
APPENDIX I2: EBPSP NOISE



This page intentionally left blank.

EUCALYPTUS BUSINESS PARK

NOISE AND VIBRATION ANALYSIS

Prepared By:

Bill Lawson | blawson@urbanxroads.com

Reference Number
16285-05 NA

Agency
City of Ontario

Date
December 23, 2025

TABLE OF CONTENTS

EXECUTIVE SUMMARY	1
1 INTRODUCTION	3
1.1 Site Location	3
1.2 Project Description	3
2 FUNDAMENTALS	7
2.1 Range of Noise	7
2.2 Noise Descriptors	8
2.3 Sound Propagation	8
2.4 Noise Control	9
2.5 Noise Barrier Attenuation	9
2.6 Land Use Compatibility With Noise	10
2.7 Community Response to Noise	10
2.8 Vibration	11
3 REGULATORY SETTING.....	13
3.1 State of California Noise Requirements	13
3.2 City of Ontario General Plan Noise Element	13
3.3 Operational Noise Standards	13
3.4 Construction Noise Standards	15
3.5 Construction Vibration Standards	16
3.6 Chino Airport Land Use Compatibility	16
4 SIGNIFICANCE CRITERIA	19
4.1 Noise Level Increases (Threshold A)	19
4.2 Construction Vibration (Threshold B)	21
4.3 CEQA Guidelines Not Further Analyzed (Threshold C)	21
4.4 Significance Criteria Summary	22
5 EXISTING NOISE LEVEL MEASUREMENTS.....	23
5.1 Measurement Procedure and Criteria	23
5.2 Noise Measurement Locations	23
5.3 Noise Measurement Results	25
6 TRAFFIC NOISE METHODS AND PROCEDURES.....	27
6.1 FHWA Traffic Noise Prediction Model	27
6.2 Off-Site Traffic Noise Prediction Model Inputs	27
7 OFF-SITE TRAFFIC NOISE ANALYSIS.....	37
7.1 Traffic Noise Contours	37
7.2 Off-Site Truck Traffic	37
7.3 Existing With Project (Phase 1) Traffic Noise Increases	46
7.4 Existing With Project (Phase 2) Traffic Noise Increases	48
7.5 Existing With Project (Buildout) Traffic Noise Increases	50
7.6 Opening Year (2031) Project Traffic Noise Increases	52
7.7 Horizon Year (2050) Project Traffic Noise Increases	52
7.8 Off-Site Traffic Noise Mitigation	55
8 RECEIVER LOCATIONS.....	57
9 OPERATIONAL NOISE ANALYSIS	61
9.1 Operational Noise Sources	61

9.2	Reference Noise Levels.....	61
9.3	CadnaA Noise Prediction Model	65
9.4	Project Operational Noise Levels	65
9.5	Project Operational Noise Level Compliance	66
9.6	Project Operational Noise Increases	67
10	CONSTRUCTION IMPACTS	69
10.1	Construction Noise Levels	69
10.2	Construction Reference Noise Levels	69
10.3	Construction Noise Analysis	71
10.4	Project Site Construction Noise Compliance	72
10.5	Temporary Construction Noise Increases	73
10.6	Nighttime Concrete Pour Noise Analysis	74
10.7	Off-Site Construction Noise Analysis	76
10.8	Construction Vibration Analysis	77
11	REFERENCES	79
12	CERTIFICATION	81

APPENDICES

APPENDIX 3.1: CITY OF ONTARIO MUNICIPAL CODE
APPENDIX 5.1: STUDY AREA PHOTOS
APPENDIX 5.2: NOISE LEVEL MEASUREMENT WORKSHEETS
APPENDIX 7.1: OFF-SITE TRAFFIC NOISE LEVEL CALCULATIONS
APPENDIX 9.1: CADNAA OPERATIONAL NOISE CALCULATIONS
APPENDIX 10.1: CONSTRUCTION NOISE CALCULATIONS
APPENDIX 10.2: NIGHTTIME CONCRETE POUR NOISE CALCULATIONS
APPENDIX 10.3: OFF-SITE CONSTRUCTION NOISE CALCULATIONS

LIST OF EXHIBITS

EXHIBIT 1-1: PROJECT LOCATION.....	4
EXHIBIT 1-2: PRELIMINARY LAND USE PLAN.....	5
EXHIBIT 2-1: TYPICAL NOISE LEVELS	7
EXHIBIT 2-2: NOISE LEVEL INCREASE PERCEPTION.....	10
EXHIBIT 2-3: TYPICAL LEVELS OF GROUND-BORNE VIBRATION	12
EXHIBIT 3-1: ONTARIO NOISE LEVEL EXPOSURE AND LAND USE COMPATIBILITY GUIDELINES	14
EXHIBIT 3-2: CHINO AIRPORT NOISE CONTOURS	17
EXHIBIT 5-1: NOISE MEASUREMENT LOCATIONS	24
EXHIBIT 8-1: RECEIVER LOCATIONS.....	58
EXHIBIT 9-1: OPERATIONAL NOISE SOURCE LOCATIONS.....	62
EXHIBIT 10-1: CONSTRUCTION NOISE SOURCE LOCATIONS	70

LIST OF TABLES

TABLE ES-1: SUMMARY OF CEQA SIGNIFICANCE FINDINGS.....	1
TABLE 3-1: OPERATIONAL NOISE STANDARDS	15
TABLE 3-2: CONSTRUCTION VIBRATION DAMAGE CRITERIA	16
TABLE 4-1: SIGNIFICANCE CRITERIA SUMMARY	22
TABLE 5-1: AMBIENT NOISE LEVEL MEASUREMENTS	25
TABLE 6-1: OFF-SITE ROADWAY PARAMETERS	28
TABLE 6-2: AVERAGE DAILY TRAFFIC VOLUMES	29
TABLE 6-3: TIME OF DAY VEHICLE SPLITS	30
TABLE 6-4: EXISTING WITH PROJECT (PHASE 1) VEHICLE MIX.....	31
TABLE 6-5: EXISTING WITH PROJECT (PHASE 2) VEHICLE MIX.....	32
TABLE 6-6: EXISTING WITH PROJECT (BUILDOUT) VEHICLE MIX	33
TABLE 6-7: OYC 2031 WITH PROJECT VEHICLE MIX.....	34
TABLE 6-8: HY 2050 WITH PROJECT VEHICLE MIX	35
TABLE 7-1: EXISTING WITHOUT PROJECT CONTOURS	38
TABLE 7-2: EXISTING WITH PROJECT (PHASE 1) CONTOURS	39
TABLE 7-3: EXISTING WITH PROJECT (PHASE 2) CONTOURS	40
TABLE 7-4: EXISTING WITH PROJECT (BUILDOUT) CONTOURS	41
TABLE 7-5: OYC (2031) WITHOUT PROJECT CONTOURS.....	42
TABLE 7-6: OYC (2031) WITH PROJECT CONTOURS.....	43
TABLE 7-7: HORIZON YEAR (2050) WITHOUT PROJECT	44
TABLE 7-8: HORIZON YEAR (2050) WITH PROJECT	45
TABLE 7-9: EXISTING WITH PROJECT (PHASE 1) TRAFFIC NOISE INCREASES	47
TABLE 7-10: EXISTING WITH PROJECT (PHASE 2) TRAFFIC NOISE INCREASES.....	49
TABLE 7-11: EXISTING WITH PROJECT (BUILDOUT) TRAFFIC NOISE INCREASES	51
TABLE 7-12: OPENING YEAR (2031) WITH PROJECT TRAFFIC NOISE INCREASES	53
TABLE 7-13: HORIZON YEAR (2050) WITH PROJECT TRAFFIC NOISE INCREASES	54
TABLE 9-1: REFERENCE NOISE LEVEL MEASUREMENTS.....	63
TABLE 9-2: DAYTIME PROJECT OPERATIONAL NOISE LEVELS	66
TABLE 9-3: NIGHTTIME PROJECT OPERATIONAL NOISE LEVELS	66
TABLE 9-4: OPERATIONAL NOISE LEVEL COMPLIANCE	67
TABLE 9-5: DAYTIME PROJECT OPERATIONAL NOISE INCREASES	68
TABLE 9-6: NIGHTTIME OPERATIONAL NOISE INCREASES	68
TABLE 10-1: CONSTRUCTION REFERENCE NOISE LEVELS	71
TABLE 10-2: CONSTRUCTION EQUIPMENT NOISE LEVEL SUMMARY.....	72
TABLE 10-3: CONSTRUCTION NOISE COMPLIANCE	73
TABLE 10-4: DAYTIME CONSTRUCTION NOISE INCREASES	74
TABLE 10-5: NIGHTTIME CONCRETE POUR NOISE COMPLIANCE.....	75
TABLE 10-6: NIGHTTIME CONCRETE POUR NOISE INCREASES	76
TABLE 10-7: OFF-SITE CONSTRUCTION NOISE ANALYSIS	77
TABLE 10-8: VIBRATION SOURCE LEVELS FOR CONSTRUCTION EQUIPMENT	77
TABLE 10-9: PROJECT CONSTRUCTION VIBRATION LEVELS	78

LIST OF ABBREVIATED TERMS

(1)	Reference
ADT	Average Daily Traffic
AIA	Airport Influence Area
ALUCP	Airport Land Use Compatibility Plan
ANSI	American National Standards Institute
Calveno	California Vehicle Noise
CEQA	California Environmental Quality Act
CNEL	Community Noise Equivalent Level
CNO	Chino Airport
dBA	A-weighted decibels
EPA	Environmental Protection Agency
FICON	Federal Interagency Committee on Noise
FSEIR	Ontario Plan 2050 Final Supplemental Environmental Impact Report
FHWA	Federal Highway Administration
FTA	Federal Transit Administration
INCE	Institute of Noise Control Engineering
L_{eq}	Equivalent continuous (average) sound level
L_{max}	Maximum level measured over the time interval
Mph	Miles per hour
OPR	Governor's Office of Planning and Research
PPV	Peak Particle Velocity
Project	Eucalyptus Business Park
REMEL	Reference Energy Mean Emission Level
RMS	Root-mean-square
VdB	Vibration Decibels

EXECUTIVE SUMMARY

Urban Crossroads, Inc. has prepared this noise study to determine the noise exposure and the necessary noise mitigation measures for the proposed Eucalyptus Business Park (Project) in the City of Ontario. The Project consists of a business park with mixed-use retail, a public animal shelter, and park use on approximately 189.0 acres and a total building footprint of 2,939,000 square feet (SF). This noise study has been prepared to satisfy applicable City of Ontario noise standards and significance criteria based on Appendix G of the California Environmental Quality Act (CEQA) Guidelines. (1)

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

TABLE ES-1: SUMMARY OF CEQA SIGNIFICANCE FINDINGS

Analysis	Report Section	Significance Findings	
		Unmitigated	Mitigated
Off-Site Traffic Noise	7	<i>Potentially Significant</i>	<i>Significant and Unavoidable</i>
Operational Noise	9	<i>Less Than Significant</i>	-
Project Construction Noise	10	<i>Less Than Significant</i>	-
Nighttime Concrete Pour	10	<i>Less Than Significant</i>	-
Construction Vibration	10	<i>Less Than Significant</i>	-

This page intentionally left blank

1 INTRODUCTION

This Noise and Vibration Analysis has been completed to determine the noise impacts associated with the development of the proposed Eucalyptus Business Park (Project). This noise and vibration analysis 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 exterior noise environment, potential off-site traffic impacts, the Project-related long-term stationary-source operational noise, and Project-related short-term construction noise and vibration impacts.

1.1 SITE LOCATION

The Project site is bounded by Campus Avenue to the west, Walker Avenue to the east, and Ontario Ranch Road to the north in the City of Ontario, as shown in Exhibit 1-1. Access to the proposed Project would be provided to the surrounding roadways of Campus Avenue, Eucalyptus Avenue, Bon View Avenue, Grove Avenue, and Walker Avenue.

1.2 PROJECT DESCRIPTION

The Project is to consist of a business park with mixed-use retail, a public animal shelter, and park use on approximately 189.0 acres and a total building footprint of 2,939,000 square feet (SF), and includes the following uses:

- Phase 1 (2028):
 - 340,700 SF Industrial Park
 - 553,300 SF Warehousing
 - 326,200 SF High-Cube Fulfillment Center (Sort)
 - 33.8-Acre Park
- Phase 2 (2029):
 - 273,700 SF Industrial Park
 - 553,300 SF Warehousing
 - 261,000 SF High-Cube Fulfillment Center (Sort)
 - 5,000 SF Retail
 - 5,000 SF Fast-Food Restaurant with Drive-Thru
 - 35,000 SF Public Animal Shelter
 - 37.7-Acre Park
- Phase 3 (2031):
 - 162,600 SF Industrial Park
 - 211,700 SF Manufacturing
 - 163,600 SF Warehousing
 - 47,900 SF High-Cube Fulfillment Center (Sort)
 - 21.0-Acre Park

Buildout of the proposed Project is anticipated to occur in 2031. A preliminary land use plan is presented in Exhibit 1-2.

EXHIBIT 1-1: PROJECT LOCATION

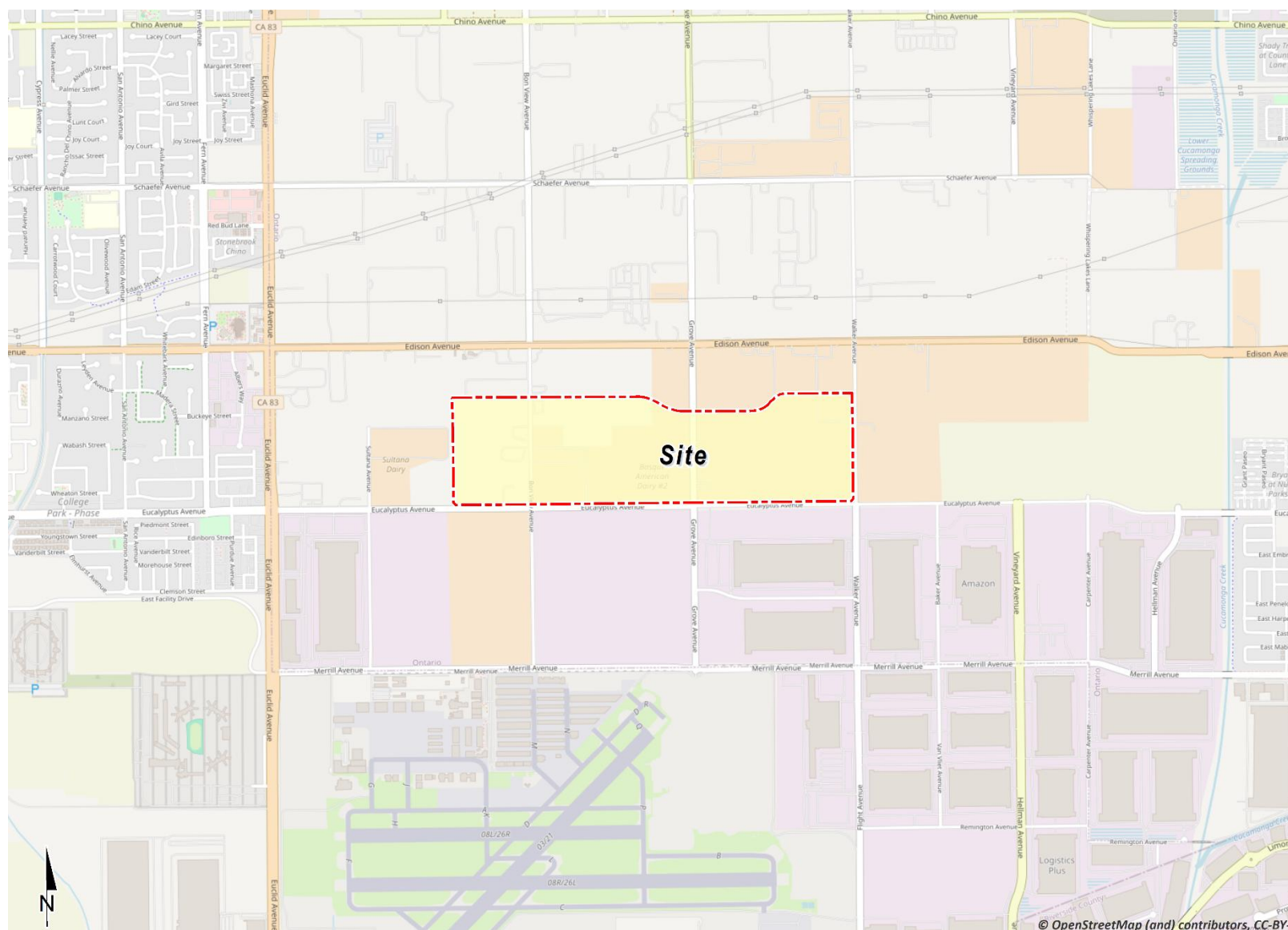
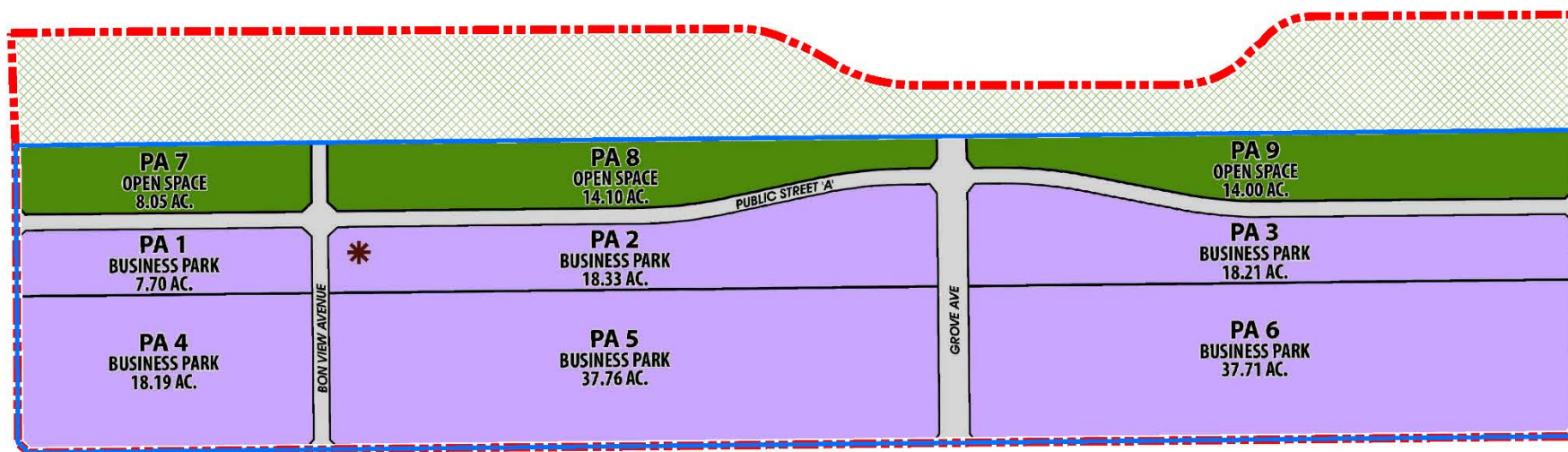


EXHIBIT 1-2: PRELIMINARY LAND USE PLAN



LEGEND:

 Site Boundary
  Specific Plan Area
  Open Space North of Specific Plan Area

This page intentionally left blank

2 FUNDAMENTALS

Noise is simply defined as "unwanted sound." Sound becomes unwanted when it interferes with normal activities, when it causes actual physical harm, or when it has adverse effects on health. Noise is measured on a logarithmic scale of sound pressure level known as a decibel (dB). A-weighted decibels (dBA) approximate the subjective response of the human ear to broad frequency noise source by discriminating against very low and very high frequencies of the audible spectrum. They are adjusted to reflect only those frequencies which are audible to the human ear. Exhibit 2-1 presents a summary of the typical noise levels and their subjective loudness and effects that are described in more detail below.

EXHIBIT 2-1: 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		
		120		
JET FLY-OVER AT 300m (1000 ft)	ROCK BAND	110		
LOUD AUTO HORN		100	VERY NOISY	
GAS LAWN MOWER AT 1m (3 ft)		90		
DIESEL TRUCK AT 15m (50 ft), at 80 km/hr (50 mph)	FOOD BLENDER AT 1m (3 ft)	80		
NOISY URBAN AREA, DAYTIME	VACUUM CLEANER AT 3m (10 ft)	70	LOUD	SPEECH INTERFERENCE
HEAVY TRAFFIC AT 90m (300 ft)	NORMAL SPEECH AT 1m (3 ft)	60		
QUIET URBAN DAYTIME	LARGE BUSINESS OFFICE	50	MODERATE	SLEEP DISTURBANCE
QUIET URBAN NIGHTTIME	THEATER, LARGE CONFERENCE ROOM (BACKGROUND)	40		
QUIET SUBURBAN NIGHTTIME	LIBRARY	30	FAINT	NO EFFECT
QUIET RURAL NIGHTTIME	BEDROOM AT NIGHT, CONCERT HALL (BACKGROUND)	20		
	BROADCAST/RECORDING STUDIO	10	VERY FAINT	
LOWEST THRESHOLD OF HUMAN HEARING	LOWEST THRESHOLD OF HUMAN HEARING	0		

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

2.1 RANGE OF NOISE

Since the range of intensities that the human ear can detect is so large, the scale frequently used to measure intensity is a scale based on multiples of 10, the logarithmic scale. The scale for measuring intensity is the decibel scale. Each interval of 10 decibels indicates a sound energy ten times greater than before, which is perceived by the human ear as being roughly twice as loud. (2) The most common sounds vary between 40 dBA (very quiet) to 100 dBA (very loud). Normal conversation at three feet is roughly at 60 dBA, while loud jet engine noises equate to 110 dBA at approximately 1,000 feet, which can cause serious discomfort. (3) Another important aspect of noise is the duration of the sound and the way it is described and distributed in time.

2.2 NOISE DESCRIPTORS

Environmental noise descriptors are typically based on average noise levels over time, rather than instantaneous measurements. The most commonly used metric is the equivalent continuous sound level (L_{eq}). Rather than being measured directly, L_{eq} is calculated from A-weighted sound pressure levels (dBA) recorded over a specified period. The L_{eq} represents the constant sound level that, over a given time, would contain the same acoustic energy as the actual fluctuating sound levels. As such, it is widely used to describe average environmental noise exposure. Importantly, while sound pressure levels (e.g., L_{eq}) express the intensity of sound at a specific location and are affected by distance and environmental conditions, sound power levels (L_w) are intrinsic properties of the sound source itself. Unlike sound pressure, sound power is independent of distance and unaffected by obstacles, air absorption, or weather conditions. In contrast, sound pressure levels decrease with distance due to factors such as geometric spreading, absorption by air and surfaces, intervening barriers or obstacles, and meteorological conditions (e.g., wind, humidity).

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. CNEL is the weighted average of the intensity of a sound, with corrections for time of day, and averaged over 24 hours. The time-of-day corrections require the addition of 5 decibels to dBA L_{eq} sound levels in the evening from 7:00 p.m. to 10:00 p.m., and the addition of 10 decibels to dBA L_{eq} sound levels at night between 10:00 p.m. and 7:00 a.m. These additions are made to account for the noise sensitive time periods during the evening and night hours when noise can become more intrusive. CNEL does not represent the actual sound level heard at any time but rather represents the total sound exposure. The City of Ontario relies on the 24-hour CNEL level to assess land use compatibility with transportation related noise sources.

