr	328.08
Max. Distance Source - Rcvr	3280.84 3280.84
Min. Distance Rvcr - Reflector	3.28 3.28
Min. Distance Source - Reflector	0.33
Industrial (ISO 9613 (1996))	
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 (°F)	50
rel. Humidity (%)	70
Ground Absorption G	0.50
Wind Speed for Dir. (mph)	6.7
Roads (TNM)	
Railways (FTA/FRA)	
Aircraft (???)	
Strictly acc. to AzB	

Receiver Noise Levels

Name	M.	ID	Level Lr			Limit. Value			Land Use			Height		Coordinates		
			Day	Night	CNEL	Day	Night	CNEL	Type	Auto	Noise Type			X	Y	Z
			(dBA)	(dBA)	(dBA)	(dBA)	(dBA)	(dBA)				(ft)		(ft)	(ft)	(ft)
R1		R1	36.7	33.9	40.6	0.0	0.0	0.0		x	Total	5.00	r	6323692.44	2219030.87	5.00
R2		R2	35.5	32.8	39.5	0.0	0.0	0.0		x	Total	5.00	r	6323695.04	2218681.92	5.00
R3		R3	27.2	24.5	31.2	0.0	0.0	0.0		x	Total	5.00	r	6327246.46	2217661.08	5.00
R4		R4	33.5	30.7	37.4	0.0	0.0	0.0		x	Total	5.00	r	6326413.84	2218962.21	5.00
R5		R5	26.0	23.2	29.9	0.0	0.0	0.0		x	Total	5.00	r	6327485.49	2221362.85	5.00
R6		R6	26.8	24.1	30.8	0.0	0.0	0.0		x	Total	5.00	r	6325051.63	2222504.86	5.00

Point Source(s)

Name	M.	ID	Result. PWL			Lw / Li			Operating Time			Height		Coordinates		
			Day	Evening	Night	Type	Value	norm.	Day	Special	Night			X	Y	Z
			(dBA)	(dBA)	(dBA)			dB(A)	(min)	(min)	(min)	(ft)		(ft)	(ft)	(ft)
AC001		AC001	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6325261.11	2220762.36	3.00
AC002		AC002	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6325272.39	2220690.31	3.00
AC003		AC003	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6325273.26	2220632.15	3.00
AC004		AC004	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6325270.66	2220577.46	3.00
AC005		AC005	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6325261.11	2220523.64	3.00
AC006		AC006	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6325254.16	2220469.82	3.00
AC007		AC007	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6325245.48	2220410.79	3.00
AC008		AC008	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6325228.12	2220356.11	3.00
AC009		AC009	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6325222.04	2220303.15	3.00
AC010		AC010	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6325226.38	2220246.73	3.00
AC011		AC011	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6325227.25	2220192.04	3.00
AC012		AC012	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6325230.73	2220137.36	3.00
AC013		AC013	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6325249.61	2220032.32	3.00
AC014		AC014	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6325266.97	2219980.24	3.00