2.3 SOUND PROPAGATION

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

2.3.1 Geometric Spreading

Sound from a localized source (i.e., a stationary point source) propagates uniformly outward in a spherical pattern. The sound level attenuates (or decreases) at a rate of 6 dB for each doubling of distance from a point source. Highways consist of several localized noise sources on a defined path and hence can be treated as a line source, which approximates the effect of several point sources. Noise from a line source propagates outward in a cylindrical pattern, often referred to as cylindrical spreading. Sound levels attenuate at a rate of 3 dB for each doubling of distance from a line source. (2)

2.3.2 Ground Absorption

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

terms of attenuation per doubling of distance. This approximation is usually sufficiently accurate for distances of less than 200 ft. For acoustically hard sites (i.e., sites with a reflective surface between the source and the receiver, such as a parking lot or body of water), no excess ground attenuation is assumed. For acoustically absorptive or soft sites (i.e., those sites with an absorptive ground surface between the source and the receiver such as soft dirt, grass, or scattered bushes and trees), an excess ground attenuation value of 1.5 dB per doubling of distance is normally assumed. When added to the cylindrical spreading, the excess ground attenuation results in an overall drop-off rate of 4.5 dB per doubling of distance from a line source. (4)

2.3.3 Atmospheric Effects

Receivers located downwind from a source can be exposed to increased noise levels relative to calm conditions, whereas locations upwind can have lowered noise levels. Sound levels can be increased at large distances (e.g., more than 500 feet) due to atmospheric temperature inversion (i.e., increasing temperature with elevation). Other factors such as air temperature, humidity, and turbulence can also have significant effects. (2)

2.3.4 Shielding

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

2.4 NOISE CONTROL

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

2.5 NOISE BARRIER ATTENUATION

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

2.6 LAND USE COMPATIBILITY WITH NOISE

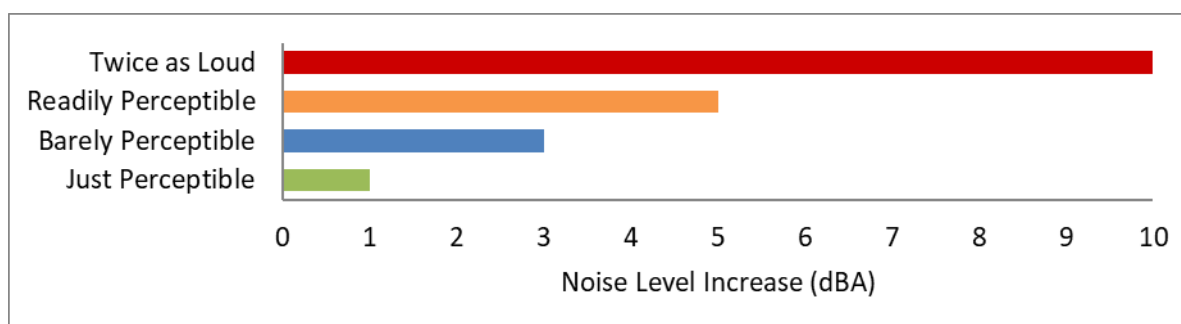
Some land uses are more tolerant of noise than others. For example, schools, hospitals, churches, and residences are more sensitive to noise intrusion than commercial or industrial developments and related activities. As ambient noise levels affect the perceived amenity or livability of a development, so too can the mismanagement of noise impacts impair the economic health and growth potential of a community by reducing the area's desirability as a place to live, shop and work. For this reason, land use compatibility with the noise environment is an important consideration in the planning and design process. The FHWA encourages State and Local government to regulate land development in such a way that noise-sensitive land uses are either prohibited from being located adjacent to a highway, or that the developments are planned, designed, and constructed in such a way that noise impacts are minimized. (6)

2.7 COMMUNITY RESPONSE TO NOISE

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

Surveys have shown that community response to noise varies from no reaction to vigorous action for newly introduced noises averaging from 10 dB below existing to 25 dB above existing. (8) According to research originally published in the Noise Effects Handbook (7), the percentage of high annoyance ranges from approximately 0 percent at 45 dB or less, 10 percent are highly annoyed around 60 dB, and increases rapidly to approximately 70 percent being highly annoyed at approximately 85 dB or greater. Despite this variability in behavior on an individual level, the population can be expected to exhibit the following responses to changes in noise levels as shown on Exhibit 2-2. A change of 3 dBA is considered barely perceptible, and changes of 5 dBA are considered readily perceptible. (4)

EXHIBIT 2-2: NOISE LEVEL INCREASE PERCEPTION



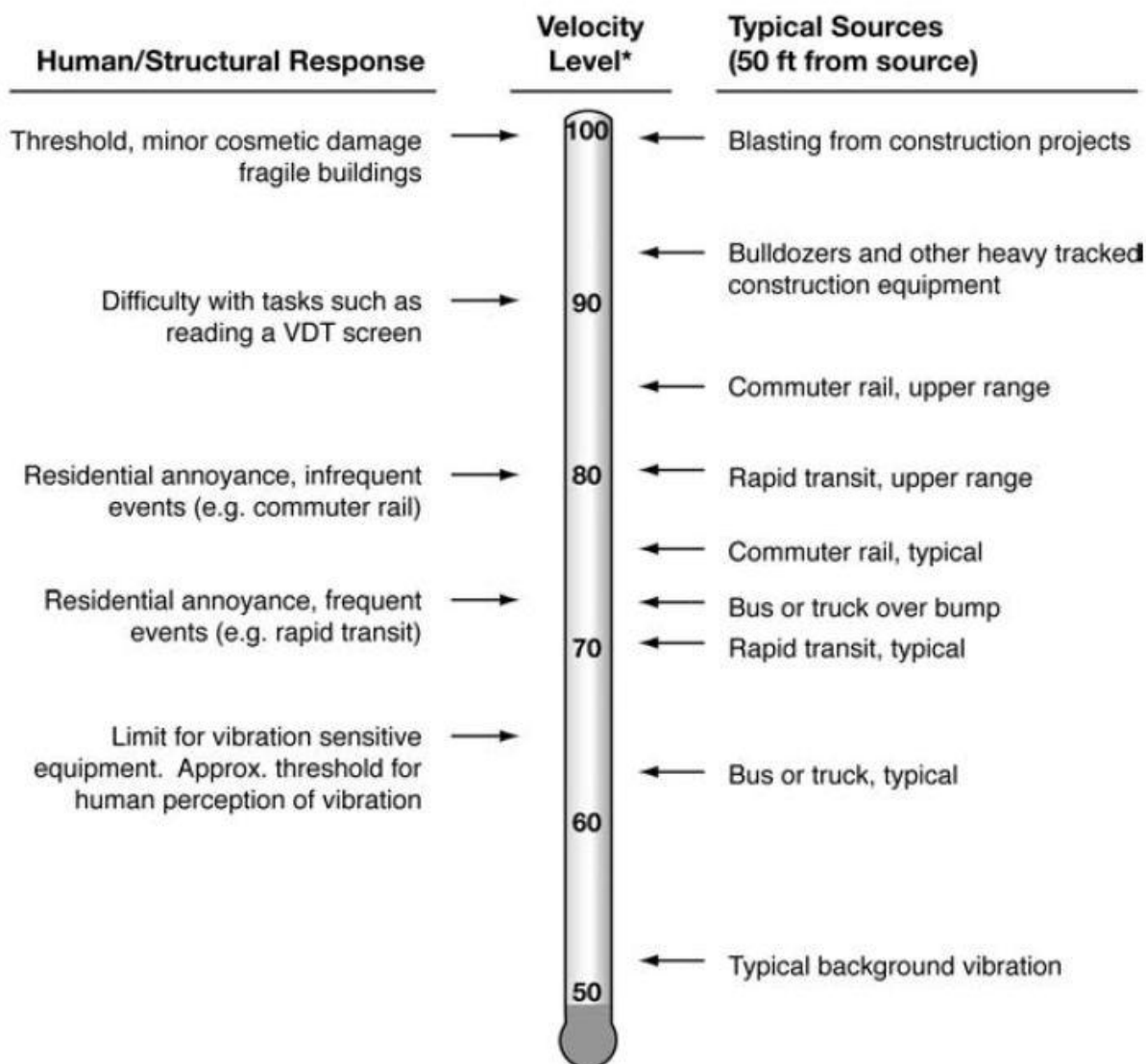
2.8 VIBRATION

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. (8) Decibel notation (VdB) serves to reduce the range of numbers used to describe vibration levels and is used in this report to describe vibration levels. As stated in the FTA guidance manual, the background vibration-velocity level in residential areas is generally 50 VdB. Ground-borne vibration is normally perceptible to humans at approximately 65 VdB. For most people, a vibration-velocity level of 75 VdB is the approximate dividing line between barely perceptible and distinctly perceptible levels. Typical outdoor sources of perceptible ground-borne vibration are construction equipment, steel-wheeled trains, and traffic on rough roads. If a roadway is smooth, the ground-borne vibration is rarely perceptible. The range of interest is from approximately 50 VdB, which is the typical background vibration-velocity level, to 100 VdB, which is the general threshold where minor damage can occur in fragile buildings. Exhibit 2-3 illustrates common vibration sources and the human and structural response to ground-borne vibration.

EXHIBIT 2-3: TYPICAL LEVELS OF GROUND-BORNE VIBRATION



* RMS Vibration Velocity Level in VdB relative to 10^{-6} inches/second

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

3 REGULATORY SETTING

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

3.1 STATE OF CALIFORNIA NOISE REQUIREMENTS

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

3.2 CITY OF ONTARIO GENERAL PLAN NOISE ELEMENT

The City of Ontario General Plan (Policy Plan) identifies several policies to minimize the impacts of excessive noise levels throughout the community. Policy Plan Section S4, Noise Hazards, establishes a goal of maintaining *an environment where noise does not adversely affect the public's health, safety, and welfare*. (11) To satisfy this goal, the Policy Plan identifies seven policies related to: noise mitigation; coordination with transportation authorities; noise mitigation; truck traffic; roadway design; airport noise compatibility and rail noise mitigation. The noise criteria identified in Table 5.13-3 of The Ontario Plan 2050 Final Supplemental Environmental Impact Report (FSEIR) (12) provide guidelines to evaluate land use compatibility within various noise environments. Table 5.13-3 is reproduced here as Exhibit 3-1 *Ontario Noise Level Exposure and Land Use Compatibility Guidelines*.

3.3 OPERATIONAL NOISE STANDARDS

To analyze noise impacts originating from a designated fixed location or private property such as the Eucalyptus Business Park, stationary-source (operational) noise levels are evaluated against standards established under a City's Municipal Code. The City of Ontario requires new stationary noise sources to meet the limits set in the City's Noise Ordinance, which restricts allowable noise levels at the property line of affected properties to prevent disturbances to nearby sensitive uses. By complying with these requirements, stationary sources would generate noise levels considered acceptable by the City and would not result in significant noise impacts. The City of Ontario Municipal Code, Title 5, Chapter 29 noise standards are included in Appendix 3.1.

EXHIBIT 3-1: ONTARIO NOISE LEVEL EXPOSURE AND LAND USE COMPATIBILITY GUIDELINES

Land Use Categories		Community Noise Equivalent Level (CNEL)			
Category	Uses	Clearly Acceptable ¹	Normally Acceptable ²	Normally Unacceptable ³	Clearly Unacceptable ⁴
Residential/Lodging	Single Family/Duplex	<60	60-65	65-70	70-85
	Multifamily	<60	60-65	65-75	75-85
	Mobile Homes	<60	60-65	-	65-85
	Hotel/Motel	<65	65-70	70-80	80-85
Public/Institutional	Schools/Hospitals	<60	60-65	65-70	70-85
	Churches/Libraries	<60	60-65	65-70	70-85
	Auditoriums/Concert Halls	<55	55-60	60-70	70-85
Commercial	Offices	<65	65-75	75-80	80-85
	Retail	<70	70-75	75-80	80-85
Industrial	Manufacturing	<70	70-75	75-85	-
	Warehousing	<70	70-80	80-85	-
Recreational/Open Space	Parks/Playgrounds	<65	65-70	70-75	75-85
	Golf Course/Riding Stables	<65	65-70	70-75	75-85
	Outdoor Spectator Sports	<60	60-65	65-70	
	Outdoor Music Shells/Amphitheaters	-	<60	60-65	65-85
	Livestock/Wildlife Preserves	<70	-	70-75	75-85
	Crop Agriculture	<55-85	-	-	-

Source: Ontario 2010.

¹ No special noise insulation required, assuming buildings of normal conventional construction.

² Acoustical reports will be required for major new residential construction. Conventional construction with closed windows and fresh air supply systems of air conditions will normally suffice.

³ New construction should be discouraged. Noise/aviation easements required for all new construction. If new construction does proceed, a detailed analysis of noise reduction requirements must be made, and necessary noise insulation features included.

⁴ No new construction should be permitted.

Source: The Ontario Plan 2050 Draft SEIR (Table 5.13-3).

Section 5-29.04[a] of the Municipal Code identify the allowable daytime and nighttime exterior noise standards for each land use type. For Manufacturing, Industrial and the other land uses associated with the Project are best described by Noise Zone V with an exterior noise levels limit of 70 dBA L_{eq} . For residential land uses (Noise Zone I), exterior noise levels may not exceed 65 dBA L_{eq} during the daytime hours (7:00 a.m. to 10:00 p.m.) and may not exceed 45 dBA L_{eq} during the nighttime hours (10:00 p.m. to 7:00 a.m.) (13). The lower noise level standard shall apply on the boundary between two (2) different noise zones. In addition, Section 5-29.04[a][1] indicates that if the ambient noise level exceeds the resulting standard, the ambient noise level shall be the standard.

Section 5-29-02 defines *ambient noise level* as the all-encompassing noise level associated with a given environment and is a composite of sounds from all sources, excluding the alleged offensive noise or excessive sound, at the location and approximate time at which a comparison with the alleged offensive noise is to be made. The operational exterior noise level standards used in this noise study are summarized below and shown on Table 3-1.

TABLE 3-1: OPERATIONAL NOISE STANDARDS

Noise Zone	Land Use	Exterior Noise Levels (dBA Leq) ¹	
		Daytime (7am-10pm)	Nighttime (10pm-7am)
I	Single-Family Residential	65	45
II	Multi-Family Residential	65	50
III	Commercial	65	60
IV	Residential Mixed-Use	70	70
V	Manufacturing and Industrial	70	70

¹ Section 5-29.04 of the City of Ontario Municipal Code (Appendix 3.1). Section 5-29.04[a][1] indicates that if the ambient noise level exceeds the resulting standard, the ambient noise level shall be the standard.

Leq represents a steady state sound level containing the same total energy as a time varying signal over a given period.

3.4 CONSTRUCTION NOISE STANDARDS

The City of Ontario has set restrictions to control noise impacts associated with construction activities. Section 5-29.09[a] of the Municipal Code states: *No person, while engaged in construction, remodeling, digging, grading, demolition or any other related building activity, shall operate any tool, equipment or machine in a manner that produces loud noise that disturbs a person of normal sensitivity who works or resides in the vicinity, or a Police or Code Enforcement Officer, on any weekday except between the hours of 7:00 a.m. and 6:00 p.m. or on Saturday or Sunday between the hours of 9:00 a.m. and 6:00 p.m.* (13) While the City establishes limits to the hours during which construction activity may take place, it does not identify specific noise level limits for construction noise levels at potentially affected receiver locations for CEQA analysis purposes. Therefore, a numerical construction threshold based on Federal Transit Administration (FTA) *Transit Noise and Vibration Impact Assessment Manual* is used for analysis of daytime construction impacts, as discussed below.

According to the FTA, local noise ordinances are typically not very useful in evaluating construction noise impacts. They usually relate to nuisance and hours of allowed activity, and sometimes specify limits in terms of maximum levels, but are generally not practical for assessing the impact of a construction project. Project construction noise criteria should account for the existing noise environment, the absolute noise levels during construction activities, the duration of the construction, and the adjacent land use. Due to the lack of standardized construction noise thresholds, the FTA provides guidelines that can be considered reasonable criteria for construction noise assessment. The FTA considers a daytime exterior construction noise level of 80 dBA Leq as a reasonable threshold for noise sensitive residential land use with a nighttime exterior construction noise level of 70 dBA Leq. (8 p. 179) In addition, this is the same threshold used to support of the City of Ontario Policy Plan in Section 5.13.2.1 of the FSEIR (12)

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 Eucalyptus Business Park, vibration-generating activities are appropriately evaluated against the standards outlined in the Policy Plan. Table 5.13-9 of the FSEIR (12) presented below in Table 3-2, outlines the Federal Transit Administration, *Transit Noise and Vibration Impact Assessment Manual*, (8) construction vibration damage criteria used to assess potential temporary construction-related impacts at adjacent building locations.

TABLE 3-2: CONSTRUCTION VIBRATION DAMAGE CRITERIA

Type	Building Category	PPV (in/sec) ¹
I	Reinforced concrete, steel, or timber (no plaster)	0.5
II	Engineered concrete and masonry (no plaster)	0.3
III	Non-engineered timber and masonry buildings	0.2
IV	Buildings extremely susceptible to vibration damage	0.12

¹ Federal Transit Administration, *Transit Noise and Vibration Impact Assessment Manual* and Table 5.13-9 of The Ontario Plan 2050 Final Supplemental Environmental Impact Report (FSEIR).

"PPV" = Peak Particle Velocity

The nearest buildings adjacent to the Project site can best be described as non-engineered timber and masonry buildings with a maximum acceptable continuous vibration threshold of 0.2 PPV (in/sec).

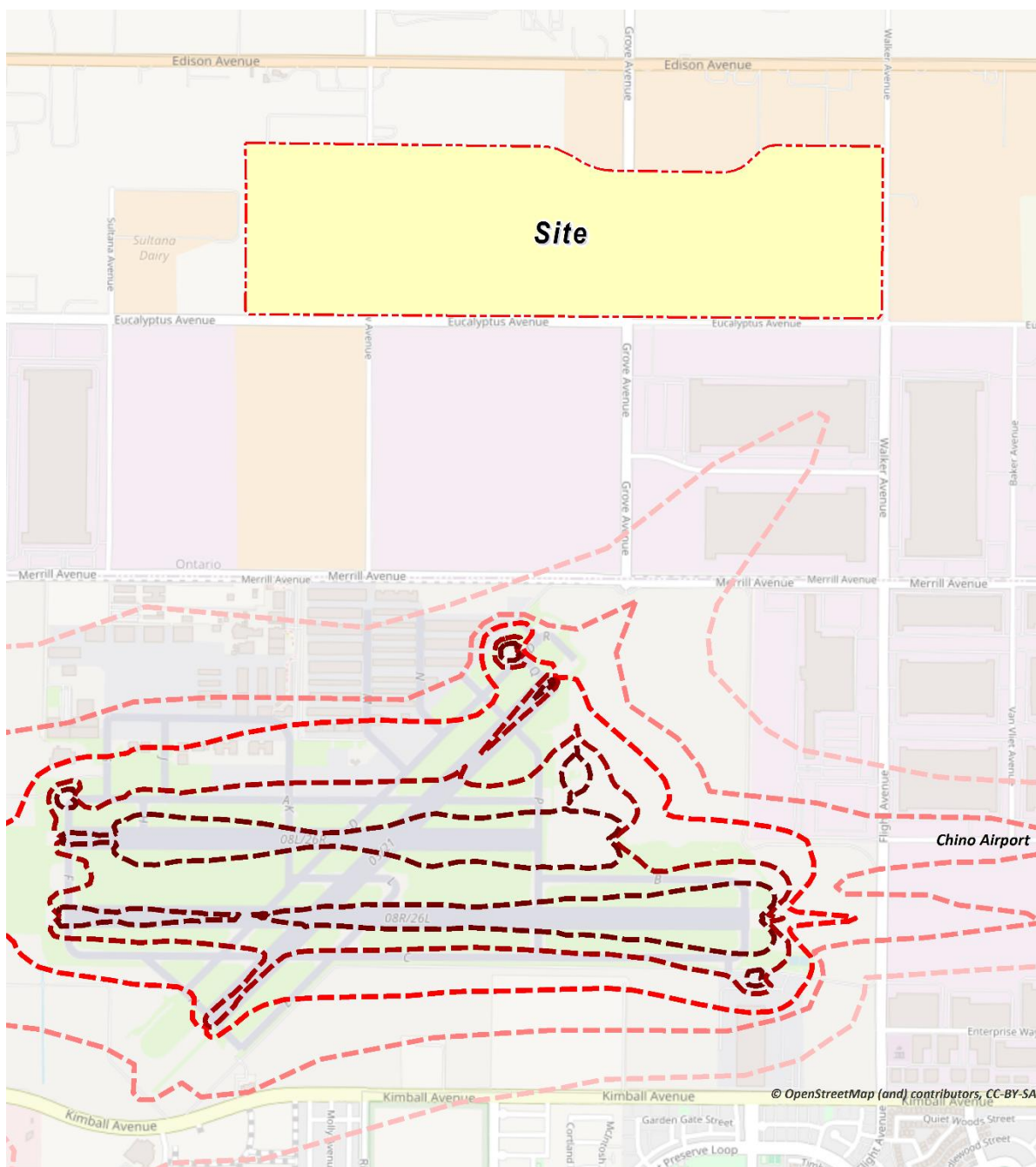
3.6 CHINO AIRPORT LAND USE COMPATIBILITY

The Project site is located less than one mile north of Chino Airport (CNO). The *Chino Airport Master Plan*, (15) prepared by the County of San Bernardino, identifies noise compatibility policies based on the *Chino Airport Comprehensive Land Use Plan* (ALUCP). (16) The ALUCP for CNO was adopted in 1991 and does not reflect guidance set forth in the 2011 Caltrans Airport Land Use Planning Handbook. As such, in 2022, the City of Ontario adopted the CNO Overlay District which provides maps, criteria, and policy language to guide development within the Chino Airport Influence Area (AIA) consistent with the 2011 Caltrans Airport Land Use Planning Handbook. (17) (18)

The ALUCP establishes threshold for aircraft noise exposure for new developments. The *Chino Airport Master Plan* shows the noise contour boundaries for Year 2009, 2015, and 2030 conditions. Based on Year 2030 conditions, the Project site is located well outside the 55 dBA CNEL noise contour boundaries, as shown on Exhibit 3-2. Figure II-3 of the ALUCP shows that exterior noise levels up to 75 dBA CNEL are considered normally acceptable for industrial uses such as the Project. According to the ALUCP, the Project's industrial use is considered satisfactory, assuming the buildings are of standard construction and do not require special noise insulation.

Because the Project's land use falls within the normally acceptable range and no exterior or interior noise mitigation is needed, aircraft-related noise impacts would be *less than significant*. CNO overlay guidance illustrates that the Specific Plan area is located outside all identified noise contours of the Chino Airport.

EXHIBIT 3-2: CHINO AIRPORT NOISE CONTOURS



LEGEND:
Unmitigated Noise Level Contour Boundaries
 55 dBA CNEL 60 dBA CNEL 65 dBA CNEL 70 dBA CNEL 75 dBA CNEL

Sources: Chino Airport Master Plan, Exhibit B4 and the Riverside County Airport Land Use Compatibility Plan, Map CH-3.

This page intentionally left blank

4 SIGNIFICANCE CRITERIA

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

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

4.1 NOISE LEVEL INCREASES (THRESHOLD A)

Noise level increases resulting from the Project are evaluated based on the Appendix G CEQA Guidelines. 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. (19) This is primarily because of the wide variation in individual thresholds of annoyance and differing individual experiences with noise. Thus, an important way of determining a person's subjective reaction to a new noise is the comparison of it to the existing environment to which one has adapted—the so-called *ambient* environment. The *ambient noise level* represents the composite of noise from all sources near and far representing the normal or existing level of environmental noise at a given location. In general, the more a new noise level exceeds the previously existing ambient noise level, the less acceptable the new noise level will typically be judged.

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

4.1.1 Noise Sensitive Receivers (Substantial Permanent Noise Level Increase)

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

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*. (19) For example, if the ambient noise environment is quiet (<60 dBA) and the new noise source greatly increases the noise levels, an impact may occur if the noise criteria may be exceeded. Therefore, for this analysis, a readily perceptible 5 dBA or greater project-related noise level increase is considered a significant impact when the without project noise levels are below 60 dBA. Per the FICON, in areas where the without project noise levels range from 60 to 65 dBA, a 3 dBA barely perceptible noise level increase appears to be appropriate for most people. When the without project noise levels already exceed 65 dBA, any increase in community noise louder than 1.5 dBA or greater is considered a significant impact if the noise criteria for a given land use is exceeded, since it likely contributes to an existing noise exposure exceedance.

The FICON guidance provides an established source of criteria to assess the impacts of substantial temporary or permanent increase in baseline ambient noise levels. Based on the FICON criteria, the amount to which a given noise level increase is considered acceptable is reduced when the without Project (baseline) noise levels are already shown to exceed certain land-use specific exterior noise level criteria. The specific levels are based on typical responses to noise level increases of 5 dBA or readily perceptible, 3 dBA or barely perceptible, and 1.5 dBA depending on the underlying without Project noise levels for noise-sensitive uses. These levels of increases and their perceived acceptance are consistent with guidance provided by both the Federal Highway Administration (4 p. 9) and Caltrans (21 p. 2_48) and were also used to support of the City of Ontario Policy Plan in Section 5.13.2.2 of the FSEIR (12)

4.1.2 Non-Noise Sensitive Receivers (Substantial Permanent Noise Level Increase)

The *Ontario Noise Level Exposure and Land Use Compatibility Guidelines* were used to establish the satisfactory noise levels of significance for the non-noise-sensitive land uses in the Project study area. As previously shown in Exhibit 3-1, the *normally acceptable* exterior noise level for non-noise-sensitive general industrial land uses is 75 dBA CNEL. Noise levels greater than 75 dBA CNEL are considered *normally unacceptable*. (11) To determine if Project-related traffic noise level increases are significant at off-site non-noise-sensitive general industrial land uses, a *barely perceptible* 3 dBA criteria is used. When the without Project noise levels are greater than the *normally acceptable* 75 dBA CNEL land use compatibility criteria, a *barely perceptible* 3 dBA or greater noise level increase is considered a significant impact since the noise level criteria is already exceeded. The noise level increases used to determine significant impacts for non-noise-sensitive land uses is generally consistent with the FICON noise level increase thresholds for noise-sensitive land uses but instead rely on *Ontario Noise Level Exposure and Land Use Compatibility Guidelines normally acceptable* 75 dBA CNEL exterior noise level criteria for non-noise sensitive general industrial land uses.

4.1.3 Construction Noise (Substantial Temporary Noise Level Increase)

To control the noise-generating construction activities, the temporary noise level increases over the existing ambient conditions must be considered under CEQA Significance Threshold A. Although noise ordinances vary across jurisdictions, many cities and counties in California, including Los Angeles, San Diego, and San Francisco, set construction noise limits between 75 and 80 dBA L_{eq} and typically restrict construction activities to the daytime hours. In contrast, everyday operational noise regulations are more stringent because they apply to continuous, long-term noise sources that can significantly impact the quality of life. As a result, many jurisdictions including the City of Ontario

establish daytime residential noise limits around 55 to 65 dBA L_{eq} . This suggests that 20 dBA increase over the daytime noise limit can be reasonably tolerated without significant adverse effects. In addition, increases of up to 20 dBA L_{eq} are permitted according to Section 5-29.04[b][2] of the City of Ontario Municipal Code. 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.

While this analysis relies on the 20 dBA L_{eq} *substantial* noise increase threshold, it is important to recognize that many jurisdictions within the State including the City of Los Angeles no longer maintain any daytime noise increase thresholds. The City of Los Angeles found the 10 dBA daytime construction noise increase thresholds previously employed in the City of Los Angeles to be overly conservative, especially in the context of impacts on public health that often results in significant impact determination, even for routine construction activities that are expected to occur in an urban environment. (22 p. 7) Based on these findings, the updated City of Los Angeles CEQA Thresholds Guide identifies a 5 dBA nighttime construction noise increase threshold but no longer maintains a numerical threshold above ambient noise levels for daytime construction activities. Therefore, if the Project-related construction noise levels generate a temporary noise level increase over the existing daytime ambient noise levels more than 20 dBA L_{eq} consistent with Section 5-29.04[b][2] of the City of Ontario Municipal Code or 5 dBA L_{eq} over the existing nighttime ambient noise levels, then the Project construction noise increases will be considered a *significant* impact.

4.2 CONSTRUCTION VIBRATION (THRESHOLD B)

As described in Section 3.5, vibration impacts originating from the construction of the Eucalyptus Business Park, vibration-generating activities are appropriately evaluated using the Federal Transit Administration, *Transit Noise and Vibration Impact Assessment Manual*, (8) construction vibration damage criteria. The nearest buildings adjacent to the Project site can best be described as non-engineered timber and masonry buildings with a maximum acceptable continuous vibration threshold of 0.2 PPV (in/sec).

4.3 CEQA GUIDELINES NOT FURTHER ANALYZED (THRESHOLD C)

CEQA Noise Threshold C applies when there are nearby public and private airports and/or air strips and focuses on land use compatibility of the Project to nearby airports and airstrips. The closest airport which would require additional noise analysis under CEQA Guideline C is the Chino Airport (CNO). As previously indicated in Section 3.6, the Project site is located well outside the 55 dBA CNEL airport noise level contour boundaries. Therefore, airport noise impacts are considered *less than significant*, and no further noise analysis is required under CEQA Noise Threshold C.

4.4 SIGNIFICANCE CRITERIA SUMMARY

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

TABLE 4-1: SIGNIFICANCE CRITERIA SUMMARY

Analysis	Receiving Land Use	Condition(s)	Significance Criteria	
			Daytime	Nighttime
Off-Site Traffic	Noise-Sensitive	If ambient is < 60 dBA CNEL ¹ If ambient is 60 - 65 dBA CNEL ¹ If ambient is > 65 dBA CNEL ¹	≥ 5 dBA CNEL Project increase ≥ 3 dBA CNEL Project increase ≥ 1.5 dBA CNEL Project increase	
Off-Site Traffic	Non-Noise-Sensitive	If ambient is > 75 dBA CNEL ²	≥ 3 dBA CNEL Project increase	
Operational	Noise-Sensitive	Exterior Noise Level Standards If ambient is < 60 dBA Leq ¹ If ambient is 60 - 65 dBA Leq ¹ If ambient is > 65 dBA Leq ¹	See Table 3-1 ≥ 5 dBA Leq Project increase ≥ 3 dBA Leq Project increase ≥ 1.5 dBA Leq Project increase	
Construction	Noise-Sensitive	Exterior Noise Level Threshold ³ Exterior Noise Level Increase Vibration Level Threshold ⁶	80 dBA Leq 20 dBA Leq ⁴	70 dBA Leq 5 dBA Leq ⁵ 0.2 PPV (in/sec)

¹ FICON, 1992 & Section 5.13.2.2 of The Ontario Plan 2050 Final Supplemental Environmental Impact Report (FSEIR)

² Table 5-13-3 of The Ontario Plan 2050 Final Supplemental Environmental Impact Report (FSEIR) (Exhibit 3-1)

³ Federal Transit Administration, Transit Noise and Vibration Impact Assessment Manual & Section 5.13.2.1 of The Ontario Plan 2050 Final Supplemental Environmental Impact Report (FSEIR)

⁴ Reasonable daytime increase that can be tolerated without significant adverse effects.

⁵ City of Los Angeles Department of City Planning, Construction Noise and Vibration Updates to Thresholds and Methodology.

⁶ Federal Transit Administration, Transit Noise and Vibration Impact Assessment Manual and Table 5.13-9 of The Ontario Plan 2050 Final Supplemental Environmental Impact Report (FSEIR).

"Daytime" = 7:00 a.m. to 10:00 p.m.; "Nighttime" = 10:00 p.m. to 7:00 a.m.; "PPV" = Peak Particle Velocity

5 EXISTING NOISE LEVEL MEASUREMENTS

To assess the existing noise level environment, 24-hour noise level measurements were taken at seven locations in the Project study area. The receiver locations were selected to describe and document the existing noise environment within the Project study area. Exhibit 5-1 provides the boundaries of the Project study area and the noise level measurement locations. To fully describe the existing noise conditions, long-term noise level measurements were collected by Urban Crossroads, Inc. on July 25, 2025. Appendix 5.1 includes study area photos.

5.1 MEASUREMENT PROCEDURE AND CRITERIA

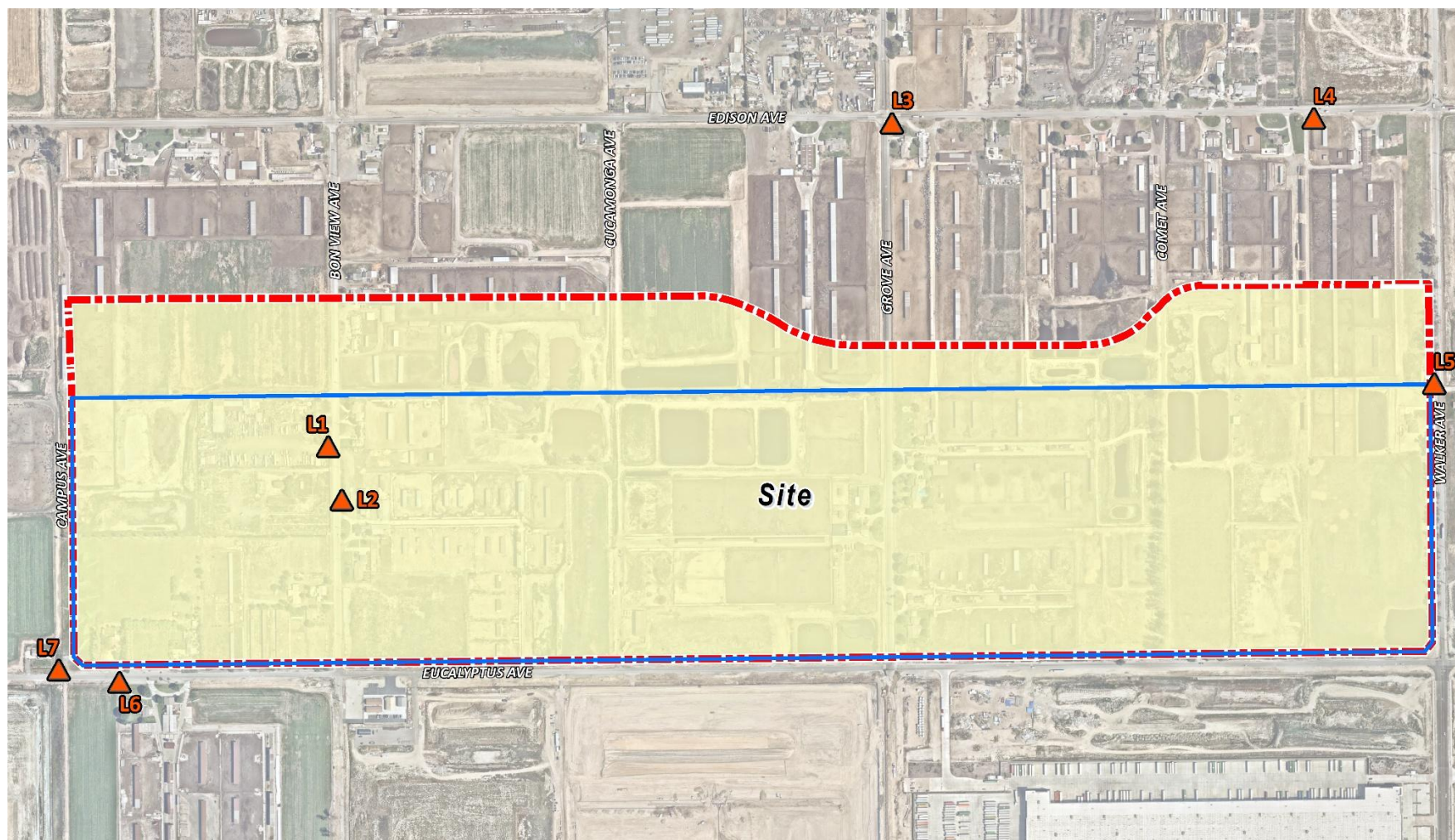
To describe the existing noise environment, the hourly noise levels were measured during typical weekday conditions over a 24-hour period. By collecting individual hourly noise level measurements, it is possible to describe the equivalent daytime and nighttime hourly noise levels and calculate the 24-hour 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. (23)

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. Both Caltrans and the FTA recognize that it is not reasonable to collect noise level measurements that can fully represent every part of a private yard, patio, deck, or balcony normally used for human activity when estimating impacts for new development projects. This is demonstrated in the Caltrans general site location guidelines which indicate that sites must be free of noise contamination by sources other than sources of interest. Avoid sites located near sources such as barking dogs, lawnmowers, pool pumps, and air conditioners unless it is the express intent of the analyst to measure these sources. (2) Further, FTA guidance states, that it is not necessary nor recommended that existing noise exposure be determined by measuring at every noise-sensitive location in the project area. Rather, the recommended approach is to characterize the noise environment for clusters of sites based on measurements or estimates at representative locations in the community. (8)

Based on recommendations of Caltrans and the FTA, it is not necessary to collect measurements at each individual building or residence, because each receiver measurement represents a group of buildings that share acoustic 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.

EXHIBIT 5-1: NOISE MEASUREMENT LOCATIONS



LEGEND:

- Site Boundary
- Specific Plan Area
- Measurement Locations

Collecting noise level measurements at the nearby sensitive receiver locations allows for a comparison of the before and after Project noise levels and is necessary to assess potential noise 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 hourly energy average sound levels (L_{eq}) to describe the existing ambient conditions. Table 5-1 provides the (energy average) noise levels used to describe 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. 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. The daytime and nighttime equivalent noise levels represent the average of all hourly noise levels observed during these time periods expressed as a single number.

TABLE 5-1: AMBIENT NOISE LEVEL MEASUREMENTS

Location ¹	Description	Energy Average Noise Level (dBA L_{eq}) ²		CNEL
		Daytime	Nighttime	
L1	Located near the residence at 14353 Bon View Av.	69.8	62.9	71.5
L2	Located near the residence at 14333 Bon View Av.	64.9	57.6	66.4
L3	Located north of the site near the residence at 14117 S. Grove Av.	69.4	60.8	70.6
L4	Located north of the site near the residence at 8377 Edison Av.	69.9	60.0	70.5
L5	Located north of the site near the residence at 14350 Walker Av.	59.8	51.4	61.2
L6	Located south of the site near the residence at 7566 Eucalyptus Av.	62.3	52.5	62.8
L7	Located west of the site near the residence at 7511 Eucalyptus Av.	49.9	47.7	54.9

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 for each of the measurements. Appendix 5.2 provides summary worksheets of the noise levels for each hour as well as the minimum, maximum, L1, L2, L5, L8, L25, L50, L90, L95, and L99 percentile noise levels observed during the daytime and nighttime periods.

This page intentionally left blank

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 Ontario Policy Plan, *Noise Level Exposure and Land Use Compatibility Guidelines*, all transportation-related noise levels for the outdoor activity areas are presented in terms of the 24-hour CNEL's. Unlike a simple arithmetic average noise level, CNEL represents the logarithmic summation of the equivalent hourly noise levels with evening and nighttime noise penalties recognizing that noise may have different impacts on people depending on when it occurs.

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. (24) This methodology is commonly used to describe the off-site traffic noise levels throughout southern California. The FHWA Model arrives at a predicted noise level through a series of adjustments to the Reference Energy Mean Emission Level (REMEL) by vehicle type. REMEL represents the maximum sound level (L_{max}) of individual vehicle "pass by" events by vehicle type when measured at a "reference distance" of 50 feet from the center of the travel lane.

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. (25)

6.2 OFF-SITE TRAFFIC NOISE PREDICTION MODEL INPUTS

Table 6-1 presents the roadway parameters used to assess the Project's off-site dBA CNEL transportation noise impacts. Table 6-1 identifies the 20 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 Ontario General Plan Policy Plan, and the vehicle speeds. It is expected that the Project related off-site traffic noise level contributions on other roadway segments outside the Project study area will dissipate as traffic disperses on the roadway network. The ADT volumes used in this study area presented in Table 6-2 are based on the *Eucalyptus Business Park Traffic Analysis* prepared by Urban Crossroads, Inc. for the following traffic scenarios (26):

- Existing without Project (2025)
- Existing with Project (Phase 1)
- Existing with Project (Phase 2)
- Existing with Project (Buildout)

- Opening Year Cumulative (OYC) 2031 without Project
- Opening Year Cumulative (OYC) 2031 with Project
- Horizon Year (2050) Without Project
- Horizon Year (2050) With Project

It should be noted that City truck routes are proposed to change as part of the City's General Plan Amendment (GPA). The City's GPA proposes removing segments along Ontario Ranch Road between Euclid Avenue (SR-83) and Walker Avenue as well as Archibald Avenue from the SR-60 Freeway to Merrill Avenue. However, new segments of Eucalyptus Avenue between Euclid Avenue (SR-83) and Hellman Avenue, Hellman Avenue from Eucalyptus Avenue to Merrill Avenue, and Walker Avenue from Ontario Ranch Road to Merrill Avenue would be added to facilitate adequate truck access within the city. For the purposes of this analysis, all scenarios that include the Project also assume the proposed GPA City Truck Routes and the modifications applicable to the removal and addition of truck route designations consistent with the *Eucalyptus Business Park Traffic Analysis*. This approach may result in short-term reductions in with Project traffic volumes and subsequently the with Project off-site traffic noise levels.

TABLE 6-1: OFF-SITE ROADWAY PARAMETERS

ID	Roadway	Segment	Receiving Land Use ¹	Classification ²	Distance from Centerline to Receiving Land Use (Feet) ³	Vehicle Speed (mph)
1	Euclid Av. (SR-83)	n/o Edison Av.	Sensitive	Principal Arterial	80'	55
2	Euclid Av. (SR-83)	n/o Eucalyptus Av.	Sensitive	Principal Arterial	80'	55
3	Euclid Av. (SR-83)	s/o Eucalyptus Av.	Sensitive	Principal Arterial	80'	55
4	Bon View Av.	n/o Edison Av.	Sensitive	Collector	44'	40
5	Bon View Av.	s/o Edison Av.	Sensitive	Collector	44'	40
6	Grove Av.	n/o Edison Av.	Sensitive	Principal Arterial	50'	50
7	Grove Av.	s/o Edison Av.	Sensitive	Principal Arterial	50'	50
8	Walker Av.	n/o Edison Av.	Sensitive	Collector	44'	40
9	Walker Av.	s/o Edison Av.	Sensitive	Collector	44'	40
10	Archibald Av.	n/o Ontario Ranch Rd.	Sensitive	Principal Arterial	60'	55
11	Archibald Av.	s/o Ontario Ranch Rd.	Sensitive	Principal Arterial	60'	55
12	Edison Av.	e/o Euclid Av. (SR-83)	Sensitive	Principal Arterial	80'	55
13	Edison Av.	w/o Grove Av.	Sensitive	Principal Arterial	80'	55
14	Edison Av.	e/o Grove Av.	Sensitive	Principal Arterial	80'	55
15	Ontario Ranch Rd.	w/o Archibald Av.	Non-Sensitive	Principal Arterial	80'	55
16	Ontario Ranch Rd.	e/o Archibald Av.	Sensitive	Principal Arterial	80'	55
17	Eucalyptus Av.	e/o Euclid Av. (SR-83)	Sensitive	Collector	44'	40
18	Eucalyptus Av.	w/o Grove Av.	Non-Sensitive	Collector	44'	40
19	Eucalyptus Av.	e/o Grove Av.	Non-Sensitive	Collector	44'	40
20	Eucalyptus Av.	e/o Walker Av.	Non-Sensitive	Collector	44'	40

¹ Based on a review of existing aerial imagery.

² Eucalyptus Business Park Traffic Analysis, Urban Crossroads, Inc.

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 (Actual Vehicles) ¹							
			Existing Without Project	Existing With Project Phase 1	Existing With Project Phase 2	Existing With Project Buildout	OYC (2031) Without Project	OYCP (2031) With Project	Horizon Year (2050) Without Project	Horizon Year (2050) With Project
1	Euclid Av. (SR-83)	n/o Ontario Ranch Rd.	26,344	26,718	27,175	27,385	30,108	31,149	35,578	36,619
2	Euclid Av. (SR-83)	n/o Eucalyptus Av.	20,968	21,954	22,313	22,492	25,936	26,791	38,169	39,025
3	Euclid Av. (SR-83)	s/o Eucalyptus Av.	32,049	32,370	32,634	32,783	36,916	37,597	48,446	49,127
4	Bon View Av.	n/o Ontario Ranch Rd.	2,275	2,265	2,363	2,394	3,558	3,743	14,650	14,835
5	Bon View Av.	s/o Ontario Ranch Rd.	1,650	1,632	2,202	2,471	2,867	3,715	16,496	17,080
6	Grove Av.	n/o Ontario Ranch Rd.	5,154	5,632	6,351	6,686	7,280	8,946	21,735	23,401
7	Grove Av.	s/o Ontario Ranch Rd.	3,754	4,462	5,089	5,829	5,330	7,444	16,161	17,946
8	Walker Av.	n/o Ontario Ranch Rd.	5,256	5,272	5,353	5,384	7,215	7,382	19,668	19,836
9	Walker Av.	s/o Ontario Ranch Rd.	3,436	4,882	5,541	5,641	5,523	7,047	24,831	26,686
10	Archibald Av.	n/o Ontario Ranch Rd.	17,396	16,277	16,798	17,027	22,011	23,179	42,239	43,407
11	Archibald Av.	s/o Ontario Ranch Rd.	22,891	21,437	22,317	22,714	28,195	30,196	44,921	46,922
12	Ontario Ranch Rd.	e/o Euclid Av. (SR-83)	9,380	8,654	8,908	8,985	12,080	12,552	24,306	24,778
13	Ontario Ranch Rd.	w/o Grove Av.	7,680	7,171	7,714	8,220	10,066	11,314	20,622	21,474
14	Ontario Ranch Rd.	e/o Grove Av.	7,873	7,154	7,327	7,659	10,003	10,510	18,551	18,728
15	Ontario Ranch Rd.	w/o Archibald Av.	11,889	14,564	15,315	15,717	15,875	17,738	36,312	38,175
16	Ontario Ranch Rd.	e/o Archibald Av.	14,289	16,629	17,739	18,308	20,129	22,826	46,855	49,552
17	Eucalyptus Av.	e/o Euclid Av. (SR-83)	3,823	5,315	5,816	6,144	6,436	7,849	26,381	27,794
18	Eucalyptus Av.	w/o Grove Av.	2,924	4,162	5,089	5,532	4,818	6,771	20,086	21,498
19	Eucalyptus Av.	e/o Grove Av.	6,789	8,229	9,057	10,232	9,087	11,888	22,871	24,792
20	Eucalyptus Av.	e/o Walker Av.	5,916	6,784	8,126	8,602	6,280	8,966	7,587	10,273

¹ Eucalyptus Business Park Traffic Analysis, Urban Crossroads, Inc.

To describe the Project off-site traffic impacts, the receiving land use adjacent to each roadway segment is identified as a sensitive or non-sensitive land use. Sensitive land uses are limited to the existing noise sensitive residential uses based on a review of aerial imagery. It is expected that only the existing receivers will experience a change in the ambient noise levels over time. 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 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 analysis. Consistent with the *Eucalyptus Business Park Traffic Analysis*, the Project is anticipated to generate a net total of 9,596 two-way trips per day (actual vehicles) that includes 1,218 truck trips.

To quantify the off-site noise levels, Project-related truck trips were added to the heavy truck category in the FHWA noise prediction model. The addition of the Project related truck trips increases the percentage of heavy trucks in the vehicle mix. This approach recognizes that the FHWA noise prediction model is significantly influenced by the number of heavy trucks in the vehicle mix. The unadjusted daily Project truck trip-ends were assigned to the individual off-site study area roadway segments based on the Project truck trip distribution percentages documented in the traffic analysis. Consistent with *Eucalyptus Business Park Traffic Analysis*, the off-site traffic noise analysis maintains a peak hour to average daily traffic (peak-to-daily) relationship of approximately 8.79%.

Table 6-3 provides the time of day (daytime, evening, and nighttime) splits and the traffic flow by vehicle type (vehicle mix) used for all without Project traffic scenarios. Tables 6-4 to 6-8 show the with Project vehicle mix. 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 6-3: TIME OF DAY VEHICLE SPLITS

Time of Day	Vehicle Mix ¹			Time of Day Split ¹
	Autos ²	Medium Trucks ³	Heavy Trucks ⁴	
Daytime	57.54%	2.03%	9.14%	68.71%
Evening	7.91%	0.15%	1.41%	9.47%
Nighttime	17.67%	0.34%	3.81%	21.82%
Daily	83.12%	2.51%	14.36%	100.00%

¹ Based on the 24-hour directional vehicle classification count collected on Euclid Avenue between Ontario Ranch Road and Eucalyptus Avenue on May 16, 2025 (Eucalyptus Business Park Traffic Analysis, Urban Crossroads, Inc.)

² All vehicles with two axles and four wheels designed primarily for transportation of nine or fewer passengers (automobiles) or transportation of cargo (light trucks).

³ All vehicles with two axles and six wheels designed for transportation of cargo.

⁴ All vehicles with three or more axles designed for the transportation of cargo.

TABLE 6-4: EXISTING WITH PROJECT (PHASE 1) VEHICLE MIX

ID	Roadway	Segment	With Project ¹			
			Autos	Medium Trucks	Heavy Trucks	Total ²
1	Euclid Av. (SR-83)	n/o Ontario Ranch Rd.	82.90%	2.55%	14.54%	100.00%
2	Euclid Av. (SR-83)	n/o Eucalyptus Av.	82.81%	2.57%	14.62%	100.00%
3	Euclid Av. (SR-83)	s/o Eucalyptus Av.	83.04%	2.53%	14.43%	100.00%
4	Bon View Av.	n/o Ontario Ranch Rd.	83.54%	2.45%	14.01%	100.00%
5	Bon View Av.	s/o Ontario Ranch Rd.	83.21%	2.50%	14.29%	100.00%
6	Grove Av.	n/o Ontario Ranch Rd.	84.96%	2.24%	12.80%	100.00%
7	Grove Av.	s/o Ontario Ranch Rd.	85.95%	2.09%	11.96%	100.00%
8	Walker Av.	n/o Ontario Ranch Rd.	83.30%	2.49%	14.21%	100.00%
9	Walker Av.	s/o Ontario Ranch Rd.	79.74%	3.13%	17.13%	100.00%
10	Archibald Av.	n/o Ontario Ranch Rd.	83.56%	2.45%	14.00%	100.00%
11	Archibald Av.	s/o Ontario Ranch Rd.	83.69%	2.43%	13.88%	100.00%
12	Ontario Ranch Rd.	e/o Euclid Av. (SR-83)	83.40%	2.47%	14.13%	100.00%
13	Ontario Ranch Rd.	w/o Grove Av.	83.59%	2.44%	13.96%	100.00%
14	Ontario Ranch Rd.	e/o Grove Av.	83.13%	2.51%	14.36%	100.00%
15	Ontario Ranch Rd.	w/o Archibald Av.	81.93%	2.73%	15.34%	100.00%
16	Ontario Ranch Rd.	e/o Archibald Av.	82.39%	2.66%	14.96%	100.00%
17	Eucalyptus Av.	e/o Euclid Av. (SR-83)	81.29%	2.85%	15.86%	100.00%
18	Eucalyptus Av.	w/o Grove Av.	80.78%	2.95%	16.27%	100.00%
19	Eucalyptus Av.	e/o Grove Av.	82.80%	2.60%	14.61%	100.00%
20	Eucalyptus Av.	e/o Walker Av.	85.28%	2.19%	12.53%	100.00%

¹ Total of vehicle mix percentage values rounded to the nearest one-hundredth.