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Name	M.	ID	Result. PWL			Lw / Li			Operating Time			Height		Coordinates			
			Day	Evening	Night	Type	Value	norm.	Day	Special	Night			X	Y	Z	
			(dBA)	(dBA)	(dBA)			dB(A)	(min)	(min)	(min)	(ft)		(ft)	(ft)	(ft)	
AC015		AC015	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6324714.62	2219532.41	3.00	
AC016		AC016	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6324765.06	2219822.42	3.00	
AC017		AC017	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6324723.22	2219800.72	3.00	
AC018		AC018	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6325224.95	2219769.99	3.00	
AC019		AC019	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6325225.13	2219717.22	3.00	
AC020		AC020	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6325358.29	2219631.54	3.00	
AC021		AC021	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6325363.41	2219577.11	3.00	
AC022		AC022	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6325377.30	2219532.84	3.00	
AC023		AC023	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6325393.18	2219494.30	3.00	
AC024		AC024	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6325408.81	2219451.76	3.00	
AC025		AC025	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6325430.86	2219410.97	3.00	
AC026		AC026	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6325450.47	2219362.53	3.00	
AC027		AC027	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6325466.97	2219326.94	3.00	
AC028		AC028	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6325481.72	2219287.88	3.00	
AC029		AC029	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6325500.65	2219236.49	3.00	
AC030		AC030	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6325518.88	2219198.29	3.00	
AC031		AC031	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6325522.26	2219160.79	3.00	
AC032		AC032	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6325535.28	2219120.86	3.00	
AC033		AC033	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6325544.83	2219080.06	3.00	
AC034		AC034	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6325551.25	2219037.88	3.00	
AC035		AC035	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6325560.80	2218998.81	3.00	
AC036		AC036	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6325574.52	2218959.40	3.00	
AC037		AC037	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6325586.67	2218917.74	3.00	
AC038		AC038	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6325617.40	2218885.97	3.00	
AC039		AC039	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6325631.29	2218852.11	3.00	
AC040		AC040	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6325039.75	2220696.38	3.00	
AC041		AC041	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6325014.36	2220634.10	3.00	
AC042		AC042	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6324984.20	2220594.17	3.00	
AC043		AC043	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6324965.97	2220542.09	3.00	
AC044		AC044	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6324950.78	2220478.07	3.00	
AC045		AC045	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6324950.78	2220414.26	3.00	
AC046		AC046	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6324993.62	2220161.14	3.00	
AC047		AC047	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6325001.43	2220111.66	3.00	
AC048		AC048	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6325015.75	2220063.48	3.00	
AC049		AC049	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6325023.56	2220027.03	3.00	
AC050		AC050	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6325024.61	2219973.90	3.00	
AC051		AC051	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6325013.15	2219928.07	3.00	
AC052		AC052	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6325015.75	2219882.49	3.00	
AC053		AC053	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6325008.98	2219835.88	3.00	
AC054		AC054	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6325000.00	2219790.00	3.00	
AC055		AC055	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6324997.35	2219736.66	3.00	
AC056		AC056	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6325196.31	2219555.67	3.00	
AC057		AC057	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6325152.82	2219562.70	3.00	
AC058		AC058	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6325113.06	2219562.18	3.00	
AC059		AC059	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6325068.18	2219570.51	3.00	
AC060		AC060	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6325036.93	2219575.72	3.00	
AC061		AC061	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6324993.44	2219575.72	3.00	
AC062		AC062	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6324868.09	2219593.95	3.00	
AC063		AC063	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6324822.52	2219580.93	3.00	
AC064		AC064	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6324780.86	2219565.31	3.00	
AC065		AC065	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6324741.79	2219548.38	3.00	
AC066		AC066	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6324667.57	2219545.78	3.00	
AC067		AC067	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6324683.20	2219502.81	3.00	
AC068		AC068	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6324696.22	2219461.14	3.00	
AC069		AC069	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6324749.39	2219412.75	3.00	
AC070		AC070	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6324778.03	2219394.52	3.00	
AC071		AC071	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6324812.54	2219390.18	3.00	
AC072		AC072	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6324859.41	2219390.18	3.00	
AC073		AC073	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6324715.75	2219433.01	3.00	
AC074		AC074	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6324775.21	2219430.97	3.00	
AC075		AC075	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6324756.98	2219468.74	3.00	
AC076		AC076	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6324773.69	2219508.67	3.00	
AC077		AC077	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6325026.95	2219432.75	3.00	
AC078		AC078	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6325031.72	2219386.75	3.00	
AC079		AC079	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6325031.72	2219342.48	3.00	
AC080		AC080	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6325053.34	2219427.20	3.00	
AC081		AC081	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6325102.60	2219427.20	3.00	
AC082		AC082	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6325145.79	2219426.33	3.00	
AC083		AC083	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6325218.36	2219521.90	3.00	
AC084		AC084	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6325174.87	2219443.17	3.00	
AC085		AC085	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6325190.49	2219402.81	3.00	
AC086		AC086	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6325208.72	2219366.35	3.00	
AC087		AC087	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6325288.67	2219363.05	3.00	
AC088		AC088	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6324959.76	2220107.84	3.00	
AC089		AC089	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6324894.66	2220084.40	3.00	
AC090		AC090	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6324851.69	2220044.04	3.00	
AC091		AC091	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6324806.12	2220010.18	3.00	