TABLE 6-5: EXISTING WITH PROJECT (PHASE 2) VEHICLE MIX

ID	Roadway	Segment	With Project ¹			
			Autos	Medium Trucks	Heavy Trucks	Total ²
1	Euclid Av. (SR-83)	n/o Ontario Ranch Rd.	82.78%	2.58%	14.64%	100.00%
2	Euclid Av. (SR-83)	n/o Eucalyptus Av.	82.59%	2.61%	14.80%	100.00%
3	Euclid Av. (SR-83)	s/o Eucalyptus Av.	82.97%	2.54%	14.49%	100.00%
4	Bon View Av.	n/o Ontario Ranch Rd.	84.23%	2.35%	13.42%	100.00%
5	Bon View Av.	s/o Ontario Ranch Rd.	87.56%	1.85%	10.58%	100.00%
6	Grove Av.	n/o Ontario Ranch Rd.	86.66%	1.99%	11.35%	100.00%
7	Grove Av.	s/o Ontario Ranch Rd.	87.68%	1.83%	10.48%	100.00%
8	Walker Av.	n/o Ontario Ranch Rd.	83.55%	2.45%	14.00%	100.00%
9	Walker Av.	s/o Ontario Ranch Rd.	77.39%	3.55%	19.06%	100.00%
10	Archibald Av.	n/o Ontario Ranch Rd.	84.07%	2.37%	13.56%	100.00%
11	Archibald Av.	s/o Ontario Ranch Rd.	84.34%	2.33%	13.33%	100.00%
12	Ontario Ranch Rd.	e/o Euclid Av. (SR-83)	83.87%	2.40%	13.73%	100.00%
13	Ontario Ranch Rd.	w/o Grove Av.	84.75%	2.27%	12.98%	100.00%
14	Ontario Ranch Rd.	e/o Grove Av.	83.53%	2.45%	14.02%	100.00%
15	Ontario Ranch Rd.	w/o Archibald Av.	81.09%	2.88%	16.03%	100.00%
16	Ontario Ranch Rd.	e/o Archibald Av.	82.00%	2.74%	15.26%	100.00%
17	Eucalyptus Av.	e/o Euclid Av. (SR-83)	79.87%	3.11%	17.01%	100.00%
18	Eucalyptus Av.	w/o Grove Av.	80.46%	3.05%	16.49%	100.00%
19	Eucalyptus Av.	e/o Grove Av.	81.12%	2.90%	15.97%	100.00%
20	Eucalyptus Av.	e/o Walker Av.	87.71%	1.83%	10.46%	100.00%

¹ Total of vehicle mix percentage values rounded to the nearest one-hundredth.

TABLE 6-6: EXISTING WITH PROJECT (BUILDOUT) VEHICLE MIX

ID	Roadway	Segment	With Project ¹			
			Autos	Medium Trucks	Heavy Trucks	Total ²
1	Euclid Av. (SR-83)	n/o Ontario Ranch Rd.	82.65%	2.60%	14.74%	100.00%
2	Euclid Av. (SR-83)	n/o Eucalyptus Av.	82.41%	2.64%	14.94%	100.00%
3	Euclid Av. (SR-83)	s/o Eucalyptus Av.	82.92%	2.55%	14.53%	100.00%
4	Bon View Av.	n/o Ontario Ranch Rd.	84.43%	2.32%	13.25%	100.00%
5	Bon View Av.	s/o Ontario Ranch Rd.	88.92%	1.65%	9.43%	100.00%
6	Grove Av.	n/o Ontario Ranch Rd.	87.33%	1.89%	10.78%	100.00%
7	Grove Av.	s/o Ontario Ranch Rd.	89.25%	1.60%	9.15%	100.00%
8	Walker Av.	n/o Ontario Ranch Rd.	83.65%	2.43%	13.92%	100.00%
9	Walker Av.	s/o Ontario Ranch Rd.	74.73%	4.00%	21.27%	100.00%
10	Archibald Av.	n/o Ontario Ranch Rd.	84.28%	2.34%	13.38%	100.00%
11	Archibald Av.	s/o Ontario Ranch Rd.	84.61%	2.29%	13.10%	100.00%
12	Ontario Ranch Rd.	e/o Euclid Av. (SR-83)	84.01%	2.38%	13.61%	100.00%
13	Ontario Ranch Rd.	w/o Grove Av.	85.69%	2.13%	12.18%	100.00%
14	Ontario Ranch Rd.	e/o Grove Av.	84.24%	2.35%	13.41%	100.00%
15	Ontario Ranch Rd.	w/o Archibald Av.	80.47%	2.99%	16.53%	100.00%
16	Ontario Ranch Rd.	e/o Archibald Av.	81.62%	2.81%	15.57%	100.00%
17	Eucalyptus Av.	e/o Euclid Av. (SR-83)	79.07%	3.26%	17.67%	100.00%
18	Eucalyptus Av.	w/o Grove Av.	80.05%	3.14%	16.81%	100.00%
19	Eucalyptus Av.	e/o Grove Av.	81.67%	2.84%	15.49%	100.00%
20	Eucalyptus Av.	e/o Walker Av.	88.39%	1.73%	9.88%	100.00%

¹ Total of vehicle mix percentage values rounded to the nearest one-hundredth.

TABLE 6-7: OYC 2031 WITH PROJECT VEHICLE MIX

ID	Roadway	Segment	With Project ¹			
			Autos	Medium Trucks	Heavy Trucks	Total ²
1	Euclid Av. (SR-83)	n/o Ontario Ranch Rd.	82.71%	2.59%	14.70%	100.00%
2	Euclid Av. (SR-83)	n/o Eucalyptus Av.	82.53%	2.62%	14.85%	100.00%
3	Euclid Av. (SR-83)	s/o Eucalyptus Av.	82.94%	2.55%	14.51%	100.00%
4	Bon View Av.	n/o Ontario Ranch Rd.	83.96%	2.39%	13.65%	100.00%
5	Bon View Av.	s/o Ontario Ranch Rd.	86.98%	1.94%	11.08%	100.00%
6	Grove Av.	n/o Ontario Ranch Rd.	86.27%	2.04%	11.69%	100.00%
7	Grove Av.	s/o Ontario Ranch Rd.	87.92%	1.80%	10.28%	100.00%
8	Walker Av.	n/o Ontario Ranch Rd.	83.51%	2.46%	14.04%	100.00%
9	Walker Av.	s/o Ontario Ranch Rd.	76.40%	3.71%	19.89%	100.00%
10	Archibald Av.	n/o Ontario Ranch Rd.	83.97%	2.39%	13.64%	100.00%
11	Archibald Av.	s/o Ontario Ranch Rd.	84.24%	2.35%	13.41%	100.00%
12	Ontario Ranch Rd.	e/o Euclid Av. (SR-83)	83.76%	2.42%	13.82%	100.00%
13	Ontario Ranch Rd.	w/o Grove Av.	84.99%	2.24%	12.78%	100.00%
14	Ontario Ranch Rd.	e/o Grove Av.	83.94%	2.39%	13.67%	100.00%
15	Ontario Ranch Rd.	w/o Archibald Av.	80.78%	2.94%	16.29%	100.00%
16	Ontario Ranch Rd.	e/o Archibald Av.	81.92%	2.75%	15.33%	100.00%
17	Eucalyptus Av.	e/o Euclid Av. (SR-83)	79.95%	3.10%	16.95%	100.00%
18	Eucalyptus Av.	w/o Grove Av.	80.62%	3.02%	16.36%	100.00%
19	Eucalyptus Av.	e/o Grove Av.	81.88%	2.80%	15.33%	100.00%
20	Eucalyptus Av.	e/o Walker Av.	88.18%	1.76%	10.06%	100.00%

¹ Total of vehicle mix percentage values rounded to the nearest one-hundredth.

TABLE 6-8: HY 2050 WITH PROJECT VEHICLE MIX

ID	Roadway	Segment	With Project ¹			
			Autos	Medium Trucks	Heavy Trucks	Total ²
1	Euclid Av. (SR-83)	n/o Ontario Ranch Rd.	82.77%	2.58%	14.65%	100.00%
2	Euclid Av. (SR-83)	n/o Eucalyptus Av.	82.71%	2.59%	14.70%	100.00%
3	Euclid Av. (SR-83)	s/o Eucalyptus Av.	82.98%	2.54%	14.47%	100.00%
4	Bon View Av.	n/o Ontario Ranch Rd.	83.33%	2.48%	14.18%	100.00%
5	Bon View Av.	s/o Ontario Ranch Rd.	83.70%	2.43%	13.87%	100.00%
6	Grove Av.	n/o Ontario Ranch Rd.	84.32%	2.33%	13.34%	100.00%
7	Grove Av.	s/o Ontario Ranch Rd.	84.80%	2.26%	12.94%	100.00%
8	Walker Av.	n/o Ontario Ranch Rd.	83.27%	2.49%	14.24%	100.00%
9	Walker Av.	s/o Ontario Ranch Rd.	81.56%	2.80%	15.65%	100.00%
10	Archibald Av.	n/o Ontario Ranch Rd.	83.58%	2.45%	13.98%	100.00%
11	Archibald Av.	s/o Ontario Ranch Rd.	83.84%	2.41%	13.75%	100.00%
12	Ontario Ranch Rd.	e/o Euclid Av. (SR-83)	83.44%	2.47%	14.09%	100.00%
13	Ontario Ranch Rd.	w/o Grove Av.	83.79%	2.41%	13.79%	100.00%
14	Ontario Ranch Rd.	e/o Grove Av.	83.28%	2.49%	14.23%	100.00%
15	Ontario Ranch Rd.	w/o Archibald Av.	82.03%	2.71%	15.26%	100.00%
16	Ontario Ranch Rd.	e/o Archibald Av.	82.57%	2.62%	14.81%	100.00%
17	Eucalyptus Av.	e/o Euclid Av. (SR-83)	82.23%	2.68%	15.09%	100.00%
18	Eucalyptus Av.	w/o Grove Av.	81.97%	2.73%	15.31%	100.00%
19	Eucalyptus Av.	e/o Grove Av.	82.81%	2.59%	14.60%	100.00%
20	Eucalyptus Av.	e/o Walker Av.	87.54%	1.86%	10.61%	100.00%

¹ Total of vehicle mix percentage values rounded to the nearest one-hundredth.

This page intentionally left blank

7 OFF-SITE TRAFFIC NOISE ANALYSIS

As described in Section 4.1, the off-site traffic noise impacts are evaluated based on noise level increases resulting from the Project. Under CEQA, consideration must be given to the magnitude of the increase, the existing ambient noise levels, and the location of noise-sensitive receivers to determine if a noise increase represents a significant adverse environmental impact. To assess the off-site transportation CNEL noise level impacts associated with development of the Project, noise contours were developed for each of the Project scenarios outlined in the *Eucalyptus Business Park Traffic Analysis* prepared by Urban Crossroads, Inc. (26)

7.1 TRAFFIC NOISE CONTOURS

Noise contours were used to assess the Project's incremental 24-hour dBA CNEL traffic-related noise impacts at land uses adjacent to roadways conveying Project traffic. The noise contours represent the distance to noise levels of constant value and are measured from the center of the roadway for the 70, 65, and 60 dBA CNEL noise levels. The noise contours do not consider the effect of any existing noise barriers or topography that may attenuate ambient noise levels. In addition, because the noise contours reflect modeling of vehicular noise on area roadways, they appropriately do not reflect noise contributions from the surrounding stationary noise sources within the Project study area. Tables 7-1 through 7-8 present a summary of the exterior dBA CNEL traffic noise levels for each traffic condition. Appendix 7.1 includes a summary of the dBA CNEL traffic noise level contour worksheets for each of the traffic conditions.

7.2 OFF-SITE TRUCK TRAFFIC

As outlined above in Section 6.1, The FHWA Model arrives at a predicted noise level through a series of adjustments to the Reference Energy Mean Emission Level (REMEL) by vehicle type. REMEL represents the maximum sound level (L_{max}) of individual vehicle *pass by* events by vehicle type when measured at a *reference distance* of 50 feet from the center of the travel lane. The noise level calculations included in Appendix 7.1, present the REMEL levels by vehicle type for each of the study area roadway segments. However, to demonstrate compliance with the City of Ontario Policy Plan *Land Use Compatibility for Community Noise Environments* guidelines, all exterior noise levels are first expressed using the equivalent hourly noise levels for the peak, daytime, evening, and nighttime hours. This approach permits the calculation of the 24-hour CNEL necessary to demonstrate compliance with the established thresholds of significance. Unlike a simple arithmetic average noise level, CNEL represents the logarithmic summation of the equivalent hourly noise levels with evening and nighttime noise penalties recognizing that noise may have different impacts on people depending on when it occurs.

CNEL is commonly used for planning purposes and to assess changes in the long-term traffic noise exposure in a way that reflects its impact on communities over time, considering both daytime and nighttime periods when people may be more sensitive to noise. Since the CNEL noise levels include penalties for the evening and nighttime hours, the CNEL level will always be higher than any of the equivalent hourly noise levels

TABLE 7-1: EXISTING WITHOUT PROJECT CONTOURS

ID	Road	Segment	Receiving Land Use ¹	CNEL at Receiving Land Use (dBA) ²	Distance to Contour from Centerline (Feet)		
					70 dBA CNEL	65 dBA CNEL	60 dBA CNEL
1	Euclid Av. (SR-83)	n/o Ontario Ranch Rd.	Sensitive	79.8	360	775	1,670
2	Euclid Av. (SR-83)	n/o Eucalyptus Av.	Sensitive	78.8	309	666	1,434
3	Euclid Av. (SR-83)	s/o Eucalyptus Av.	Sensitive	80.6	410	883	1,903
4	Bon View Av.	n/o Ontario Ranch Rd.	Sensitive	68.7	RW	78	168
5	Bon View Av.	s/o Ontario Ranch Rd.	Sensitive	67.3	RW	63	136
6	Grove Av.	n/o Ontario Ranch Rd.	Sensitive	73.7	89	191	411
7	Grove Av.	s/o Ontario Ranch Rd.	Sensitive	72.3	72	154	333
8	Walker Av.	n/o Ontario Ranch Rd.	Sensitive	72.4	63	136	294
9	Walker Av.	s/o Ontario Ranch Rd.	Sensitive	70.5	48	103	221
10	Archibald Av.	n/o Ontario Ranch Rd.	Sensitive	78.6	226	487	1,050
11	Archibald Av.	s/o Ontario Ranch Rd.	Sensitive	79.8	272	585	1,261
12	Ontario Ranch Rd.	e/o Euclid Av. (SR-83)	Sensitive	75.3	181	389	839
13	Ontario Ranch Rd.	w/o Grove Av.	Sensitive	74.4	158	341	734
14	Ontario Ranch Rd.	e/o Grove Av.	Sensitive	74.5	161	347	747
15	Ontario Ranch Rd.	w/o Archibald Av.	Non-Sensitive	76.3	212	456	983
16	Ontario Ranch Rd.	e/o Archibald Av.	Sensitive	77.1	239	516	1,111
17	Eucalyptus Av.	e/o Euclid Av. (SR-83)	Sensitive	71.0	51	110	238
18	Eucalyptus Av.	w/o Grove Av.	Non-Sensitive	69.8	RW	92	199
19	Eucalyptus Av.	e/o Grove Av.	Non-Sensitive	73.5	75	162	349
20	Eucalyptus Av.	e/o Walker Av.	Non-Sensitive	72.9	69	148	318

¹ Based on a review of existing aerial imagery.

² 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.

TABLE 7-2: EXISTING WITH PROJECT (PHASE 1) CONTOURS

ID	Road	Segment	Receiving Land Use ¹	CNEL at Receiving Land Use (dBA) ²	Distance to Contour from Centerline (Feet)		
					70 dBA CNEL	65 dBA CNEL	60 dBA CNEL
1	Euclid Av. (SR-83)	n/o Ontario Ranch Rd.	Sensitive	79.9	366	788	1,698
2	Euclid Av. (SR-83)	n/o Eucalyptus Av.	Sensitive	79.1	322	693	1,494
3	Euclid Av. (SR-83)	s/o Eucalyptus Av.	Sensitive	80.7	414	892	1,921
4	Bon View Av.	n/o Ontario Ranch Rd.	Sensitive	68.6	RW	77	165
5	Bon View Av.	s/o Ontario Ranch Rd.	Sensitive	67.3	RW	62	134
6	Grove Av.	n/o Ontario Ranch Rd.	Sensitive	73.7	88	190	409
7	Grove Av.	s/o Ontario Ranch Rd.	Sensitive	72.4	73	156	337
8	Walker Av.	n/o Ontario Ranch Rd.	Sensitive	72.3	63	136	293
9	Walker Av.	s/o Ontario Ranch Rd.	Sensitive	72.7	67	144	311
10	Archibald Av.	n/o Ontario Ranch Rd.	Sensitive	78.3	213	460	990
11	Archibald Av.	s/o Ontario Ranch Rd.	Sensitive	79.4	255	550	1,184
12	Ontario Ranch Rd.	e/o Euclid Av. (SR-83)	Sensitive	74.9	170	366	788
13	Ontario Ranch Rd.	w/o Grove Av.	Sensitive	74.0	149	321	691
14	Ontario Ranch Rd.	e/o Grove Av.	Sensitive	74.1	151	325	700
15	Ontario Ranch Rd.	w/o Archibald Av.	Non-Sensitive	77.5	252	542	1,167
16	Ontario Ranch Rd.	e/o Archibald Av.	Sensitive	77.9	271	584	1,257
17	Eucalyptus Av.	e/o Euclid Av. (SR-83)	Sensitive	72.8	68	146	314
18	Eucalyptus Av.	w/o Grove Av.	Non-Sensitive	71.8	58	126	271
19	Eucalyptus Av.	e/o Grove Av.	Non-Sensitive	74.4	86	186	401
20	Eucalyptus Av.	e/o Walker Av.	Non-Sensitive	73.0	69	149	322

¹ Based on a review of existing aerial imagery.

² 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.

TABLE 7-3: EXISTING WITH PROJECT (PHASE 2) CONTOURS

ID	Road	Segment	Receiving Land Use ¹	CNEL at Receiving Land Use (dBA) ²	Distance to Contour from Centerline (Feet)		
					70 dBA CNEL	65 dBA CNEL	60 dBA CNEL
1	Euclid Av. (SR-83)	n/o Ontario Ranch Rd.	Sensitive	80.0	371	800	1,723
2	Euclid Av. (SR-83)	n/o Eucalyptus Av.	Sensitive	79.2	328	706	1,520
3	Euclid Av. (SR-83)	s/o Eucalyptus Av.	Sensitive	80.8	417	898	1,936
4	Bon View Av.	n/o Ontario Ranch Rd.	Sensitive	68.6	RW	77	166
5	Bon View Av.	s/o Ontario Ranch Rd.	Sensitive	67.4	RW	64	138
6	Grove Av.	n/o Ontario Ranch Rd.	Sensitive	73.8	89	192	415
7	Grove Av.	s/o Ontario Ranch Rd.	Sensitive	72.5	74	159	343
8	Walker Av.	n/o Ontario Ranch Rd.	Sensitive	72.4	63	136	293
9	Walker Av.	s/o Ontario Ranch Rd.	Sensitive	73.7	78	168	361
10	Archibald Av.	n/o Ontario Ranch Rd.	Sensitive	78.3	214	461	994
11	Archibald Av.	s/o Ontario Ranch Rd.	Sensitive	79.5	256	552	1,190
12	Ontario Ranch Rd.	e/o Euclid Av. (SR-83)	Sensitive	74.9	170	367	791
13	Ontario Ranch Rd.	w/o Grove Av.	Sensitive	74.1	150	323	697
14	Ontario Ranch Rd.	e/o Grove Av.	Sensitive	74.2	151	326	702
15	Ontario Ranch Rd.	w/o Archibald Av.	Non-Sensitive	77.8	267	574	1,237
16	Ontario Ranch Rd.	e/o Archibald Av.	Sensitive	78.3	286	616	1,328
17	Eucalyptus Av.	e/o Euclid Av. (SR-83)	Sensitive	73.5	75	162	348
18	Eucalyptus Av.	w/o Grove Av.	Non-Sensitive	72.8	67	145	313
19	Eucalyptus Av.	e/o Grove Av.	Non-Sensitive	75.2	97	209	450
20	Eucalyptus Av.	e/o Walker Av.	Non-Sensitive	73.1	71	152	327

¹ Based on a review of existing aerial imagery.

² 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.

TABLE 7-4: EXISTING WITH PROJECT (BUILDOUT) CONTOURS

ID	Road	Segment	Receiving Land Use ¹	CNEL at Receiving Land Use (dBA) ²	Distance to Contour from Centerline (Feet)		
					70 dBA CNEL	65 dBA CNEL	60 dBA CNEL
1	Euclid Av. (SR-83)	n/o Ontario Ranch Rd.	Sensitive	80.1	375	807	1,739
2	Euclid Av. (SR-83)	n/o Eucalyptus Av.	Sensitive	79.3	331	713	1,537
3	Euclid Av. (SR-83)	s/o Eucalyptus Av.	Sensitive	80.8	419	903	1,945
4	Bon View Av.	n/o Ontario Ranch Rd.	Sensitive	68.7	RW	77	166
5	Bon View Av.	s/o Ontario Ranch Rd.	Sensitive	67.5	RW	65	140
6	Grove Av.	n/o Ontario Ranch Rd.	Sensitive	73.8	90	194	417
7	Grove Av.	s/o Ontario Ranch Rd.	Sensitive	72.7	75	162	349
8	Walker Av.	n/o Ontario Ranch Rd.	Sensitive	72.4	63	136	293
9	Walker Av.	s/o Ontario Ranch Rd.	Sensitive	74.2	84	181	391
10	Archibald Av.	n/o Ontario Ranch Rd.	Sensitive	78.3	215	462	996
11	Archibald Av.	s/o Ontario Ranch Rd.	Sensitive	79.5	257	554	1,193
12	Ontario Ranch Rd.	e/o Euclid Av. (SR-83)	Sensitive	74.9	171	367	791
13	Ontario Ranch Rd.	w/o Grove Av.	Sensitive	74.2	151	326	702
14	Ontario Ranch Rd.	e/o Grove Av.	Sensitive	74.2	152	328	706
15	Ontario Ranch Rd.	w/o Archibald Av.	Non-Sensitive	78.1	276	595	1,281
16	Ontario Ranch Rd.	e/o Archibald Av.	Sensitive	78.5	296	637	1,372
17	Eucalyptus Av.	e/o Euclid Av. (SR-83)	Sensitive	73.9	80	171	369
18	Eucalyptus Av.	w/o Grove Av.	Non-Sensitive	73.2	72	155	334
19	Eucalyptus Av.	e/o Grove Av.	Non-Sensitive	75.6	103	223	480
20	Eucalyptus Av.	e/o Walker Av.	Non-Sensitive	73.1	71	153	329

¹ Based on a review of existing aerial imagery.

² 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.

TABLE 7-5: OYC (2031) WITHOUT PROJECT CONTOURS

ID	Road	Segment	Receiving Land Use ¹	CNEL at Receiving Land Use (dBA) ²	Distance to Contour from Centerline (Feet)		
					70 dBA CNEL	65 dBA CNEL	60 dBA CNEL
1	Euclid Av. (SR-83)	n/o Ontario Ranch Rd.	Sensitive	80.4	393	847	1,826
2	Euclid Av. (SR-83)	n/o Eucalyptus Av.	Sensitive	79.7	356	767	1,653
3	Euclid Av. (SR-83)	s/o Eucalyptus Av.	Sensitive	81.3	451	971	2,091
4	Bon View Av.	n/o Ontario Ranch Rd.	Sensitive	70.7	49	105	227
5	Bon View Av.	s/o Ontario Ranch Rd.	Sensitive	69.7	RW	91	196
6	Grove Av.	n/o Ontario Ranch Rd.	Sensitive	75.2	111	240	517
7	Grove Av.	s/o Ontario Ranch Rd.	Sensitive	73.9	91	195	420
8	Walker Av.	n/o Ontario Ranch Rd.	Sensitive	73.8	78	169	363
9	Walker Av.	s/o Ontario Ranch Rd.	Sensitive	72.6	65	141	304
10	Archibald Av.	n/o Ontario Ranch Rd.	Sensitive	79.7	265	570	1,229
11	Archibald Av.	s/o Ontario Ranch Rd.	Sensitive	80.7	312	673	1,449
12	Ontario Ranch Rd.	e/o Euclid Av. (SR-83)	Sensitive	76.4	214	461	993
13	Ontario Ranch Rd.	w/o Grove Av.	Sensitive	75.6	189	408	879
14	Ontario Ranch Rd.	e/o Grove Av.	Sensitive	75.6	189	407	876
15	Ontario Ranch Rd.	w/o Archibald Av.	Non-Sensitive	77.6	257	553	1,192
16	Ontario Ranch Rd.	e/o Archibald Av.	Sensitive	78.6	301	648	1,396
17	Eucalyptus Av.	e/o Euclid Av. (SR-83)	Sensitive	73.3	73	156	337
18	Eucalyptus Av.	w/o Grove Av.	Non-Sensitive	72.0	60	129	278
19	Eucalyptus Av.	e/o Grove Av.	Non-Sensitive	74.8	91	197	424
20	Eucalyptus Av.	e/o Walker Av.	Non-Sensitive	73.1	71	154	331

¹ Based on a review of existing aerial imagery.

² 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.