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Name	M.	ID	Result. PWL			Lw / Li			Operating Time			Height		Coordinates		
			Day	Evening	Night	Type	Value	norm.	Day	Special	Night			X	Y	Z
			(dBA)	(dBA)	(dBA)			dB(A)	(min)	(min)	(min)	(ft)		(ft)	(ft)	(ft)
AC092		AC092	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6324760.54	2219973.73	3.00
AC093		AC093	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6324704.90	2219902.72	3.00
AC094		AC094	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6324660.63	2219871.73	3.00
AC095		AC095	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6324617.66	2219832.67	3.00
AC096		AC096	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6324574.69	2219800.12	3.00
AC097		AC097	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6324521.83	2219768.61	3.00
AC098		AC098	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6324477.56	2219734.75	3.00
AC099		AC099	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6324433.29	2219703.50	3.00
AC100		AC100	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6324388.75	2219681.37	3.00
AC101		AC101	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6324320.79	2219591.78	3.00
AC102		AC102	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6324366.36	2219610.01	3.00
AC103		AC103	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6324406.72	2219629.54	3.00
AC104		AC104	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6324448.39	2219649.07	3.00
AC105		AC105	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6324486.15	2219667.30	3.00
AC106		AC106	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6324525.21	2219698.55	3.00
AC107		AC107	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6324568.18	2219720.69	3.00
AC108		AC108	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6324604.64	2219738.92	3.00
AC109		AC109	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6324647.61	2219758.45	3.00
AC110		AC110	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6324685.37	2219776.68	3.00
AC111		AC111	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6324867.66	2220340.05	3.00
AC112		AC112	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6324816.45	2220317.91	3.00
AC113		AC113	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6324765.66	2220285.36	3.00
AC114		AC114	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6324721.39	2220260.62	3.00
AC115		AC115	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6324668.01	2220226.76	3.00
AC116		AC116	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6324626.34	2220191.61	3.00
AC117		AC117	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6324582.07	2220148.64	3.00
AC118		AC118	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6324545.18	2220116.30	3.00
AC119		AC119	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6324497.00	2220083.75	3.00
AC120		AC120	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6324452.73	2220044.69	3.00
AC121		AC121	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6324408.46	2220008.23	3.00
AC122		AC122	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6324361.58	2219976.98	3.00
AC123		AC123	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6324319.92	2219935.32	3.00
AC124		AC124	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6324273.04	2219900.16	3.00
AC125		AC125	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6324228.77	2219857.19	3.00
AC126		AC126	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6324189.28	2219791.87	3.00
AC127		AC127	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6324161.06	2219726.98	3.00
AC128		AC128	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6324151.95	2219665.78	3.00
AC129		AC129	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6324142.83	2219599.38	3.00
AC130		AC130	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6324177.56	2218994.13	3.00
AC131		AC131	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6325317.96	2219229.59	3.00
AC132		AC132	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6325272.39	2219211.36	3.00
AC133		AC133	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6325230.73	2219197.03	3.00
AC134		AC134	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6325183.85	2219186.62	3.00
AC135		AC135	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6325134.37	2219186.62	3.00
AC136		AC136	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6325095.31	2219185.32	3.00
AC137		AC137	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6325054.94	2219189.22	3.00
AC138		AC138	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6325011.98	2219186.62	3.00
AC139		AC139	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6324970.31	2219189.22	3.00
AC140		AC140	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6324886.84	2219191.17	3.00
AC141		AC141	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6324846.48	2219189.87	3.00
AC142		AC142	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6324808.72	2219185.97	3.00
AC143		AC143	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6324759.24	2219192.48	3.00
AC144		AC144	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6324713.67	2219195.08	3.00
AC145		AC145	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6324664.10	2219214.44	3.00
AC146		AC146	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6324619.83	2219240.48	3.00
AC147		AC147	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6324582.07	2219266.52	3.00
AC148		AC148	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6324546.48	2219305.93	3.00
AC149		AC149	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6324520.44	2219346.30	3.00
AC150		AC150	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6324500.04	2219386.75	3.00
AC151		AC151	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6324485.72	2219423.21	3.00
AC152		AC152	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6324472.70	2219463.57	3.00
AC153		AC153	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6324438.93	2219452.89	3.00
AC154		AC154	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6324457.16	2219413.83	3.00
AC155		AC155	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6324473.13	2219377.46	3.00
AC156		AC156	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6324490.06	2219343.61	3.00
AC157		AC157	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6324509.85	2219299.33	3.00
AC158		AC158	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6324530.68	2219261.57	3.00
AC159		AC159	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6324556.72	2219230.76	3.00
AC160		AC160	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6324578.42	2219212.96	3.00
AC161		AC161	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6324617.49	2219192.13	3.00
AC162		AC162	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6324663.06	2219171.30	3.00
AC163		AC163	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6324692.92	2219157.67	3.00
AC164		AC164	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6324739.80	2219156.37	3.00
AC165		AC165	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6324782.77	2219153.76	3.00
AC166		AC166	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6324824.43	2219153.76	3.00
AC167		AC167	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6324863.49	2219149.86	3.00
AC168		AC168	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6324903.86	2219149.86	3.00

Urban Crossroads, Inc.