TABLE 7-6: OYC (2031) WITH PROJECT CONTOURS

ID	Road	Segment	Receiving Land Use ¹	CNEL at Receiving Land Use (dBA) ²	Distance to Contour from Centerline (Feet)		
					70 dBA CNEL	65 dBA CNEL	60 dBA CNEL
1	Euclid Av. (SR-83)	n/o Ontario Ranch Rd.	Sensitive	80.6	408	878	1,892
2	Euclid Av. (SR-83)	n/o Eucalyptus Av.	Sensitive	80.0	371	799	1,721
3	Euclid Av. (SR-83)	s/o Eucalyptus Av.	Sensitive	81.4	459	988	2,129
4	Bon View Av.	n/o Ontario Ranch Rd.	Sensitive	70.7	49	106	228
5	Bon View Av.	s/o Ontario Ranch Rd.	Sensitive	69.9	RW	93	201
6	Grove Av.	n/o Ontario Ranch Rd.	Sensitive	75.4	114	246	529
7	Grove Av.	s/o Ontario Ranch Rd.	Sensitive	74.1	94	203	437
8	Walker Av.	n/o Ontario Ranch Rd.	Sensitive	73.8	78	169	364
9	Walker Av.	s/o Ontario Ranch Rd.	Sensitive	74.9	94	202	435
10	Archibald Av.	n/o Ontario Ranch Rd.	Sensitive	79.7	266	574	1,236
11	Archibald Av.	s/o Ontario Ranch Rd.	Sensitive	80.8	315	678	1,461
12	Ontario Ranch Rd.	e/o Euclid Av. (SR-83)	Sensitive	76.4	215	463	998
13	Ontario Ranch Rd.	w/o Grove Av.	Sensitive	75.7	192	414	892
14	Ontario Ranch Rd.	e/o Grove Av.	Sensitive	75.6	190	409	881
15	Ontario Ranch Rd.	w/o Archibald Av.	Non-Sensitive	78.5	297	639	1,377
16	Ontario Ranch Rd.	e/o Archibald Av.	Sensitive	79.4	339	731	1,575
17	Eucalyptus Av.	e/o Euclid Av. (SR-83)	Sensitive	74.8	91	197	424
18	Eucalyptus Av.	w/o Grove Av.	Non-Sensitive	74.0	81	175	376
19	Eucalyptus Av.	e/o Grove Av.	Non-Sensitive	76.2	114	245	527
20	Eucalyptus Av.	e/o Walker Av.	Non-Sensitive	73.4	74	159	342

¹ Based on a review of existing aerial imagery.

² 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.

TABLE 7-7: HORIZON YEAR (2050) WITHOUT PROJECT

ID	Road	Segment	Receiving Land Use ¹	CNEL at Receiving Land Use (dBA) ²	Distance to Contour from Centerline (Feet)		
					70 dBA CNEL	65 dBA CNEL	60 dBA CNEL
1	Euclid Av. (SR-83)	n/o Ontario Ranch Rd.	Sensitive	81.1	440	947	2,041
2	Euclid Av. (SR-83)	n/o Eucalyptus Av.	Sensitive	81.4	461	993	2,139
3	Euclid Av. (SR-83)	s/o Eucalyptus Av.	Sensitive	82.4	540	1,164	2,507
4	Bon View Av.	n/o Ontario Ranch Rd.	Sensitive	76.8	125	270	582
5	Bon View Av.	s/o Ontario Ranch Rd.	Sensitive	77.3	136	293	630
6	Grove Av.	n/o Ontario Ranch Rd.	Sensitive	80.0	231	498	1,073
7	Grove Av.	s/o Ontario Ranch Rd.	Sensitive	78.7	190	409	881
8	Walker Av.	n/o Ontario Ranch Rd.	Sensitive	78.1	153	329	709
9	Walker Av.	s/o Ontario Ranch Rd.	Sensitive	79.1	178	384	828
10	Archibald Av.	n/o Ontario Ranch Rd.	Sensitive	82.5	409	881	1,897
11	Archibald Av.	s/o Ontario Ranch Rd.	Sensitive	82.8	426	917	1,977
12	Ontario Ranch Rd.	e/o Euclid Av. (SR-83)	Sensitive	79.4	341	735	1,583
13	Ontario Ranch Rd.	w/o Grove Av.	Sensitive	78.7	306	658	1,419
14	Ontario Ranch Rd.	e/o Grove Av.	Sensitive	78.3	285	614	1,322
15	Ontario Ranch Rd.	w/o Archibald Av.	Non-Sensitive	81.2	446	960	2,069
16	Ontario Ranch Rd.	e/o Archibald Av.	Sensitive	82.3	528	1,138	2,452
17	Eucalyptus Av.	e/o Euclid Av. (SR-83)	Sensitive	79.4	186	400	862
18	Eucalyptus Av.	w/o Grove Av.	Non-Sensitive	78.2	155	334	719
19	Eucalyptus Av.	e/o Grove Av.	Non-Sensitive	78.8	169	364	784
20	Eucalyptus Av.	e/o Walker Av.	Non-Sensitive	74.0	81	174	376

¹ Based on a review of existing aerial imagery.

² 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.

TABLE 7-8: HORIZON YEAR (2050) WITH PROJECT

ID	Road	Segment	Receiving Land Use ¹	CNEL at Receiving Land Use (dBA) ²	Distance to Contour from Centerline (Feet)		
					70 dBA CNEL	65 dBA CNEL	60 dBA CNEL
1	Euclid Av. (SR-83)	n/o Ontario Ranch Rd.	Sensitive	81.3	453	976	2,103
2	Euclid Av. (SR-83)	n/o Eucalyptus Av.	Sensitive	81.6	474	1,020	2,199
3	Euclid Av. (SR-83)	s/o Eucalyptus Av.	Sensitive	82.5	548	1,180	2,541
4	Bon View Av.	n/o Ontario Ranch Rd.	Sensitive	76.8	126	271	583
5	Bon View Av.	s/o Ontario Ranch Rd.	Sensitive	77.4	136	293	632
6	Grove Av.	n/o Ontario Ranch Rd.	Sensitive	80.0	233	502	1,081
7	Grove Av.	s/o Ontario Ranch Rd.	Sensitive	78.8	192	413	890
8	Walker Av.	n/o Ontario Ranch Rd.	Sensitive	78.1	153	329	709
9	Walker Av.	s/o Ontario Ranch Rd.	Sensitive	79.8	197	424	914
10	Archibald Av.	n/o Ontario Ranch Rd.	Sensitive	82.5	410	883	1,903
11	Archibald Av.	s/o Ontario Ranch Rd.	Sensitive	82.8	428	922	1,987
12	Ontario Ranch Rd.	e/o Euclid Av. (SR-83)	Sensitive	79.5	342	736	1,586
13	Ontario Ranch Rd.	w/o Grove Av.	Sensitive	78.8	307	662	1,425
14	Ontario Ranch Rd.	e/o Grove Av.	Sensitive	78.3	285	614	1,323
15	Ontario Ranch Rd.	w/o Archibald Av.	Non-Sensitive	81.6	477	1,027	2,212
16	Ontario Ranch Rd.	e/o Archibald Av.	Sensitive	82.7	558	1,202	2,589
17	Eucalyptus Av.	e/o Euclid Av. (SR-83)	Sensitive	79.8	198	427	919
18	Eucalyptus Av.	w/o Grove Av.	Non-Sensitive	78.7	168	363	781
19	Eucalyptus Av.	e/o Grove Av.	Non-Sensitive	79.2	180	388	835
20	Eucalyptus Av.	e/o Walker Av.	Non-Sensitive	74.1	83	179	386

¹ Based on a review of existing aerial imagery.

² 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.

7.3 EXISTING WITH PROJECT (PHASE 1) TRAFFIC NOISE INCREASES

An analysis of existing traffic noise levels plus traffic noise generated by the proposed Project (Phase 1) has been included in this report to fully analyze all the existing traffic scenarios identified in the traffic study. This condition is provided solely for informational purposes and will not occur, since the Project will not be fully developed and occupied under Existing conditions. Table 7-1 shows the Existing without Project conditions CNEL noise levels. The Existing without Project exterior noise levels is expected to range from 67.3 to 80.6 dBA CNEL, without accounting for any noise attenuation features such as noise barriers or topography. Table 7-2 shows the Existing with Project (Phase 1) conditions will range from 67.3 to 80.7 dBA CNEL. Table 7-9 shows that the Project (Phase 1) off-site traffic noise impacts will range from -0.4 to 2.2 dBA CNEL. As described in Section 6.2 the proposed GPA City Truck Routes and the modifications applicable to the removal and addition of truck route designations consistent with the *Eucalyptus Business Park Traffic Analysis* may result in short-term reductions in with Project traffic volumes and subsequently the with Project off-site traffic noise levels.

Based on the significance criteria for off-site traffic noise presented in Table 4-1, two of the study area roadway segments are shown to experience *potentially significant* off-site traffic noise increases due to the proposed Project (Phase 1) conditions. The segments are described below.

- Walker Avenue south of Ontario Ranch Road (Segment #9)
- Eucalyptus Avenue east of Euclid Avenue (Segment #17)

For an off-site traffic noise level impact to be considered significant, receivers need to perceive an increase in traffic noise levels over time and the off-site traffic impacts are generally limited to noise sensitive residential receivers that are likely to perceive this increase. Section 7.8 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 proposed with Project traffic conditions.

TABLE 7-9: EXISTING WITH PROJECT (PHASE 1) TRAFFIC NOISE 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	Euclid Av. (SR-83)	n/o Ontario Ranch Rd.	Sensitive	79.8	79.9	0.1	1.5	No
2	Euclid Av. (SR-83)	n/o Eucalyptus Av.	Sensitive	78.8	79.1	0.3	1.5	No
3	Euclid Av. (SR-83)	s/o Eucalyptus Av.	Sensitive	80.6	80.7	0.1	1.5	No
4	Bon View Av.	n/o Ontario Ranch Rd.	Sensitive	68.7	68.6	-0.1	1.5	No
5	Bon View Av.	s/o Ontario Ranch Rd.	Sensitive	67.3	67.3	0.0	1.5	No
6	Grove Av.	n/o Ontario Ranch Rd.	Sensitive	73.7	73.7	0.0	1.5	No
7	Grove Av.	s/o Ontario Ranch Rd.	Sensitive	72.3	72.4	0.1	1.5	No
8	Walker Av.	n/o Ontario Ranch Rd.	Sensitive	72.4	72.3	-0.1	1.5	No
9	Walker Av.	s/o Ontario Ranch Rd.	Sensitive	70.5	72.7	2.2	1.5	Yes
10	Archibald Av.	n/o Ontario Ranch Rd.	Sensitive	78.6	78.3	-0.3	1.5	No
11	Archibald Av.	s/o Ontario Ranch Rd.	Sensitive	79.8	79.4	-0.4	1.5	No
12	Ontario Ranch Rd.	e/o Euclid Av. (SR-83)	Sensitive	75.3	74.9	-0.4	1.5	No
13	Ontario Ranch Rd.	w/o Grove Av.	Sensitive	74.4	74.0	-0.4	1.5	No
14	Ontario Ranch Rd.	e/o Grove Av.	Sensitive	74.5	74.1	-0.4	1.5	No
15	Ontario Ranch Rd.	w/o Archibald Av.	Non-Sensitive	76.3	77.5	1.2	3.0	No
16	Ontario Ranch Rd.	e/o Archibald Av.	Sensitive	77.1	77.9	0.8	1.5	No
17	Eucalyptus Av.	e/o Euclid Av. (SR-83)	Sensitive	71.0	72.8	1.8	1.5	Yes
18	Eucalyptus Av.	w/o Grove Av.	Non-Sensitive	69.8	71.8	2.0	n/a	No
19	Eucalyptus Av.	e/o Grove Av.	Non-Sensitive	73.5	74.4	0.9	n/a	No
20	Eucalyptus Av.	e/o Walker Av.	Non-Sensitive	72.9	73.0	0.1	n/a	No

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

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

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

"n/a" Per Table 5-13-3 of The Ontario Plan 2050 Final Supplemental Environmental Impact Report (FSEIR) (Exhibit 3-1), unmitigated normally acceptable exterior noise levels of less than 75 dBA CNEL are considered less than significant and a barely perceptible 3 dBA or greater noise level increase is considered a significant impact when the non-noise sensitive noise level is greater than the normally acceptable 75 dBA CNEL land use compatibility guidelines.

7.4 EXISTING WITH PROJECT (PHASE 2) TRAFFIC NOISE INCREASES

An analysis of existing traffic noise levels plus traffic noise generated by the proposed Project (Phase 2) has been included in this report to fully analyze all the existing traffic scenarios identified in the traffic study. This condition is provided solely for informational purposes and will not occur, since the Project will not be fully developed and occupied under Existing conditions. Table 7-1 shows the Existing without Project conditions CNEL noise levels. The Existing without Project exterior noise levels is expected to range from 67.3 to 80.6 dBA CNEL, without accounting for any noise attenuation features such as noise barriers or topography. Table 7-3 shows the Existing with Project (Phase 2) conditions will range from 67.4 to 80.8 dBA CNEL. Table 7-10 shows that the Project (Phase 2) off-site traffic noise impacts will range from -0.4 to 3.2 dBA CNEL. As described in Section 6.2 the proposed GPA City Truck Routes and the modifications applicable to the removal and addition of truck route designations consistent with the *Eucalyptus Business Park Traffic Analysis* may result in short-term reductions in with Project traffic volumes and subsequently the with Project off-site traffic noise levels.

Based on the significance criteria for off-site traffic noise presented in Table 4-1, two of the study area roadway segments are shown to experience *potentially significant* off-site traffic noise increases due to the proposed Project (Phase 2) conditions. The segments are described below.

- Walker Avenue south of Ontario Ranch Road (Segment #9)
- Eucalyptus Avenue east of Euclid Avenue (Segment #17)

For an off-site traffic noise level impact to be considered significant, receivers need to perceive an increase in traffic noise levels over time and the off-site traffic impacts are generally limited to noise sensitive residential receivers that are likely to perceive this increase. Section 7.8 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 proposed with Project traffic conditions.

TABLE 7-10: EXISTING WITH PROJECT (PHASE 2) TRAFFIC NOISE 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	Euclid Av. (SR-83)	n/o Ontario Ranch Rd.	Sensitive	79.8	80.0	0.2	1.5	No
2	Euclid Av. (SR-83)	n/o Eucalyptus Av.	Sensitive	78.8	79.2	0.4	1.5	No
3	Euclid Av. (SR-83)	s/o Eucalyptus Av.	Sensitive	80.6	80.8	0.2	1.5	No
4	Bon View Av.	n/o Ontario Ranch Rd.	Sensitive	68.7	68.6	-0.1	1.5	No
5	Bon View Av.	s/o Ontario Ranch Rd.	Sensitive	67.3	67.4	0.1	1.5	No
6	Grove Av.	n/o Ontario Ranch Rd.	Sensitive	73.7	73.8	0.1	1.5	No
7	Grove Av.	s/o Ontario Ranch Rd.	Sensitive	72.3	72.5	0.2	1.5	No
8	Walker Av.	n/o Ontario Ranch Rd.	Sensitive	72.4	72.4	0.0	1.5	No
9	Walker Av.	s/o Ontario Ranch Rd.	Sensitive	70.5	73.7	3.2	1.5	Yes
10	Archibald Av.	n/o Ontario Ranch Rd.	Sensitive	78.6	78.3	-0.3	1.5	No
11	Archibald Av.	s/o Ontario Ranch Rd.	Sensitive	79.8	79.5	-0.3	1.5	No
12	Ontario Ranch Rd.	e/o Euclid Av. (SR-83)	Sensitive	75.3	74.9	-0.4	1.5	No
13	Ontario Ranch Rd.	w/o Grove Av.	Sensitive	74.4	74.1	-0.3	1.5	No
14	Ontario Ranch Rd.	e/o Grove Av.	Sensitive	74.5	74.2	-0.3	1.5	No
15	Ontario Ranch Rd.	w/o Archibald Av.	Non-Sensitive	76.3	77.8	1.5	3.0	No
16	Ontario Ranch Rd.	e/o Archibald Av.	Sensitive	77.1	78.3	1.2	1.5	No
17	Eucalyptus Av.	e/o Euclid Av. (SR-83)	Sensitive	71.0	73.5	2.5	1.5	Yes
18	Eucalyptus Av.	w/o Grove Av.	Non-Sensitive	69.8	72.8	3.0	n/a	No
19	Eucalyptus Av.	e/o Grove Av.	Non-Sensitive	73.5	75.2	1.7	n/a	No
20	Eucalyptus Av.	e/o Walker Av.	Non-Sensitive	72.9	73.1	0.2	n/a	No

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

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

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

"n/a" Per Table 5-13-3 of The Ontario Plan 2050 Final Supplemental Environmental Impact Report (FSEIR) (Exhibit 3-1), unmitigated normally acceptable exterior noise levels of less than 75 dBA CNEL are considered less than significant and a barely perceptible 3 dBA or greater noise level increase is considered a significant impact when the non-noise sensitive noise level is greater than the normally acceptable 75 dBA CNEL land use compatibility guidelines.

7.5 EXISTING WITH PROJECT (BUILDOUT) TRAFFIC NOISE INCREASES

An analysis of existing traffic noise levels plus traffic noise generated by the proposed Project (Buildout) has been included in this report to fully analyze all the existing traffic scenarios identified in the traffic study. This condition is provided solely for informational purposes and will not occur, since the Project will not be fully developed and occupied under Existing conditions. Table 7-1 shows the Existing without Project conditions CNEL noise levels. The Existing without Project exterior noise levels is expected to range from 67.3 to 80.6 dBA CNEL, without accounting for any noise attenuation features such as noise barriers or topography. Table 7-4 shows the Existing with Project (Buildout) conditions will range from 67.5 to 80.8 dBA CNEL. Table 7-11 shows that the Project (Buildout) off-site traffic noise impacts will range from -0.4 to 3.7 dBA CNEL. As described in Section 6.2 the proposed GPA City Truck Routes and the modifications applicable to the removal and addition of truck route designations consistent with the *Eucalyptus Business Park Traffic Analysis* may result in short-term reductions in with Project traffic volumes and subsequently the with Project off-site traffic noise levels.

Based on the significance criteria for off-site traffic noise presented in Table 4-1, two of the study area roadway segments are shown to experience *potentially significant* off-site traffic noise increases due to the proposed Project (Phase 2) conditions. The segments are described below.

- Walker Avenue south of Ontario Ranch Road (Segment #9)
- Eucalyptus Avenue east of Euclid Avenue (Segment #17)

For an off-site traffic noise level impact to be considered significant, receivers need to perceive an increase in traffic noise levels over time and the off-site traffic impacts are generally limited to noise sensitive residential receivers that are likely to perceive this increase. Section 7.8 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 proposed with Project traffic conditions.

TABLE 7-11: EXISTING WITH PROJECT (BUILDOUT) TRAFFIC NOISE 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	Euclid Av. (SR-83)	n/o Ontario Ranch Rd.	Sensitive	79.8	80.1	0.3	1.5	No
2	Euclid Av. (SR-83)	n/o Eucalyptus Av.	Sensitive	78.8	79.3	0.5	1.5	No
3	Euclid Av. (SR-83)	s/o Eucalyptus Av.	Sensitive	80.6	80.8	0.2	1.5	No
4	Bon View Av.	n/o Ontario Ranch Rd.	Sensitive	68.7	68.7	0.0	1.5	No
5	Bon View Av.	s/o Ontario Ranch Rd.	Sensitive	67.3	67.5	0.2	1.5	No
6	Grove Av.	n/o Ontario Ranch Rd.	Sensitive	73.7	73.8	0.1	1.5	No
7	Grove Av.	s/o Ontario Ranch Rd.	Sensitive	72.3	72.7	0.4	1.5	No
8	Walker Av.	n/o Ontario Ranch Rd.	Sensitive	72.4	72.4	0.0	1.5	No
9	Walker Av.	s/o Ontario Ranch Rd.	Sensitive	70.5	74.2	3.7	1.5	Yes
10	Archibald Av.	n/o Ontario Ranch Rd.	Sensitive	78.6	78.3	-0.3	1.5	No
11	Archibald Av.	s/o Ontario Ranch Rd.	Sensitive	79.8	79.5	-0.3	1.5	No
12	Ontario Ranch Rd.	e/o Euclid Av. (SR-83)	Sensitive	75.3	74.9	-0.4	1.5	No
13	Ontario Ranch Rd.	w/o Grove Av.	Sensitive	74.4	74.2	-0.2	1.5	No
14	Ontario Ranch Rd.	e/o Grove Av.	Sensitive	74.5	74.2	-0.3	1.5	No
15	Ontario Ranch Rd.	w/o Archibald Av.	Non-Sensitive	76.3	78.1	1.8	3.0	No
16	Ontario Ranch Rd.	e/o Archibald Av.	Sensitive	77.1	78.5	1.4	1.5	No
17	Eucalyptus Av.	e/o Euclid Av. (SR-83)	Sensitive	71.0	73.9	2.9	1.5	Yes
18	Eucalyptus Av.	w/o Grove Av.	Non-Sensitive	69.8	73.2	3.4	n/a	No
19	Eucalyptus Av.	e/o Grove Av.	Non-Sensitive	73.5	75.6	2.1	n/a	No
20	Eucalyptus Av.	e/o Walker Av.	Non-Sensitive	72.9	73.1	0.2	n/a	No

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

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

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

"n/a" Per Table 5-13-3 of The Ontario Plan 2050 Final Supplemental Environmental Impact Report (FSEIR) (Exhibit 3-1), unmitigated normally acceptable exterior noise levels of less than 75 dBA CNEL are considered less than significant and a barely perceptible 3 dBA or greater noise level increase is considered a significant impact when the non-noise sensitive noise level is greater than the normally acceptable 75 dBA CNEL land use compatibility guidelines.

7.6 OPENING YEAR (2031) PROJECT TRAFFIC NOISE INCREASES

Table 7-5 presents the Opening Year (2031) without Project conditions CNEL noise levels. The Opening Year (2031) without Project exterior noise levels are expected to range from 69.7 to 81.3 dBA CNEL, without accounting for any noise attenuation features such as noise barriers or topography. Table 7-6 shows the Opening Year (2031) with Project conditions will range from 69.9 to 81.4 dBA CNEL. Table 7-12 shows that the Project off-site traffic noise increases will range from 0.0 to 2.3 dBA CNEL. Based on the significance criteria for off-site traffic noise presented in Table 4-1, one of the study area roadway segments are shown to experience *potentially significant* off-site traffic noise increases due to the proposed Project. The segments are described below.

- Walker Avenue south of Ontario Ranch Road (Segment #9)

For an off-site traffic noise level impact to be considered significant, receivers need to perceive an increase in traffic noise levels over time and the off-site traffic impacts are generally limited to noise sensitive residential receivers that are likely to perceive this increase. Section 7.8 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 proposed with Project traffic conditions.

7.7 HORIZON YEAR (2050) PROJECT TRAFFIC NOISE INCREASES

Table 7-7 presents the Horizon Year (2050) without Project conditions CNEL noise levels. The Horizon Year (2050) without Project exterior noise levels are expected to range from 74.0 to 82.8 dBA CNEL, without accounting for any noise attenuation features such as noise barriers or topography. Table 7-8 shows the Horizon Year (2050) with Project conditions will range from 74.1 to 82.8 dBA CNEL. Table 7-13 shows that the Project off-site traffic noise increases will range from 0.0 to 0.7 dBA CNEL. Based on the significance criteria for off-site traffic noise presented in Table 4-1, land uses adjacent to the study area roadway segments would experience *less than significant* noise level impacts due to unmitigated Project-related traffic noise levels.

TABLE 7-12: OPENING YEAR (2031) WITH PROJECT TRAFFIC NOISE 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	Euclid Av. (SR-83)	n/o Ontario Ranch Rd.	Sensitive	80.4	80.6	0.2	1.5	No
2	Euclid Av. (SR-83)	n/o Eucalyptus Av.	Sensitive	79.7	80.0	0.3	1.5	No
3	Euclid Av. (SR-83)	s/o Eucalyptus Av.	Sensitive	81.3	81.4	0.1	1.5	No
4	Bon View Av.	n/o Ontario Ranch Rd.	Sensitive	70.7	70.7	0.0	1.5	No
5	Bon View Av.	s/o Ontario Ranch Rd.	Sensitive	69.7	69.9	0.2	1.5	No
6	Grove Av.	n/o Ontario Ranch Rd.	Sensitive	75.2	75.4	0.2	1.5	No
7	Grove Av.	s/o Ontario Ranch Rd.	Sensitive	73.9	74.1	0.2	1.5	No
8	Walker Av.	n/o Ontario Ranch Rd.	Sensitive	73.8	73.8	0.0	1.5	No
9	Walker Av.	s/o Ontario Ranch Rd.	Sensitive	72.6	74.9	2.3	1.5	Yes
10	Archibald Av.	n/o Ontario Ranch Rd.	Sensitive	79.7	79.7	0.0	1.5	No
11	Archibald Av.	s/o Ontario Ranch Rd.	Sensitive	80.7	80.8	0.1	1.5	No
12	Ontario Ranch Rd.	e/o Euclid Av. (SR-83)	Sensitive	76.4	76.4	0.0	1.5	No
13	Ontario Ranch Rd.	w/o Grove Av.	Sensitive	75.6	75.7	0.1	1.5	No
14	Ontario Ranch Rd.	e/o Grove Av.	Sensitive	75.6	75.6	0.0	1.5	No
15	Ontario Ranch Rd.	w/o Archibald Av.	Non-Sensitive	77.6	78.5	0.9	3.0	No
16	Ontario Ranch Rd.	e/o Archibald Av.	Sensitive	78.6	79.4	0.8	1.5	No
17	Eucalyptus Av.	e/o Euclid Av. (SR-83)	Sensitive	73.3	74.8	1.5	1.5	No
18	Eucalyptus Av.	w/o Grove Av.	Non-Sensitive	72.0	74.0	2.0	n/a	No
19	Eucalyptus Av.	e/o Grove Av.	Non-Sensitive	74.8	76.2	1.4	n/a	No
20	Eucalyptus Av.	e/o Walker Av.	Non-Sensitive	73.1	73.4	0.3	n/a	No

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

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

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

"n/a" Per Table 5-13-3 of The Ontario Plan 2050 Final Supplemental Environmental Impact Report (FSEIR) (Exhibit 3-1), unmitigated normally acceptable exterior noise levels of less than 75 dBA CNEL are considered less than significant and a barely perceptible 3 dBA or greater noise level increase is considered a significant impact when the non-noise sensitive noise level is greater than the normally acceptable 75 dBA CNEL land use compatibility guidelines.

TABLE 7-13: HORIZON YEAR (2050) WITH PROJECT TRAFFIC NOISE 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	Euclid Av. (SR-83)	n/o Ontario Ranch Rd.	Sensitive	81.1	81.3	0.2	1.5	No
2	Euclid Av. (SR-83)	n/o Eucalyptus Av.	Sensitive	81.4	81.6	0.2	1.5	No
3	Euclid Av. (SR-83)	s/o Eucalyptus Av.	Sensitive	82.4	82.5	0.1	1.5	No
4	Bon View Av.	n/o Ontario Ranch Rd.	Sensitive	76.8	76.8	0.0	1.5	No
5	Bon View Av.	s/o Ontario Ranch Rd.	Sensitive	77.3	77.4	0.1	1.5	No
6	Grove Av.	n/o Ontario Ranch Rd.	Sensitive	80.0	80.0	0.0	1.5	No
7	Grove Av.	s/o Ontario Ranch Rd.	Sensitive	78.7	78.8	0.1	1.5	No
8	Walker Av.	n/o Ontario Ranch Rd.	Sensitive	78.1	78.1	0.0	1.5	No
9	Walker Av.	s/o Ontario Ranch Rd.	Sensitive	79.1	79.8	0.7	1.5	No
10	Archibald Av.	n/o Ontario Ranch Rd.	Sensitive	82.5	82.5	0.0	1.5	No
11	Archibald Av.	s/o Ontario Ranch Rd.	Sensitive	82.8	82.8	0.0	1.5	No
12	Ontario Ranch Rd.	e/o Euclid Av. (SR-83)	Sensitive	79.4	79.5	0.1	1.5	No
13	Ontario Ranch Rd.	w/o Grove Av.	Sensitive	78.7	78.8	0.1	1.5	No
14	Ontario Ranch Rd.	e/o Grove Av.	Sensitive	78.3	78.3	0.0	1.5	No
15	Ontario Ranch Rd.	w/o Archibald Av.	Non-Sensitive	81.2	81.6	0.4	3.0	No
16	Ontario Ranch Rd.	e/o Archibald Av.	Sensitive	82.3	82.7	0.4	1.5	No
17	Eucalyptus Av.	e/o Euclid Av. (SR-83)	Sensitive	79.4	79.8	0.4	1.5	No
18	Eucalyptus Av.	w/o Grove Av.	Non-Sensitive	78.2	78.7	0.5	3.0	No
19	Eucalyptus Av.	e/o Grove Av.	Non-Sensitive	78.8	79.2	0.4	3.0	No
20	Eucalyptus Av.	e/o Walker Av.	Non-Sensitive	74.0	74.1	0.1	n/a	No

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

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

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

"n/a" Per Table 5-13-3 of The Ontario Plan 2050 Final Supplemental Environmental Impact Report (FSEIR) (Exhibit 3-1), unmitigated normally acceptable exterior noise levels of less than 75 dBA CNEL are considered less than significant and a barely perceptible 3 dBA or greater noise level increase is considered a significant impact when the non-noise sensitive noise level is greater than the normally acceptable 75 dBA CNEL land use compatibility guidelines.

7.8 OFF-SITE TRAFFIC NOISE MITIGATION

Under CEQA, when a project has a *potentially significant* impact, mitigation measures must be considered to reduce or eliminate the harm whenever feasible. This ensures informed decision-making, protects the environment, and helps projects comply with legal requirements to minimize adverse effects. The off-site Traffic Noise Analysis shows that Project traffic noise increases on two study area roadway segments will exceed the incremental noise level increase thresholds shown on Table 4-1. To reduce the *potentially significant* Project traffic noise increases on the impacted study area roadway segments, potential noise mitigation measures were 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.

7.8.1 Off-Site Noise Barriers

While noise barriers are commonly used to reduce the potential traffic noise levels from nearby transportation noise source activities, they are typically developed in coordination with new noise sensitive residential development or as part of a roadway widening project. Even though off-site noise barriers are typically not developed by individual off-site projects that contribute to the cumulative off-site traffic noise levels, off-site noise barriers were considered in this analysis as a potential traffic noise mitigation measure to reduce the Project-related impacts.

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.

7.8.2 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. (27) 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 automobiles 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. (2) According to research conducted by Caltrans, RHMA and OGFC pavements typically provide noise attenuation of 6 dBA for automobile traffic noise levels. (27)

The effectiveness of reducing traffic noise levels is higher on roadways with low percentages of heavy trucks, since the heavy truck engine and exhaust noise is not reduced by quiet pavement. This is due to the height of the truck engine exhaust stack above the pavement. (8) Per Caltrans guidance

a truck stack height is modeled using a height of 11.5 feet above the road. (30) Based on California Vehicle Noise (Calveno) Reference Energy Mean Emission Levels (REMELs), one heavy truck traveling at 55 mph generates as much noise as approximately 13 autos at the same speed. (21 p. 3_20) This is due to a combination of factors including the difference between the noise source height for heavy trucks of 11.5 feet versus autos with a noise source height of less than 2 feet. With the primary off-site traffic noise levels for this Project consisting of heavy trucks with a stack height of 11.5 feet off the ground, the tire/pavement noise reduction benefits associated with quiet pavement will be primarily limited to autos.

Although the use of quiet pavement could theoretically reduce off-site Project-related traffic noise levels, such reductions would not provide reliable or meaningful benefits for noise generated by heavy truck traffic. As previously discussed, this is due to the difference in noise source height between automobiles and trucks. Quiet pavement is primarily effective at reducing tire-on-pavement noise at higher speeds and does not substantially reduce noise from truck engines and exhaust stacks. Consequently, quiet pavement would not reduce off-site truck-related traffic noise levels to less-than-significant levels. Since the application of quiet pavement would not lower off-site traffic noise impacts below the applicable significance thresholds, it is not proposed as a mitigation measure for the Project, and off-site Project-related traffic noise increases at adjacent land uses would remain *significant*.

7.8.3 Significant Off-Site Traffic Noise Impacts

Both off-site noise barriers and quiet pavement are considered as potential noise mitigation measures to reduce the *potentially significant* off-site traffic noise increases shown on Tables 7-9 to 7-12. However, due to the infeasibility of both off-site noise barriers and quiet pavement, the Project-related off-site traffic noise increases at adjacent noise-sensitive land uses are considered a *significant and unavoidable* impact.

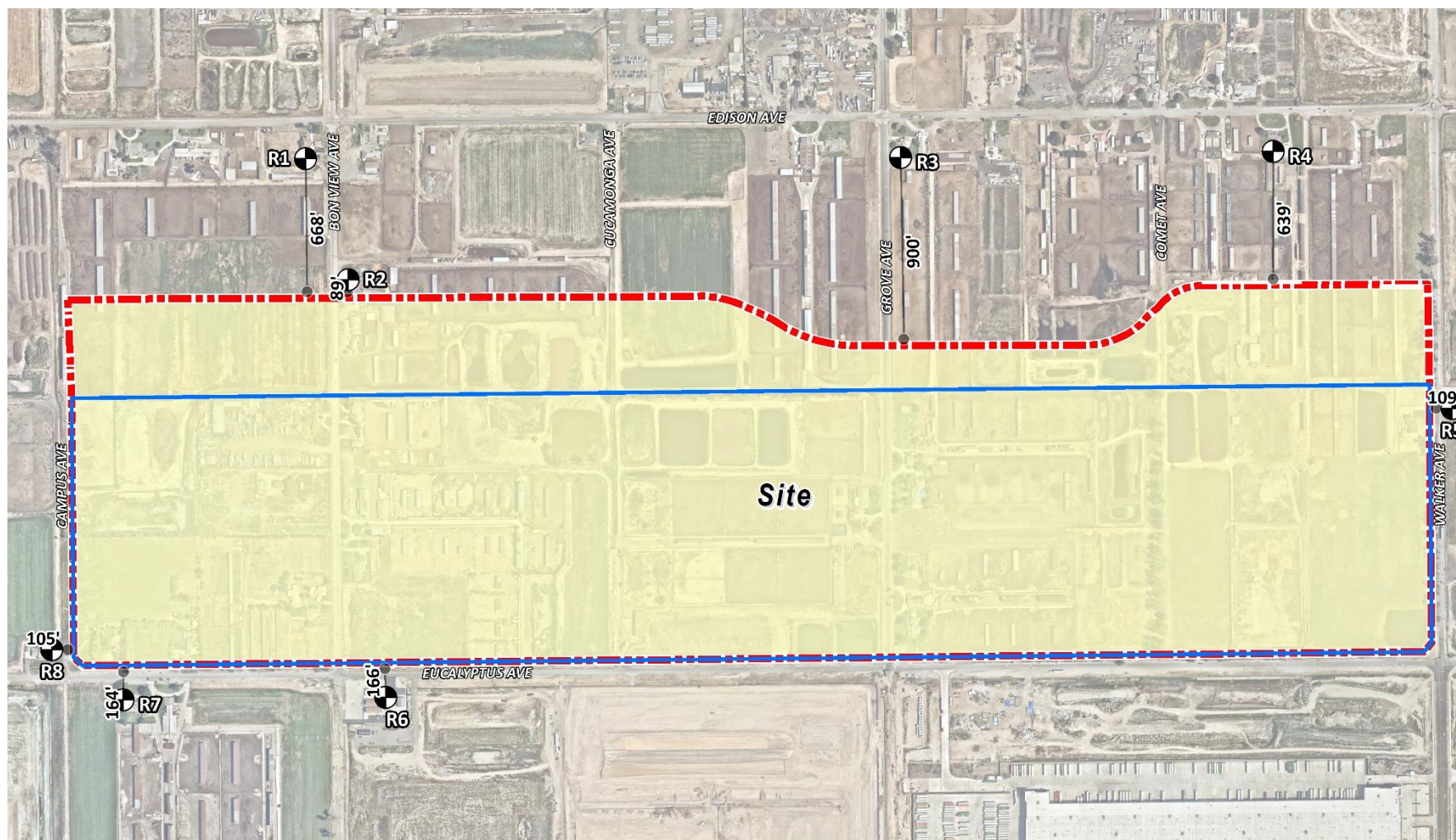
8 RECEIVER LOCATIONS

To assess the potential for long-term operational and short-term construction noise impacts, the following sensitive receiver locations, as shown on Exhibit 8-1, were identified as representative locations for analysis. The selection of receiver locations is based on FHWA guidelines and is consistent with additional guidance provided by Caltrans and the FTA, as previously described in Section 5.2. Sensitive receivers are generally defined as locations where people reside or where the presence of unwanted sound could otherwise adversely affect the use of the land. Noise-sensitive land uses are generally considered to include schools, hospitals, single-family dwellings, mobile home parks, churches, libraries, and recreation areas. Moderately noise-sensitive land uses typically include multi-family dwellings, hotels, motels, dormitories, out-patient clinics, cemeteries, golf courses, country clubs, athletic/tennis clubs, and equestrian clubs. Land uses that are considered relatively insensitive to noise include business, commercial, and professional developments. Land uses that are typically not affected by noise include: industrial, manufacturing, utilities, agriculture, undeveloped land, parking lots, warehousing, liquid and solid waste facilities, salvage yards, and transit terminals.

To describe the potential off-site Project noise levels, eight receiver locations in the vicinity of the Project site were identified. 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 7697 Edison Avenue, approximately 668 feet north of the Project site. Since there are no private outdoor living areas (backyard) facing the Project site, receiver R1 is placed at the building's façade. A 24-hour noise measurement was taken near this location, L1, to describe the existing ambient noise environment.
- R2: Location R2 represents the existing residence at 14213 Bon View Avenue, approximately 89 feet north of the Project site. Since there are no private outdoor living areas (backyard) facing the Project site, receiver R2 is placed at the building's façade. A 24-hour noise measurement was taken near this location, L2, to describe the existing ambient noise environment.
- R3: Location R3 represents the existing residence at 14117 Grove Avenue, approximately 900 feet north of the Project site. Since there are no private outdoor living areas (backyard) facing the Project site, receiver R3 is placed at the building's façade. A 24-hour noise measurement was taken near this location, L3, to describe the existing ambient noise environment.
- R4: Location R4 represents the existing residence at 8377 Edison Avenue, approximately 639 feet north of the Project site. Receiver R4 is placed in the private outdoor living area (backyard) 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 14350 Walker Avenue, approximately 109 feet east of the Project site. Since there are no private outdoor living areas (backyard) facing the Project site, receiver R5 is placed at the building's façade. A 24-hour noise measurement was taken near this location, L5, to describe the existing ambient noise environment.

EXHIBIT 8-1: RECEIVER LOCATIONS



LEGEND:



Site Boundary



Specific Plan Area



Receiver Locations



Distance from receiver to Project site boundary (in feet)

- R6: Location R6 represents the Ontario Fire Station 11 located at 7721 Eucalyptus Avenue, approximately 166 feet south of the Project site. R6 is placed at the nearest building façade facing the Project site. Since there are no private outdoor living areas (backyard) facing the Project site, receiver R6 is placed at the building's façade. A 24-hour noise measurement was taken near this location, L6, to describe the existing ambient noise environment.
- R7: Location R7 represents the existing residence at 7566 Eucalyptus Avenue, approximately 164 feet south of the Project site. Since there are no private outdoor living areas (backyard) facing the Project site, receiver R7 is placed at the building's façade. A 24-hour noise measurement was taken near this location, L6, to describe the existing ambient noise environment.
- R8: Location R8 represents the existing residence at 7511 Eucalyptus Avenue, approximately 105 feet west of the Project site. Since there are no private outdoor living areas (backyard) facing the Project site, receiver R8 is placed at the building's façade. A 24-hour noise measurement was taken near this location, L7, to describe the existing ambient noise environment.

This page intentionally left blank

9 OPERATIONAL NOISE ANALYSIS

This section analyzes the potential stationary-source operational noise impacts at the nearby receiver locations, identified in Section 8, resulting from the operation of the proposed Eucalyptus Business Park Project. At the time this noise analysis was prepared, the future tenants and detailed building locations of the proposed land uses were unknown, and therefore, this noise study includes a conservative analysis of the potential worst-case noise environment. To conservatively describe the reasonable worst-case noise environment, Exhibit 9-1 presents the 307 individual noise sources used to assess the operational noise levels.

9.1 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. To present the potential worst-case noise conditions, this analysis assumes the Project would be operational 24 hours per day, seven days per week. Consistent with similar business park uses, the Project business operations would primarily be conducted within the enclosed buildings, except for traffic movement, parking, as well as loading and unloading of trucks at designated loading bays. The on-site Project-related noise sources are expected to include: loading dock activity, tractor trailer storage activity, truck movements, trash enclosure activity, roof-top air conditioning units, drive-through speakerphones parking lot vehicle movements and park activities.

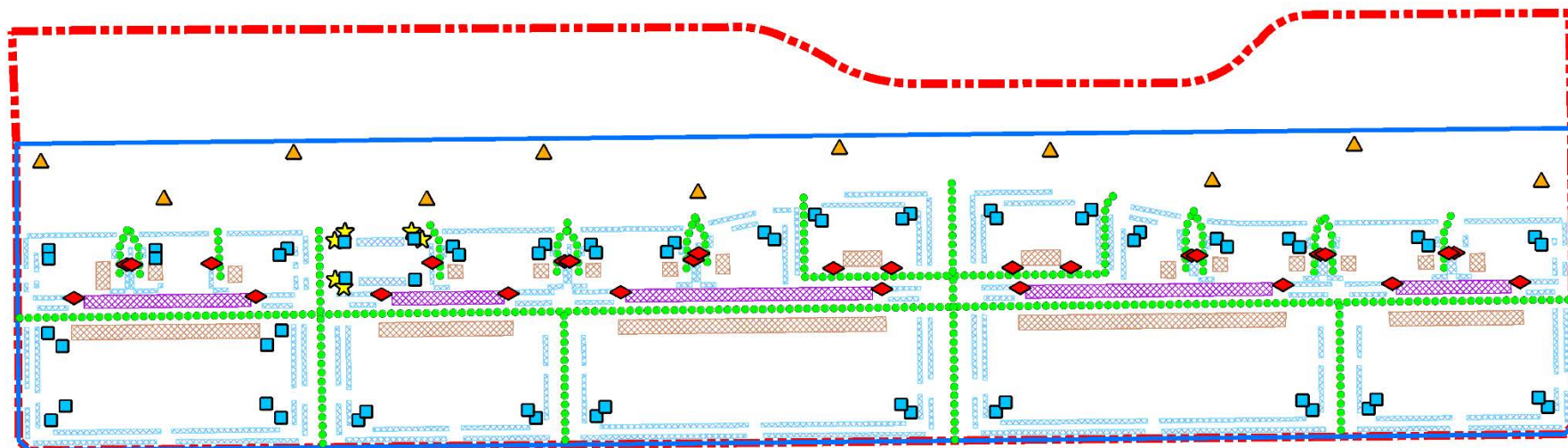
9.2 REFERENCE NOISE LEVELS

To estimate the Project operational noise impacts, reference noise level measurements were collected from similar types of activities to represent the noise levels expected with the development of the proposed Project. This section provides a detailed description of the reference noise level measurements shown on Table 9-1 used to estimate the Project operational noise impacts. It is important to note that the following projected noise levels assume the worst-case noise environment with all noise source activity all operating at the same time. These sources of noise activity will likely vary throughout the day.

9.2.1 Measurement Procedures

The reference noise level measurements presented in this section were collected using a Larson Davis LxT Type 1 precision sound level meter (serial number 01146). The LxT sound level meter was calibrated using a Larson-Davis calibrator, Model CAL 200, was programmed in "slow" mode to record noise levels in "A" weighted form and was located at approximately five feet above the ground elevation for each measurement. The sound level meters and microphones were equipped with a windscreen during all measurements. All noise level measurement equipment satisfies the American National Standards Institute (ANSI) standard specifications for sound level meters ANSI S1.4-2014/IEC 61672-1:2013. (23)

EXHIBIT 9-1: OPERATIONAL NOISE SOURCE LOCATIONS



LEGEND:



Site Boundary



Specific Plan Area



Truck Movements



Tractor Trailer Storage Activity



Loading Dock Activity



Parking Lot Vehicle Movements



Park Activities



Drive-Through Speakerphone



Trash Enclosure Activity



Roof-Top Air Conditioning Unit

TABLE 9-1: REFERENCE NOISE LEVEL MEASUREMENTS

Reference Noise Source	Noise Source Height (Feet)	Min./Hour ¹		Reference Noise Level (dBA L _{eq}) @ 50 Feet	Sound Power Level (dBA) ²
		Day	Night		
Loading Dock Activity	8'	60	60	65.7	111.5
Tractor Trailer Storage Activity	8'	60	60	62.8	103.4
Truck Movements	8'	60	60	59.8	93.2
Trash Enclosure Activity	5'	60	30	57.3	89.0
Roof-Top Air Conditioning Units	5'	39	28	57.2	88.9
Drive-Through Speakerphone	3'	60	30	54.8	84.0
Parking Lot Vehicle Movements	5'	60	30	52.6	81.1
Park Activities	5'	60	0	49.4	78.0

¹ 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.

² Sound power level represents the total amount of acoustic energy (noise level) produced by a sound source independent of distance or surroundings. Sound power levels calculated using the CadnaA noise model at the reference distance to the noise source. Numbers may vary due to size differences between point and area noise sources.

9.2.2 Loading Dock Activity

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

9.2.3 Tractor Trailer Storage Activity

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

9.2.3 Truck Movements

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

9.2.4 Trash Enclosure Activity

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

9.2.5 Roof-Top Air Conditioning Units

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

9.2.6 Drive-Through Speakerphone Activity

To describe the potential noise level impacts associated with the planned drive-thru speakerphones, this analysis relies on the drive-through intercom system manufactured by HME. This type of system is commonly used by the quick service restaurant (QSR) industry for drive-thru communications. The HME SPP2 speaker post intercom system produces a maximum noise level of 84 dBA at one foot from the speaker post or 54.8 dBA L_{eq} at 50 feet. The system may also be equipped with automatic volume control that can automatically reduce the sound levels as the ambient noise level decreases.

9.2.7 Parking Lot Vehicle Movements

To describe the on-site parking lot activity, a long-term reference noise level measurement was collected in the center of activity within the staff parking lot of a warehouse distribution center. At 50 feet from the center of activity, the parking lot produced a reference noise level of 52.6 dBA L_{eq} . The parking lot noise levels are mainly due to cars pulling in and out of parking spaces in combination with car doors opening and closing.

9.2.8 Park Activities

The park activity reference noise measurement includes girls' youth soccer games, coaches shouting instructions, and parents speaking on cell phones at five feet from the noise level measurement location, and background noise levels from kids playing on swing sets and people cheering and clapping at 50 feet from the noise level measurement location. Using the uniform reference distance of 50 feet, the reference park activity noise level is 49.4 dBA L_{eq} . The park activities are estimated to occur for 60 minutes during daytime hours with no nighttime activity.

9.3 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 acoustic energy emitted by the sound source and is an absolute value that is not affected by the environment. The operational noise level calculations provided in this noise study account for the distance attenuation provided due to geometric spreading, when sound from a localized stationary source (i.e., a point source) propagates uniformly outward in a spherical pattern. A default ground attenuation factor of 0.5 was used in the noise analysis to account for mixed ground representing a combination of hard and soft surfaces. This approach ensures a reasonable approximation in environments where both hard and soft surfaces exist, aligning with typical real-world conditions. Appendix 9.1 includes the detailed noise dBA L_{eq} model inputs used to estimate the Project operational noise levels presented in this section.

9.4 PROJECT OPERATIONAL NOISE LEVELS

Using the reference noise levels to represent the Project operations that include loading dock activity, tractor trailer storage activity, truck movements, trash enclosure activity, roof-top air conditioning units, drive-through speakerphones parking lot vehicle movements and park activities, Urban Crossroads, Inc. calculated the operational source noise levels that are expected to be generated at the Project site and the Project-related noise level increases that would be experienced at each of the sensitive receiver locations. Table 9-2 shows the Project operational noise levels during the daytime hours of 7:00 a.m. to 10:00 p.m. The daytime hourly noise levels at the off-site receiver locations are expected to range from 43.3 to 52.8 dBA L_{eq} .

TABLE 9-2: DAYTIME PROJECT OPERATIONAL NOISE LEVELS

Noise Source ¹	Operational Noise Levels by Receiver Location (dBA L _{eq})							
	R1	R2	R3	R4	R5	R6	R7	R8
Loading Dock Activity	48.9	52.3	49.0	47.0	47.5	45.2	42.4	37.8
Tractor Trailer Storage Activity	36.0	38.4	29.5	33.6	29.7	30.0	29.5	25.5
Truck Movements	35.2	37.8	34.7	34.5	35.1	36.7	26.0	24.7
Trash Enclosure Activity	29.9	32.6	27.4	29.4	21.7	21.5	20.1	17.4
Roof-Top Air Conditioning Units	33.6	36.4	34.4	32.6	35.9	39.3	36.5	37.9
Drive-Through Speakerphone	21.5	25.8	15.6	10.5	7.8	10.4	5.8	2.8
Parking Lot Vehicle Movements	28.6	31.2	28.6	27.6	33.9	37.2	35.2	39.2
Park Activities	20.0	23.8	19.9	18.8	28.1	6.8	5.8	14.4
Total (All Noise Sources)	49.5	52.8	49.4	47.7	48.3	47.2	44.2	43.3

¹ See Exhibit 9-1 for the noise source locations. CadnaA noise model calculations are included in Appendix 9.1.

Table 9-3 shows the Project operational noise levels during the nighttime hours from 10:00 p.m. to 7:00 a.m. The nighttime hourly noise levels at the existing off-site receiver locations are expected to range from 42.7 to 52.7 dBA L_{eq}. The differences between the daytime and nighttime noise levels are largely related to the estimated duration of noise activity as outlined in Table 9-1. Appendix 9.1 includes the detailed noise model inputs.

TABLE 9-3: NIGHTTIME PROJECT OPERATIONAL NOISE LEVELS

Noise Source ¹	Operational Noise Levels by Receiver Location (dBA L _{eq})							
	R1	R2	R3	R4	R5	R6	R7	R8
Loading Dock Activity	48.9	52.3	49.0	47.0	47.5	45.2	42.4	37.8
Tractor Trailer Storage Activity	36.0	38.4	29.5	33.6	29.7	30.0	29.5	25.5
Truck Movements	35.2	37.8	34.7	34.5	35.1	36.7	26.0	24.7
Trash Enclosure Activity	25.9	28.6	23.4	25.5	17.7	17.6	16.1	13.4
Roof-Top Air Conditioning Units	31.2	34.0	32.0	30.2	33.5	36.9	34.1	35.5
Drive-Through Speakerphone	21.5	25.8	15.6	10.5	7.8	10.4	5.8	2.8
Parking Lot Vehicle Movements	28.6	31.2	28.6	27.6	33.9	37.2	35.2	39.2
Park Activities	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total (All Noise Sources)	49.4	52.7	49.3	47.6	48.1	46.9	43.9	42.7

¹ See Exhibit 9-1 for the noise source locations. CadnaA noise model calculations are included in Appendix 9.1.

9.5 PROJECT OPERATIONAL NOISE LEVEL COMPLIANCE

To demonstrate compliance with local noise regulations, the unmitigated Project-only operational noise levels are evaluated against the City of Ontario exterior noise level standards at nearby existing noise-sensitive receiver locations. Table 9-4 shows the operational noise levels associated with Eucalyptus Business Park will not exceed the exterior noise level standards, adjusted to reflect the ambient noise levels (see Table 5-1) per Section 5-29.04[a][1] of City of Ontario Municipal Code. Therefore, the operational noise impacts are considered *less than significant* at the nearest existing noise-sensitive receiver locations.