Name	M.	ID	Result. PWL			Lw / Li			Operating Time			Height		Coordinates		
			Day	Evening	Night	Type	Value	norm.	Day	Special	Night			X	Y	Z
			(dBA)	(dBA)	(dBA)			dB(A)	(min)	(min)	(min)	(ft)		(ft)	(ft)	(ft)
AC169		AC169	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6324965.97	2219139.09	3.00
AC170		AC170	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6325010.24	2219139.09	3.00
AC171		AC171	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6325053.21	2219140.39	3.00
AC172		AC172	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6325090.97	2219141.70	3.00
AC173		AC173	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6325128.73	2219140.39	3.00
AC174		AC174	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6325175.60	2219139.09	3.00
AC175		AC175	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6325222.48	2219143.00	3.00
AC176		AC176	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6325262.84	2219161.23	3.00
AC177		AC177	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6325299.30	2219172.95	3.00
AC178		AC178	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6325343.57	2219188.57	3.00
AC179		AC179	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6324247.17	2219339.87	3.00
AC180		AC180	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6324266.97	2219312.18	3.00
AC181		AC181	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6324283.37	2219268.52	3.00
AC182		AC182	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6324307.68	2219229.89	3.00
AC183		AC183	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6324317.57	2219193.95	3.00
AC184		AC184	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6324341.01	2219152.29	3.00
AC185		AC185	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6324365.75	2219118.43	3.00
AC186		AC186	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6324397.87	2219083.45	3.00
AC187		AC187	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6324433.03	2219056.11	3.00
AC188		AC188	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6324474.69	2219030.06	3.00
AC189		AC189	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6324581.03	2218973.47	3.00
AC190		AC190	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6324622.70	2218956.54	3.00
AC191		AC191	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6324658.81	2218949.33	3.00
AC192		AC192	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6324710.46	2218946.30	3.00
AC193		AC193	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6324768.62	2218941.09	3.00
AC194		AC194	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6324808.98	2218938.48	3.00
AC195		AC195	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6324850.65	2218937.18	3.00
AC196		AC196	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6324889.71	2218935.88	3.00
AC197		AC197	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6324959.07	2218943.43	3.00
AC198		AC198	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6324994.48	2218941.00	3.00
AC199		AC199	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6325047.00	2218941.00	3.00
AC200		AC200	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6325086.06	2218941.00	3.00
AC201		AC201	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6325125.13	2218942.30	3.00
AC202		AC202	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6325168.09	2218941.00	3.00
AC203		AC203	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6325209.76	2218944.91	3.00
AC204		AC204	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6325259.35	2218952.76	3.00
AC205		AC205	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6325302.32	2218963.18	3.00
AC206		AC206	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6325350.50	2218974.90	3.00
AC207		AC207	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6325386.96	2218989.22	3.00
AC208		AC208	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6325403.88	2218946.60	3.00
AC209		AC209	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6325366.36	2218930.67	3.00
AC210		AC210	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6325325.99	2218918.95	3.00
AC211		AC211	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6325279.12	2218909.84	3.00
AC212		AC212	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6325238.75	2218908.54	3.00
AC213		AC213	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6325201.43	2218909.23	3.00
AC214		AC214	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6325163.67	2218906.63	3.00
AC215		AC215	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6325124.61	2218905.32	3.00
AC216		AC216	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6325080.33	2218902.72	3.00
AC217		AC217	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6325039.97	2218902.72	3.00
AC218		AC218	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6324990.06	2218902.72	3.00
AC219		AC219	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6324956.46	2218904.28	3.00
AC220		AC220	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6324888.23	2218908.45	3.00
AC221		AC221	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6324847.87	2218907.15	3.00
AC222		AC222	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6324806.20	2218905.84	3.00
AC223		AC223	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6324768.44	2218908.45	3.00
AC224		AC224	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6324708.98	2218907.15	3.00
AC225		AC225	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6324683.46	2218910.45	3.00
AC226		AC226	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6324640.49	2218915.65	3.00
AC227		AC227	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6324592.31	2218924.77	3.00
AC228		AC228	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6324561.15	2218894.13	3.00
AC229		AC229	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6324553.25	2218921.30	3.00
AC230		AC230	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6324331.20	2218996.47	3.00
AC231		AC231	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6324368.18	2219007.41	3.00
AC232		AC232	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6324400.21	2219012.36	3.00
AC233		AC233	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6324349.17	2219059.49	3.00
AC234		AC234	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6324292.66	2219033.19	3.00
AC235		AC235	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6324253.86	2219017.56	3.00
AC236		AC236	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6324216.88	2219007.15	3.00
AC237		AC237	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6324182.24	2219170.17	3.00
AC238		AC238	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6324174.17	2219203.24	3.00
AC239		AC239	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6324160.37	2219238.66	3.00
AC240		AC240	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6324145.00	2219269.91	3.00
AC241		AC241	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6324180.16	2219276.68	3.00
AC242		AC242	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6324221.83	2219305.32	3.00
AC243		AC243	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6324214.88	2218962.79	3.00
AC244		AC244	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6324178.95	2218955.50	3.00
AC245		AC245	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6324254.90	2218976.85	3.00

Name	M.	ID	Result. PWL Day	Evening	Night	Type	Value	norm.	Operating Time Day	Special	Night	Height		Coordinates X	Y	Z
			(dBA)	(dBA)	(dBA)			dB(A)	(min)	(min)	(min)	(ft)		(ft)	(ft)	(ft)
AC246		AC246	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6324295.53	2218987.79	3.00
AC247		AC247	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6324438.58	2218726.50	3.00
AC248		AC248	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6324481.90	2218708.71	3.00
AC249		AC249	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6324521.05	2218706.19	3.00
AC250		AC250	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6324561.76	2218701.68	3.00
AC251		AC251	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6324589.02	2218707.75	3.00
AC252		AC252	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6324631.98	2218705.15	3.00
AC253		AC253	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6324678.86	2218703.85	3.00
AC254		AC254	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6324719.22	2218703.85	3.00
AC255		AC255	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6324758.29	2218702.55	3.00
AC256		AC256	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6324796.05	2218702.55	3.00
AC257		AC257	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6324841.62	2218701.24	3.00
AC258		AC258	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6324891.75	2218701.68	3.00
AC259		AC259	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6324968.14	2218705.93	3.00
AC260		AC260	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6325008.50	2218705.93	3.00
AC261		AC261	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6325055.38	2218704.63	3.00
AC262		AC262	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6325091.84	2218704.63	3.00
AC263		AC263	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6325134.80	2218703.33	3.00
AC264		AC264	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6325176.47	2218707.23	3.00
AC265		AC265	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6325218.14	2218708.54	3.00
AC266		AC266	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6325258.50	2218709.84	3.00
AC267		AC267	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6325308.42	2218703.76	3.00
AC268		AC268	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6325355.38	2218723.73	3.00
AC269		AC269	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6325394.44	2218732.84	3.00
AC270		AC270	79.0	79.0	79.0	Lw	79		675.00	0.00	270.00	3.00	r	6325440.01	2218741.96	3.00

Line Source(s)

Name	M.	ID	Result. PWL Day	Evening	Night	Result. PWL' Day	Evening	Night	Lw / Li Type	Value	norm.	Operating Time Day	Special	Night	Moving Pt. Src Number Day	Evening	Night	Speed (mph)	Height (ft)	
			(dBA)	(dBA)	(dBA)	(dBA)	(dBA)	(dBA)			dB(A)	(min)	(min)	(min)						

Name	ID	Height Begin	End		Coordinates x	y	z	Ground
		(ft)	(ft)		(ft)	(ft)	(ft)	(ft)

Area Source(s)

Name	M.	ID	Result. PWL Day	Evening	Night	Result. PWL'' Day	Evening	Night	Lw / Li Type	Value	norm.	Operating Time Day	Special	Night	Height (ft)
			(dBA)	(dBA)	(dBA)	(dBA)	(dBA)	(dBA)			dB(A)	(min)	(min)	(min)	

Name	ID	Height Begin	End		Coordinates x	y	z	Ground
		(ft)	(ft)		(ft)	(ft)	(ft)	(ft)

Barrier(s)

Name	Sel.	M.	ID	Absorption left	right	Z-Ext.	Cantilever horz.	vert.	Height Begin	End	Coordinates x	y	z	Ground
						(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)

Building(s)

Name	Sel.	M.	ID	RB	Residents	Absorption	Height Begin	Coordinates x	y	z	Ground
							(ft)	(ft)	(ft)	(ft)	(ft)

Ground Absorption(s)

Name	Sel.	M.	ID	G	Coordinates x	y
					(ft)	(ft)

Contour(s)

Name	Sel.	M.	ID	OnlyPts	Height Begin	End	Coordinates x	y	z
					(ft)	(ft)	(ft)	(ft)	(ft)

Vertical Area Source(s)

Name	ID	Height Begin	End		Coordinates x	y	z	Ground
		(ft)	(ft)		(ft)	(ft)	(ft)	(ft)

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Rail

Name	Sel.	M.	ID	Lw'		Train Class	Correct.	Vmax
				Day	Night		Track	
				(dBA)	(dBA)		(dB)	(km(mph)

Sound Level Spectra

Name	ID	Type	Oktave Spectrum (dB)											Source
			Weight.	31.5	63	125	250	500	1000	2000	4000	8000	A	lin	

Roads

Name	Sel.	M.	ID	Lme			Count Data		exact Count Data						Speed Limit		SCS	Surface		Gradient	Mult. Reflection		
				Day	Evening	Night	DTV	Str.class.	M			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	Height		Coordinates				Dist	LSlope
	Begin	End	x	y	z	Ground	(ft)	(%)
	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)		

APPENDIX 11.1:

CADNAA CONSTRUCTION NOISE MODEL INPUTS

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15939 - Tres Cerritos

CadnaA Noise Prediction Model: 15939-02_Construction.cna
Date: 24.01.25
Analyst: B. Maddux

Calculation Configuration

Configuration	
Parameter	**Value**
General	
Max. Error (dB)	0.00
Max. Search Radius (ft)	6561.70
Min. Dist Src to Rcvr	0.00
Partition	
Raster Factor	0.50
Max. Length of Section (ft)	3280.80
Min. Length of Section (ft)	3.30
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	328.08
Search Radius Rcvr	328.08
Max. Distance Source - Rcvr	3280.84 3280.84
Min. Distance Rvcr - Reflector	3.28 3.28
Min. Distance Source - Reflector	0.33
Industrial (ISO 9613 (1996))	
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 (°F)	50
rel. Humidity (%)	70
Ground Absorption G	0.50
Wind Speed for Dir. (mph)	6.7
Roads (TNM)	
Railways (FTA/FRA)	
Aircraft (???)	
Strictly acc. to AzB	

Receiver Noise Levels

Name	M.	ID	Level Lr			Limit. Value			Land Use			Height		Coordinates		
			Day	Night	CNEL	Day	Night	CNEL	Type	Auto	Noise Type			X	Y	Z
			(dBA)	(dBA)	(dBA)	(dBA)	(dBA)	(dBA)				(ft)		(ft)	(ft)	(ft)
R1		R1	59.2	-43.8	56.2	0.0	0.0	0.0		x	Total	5.00	r	6323692.44	2219030.87	5.00
R2		R2	58.6	-44.4	55.6	0.0	0.0	0.0		x	Total	5.00	r	6323695.04	2218681.92	5.00
R3		R3	47.1	-55.9	44.1	0.0	0.0	0.0		x	Total	5.00	r	6327246.46	2217661.08	5.00
R4		R4	56.2	-46.8	53.2	0.0	0.0	0.0		x	Total	5.00	r	6326413.84	2218962.21	5.00
R5		R5	47.9	-55.1	44.8	0.0	0.0	0.0		x	Total	5.00	r	6327485.49	2221362.85	5.00
R6		R6	49.4	-53.6	46.4	0.0	0.0	0.0		x	Total	5.00	r	6325051.63	2222504.86	5.00

Point Source(s)

Name	M.	ID	Result. PWL			Lw / Li			Operating Time			Height		Coordinates		
			Day	Evening	Night	Type	Value	norm.	Day	Special	Night			X	Y	Z
			(dBA)	(dBA)	(dBA)			dB(A)	(min)	(min)	(min)	(ft)		(ft)	(ft)	(ft)

Line Source(s)

Name	M.	ID	Result. PWL			Result. PWL'			Lw / Li			Operating Time			Moving Pt. Src		Height
			Day	Evening	Night	Day	Evening	Night	Type	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	Height		Coordinates			
		Begin	End	x	y	z	Ground
		(ft)	(ft)	(ft)	(ft)	(ft)	(ft)

Area Source(s)

Urban Crossroads, Inc.