TABLE 9-4: OPERATIONAL NOISE LEVEL COMPLIANCE

Receiver Location ¹	Project Operational Noise Levels (dBA L _{eq}) ²		Noise Level Standards (dBA L _{eq}) ³		Noise Level Standards Exceeded? ⁴	
	Daytime	Nighttime	Daytime	Nighttime	Daytime	Nighttime
R1	49.5	49.4	69.8	62.9	No	No
R2	52.8	52.7	65.0	57.6	No	No
R3	49.4	49.3	69.4	60.8	No	No
R4	47.7	47.6	69.9	60.0	No	No
R5	48.3	48.1	65.0	51.4	No	No
R6	47.2	46.9	65.0	52.5	No	No
R7	44.2	43.9	65.0	52.5	No	No
R8	43.3	42.7	65.0	47.7	No	No

¹ See Exhibit 8-1 for the receiver locations.

² Proposed Project unmitigated operational noise levels as shown on Tables 9-2 and 9-3.

³ Exterior noise level standards, adjusted to reflect the ambient conditions (see Table 5-1) per the City of Ontario Municipal Code Section 5-29.04[a][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.

9.6 PROJECT OPERATIONAL NOISE INCREASES

To describe the Project operational noise level increases, the Project operational noise levels are combined with the existing ambient noise levels measurements for the nearby receiver locations that may be potentially impacted by Project operational noise sources. Since the units used to measure noise, decibels (dB), are logarithmic units, the Project-operational and existing ambient noise levels cannot be combined using standard arithmetic equations. (2) Instead, they must be logarithmically added using the following base equation:

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

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 on Tables 9-5 and 9-6, respectively. As indicated in Table 9-5, the Project will generate daytime operational noise increases ranging from 0.0 to 0.9 dBA L_{eq} at the nearest receiver locations. Table 9-6 shows that the Project will generate nighttime operational noise increases ranging from 0.2 to 1.7 dBA L_{eq} at the nearest receiver locations. Project-related operational noise level increases would not exceed the operational noise level increase significance criteria presented in Table 4-1. Therefore, Project related operational noise level increases at the sensitive receiver locations will be *less than significant*.

TABLE 9-5: DAYTIME PROJECT OPERATIONAL NOISE 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	49.5	L1	69.8	69.8	0.0	1.5	No
R2	52.8	L2	64.9	65.2	0.3	5.0	No
R3	49.4	L3	69.4	69.4	0.0	1.5	No
R4	47.7	L4	69.9	69.9	0.0	1.5	No
R5	48.3	L5	59.8	60.1	0.3	5.0	No
R6	47.2	L6	62.3	62.4	0.1	5.0	No
R7	44.2	L6	62.3	62.4	0.1	5.0	No
R8	43.3	L7	49.9	50.8	0.9	5.0	No

¹ See Exhibit 8-1 for the receiver locations.

² Total Project daytime operational noise levels as shown on Table 9-2.

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

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

⁵ Represents the combined ambient conditions plus the Project activities.

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

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

TABLE 9-6: NIGHTTIME OPERATIONAL NOISE 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	49.4	L1	62.9	63.1	0.2	5.0	No
R2	52.7	L2	57.6	58.8	1.2	5.0	No
R3	49.3	L3	60.8	61.1	0.3	5.0	No
R4	47.6	L4	60.0	60.2	0.2	5.0	No
R5	48.1	L5	51.4	53.1	1.7	5.0	No
R6	46.9	L6	52.5	53.6	1.1	5.0	No
R7	43.9	L6	52.5	53.1	0.6	5.0	No
R8	42.7	L7	47.7	48.9	1.2	5.0	No

¹ See Exhibit 8-A for the receiver locations.

² Total Project nighttime operational noise levels as shown on Table 9-3.

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

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

⁵ Represents the combined ambient conditions plus the Project activities.

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

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

10 CONSTRUCTION IMPACTS

This section analyzes potential impacts resulting from the short-term construction activities associated with the development of the Project. Exhibit 10-A shows the on-site construction noise source activity in relation to the nearest sensitive receiver locations previously described in Section 8. To prevent high levels of construction noise from impacting noise-sensitive land uses, the City of Ontario Municipal Code Section 5-29.09[a] limits general construction activities between 7:00 AM and 6:00 PM on weekdays and 9:00 AM and 6:00 PM on weekends, excluding federal holidays.

10.1 CONSTRUCTION NOISE LEVELS

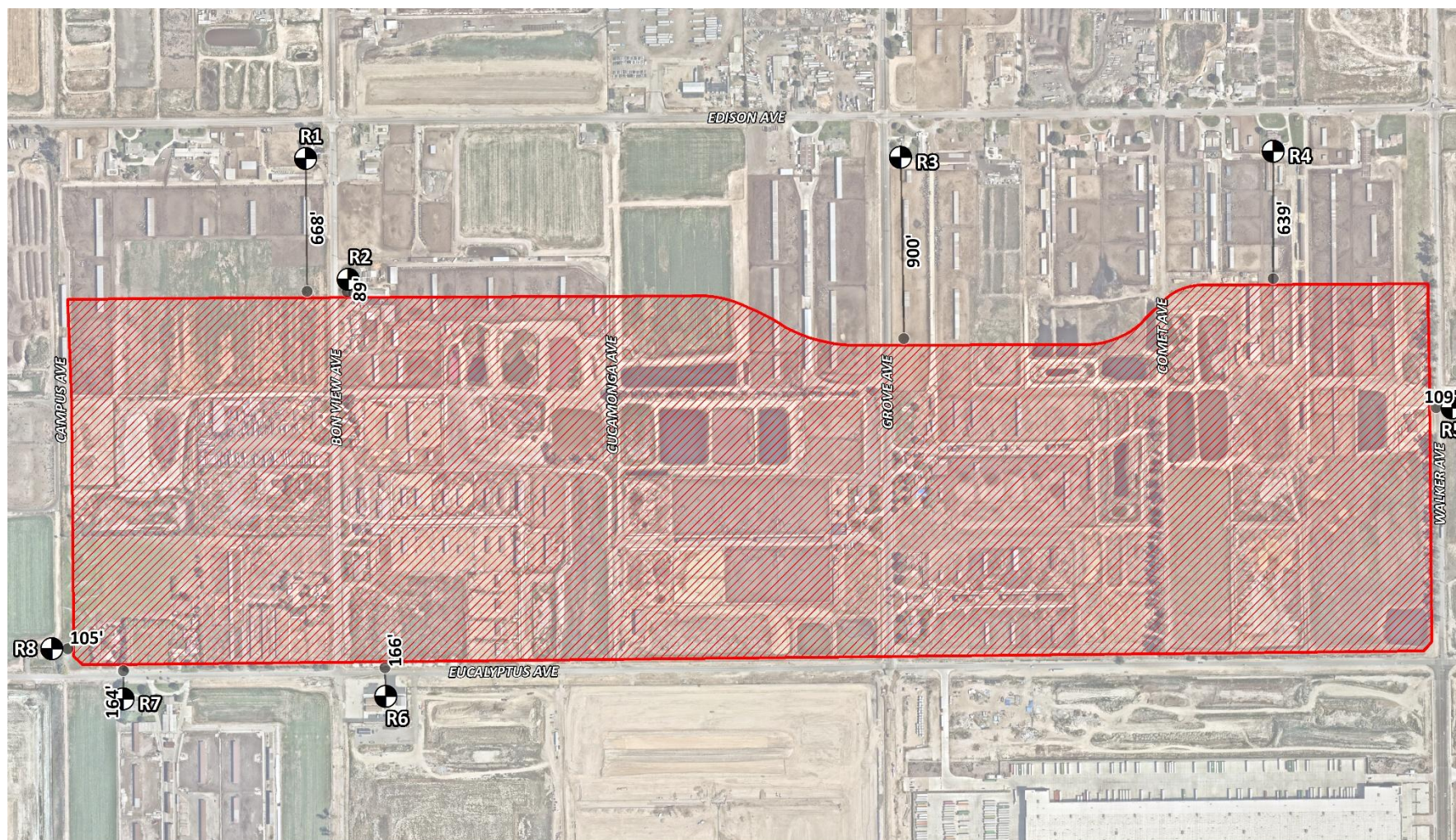
The FTA *Transit Noise and Vibration Impact Assessment Manual* recognize that construction projects are accomplished in several different stages and outlines the procedures for assessing noise impacts during construction. Each stage has a specific equipment mix, depending on the work to be completed 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:

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

10.2 CONSTRUCTION REFERENCE NOISE LEVELS

To describe construction noise activities, this construction noise analysis was prepared using reference construction equipment noise levels from the Federal Highway Administration (FHWA) published the Roadway Construction Noise Model (RCNM), which includes a national database of construction equipment reference noise emission levels. (31) 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 acoustic 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. (8) (32) (33) Consistent with FHWA and FTA guidance for construction noise assessment, Table 10-1 presents the combined noise levels for the loudest construction activities expected for each stage, assuming all equipment operates simultaneously.

EXHIBIT 10-1: CONSTRUCTION NOISE SOURCE LOCATIONS



LEGEND:

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

TABLE 10-1: 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}) ²	Reference Power Level (dBA L _w) ³
Demolition	Concrete Saw	83	86.8	118.4
	Grapple (on backhoe)	83		
	Gradall (Forklift)	79		
Site Preparation	Tractor	80	84.0	115.6
	Backhoe	74		
	Grader	81		
Grading	Scraper	80	83.3	114.9
	Excavator	77		
	Dozer	78		
Building Construction	Crane	73	81.1	112.8
	Tractor	80		
	Welder/Torch	70		
Paving	Paver	74	77.8	109.5
	Dump Truck	72		
	Roller	73		
Architectural Coating	Man Lift	68	79.8	111.4
	Compressor (air)	74		
	Generator	78		

¹ FHWA Road Construction Noise Model.

² Represents the combined noise level for all equipment assuming they operate at the same time.

³ The total amount of acoustic energy produced by a sound source independent of distance or surroundings.

10.3 CONSTRUCTION NOISE ANALYSIS

Construction projects involve various stages, and activities frequently shift from one location to another. For example, during site preparation 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, 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. (8) (34)

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 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 construction. Construction impacts are based on the loudest activity and the highest noise level calculated at each receiver location. As shown in Table 10-2, the construction noise levels are expected to range from 60.3 to 66.1 dBA L_{eq} at the nearby receiver locations. Appendix 10.1 includes the detailed CadnaA construction noise model inputs.

TABLE 10-2: CONSTRUCTION EQUIPMENT NOISE LEVEL SUMMARY

Receiver Location ¹	Construction Noise Levels (dBA L_{eq})						
	Demolition	Site Preparation	Grading	Building Construction	Paving	Architectural Coating	Highest Levels ²
R1	61.0	58.2	57.5	55.3	52.0	54.0	61.0
R2	66.1	63.3	62.6	60.4	57.1	59.1	66.1
R3	60.8	58.0	57.3	55.1	51.8	53.8	60.8
R4	60.3	57.5	56.8	54.6	51.3	53.3	60.3
R5	65.0	62.2	61.5	59.3	56.0	58.0	65.0
R6	64.9	62.1	61.4	59.2	55.9	57.9	64.9
R7	63.6	60.8	60.1	57.9	54.6	56.6	63.6
R8	63.8	61.0	60.3	58.1	54.8	56.8	63.8

¹ Construction noise source and receiver locations are shown on Exhibit 10-1.

² CadnaA construction noise model inputs and calculations are included in Appendix 10.1.

10.4 PROJECT SITE CONSTRUCTION NOISE COMPLIANCE

To evaluate whether the Project will generate potentially significant short-term noise levels at nearest receiver locations, a construction-related daytime noise level threshold of 80 dBA L_{eq} is used as a reasonable threshold to assess the daytime construction noise level impacts. The construction noise analysis shows that the nearest receiver locations will satisfy the reasonable daytime 80 dBA L_{eq} significance threshold during Project construction activities as shown on Table 10-3. Therefore, the noise impacts due to Project construction noise are considered *less than significant* at all receiver locations.

TABLE 10-3: CONSTRUCTION NOISE COMPLIANCE

Receiver Location ¹	Construction Noise Levels (dBA L _{eq})		
	Highest Construction Noise Levels ²	Threshold ³	Threshold Exceeded? ⁴
R1	61.0	80	No
R2	66.1	80	No
R3	60.8	80	No
R4	60.3	80	No
R5	65.0	80	No
R6	64.9	80	No
R7	63.6	80	No
R8	63.8	80	No

¹ Construction noise source and receiver locations are shown on Exhibit 10-1.

² Highest construction noise levels at the nearest receiver locations as shown on Table 10-2.

³ Construction noise level thresholds as shown on Table 4-1.

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

10.5 TEMPORARY CONSTRUCTION NOISE INCREASES

To describe the temporary Project construction noise contributions to the existing ambient noise environment, the Project construction noise levels were combined with the existing ambient noise levels 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 on Table 10-4. As outlined in Section 4.1.3, a reasonable 20 dBA increase over the daytime noise limit can be tolerated without significant adverse effects consistent with Section 5-29.04[b][2] of the City of Ontario Municipal Code. Table 10-4 shows that the Project will contribute construction noise increases ranging from 0.5 to 14.1 dBA L_{eq} during the daytime hours at the nearest receiver locations. The construction noise analysis shows that the nearest receiver locations will not exceed the temporary 20 dBA L_{eq} noise increase significance threshold during Project construction activities. Therefore, the temporary construction noise increase analysis shows that the noise impacts due to Project construction noise are considered *less than significant*.

TABLE 10-4: DAYTIME CONSTRUCTION NOISE INCREASES

Receiver Location ¹	Typical Project Construction 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	61.0	L1	69.8	70.3	0.5	20	No
R2	66.1	L2	64.9	68.6	3.7	20	No
R3	60.8	L3	69.4	70.0	0.6	20	No
R4	60.3	L4	69.9	70.4	0.5	20	No
R5	65.0	L5	59.8	66.1	6.3	20	No
R6	64.9	L6	62.3	66.8	4.5	20	No
R7	65.4	L6	62.3	67.1	4.8	20	No
R8	63.8	L7	49.9	64.0	14.1	20	No

¹ Construction noise source and receiver locations are shown on Exhibit 10-1.

² Typical Project daytime construction noise levels as shown on Table 10-3.

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

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

⁵ Represents the combined ambient conditions plus the Project construction activities.

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

⁷ Temporary construction noise increases that can be tolerated without significant adverse effects.

10.6 NIGHTTIME CONCRETE POUR NOISE ANALYSIS

It is our understanding that nighttime concrete pouring activities may occur as a part of Project building construction activities. Nighttime concrete pouring activities are often used to support reduced concrete mixer truck transit times and lower air temperatures than during the daytime hours and are generally limited to the actual building pad area. Since the nighttime concrete pours will take place outside the hours permitted by Section 5-29.09[a] of the city's Municipal Code, the Project Applicant will be required to obtain authorization for nighttime work from the City of Ontario. Any nighttime construction noise activities shall satisfy the FTA residential 70 dBA L_{eq} noise limit outlined in Table 4-1.

10.6.1 Nighttime Concrete Pour Reference Noise Measurements

To estimate the noise levels due to nighttime concrete pour activities, sample reference noise level measurements were taken during a nighttime concrete pour at an unrelated construction site. Urban Crossroads, Inc. collected short-term nighttime concrete pour reference noise level measurements during the noise-sensitive nighttime hours between 1:00 a.m. to 2:00 a.m. at 27334 San Bernardino Avenue in the City of Redlands. The reference noise levels describe the expected concrete pour noise sources that may include concrete mixer truck movements and pouring activities, concrete paving equipment, rear mounted concrete mixer truck backup alarms, engine idling, air brakes, generators, and workers communicating/whistling. To describe the nighttime concrete pour noise levels associated with the construction of the Eucalyptus Business Park, this analysis relies on reference sound pressure level of 67.7 dBA L_{eq} at 50 feet represented by a sound power level (L_w) of 100.3 dBA L_w .

10.6.2 Nighttime Concrete Pour Noise Compliance

As shown in Table 10-5, the noise levels associated with the nighttime concrete pour activities are estimated to range from 42.2 to 48.0 dBA L_{eq} and will satisfy the FTA nighttime exterior noise level thresholds at all the receiver locations. Therefore, the noise impacts due to Project construction nighttime concrete pour noise activity are considered *less than significant* at all receiver locations with prior authorization for nighttime work from the City of Ontario. Appendix 10.2 includes the CadnaA nighttime concrete pour noise model inputs

TABLE 10-5: NIGHTTIME CONCRETE POUR NOISE COMPLIANCE

Receiver Location ¹	Concrete Pour Construction Noise Levels (dBA L_{eq})		
	Exterior Noise Levels ²	Threshold ³	Threshold Exceeded? ⁴
R1	42.9	70	No
R2	48.0	70	No
R3	42.7	70	No
R4	42.2	70	No
R5	46.9	70	No
R6	46.8	70	No
R7	45.5	70	No
R8	45.7	70	No

¹ Construction noise source and receiver locations are shown on Exhibit 10-1.

² Nighttime Concrete Pour noise model inputs are included in Appendix 10.2.

³ Construction noise level thresholds as shown on Table 4-1.

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

10.6.3 Temporary Concrete Pour Noise Increases

To describe the temporary concrete pour noise contributions, the concrete pour noise levels were combined with the existing nighttime ambient noise levels 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 increases. Temporary noise increases that would be experienced at sensitive receiver locations when the typical Project construction-source noise is added to the ambient conditions are presented on Table 10-6. As indicated in Table 10-6, the Project nighttime concrete pour activities will contribute to noise increases ranging from 0.0 to 2.1 dBA L_{eq} during the nighttime hours at the nearest receiver locations. The unmitigated construction noise analysis shows that the nearest receiver locations will not exceed the nighttime 5 dBA noise increase threshold during nighttime concrete pour activities. Therefore, the temporary concrete pour construction noise increase analysis shows that the noise impacts due to Project construction noise are *less than significant*.

TABLE 10-6: NIGHTTIME CONCRETE POUR NOISE INCREASES

Receiver Location ¹	Typical Project Construction 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	42.9	L1	62.9	62.9	0.0	5	No
R2	48.0	L2	57.6	58.1	0.5	5	No
R3	42.7	L3	60.8	60.9	0.1	5	No
R4	42.2	L4	60.0	60.1	0.1	5	No
R5	46.9	L5	51.4	52.7	1.3	5	No
R6	46.8	L6	52.5	53.5	1.0	5	No
R7	45.5	L6	52.5	53.3	0.8	5	No
R8	45.7	L7	47.7	49.8	2.1	5	No

¹ Construction noise source and receiver locations are shown on Exhibit 10-1.

² Concrete pour construction noise levels calculations are included in Appendix 10.2

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

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

⁵ Represents the combined ambient conditions plus the Project construction activities.

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

⁷ City of Los Angeles Department of City Planning, Construction Noise and Vibration Updates to Thresholds and Methodology.

10.7 OFF-SITE CONSTRUCTION NOISE ANALYSIS

To support the Project development, there will be milling, trenching, and paving for off-site improvements associated with roadway construction and utility installation for the Project. These off-site improvements will be constructed mostly within the existing public right-of-way (ROW). It is expected that the off-site construction activities will not take place at any one location for more than several days due to the nature of the linear construction activity. Construction noise from this off-site work would, therefore, be relatively short-term and the noise levels would be reduced as construction work moves linearly along with the selected alignment and farther from sensitive uses.

The loudest phase of construction associated with off-site improvements would likely be demolition/site preparation activities, which would generate similar noise levels compared to the Project construction noise source activities previously outlined on Table 10-1. Using the loudest stage of demolition/site preparation construction activity, Table 10-7 presents the estimated Project related off-site construction noise levels at distances ranging from 25 to 200 feet. At distances ranging from 25 to 200 feet, the off-site construction noise levels are estimated to range from 64.6 to 68.45 dBA L_{eq} . Since the off-site construction activities will not exceed the 80 dBA L_{eq} construction noise level standard, the noise impacts due to these off-site activities are considered *less than significant*. Appendix 10.3 includes the CadnaA off-site construction noise calculations.

TABLE 10-7: OFF-SITE CONSTRUCTION NOISE ANALYSIS

Distance From Construction (Feet)	Construction Noise Levels (dBA Leq)		
	Construction Noise Levels ²	Threshold ³	Threshold Exceeded? ⁴
25'	68.4	80	No
50'	67.3	80	No
100'	66.1	80	No
200'	64.6	80	No

¹ Off-site construction noise calculations are included in Appendix 10.3

² Construction noise level thresholds as shown on Table 4-1.

³ Do the estimated Project construction noise levels exceed the construction noise level threshold?

10.8 CONSTRUCTION VIBRATION ANALYSIS

Construction activity can result in varying degrees of ground vibration, depending on the equipment and methods employed. Operation of construction equipment causes ground vibrations that spread through the ground and diminish in strength with distance. Ground vibration levels associated with various types of construction equipment are summarized on Table 10-8. Based on the representative vibration levels presented for various construction equipment types, it is possible to estimate the potential for building damage using the following vibration assessment methods defined by the FTA. To describe the vibration impacts the FTA provides the following equation: $PPV_{\text{equip}} = PPV_{\text{ref}} \times (25/D)^{1.5}$

TABLE 10-8: VIBRATION SOURCE LEVELS FOR CONSTRUCTION EQUIPMENT

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

Federal Transit Administration, Transit Noise and Vibration Impact Assessment Manual.

"PPV" = Peak Particle Velocity

Using the vibration source level of construction equipment provided on Table 10-7 and the construction vibration assessment methodology published by the FTA, it is possible to estimate the Project vibration impacts. Table 10-9 presents the expected Project related vibration levels at the nearby receiver locations. At distances ranging from 89 to 900 feet from Project construction activities, construction vibration velocity levels are estimated to range from 0.000 to 0.031 PPV in/sec. Based on maximum acceptable continuous vibration threshold of 0.2 PPV (in/sec), the typical Project construction vibration levels will fall below the damage thresholds at all the receiver locations. Therefore, the Project-related vibration impacts are considered *less than significant* during typical construction activities at the Project site.

TABLE 10-9: 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	668'	0.000	0.000	0.001	0.001	0.002	0.002	0.2	No
R2	89'	0.000	0.005	0.011	0.013	0.031	0.031	0.2	No
R3	900'	0.000	0.000	0.000	0.000	0.001	0.001	0.2	No
R4	639'	0.000	0.000	0.001	0.001	0.002	0.002	0.2	No
R5	109'	0.000	0.004	0.008	0.010	0.023	0.023	0.2	No
R6	166'	0.000	0.002	0.004	0.005	0.012	0.012	0.2	No
R7	164'	0.000	0.002	0.005	0.005	0.012	0.012	0.2	No
R8	105'	0.000	0.004	0.009	0.010	0.024	0.024	0.2	No

¹ Construction noise source and receiver locations are shown on Exhibit 10-1.

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

³ Based on the Vibration Source Levels of Construction Equipment (Table 10-8).

⁴ Federal Transit Administration, Transit Noise and Vibration Impact Assessment Manual and Table 5.13-9 of The Ontario Plan 2050 Final Supplemental Environmental Impact Report (FSEIR).

⁵ Does the peak vibration exceed the acceptable vibration thresholds?

"PPV" = Peak Particle Velocity

11 REFERENCES

1. **Association of Environmental Professionals.** *California Environmental Quality Act Statute & Guidelines.* 2023.
2. **California Department of Transportation Environmental Program.** *Technical Noise Supplement - A Technical Supplement to the Traffic Noise Analysis Protocol.* Sacramento, CA : s.n., September 2013.
3. **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.
4. **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.
5. **U.S. Department of Transportation Federal Highway Administration.** *Highway Noise Barrier Design Handbook.* 2001.
6. **U.S. Department of Transportation, Federal Highway Administration.** *Highway Traffic Noise in the United States, Problem and Response.* April 2000. p. 3.
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. **Office of Planning and Research.** *State of California General Plan Guidelines.* October 2019.
11. **City of Ontario.** *Policy Plan Safety Element, S4, Noise Hazards.* August 2022.
12. **The City of Ontario.** *The Ontario Plan 2050 Final Supplemental Environmental Impact Report (FSEIR).* August 2022.
13. **City of Ontario.** *Municipal Code, Chapter 29, Section 5- Noise.*
14. **County of San Bernardino.** *Chino Airport Master Plan, Appendix B Environmental Overview.* 2010.
15. **San Bernardino County Airport Land Use Commission.** *Chino Airport Comprehensive Land Use Plan.* November 1991.
16. **State of California Department of Transportation Division of Aeronautics.** *California Airport Land Use Planning Handbook.* October 2011.
17. **City of Ontario Planning Department.** *Planning Commission Staff Report.* June 28, 2022. PDCA22-004.
18. **California Court of Appeal.** *Gray v. County of Madera, F053661.* 167 Cal.App.4th 1099; - Cal.Rptr.3d, October 2008.
19. **Federal Interagency Committee on Noise.** *Federal Agency Review of Selected Airport Noise Analysis Issues.* August 1992.
20. **California Department of Transportation.** *Technical Noise Supplement.* November 2009.
21. **City of Los Angeles Department of City Planning.** *Construction Noise and Vibration Updates to Thresholds and Methodology.* August 2024.
22. **American National Standards Institute (ANSI).** *Specification for Sound Level Meters ANSI S1.4-2014/IEC 61672-1:2013.*

23. **U.S. Department of Transportation, Federal Highway Administration.** *FHWA Highway Traffic Noise Prediction Model*. December 1978. FHWA-RD-77-108.
24. **California Department of Transportation.** *Traffic Noise Attenuation as a Function of Ground and Vegetation Final Report*. June 1995. FHWA/CA/TL-95/23.
25. **Urban Crossroads, Inc.** *Eucalyptus Business Park Traffic Analysis*. November 2025.
26. **California Department of Transportation.** *Quieter Pavement: Acoustic Measurement and Performance*. 2018. CTHWANP-RT-18-365.01.1.
27. —. *Highway Design Manual, Chapter 1100 Highway Traffic Noise Abatement*. November 2017.
28. **U.S. Department of Transportation, Federal Highway Administration, Office of Environment and Planning.** *FHWA Roadway Construction Noise Model*. January, 2006.
29. **U.S. Environmental Protection Agency.** *Noise from Construction Equipment and Operations, Building Equipment, and Home Appliances*. 1971. NTID300.1.
30. **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.
31. —. *FHWA Highway Construction Noise Handbook*. Final Report August 2006.