Name	M.	ID	Result. PWL			Result. PWL''			Lw / Li			Operating Time			Height	
			Day	Evening	Night	Day	Evening	Night	Type	Value	norm.	Day	Special	Night	(ft)	
			(dBA)	(dBA)	(dBA)	(dBA)	(dBA)	(dBA)			dB(A)	(min)	(min)	(min)		
CA1		CA1	118.6	15.6	15.6	61.7	-41.3	-41.3	PWL-Pt	115.6					8	a

Name	ID	Height		Coordinates			
		Begin	End	x	y	z	Ground
		(ft)	(ft)	(ft)	(ft)	(ft)	(ft)
CA1	CA1	8.00 a		6323727.05	2218660.74	8.00	0.00
				6323753.34	2219747.58	8.00	0.00
				6324437.56	2220334.39	8.00	0.00
				6324869.16	2220921.89	8.00	0.00
				6325274.88	2221735.09	8.00	0.00
				6326322.69	2221719.55	8.00	0.00
				6326319.93	2221532.21	8.00	0.00
				6326319.48	2221502.21	8.00	0.00
				6325997.01	2221505.54	8.00	0.00
				6325410.01	2220466.62	8.00	0.00
				6325524.30	2219956.69	8.00	0.00
				6326322.06	2220410.61	8.00	0.00
				6326340.80	2220410.11	8.00	0.00
				6326340.40	2219403.05	8.00	0.00
				6326175.78	2219343.76	8.00	0.00
				6326156.92	2219323.07	8.00	0.00
				6326208.41	2219248.50	8.00	0.00
				6326228.35	2219146.88	8.00	0.00
				6326214.81	2219042.85	8.00	0.00
				6326219.12	2218935.09	8.00	0.00
				6326261.23	2218835.86	8.00	0.00
				6326315.76	2218749.74	8.00	0.00
				6326337.30	2218677.87	8.00	0.00
				6326341.42	2218617.61	8.00	0.00
				6323726.25	2218627.74	8.00	0.00

Barrier(s)

Name	Sel.	M.	ID	Absorption		Z-Ext.	Cantilever		Height		Coordinates			
				left	right		horz.	vert.	Begin	End	x	y	z	Ground
						(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)

Building(s)

Name	Sel.	M.	ID	RB	Residents	Absorption	Height	Coordinates			
							Begin	x	y	z	Ground
							(ft)	(ft)	(ft)	(ft)	(ft)

Ground Absorption(s)

Name	Sel.	M.	ID	G	Coordinates	
					x	y
					(ft)	(ft)

Contour(s)

Name	Sel.	M.	ID	OnlyPts	Height		Coordinates		
					Begin	End	x	y	z
					(ft)	(ft)	(ft)	(ft)	(ft)

Vertical Area Source(s)

Name	ID	Height		Coordinates			
		Begin	End	x	y	z	Ground
		(ft)	(ft)	(ft)	(ft)	(ft)	(ft)

Rail

Name	Sel.	M.	ID	Lw'		Train Class	Correct.	Vmax
				Day	Night		Track	
				(dBA)	(dBA)		(dB)	(km(mph))

Sound Level Spectra

Name	ID	Type	Oktave Spectrum (dB)											Source
			Weight.	31.5	63	125	250	500	1000	2000	4000	8000	A	lin	

Roads

Name	Sel.	M.	ID	Lme			Count Data		exact Count Data						Speed Limit		SCS	Surface		Gradient	Mult. Reflection		
				Day	Evening	Night	DTV	Str.class.	M			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	Height		Coordinates				Dist	LSlope
	Begin	End	x	y	z	Ground	(ft)	(%)
	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)		

15939 - Tres Cerritos

CadnaA Noise Prediction Model: 15939-04_RockCrushing.cna
Date: 04.08.25
Analyst: B. Maddux

Calculation Configuration

Configuration	
Parameter	**Value**
General	
Max. Error (dB)	0.00
Max. Search Radius (ft)	6561.70
Min. Dist Src to Rcvr	0.00
Partition	
Raster Factor	0.50
Max. Length of Section (ft)	3280.80
Min. Length of Section (ft)	3.30
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	328.08
Search Radius Rcvr	328.08
Max. Distance Source - Rcvr	3280.84 3280.84
Min. Distance Rvcr - Reflector	3.28 3.28
Min. Distance Source - Reflector	0.33
Industrial (ISO 9613 (1996))	
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 (°F)	50
rel. Humidity (%)	70
Ground Absorption G	0.50
Wind Speed for Dir. (mph)	6.7
Roads (TNM)	
Railways (FTA/FRA)	
Aircraft (???)	
Strictly acc. to AzB	

Receiver Noise Levels

Name	M.	ID	Level Lr			Limit. Value			Land Use			Height	Coordinates		
			Day	Night	CNEL	Day	Night	CNEL	Type	Auto	Noise Type		X	Y	Z
			(dBA)	(dBA)	(dBA)	(dBA)	(dBA)	(dBA)				(ft)	(ft)	(ft)	(ft)
R1		R1	54.6	-45.3	51.6	0.0	0.0	0.0		x	Total	5.00 r	6323692.44	2219030.87	5.00
R2		R2	53.3	-46.7	50.3	0.0	0.0	0.0		x	Total	5.00 r	6323695.04	2218681.92	5.00
R3		R3	47.4	-52.6	44.4	0.0	0.0	0.0		x	Total	5.00 r	6327246.46	2217661.08	5.00
R4		R4	52.9	-47.1	49.9	0.0	0.0	0.0		x	Total	5.00 r	6326413.84	2218962.21	5.00
R5		R5	49.9	-50.1	46.9	0.0	0.0	0.0		x	Total	5.00 r	6327485.49	2221362.85	5.00
R6		R6	52.6	-47.4	49.6	0.0	0.0	0.0		x	Total	5.00 r	6325051.63	2222504.86	5.00

Point Source(s)

Name	M.	ID	Result. PWL			Lw / Li			Operating Time			Height		Coordinates		
			Day	Evening	Night	Type	Value	norm.	Day	Special	Night			X	Y	Z
			(dBA)	(dBA)	(dBA)			dB(A)	(min)	(min)	(min)	(ft)		(ft)	(ft)	(ft)

Line Source(s)

Name	M.	ID	Result. PWL			Result. PWL'			Lw / Li			Operating Time			Moving Pt. Src			Height
			Day	Evening	Night	Day	Evening	Night	Type	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	Height		Coordinates			
		Begin	End	x	y	z	Ground
		(ft)	(ft)	(ft)	(ft)	(ft)	(ft)

Area Source(s)

Urban Crossroads, Inc.

Name	M.	ID	Result. PWL			Result. PWL''			Lw / Li			Qantity			Operating Time			Height	
			Day	Evening	Night	Day	Evening	Night	Type	Value	norm.	Work Crews			Day	Special	Night	(ft)	
			(dBA)	(dBA)	(dBA)	(dBA)	(dBA)	(dBA)			dB(A)	Daytime	Evening	Nighttime	(min)	(min)	(min)		
RC1		RC1	121.4	21.4	21.4	86.1	-13.9	-13.9	PWL-Pt	121.4		1.0	0.0	0.0				8	r

Name	ID	Height			Coordinates			
		Begin	End		x	y	z	Ground
		(ft)	(ft)		(ft)	(ft)	(ft)	(ft)
RC1	RC1	8.00 r			6324734.83	2220408.37	8.00	0.00
					6324773.68	2220480.13	8.00	0.00
					6324815.34	2220521.80	8.00	0.00
					6324850.06	2220500.96	8.00	0.00
					6324891.73	2220369.02	8.00	0.00
					6324954.23	2220313.46	8.00	0.00
					6324825.76	2220180.18	8.00	0.00

Barrier(s)

Name	Sel.	M.	ID	Absorption		Z-Ext.	Cantilever		Height		Coordinates			
				left	right		horz.	vert.	Begin	End	x	y	z	Ground
						(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)

Building(s)

Name	Sel.	M.	ID	RB	Residents	Absorption	Height	Coordinates			
							Begin	x	y	z	Ground
							(ft)	(ft)	(ft)	(ft)	(ft)

Ground Absorption(s)

Name	Sel.	M.	ID	G	Coordinates	
					x	y
					(ft)	(ft)

Contour(s)

Name	Sel.	M.	ID	OnlyPts	Height		Coordinates		
					Begin	End	x	y	z
					(ft)	(ft)	(ft)	(ft)	(ft)

Vertical Area Source(s)

Name	ID	Height			Coordinates			
		Begin	End		x	y	z	Ground
		(ft)	(ft)		(ft)	(ft)	(ft)	(ft)

Rail

Name	Sel.	M.	ID	Lw'		Train Class	Correct.	Vmax
				Day	Night		Track	
				(dBA)	(dBA)		(dB)	(km(mph)

Sound Level Spectra

Name	ID	Type	Oktave Spectrum (dB)											Source
			Weight.	31.5	63	125	250	500	1000	2000	4000	8000	A	lin	

Roads

Name	Sel.	M.	ID	Lme			Count Data		exact Count Data						Speed Limit		SCS	Surface		Gradient	Mult. Reflection		
				Day	Evening	Night	DTV	Str.class.	M			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	Height			Coordinates				Dist	LSlope
	Begin	End		x	y	z	Ground	(ft)	(%)
	(ft)	(ft)		(ft)	(ft)	(ft)	(ft)		

Urban Crossroads, Inc.

15939 - Tres Cerritos

CadnaA Noise Prediction Model: 15939-04_Blasting.cna
Date: 04.08.25
Analyst: B. Maddux

Calculation Configuration

Configuration	
Parameter	**Value**
General	
Max. Error (dB)	0.00
Max. Search Radius (ft)	6561.70
Min. Dist Src to Rcvr	0.00
Partition	
Raster Factor	0.50
Max. Length of Section (ft)	3280.80
Min. Length of Section (ft)	3.30
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	328.08
Search Radius Rcvr	328.08
Max. Distance Source - Rcvr	3280.84 3280.84
Min. Distance Rvcr - Reflector	3.28 3.28
Min. Distance Source - Reflector	0.33
Industrial (ISO 9613 (1996))	
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 (°F)	50
rel. Humidity (%)	70
Ground Absorption G	0.50
Wind Speed for Dir. (mph)	6.7
Roads (TNM)	
Railways (FTA/FRA)	
Aircraft (???)	
Strictly acc. to AzB	

Receiver Noise Levels

Name	M.	ID	Level Lr			Limit. Value			Land Use			Height	Coordinates		
			Day	Night	CNEL	Day	Night	CNEL	Type	Auto	Noise Type		X	Y	Z
			(dBA)	(dBA)	(dBA)	(dBA)	(dBA)	(dBA)				(ft)	(ft)	(ft)	(ft)
R1		R1	48.9	-55.9	45.8	0.0	0.0	0.0		x	Total	5.00 r	6323692.44	2219030.87	5.00
R2		R2	46.2	-58.6	43.2	0.0	0.0	0.0		x	Total	5.00 r	6323695.04	2218681.92	5.00
R3		R3	36.1	-68.4	33.1	0.0	0.0	0.0		x	Total	5.00 r	6327246.46	2217661.08	5.00
R4		R4	41.0	-63.6	38.0	0.0	0.0	0.0		x	Total	5.00 r	6326413.84	2218962.21	5.00
R5		R5	36.9	-67.6	33.9	0.0	0.0	0.0		x	Total	5.00 r	6327485.49	2221362.85	5.00
R6		R6	39.5	-65.2	36.5	0.0	0.0	0.0		x	Total	5.00 r	6325051.63	2222504.86	5.00

Point Source(s)

Name	M.	ID	Result. PWL			Lw / Li			Operating Time			Height		Coordinates		
			Day	Evening	Night	Type	Value	norm.	Day	Special	Night			X	Y	Z
			(dBA)	(dBA)	(dBA)			dB(A)	(min)	(min)	(min)	(ft)		(ft)	(ft)	(ft)

Line Source(s)

Name	M.	ID	Result. PWL			Result. PWL'			Lw / Li			Operating Time			Moving Pt. Src				Height
			Day	Evening	Night	Day	Evening	Night	Type	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	Height		Coordinates			
		Begin	End	x	y	z	Ground
		(ft)	(ft)	(ft)	(ft)	(ft)	(ft)

Area Source(s)

Urban Crossroads, Inc.

Name	M.	ID	Result. PWL			Result. PWL''			Lw / Li			Qantity			Operating Time			Height	
			Day	Evening	Night	Day	Evening	Night	Type	Value	norm.	Work Crews			Day	Special	Night	(ft)	
												Daytime	Evening	Nighttime					
			(dBA)	(dBA)	(dBA)	(dBA)	(dBA)	(dBA)			dB(A)				(min)	(min)	(min)		
BA1		BA1	115.6	10.8	10.8	71.8	-33.0	-33.0	PWL-Pt	110.8		3.0	0.0	0.0				2	r

Name	ID	Height			Coordinates			
		Begin		End	x	y	z	Ground
		(ft)		(ft)	(ft)	(ft)	(ft)	(ft)
BA1	BA1	2.00	r		6324734.83	2220408.37	2.00	0.00
					6324825.76	2220180.18	2.00	0.00
					6324482.01	2219885.91	2.00	0.00
					6324343.99	2219745.28	2.00	0.00
					6324242.43	2219599.45	2.00	0.00
					6324213.78	2219521.33	2.00	0.00
					6324088.78	2219461.43	2.00	0.00
					6323924.72	2219456.22	2.00	0.00
					6324039.30	2219646.33	2.00	0.00
					6324114.82	2219865.08	2.00	0.00
					6324239.82	2220013.51	2.00	0.00
					6324596.59	2220260.01	2.00	0.00
					6324607.01	2220307.78	2.00	0.00
					6324669.51	2220349.45	2.00	0.00
					6324713.78	2220362.47	2.00	0.00

Barrier(s)

Name	Sel.	M.	ID	Absorption		Z-Ext.	Cantilever		Height		Coordinates			
				left	right		horz.	vert.	Begin	End	x	y	z	Ground
						(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)

Building(s)

Name	Sel.	M.	ID	RB	Residents	Absorption	Height	Coordinates			
							Begin	x	y	z	Ground
							(ft)	(ft)	(ft)	(ft)	(ft)

Ground Absorption(s)

Name	Sel.	M.	ID	G	Coordinates	
					x	y
					(ft)	(ft)

Contour(s)

Name	Sel.	M.	ID	OnlyPts	Height		Coordinates		
					Begin	End	x	y	z
					(ft)	(ft)	(ft)	(ft)	(ft)

Vertical Area Source(s)

Name	ID	Height			Coordinates			
		Begin		End	x	y	z	Ground
		(ft)		(ft)		(ft)	(ft)	(ft)	(ft)

Rail

Name	Sel.	M.	ID	Lw'		Train Class	Correct.	Vmax
				Day	Night		Track	
				(dBA)	(dBA)		(dB)	(km(mph))

Sound Level Spectra

Name	ID	Type	Oktave Spectrum (dB)												Source
			Weight.	31.5	63	125	250	500	1000	2000	4000	8000	A	lin	

Roads

Name	Sel.	M.	ID	Lme			Count Data		exact Count Data						Speed Limit		SCS	Surface		Gradient	Mult. Reflection		
				Day	Evening	Night	DTV	Str.class.	M			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	Height			Coordinates				Dist	LSlope
	Begin		End	x	y	z	Ground	(ft)	(%)
	(ft)		(ft)		(ft)	(ft)	(ft)	(ft)		

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