12 CERTIFICATION

The contents of this noise study report represent an accurate depiction of the noise environment and impacts associated with the proposed Eucalyptus Business Park Project. The information contained in this noise study report is based on the best available data at the time of preparation. If you have any questions, please contact me directly at (949) 584-3148.

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



Education

Master of Science in Civil and Environmental Engineering
California Polytechnic State University, San Luis Obispo • December, 1993
Bachelor of Science in City and Regional Planning
California Polytechnic State University, San Luis Obispo • June, 1992

Professional Registrations

PE – Registered Professional Traffic Engineer – TR 2537 • January, 2009
AICP – American Institute of Certified Planners – 013011 • June, 1997–January 1, 2012
PTP – Professional Transportation Planner • May, 2007 – May, 2013
INCE – Institute of Noise Control Engineering • March, 2004

Professional Affiliations

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

Professional Certifications

Certified Acoustical Consultant – County of San Diego • March, 2018
Certified Acoustical Consultant – County of Orange • February, 2011
FHWA-NHI-142051 Highway Traffic Noise Certificate of Training • February, 2013

This page intentionally left blank

APPENDIX 3.1:

CITY OF ONTARIO MUNICIPAL CODE

This page intentionally left blank

- 5-29.01 Declaration of findings and policy
- 5-29.02 Definitions
- 5-29.03 Designated noise zones
- 5-29.04 Exterior noise standards
- 5-29.05 Interior noise standards
- 5-29.06 Exemptions
- 5-29.07 Loud and disturbing noise
- 5-29.08 Real property maintenance noise regulations
- 5-29.09 Construction activity noise regulations
- 5-29.10 Other public agency exceptions
- 5-29.11 Schools, day care centers, churches, libraries, museums, health care institutions; Special provisions
- 5-29.12 Sound amplifying equipment
- 5-29.13 Amplified sound
- 5-29.14 Motor vehicles
- 5-29.15 Noise level measurement
- 5-29.16 Prima facie violation
- 5-29.17 Penalty
- 5-29.18 Enforcement and administration
- 5-29.19 City Manager waiver
- 5-29.20 Noise abatement program

Sec. 5-29.01. Declaration of findings and policy.

It is hereby found and declared that:

(a) The making and creation of excessive, unnecessary or unusually loud noises within the limits of the City is a condition that has existed for some time, however, the extent and volume of such noises is increasing;

(b) The making, creation or maintenance of such excessive, unnecessary, unnatural or unusually loud noises that are prolonged, unusual and unnatural in their time, place and use affect and are a detriment to public health, comfort, convenience, safety, welfare and prosperity of the residents of the City; and

(c) The necessity in the public interest for the provisions and prohibitions hereinafter contained and enacted, is declared as a matter of legislative determination and public policy, and it is further declared that the provisions and prohibitions hereinafter contained and enacted are in pursuance of and for the purpose of securing and promoting the public health, comfort, convenience, safety, welfare and prosperity and the peace and quiet of the residents of the City.

(§ 2, Ord. 2888, eff. March 6, 2008)

Sec. 5-29.02. Definitions.

As used in this chapter, specific words and phrases are defined as follows:

(a)

(b) "Applicable (noise) zone" shall mean the noise zone category based on the actual use of the property, provided that the actual use is a legal use in the City.

(c) "A-weighted sound level" shall mean the sound pressure level in decibels (dBAs) as measured with a sound level meter using the A-weighted filter network (scale) at slow response and at a pressure of twenty (20) micropascals. The A-weighted filter de-emphasizes the very low and a very high frequency component of sound in a manner similar to the response of the human ear, and is a numerical method of rating human judgment of loudness.

(d) "Decibel (dBA)" shall mean a unit for measuring the amplitude of a sound, equal to twenty (20) times the logarithm to the base ten (10) of the ratio of pressure of the sound measured to the reference pressure of twenty (20) micropascals.

- (e) "Equivalent sound or noise level (Leq)" shall mean the International Electrotechnical Commission (IEC) 60804 Standard for measurement, or the most recent revision thereof, for the sound level corresponding to a steady state noise level over a given sample period with the same amount of acoustic energy as the actual time varying noise level or the energy average noise level during the sample period. The measurement period for the purposes of this chapter is fifteen (15) minutes.
- (f) "Impulsive noise" shall mean a noise of short duration usually less than one (1) second and of high intensity, with an abrupt onset and rapid decay. Such objectionable noises may also be repetitive.
- (g) "Intrusive noise" shall mean that noise that intrudes over and above the ambient noise at a given location. The relative intrusiveness of a sound depends upon its amplitude, duration, frequency, time of occurrence and tonal information content, as well as the prevailing ambient noise level.
- (h) "Maintenance" shall mean the upkeep, repair or preservation of existing property or structures.
- (i) "Noise" shall mean any unwanted sound or sound that is undesirable because it interferes with speech and hearing, or is intense enough to damage hearing or is otherwise annoying.
- (j) "Noise level (sound level)" shall mean the weighted sound pressure level obtained by use of a sound level meter having a standard frequency filter for attenuating part of the sound spectrum. For purposes of this chapter, all noise levels (sound levels) shall be A-weighted sound pressure level.
- (k) "Noise (sound) level meter" shall mean an instrument, including a microphone, an amplifier, an output meter and frequency weighting networks for the measurement and determination of noise and sound levels. For the purposes of this chapter, the sound level meter must meet the International Electrotechnical Commission (IEC) 60651 and 60804 Standards, or the most recent revisions thereof, for Type 1 sound level meters or an instrument and the associated recording and analyzing equipment that will provide equivalent data.

(§ 2, Ord. 2888, eff. March 6, 2008)

Sec. 5-29.03. Designated noise zones.

The properties hereinafter described shall be assigned to the following noise zones:

Noise Zone I:	All single-family residential properties;
Noise Zone II:	All multi-family residential properties and mobile home parks;
Noise Zone III:	All commercial property;
Noise Zone IV:	The residential portion of mixed use properties;
Noise Zone V:	All manufacturing or industrial properties and all other uses.

The actual use of the property, and not necessarily its zoning designation, shall be the determining factor in establishing whether a property is in Noise Zone I, II, III, IV or V, provided that the actual use is a legal use within the applicable zone.

(§ 2, Ord. 2888, eff. March 6, 2008)

Sec. 5-29.04. Exterior noise standards.

- (a) The following exterior noise standards, unless otherwise specifically indicated, shall apply to all properties within a designated noise zone.

Allowable Exterior Noise Level (1)		Allowed Equivalent Noise Level, Leq. (2)	
Noise Zone	Type of Land Use	7 a.m. to 10 p.m.	10 p.m. to 7 a.m.
I	Single-Family Residential	65 dBA	45 dBA
II	Multi-Family Residential, Mobile Home Parks	65 dBA	50 dBA
III	Commercial Property	65 dBA	60 dBA
IV	Residential Portion of Mixed Use	70 dBA	70 dBA
V	Manufacturing and Industrial, Other Uses	70 dBA	70 dBA

(2) Measurements for compliance are made on the affected property pursuant to §5-29.15.

(b) It is unlawful for any person at any location within the incorporated area of the City to create noise, or to allow the creation of any noise on property owned, leased, occupied or otherwise controlled by such person, which noise causes the noise level, when measured at any location on any other property, to exceed either of the following:

(1) The noise standard for the applicable zone for any fifteen-minute (15) period; and

(

(c) In the event the ambient noise level exceeds the noise standard, the maximum allowable noise level under such category shall be increased to reflect the maximum ambient noise level.

(d) The Noise Zone IV standard shall apply to that portion of residential property falling within one hundred (100) feet of a commercial property or use, if the noise originates from that commercial property or use.

(e) If the measurement location is on a boundary between two (2) different noise zones, the lower noise level standard applicable to the noise zone shall apply.

(§ 2, Ord. 2888, eff. March 6, 2008)

Sec. 5-29.05. Interior noise standards.

(a) The following interior noise standards, unless otherwise specifically indicated, shall apply to all properties within a designated noise zone.

Allowable Interior Noise Level (1)		Allowed Equivalent Noise Level, Leq. (2)	
Noise Zone	Type of Land Use	7 a.m. to 10 p.m.	10 p.m. to 7 a.m.
I	Single-Family Residential	45 dBA	40 dBA
II	Multi-Family Residential, Mobile Home Parks	45 dBA	40 dBA
IV	Residential Portion of Mixed Use	45 dBA	40 dBA

(1) If the ambient noise level exceeds the resulting standard, the ambient noise level shall be the standard.

(2) Measurements for compliance are made on the affected property pursuant to §5-29.15.

(b) It is unlawful for any person at any location within the incorporated area of the City to create noise, or to allow the creation of any noise on property owned, leased, occupied or otherwise controlled by such person, which noise causes the noise level, when measured at any location on any other property, to exceed either of the following:

(1) The noise standard for the applicable zone for any fifteen-minute (15) period;

(2) A maximum instantaneous (single instance) noise level equal to the value of the noise standard plus twenty (20) dBA for any period of time (measured using A-weighted slow response).

(c) In the event the ambient noise level exceeds the noise standard, the maximum allowable noise level under such category shall be increased to reflect the maximum ambient noise level.

(d) The Noise Zone IV standard shall apply to that portion of residential property falling within one hundred (100) feet of a commercial property or use, if the noise originates from that commercial property or use.

(e) If the measurement location is on a boundary between two (2) different noise zones, the lower noise level standard applicable to the noise zone shall apply.

(§ 2, Ord. 2888, eff. March 6, 2008)

Sec. 5-29.06. Exemptions.

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

(a) Any activity conducted on public property, or on private property with the consent of the owner, by any public entity or its officers, employees, representatives, agents, subcontractors, permittees, licensees or lessees that the public entity has authorized are exempt from the provisions of this chapter. This includes, without limitation, sporting and recreational activities that are sponsored, co-sponsored, permitted or allowed by the City or any school district within the City's jurisdictional boundaries. This also includes, without limitation, occasional outdoor gatherings, public dances, shows or sporting and entertainment events, provided such events are conducted pursuant to an approval, authorization, contract, lease, permit or sublease by the appropriate public entity, specifically the planning commission or City Council;

(b) Occasional outdoor gatherings, public dances, show, sporting and entertainment events, provided said events are

conducted pursuant to a permit or license issued by the appropriate jurisdiction relative to the staging of said events;

(c) Any mechanical device, apparatus or equipment used, related to or connected with emergency machinery, vehicle, work or warning alarm or bell, provided the sounding of any bell or alarm on any building or motor vehicle shall terminate its operation within forty-five (45) minutes in any hour of its being activated;

(d) Noise sources associated with construction, repair, remodeling, demolition or grading of any real property. Such activities shall instead be subject to the provisions of § 5-29.09;

(e) Noise sources associated with construction, repair, remodeling, demolition or grading of public rights-of-way or during authorized seismic surveys;

(f) All mechanical devices, apparatus or equipment associated with agriculture operations provided that:

(1) Operations do not take place between 8:00 p.m. and 7:00 a.m.;

(2) Such operations and equipment are utilized for the protection or salvage of agricultural crops during periods of potential or actual frost damage or other adverse weather conditions; or

(3) Such operations and equipment are associated with agricultural pest control through pesticide application, provided the application is made in accordance with permits issued by or regulations enforced by the California Department of Agriculture;

(g) Noise sources associated with the maintenance of real property. Such activities shall instead be subject to the provisions of § 5-29.08;

(h) Any activity to the extent regulation thereof has been preempted by state or federal law;

(i) Any noise sources associated with people and/or music associated with a party at a residential property. Such noise shall be subject to the provisions of OMC § 5-29.07;

(j) Any noise source emanating from an ice cream truck within the City. Such noise shall be subject to the provisions of OMC § 4-18.04;

(k) Any noise sources associated with barking dogs or other intermittent noises made by animals on any property within the City. Such noise shall be subject to the provisions of OMC Chapter 1, Title 6;

(l) Noise sources related to uses approved by a permit or development agreement adopted prior to the date of adoption of this chapter and that contains acoustic or noise standard conditions of approval. This exemption shall only be applicable during the effective period of the City-approved permit or development agreement.

(§ 2, Ord. 2888, eff. March 6, 2008)

Sec. 5-29.07. Loud and disturbing noise.

(a) It is unlawful for any person or property owner within the City to make, cause or allow to be made any loud, excessive, impulsive or intrusive noise, disturbance or commotion that disturbs the peace or quiet of any area or that causes discomfort or annoyance to any reasonable person of normal sensitivities in the area, after a Police or Code Enforcement Officer has first requested that the person or property owner cease and desist from making such noise. The types of loud, disturbing, excessive, impulsive or intrusive noise may include, but shall not be limited to, yelling, shouting, hooting, whistling, singing, playing a musical instrument, or emitting or transmitting any loud music or noise from any mechanical or electrical sound making or sound-amplifying device.

(b) The factors, standards, and conditions that may be considered in determining whether a violation of the provisions of this section has been committed, included, but not limited to, the following:

(1) The level of the noise;

(2) The level and intensity of the background (ambient) noise, if any;

(3) The proximity of the noise to residential or commercial sleeping areas;

(4) The nature and zoning of the area within which the noise emanates;

(5) The density of inhabitation of the area within which the noise emanates;

(6) The time of day and night the noise occurs;

(7) The duration of the noise;

(8) Whether the noise is constant, recurrent or intermittent;

(9) Whether the noise is produced by a commercial or noncommercial activity; and

(10) Whether the use is lawful under the provisions of Title 5 of this Code and whether the noise is one that could reasonably be expected from the activity or allowed use.

(§ 2, Ord. 2888, eff. March 6, 2008)

Sec. 5-29.08. Real property maintenance noise regulations.

(a) No person, while engaged in maintenance of real property, shall operate any tool, equipment or machine in a manner that produces loud noise that disturbs a person of normal sensitivity who works or resides in the vicinity, or a Police or Code Enforcement Officer, except between the hours of 8:00 a.m. and 6:00 p.m.

(b) Trimming or pruning that requires the use of chainsaws or mulching machines shall only be allowed between the hours of 8:00 a.m. and 6:00 p.m. on a weekday and between the hours of 9:00 a.m. and 5:00 p.m. on Saturday or Sunday.

(c) The use of electrical or gasoline powered blowers, such as commonly used by gardeners or other persons for cleaning lawns, yards, driveways, gutters and other property shall only be allowed between the hours of 8:00 a.m. and 6:00 p.m. on a weekday and between the hours of 9:00 a.m. and 5:00 p.m. on Saturday or Sunday.

(d) No landowner, gardener, property maintenance service, contractor, subcontractor or employer shall permit or allow any person or persons working under his or her direction or control to operate any tool, equipment or machine in violation of the provisions of this section.

(e) Exceptions. The provisions of this section shall not apply to the following:

(1) Emergency property maintenance required by the building official;

(2) The maintenance, repair or improvement of any public work or facility by public employees, by any person or persons acting pursuant to a public works contract, or by any person or persons performing such work or pursuant to the direction of, or on behalf of, any public agency; provided, however, this exception shall not apply to the City, or its employees, contractors or agents, unless:

(i) The City Manager or department head determines that the maintenance, repair or improvement is immediately necessary to maintain public service,

(ii) The maintenance, repair or improvement is of a nature that cannot feasibly be conducted during normal business hours, or

(iii) The City Council has approved project specifications, contract provisions, or an environmental document that specifically authorizes maintenance during hours of the day that would otherwise be prohibited pursuant to this section; and

(3) Any maintenance that complies with the noise limits specified in §5-29.04.

(§ 2, Ord. 2888, eff. March 6, 2008)

Sec. 5-29.09. Construction activity noise regulations.

(b) No landowner, construction company owner, contractor, subcontractor, or employer shall permit or allow any person or persons working under their direction and control to operate any tool, equipment or machine in violation of the provisions of this section.

(c) Exceptions.

(1) The provisions of this section shall not apply to emergency construction work performed by a private party when authorized by the City Manager or his or her designee;

(2) The maintenance, repair or improvement of any public work or facility by public employees, by any person or persons acting pursuant to a public works contract, or by any person or persons performing such work or pursuant to the direction of, or on behalf of, any public agency; provided, however, this exception shall not apply to the City, or its employees, contractors or agents, unless:

(i) The City Manager or a department head determines that the maintenance, repair or improvement is immediately necessary to maintain public services,

(ii) The maintenance, repair or improvement is of a nature that cannot feasibly be conducted during normal business hours, or

(iii) The City Council has approved project specifications, contract provisions, or an environmental document that specifically authorizes construction during hours of the day that would otherwise be prohibited pursuant to this section; and

(3) Any construction that complies with the noise limits specified in §§5-29.04 or 5-29.05.

(§ 2, Ord. 2888, eff. March 6, 2008)

Sec. 5-29.10. Other public agency exceptions.

The provisions of this chapter shall not be construed to prohibit any work at different hours by or under the direction of any other public agency or public or private utility companies in cases of necessity or emergency.

(§ 2, Ord. 2888, eff. March 6, 2008)

Sec. 5-29.11. Schools, day care centers, churches, libraries, museums, health care institutions; Special provisions.

It is unlawful for any person to create any noise that causes the outdoor noise level at any school, day care center, hospital or similar health care institution, church, library or museum while the same is in use, to exceed the noise standards specified in § 5-29.04 prescribed for the assigned Noise Zone I.

(§ 2, Ord. 2888, eff. March 6, 2008)

Sec. 5-29.12. Sound amplifying equipment.

Loudspeakers, sound amplifiers, public address systems or similar devices used to amplify sounds shall be subject to the provisions of § 5-29.13. Such sound amplifying equipment shall not be construed to include electronic devices, including but not limited to, radios, tape players, tape recorders, compact disc players, MP3 players, electric keyboards, music synthesizers, record players or televisions, which are designed and operated for personal use, or used entirely within a building and are not designed or used to convey the human voice, music or any other sound to an audience outside such building, or which are used in vehicles and heard only by occupants of the vehicle in which installed.

(§ 2, Ord. 2888, eff. March 6, 2008)

Sec. 5-29.13. Amplified sound.

(a) The City Council enacts the following legislation for the sole purpose of securing and promoting the public health, comfort, safety and welfare for its citizenry. While recognizing that the use of sound amplifying equipment may be entitled to certain protection by the constitutional rights of freedom of speech and assembly, the City Council finds that in order to protect the public safety and the correlative rights of the citizens of this community to privacy and freedom from public nuisance of loud and unnecessary noise, reasonable regulation of the time, place and manner of the use of amplifying equipment is necessary. In no event shall approval or authorization required herein be withheld by reason of the constitutionally protected content of any material proposed to be broadcast through amplifying equipment.

(b) It is unlawful for any person, other than personnel of law enforcement or governmental agencies, to install, use or operate a loudspeaker or sound amplifying device in a fixed or movable position or mounted upon any vehicle within the City for the purpose of giving instructions, directions, talks, addresses or lectures to any persons or assemblages of persons in or upon any street, alley, sidewalk, park, place or public property without a permit to do so from the Police Chief or his or her designee. Notwithstanding any other provision of this chapter, the provisions of this section shall also apply to the use of sound amplifying equipment upon public or private property when used in connection with outdoor or indoor public or private events, whether or not admission is charged or food or beverages are sold, when such activity is to be attended by more than one hundred (100) persons and the noise emanating from the event will be audible at the property plane, or in the case of a street dance or concert on the nearest residential property. Those activities listed in § 5-29.06(a) are exempt from the requirements of this section.

(c) The Police Chief or his or her designee is authorized to approve and issue permits under this section.

(d) An application for a permit required by this section shall be filed with the Police Chief at least sixteen (16) days and no more than one hundred twenty (120) days prior to the date on which the sound amplifying equipment is intended to be used. Applications for events covered by the First Amendment of the United States Constitution are exempt from the time requirements of this section if it is shown that circumstances require a shorter filing period and the event will not constitute an unsafe condition. The application shall contain the following information:

- (1) The name, address and telephone number of both the owner and the user of the sound amplifying equipment;
- (2) The license number, if a sound truck is to be used;
- (3) A general description of the sound amplifying equipment which is to be used;
- (4) Whether sound amplifying equipment will be used for commercial or noncommercial purpose;
- (5) The dates and times upon and within which, and the streets or property over or upon which, the equipment is proposed to be operated;
- (6) The name or names of one (1) or more persons who will be present during the conduct of any activities for which registration is sought and who will have authority to reduce the volume of any sound amplifying equipment during the course of the activities if required pursuant to this chapter and, otherwise, to insure compliance with the provisions of this chapter;
- (7) A statement by the applicant that he or she is willing and able to comply with the provisions of this chapter and the conditions of the permit; and
- (8) A sketch of the area or facilities within which the activities are to be conducted, with approximate dimensions and illustration of the location and orientation of all sound-amplifying equipment.

(e) The Police Chief shall deny the permit application or revoke any permit if the chief finds any of the following:

- (1) The application contains materially false or intentionally misleading information;
- (2) The use of sound amplifying equipment at an event or activity proposed will be located in or upon a premises,

building or structure that is hazardous to the health or safety of the employees or patrons of the premises, business, activity, or event, or the general public, under the standards established by the Uniform Building or Fire Codes, or other applicable codes, as set forth in OMC Titles 4 and 8;

(3) The use of sound amplifying equipment at an event or activity proposed in or upon a premises, building or structure that lacks adequate on-site parking for participants attending the proposed event or activity under the applicable standards set forth in OMC Title 9;

(4) The conditions of any motor vehicle movement are such that, in his or her opinion, the use of the equipment would constitute an unreasonable interference with traffic safety;

(5) The conditions of pedestrian movement are such that the use of the equipment would constitute a detriment to traffic safety;

(6) The application submitted by the applicant reveals that the applicant would violate the provisions of this section or any other provision of federal, state and/or local law;

(7) The applicant is unwilling or unable to comply with the provisions of this chapter or any conditions imposed upon any permit issued;

(8) There had already been a permitted event at the intended location, or within a two hundred (200) yard radius of the intended location and the prior permitted event was located on residentially zoned property or on a street, alley, public parking lot or neighborhood park within three (3) months prior to the intended event. Community parks are exempt from this subsection (8); or

(9) The applicant or location has had previous violations within the past calendar year, and in the judgment of the Police Chief, issuance would be contrary to the intent of this section.

(f) In determining whether the use of the equipment would constitute an unreasonable interference with or detriment to traffic safety, the Police Chief shall consider, but shall not necessarily be limited to:

(1) The volumes, patterns and speed of vehicular and pedestrian traffic in the proposed area of use;

(2) The relationship of the proposed use of equipment and potential impacts upon traffic patterns;

(3) Availability of sufficient room for the operation of the equipment without significantly interfering with the traffic patterns;

(4) Proximity to schools, playgrounds and similar facilities where use of such equipment might attract children into traffic patterns; or

(5) Proximity to busy intersections or other potentially hazardous conditions where use of such equipment might constitute a hazard by reason of its tendency to distract drivers of vehicles or pedestrians.

(g) Issuance or denial.

(1) If the application is approved, the Police Chief shall return an approved copy of the application to the applicant and shall issue a permit. The permit shall constitute permission for the use of the sound amplifying equipment as requested.

(2) Any application filed shall be either approved or disapproved within five (5) days of the filing thereof.

(3) If the application is disapproved, the Police Chief shall return a disapproved copy forthwith to the applicant with a written statement on the reason for disapproval.

(i) Any person aggrieved by a decision of the Police Chief or his or her designee may file an appeal to the City Manager. A complete and proper appeal shall be filed with the City Clerk within ten (10) calendar days of the action that is the subject of the appeal. If the applicant fails to file an appeal within the ten (10) day filing period provided herein, denial shall take effect immediately upon expiration of such filing period. All appeals shall be in writing and shall contain the following information: (a) name(s) of the person filing the appeal, (b) a brief statement in ordinary and concise language of the relief sought, and (c) the signatures of all parties named as appellants and their mailing addresses. After receiving the appeal, the City Clerk shall immediately forward the matter to the City Manager for handling.

(ii) The City Manager shall, upon receipt of the appeal, set the matter for hearing before the City Manager or a hearing officer. Any hearing officer shall be a licensed attorney or recognized mediator designated by the City Manager. The hearing shall be set for not more than ten (10) calendar days after the receipt of the appeal unless a longer time is requested or consented to by the appellant. Notice of such hearing shall be given in writing and mailed at least five (5) calendar days prior to the date of the hearing, by U.S. mail, with a proof of service attached, addressed to the address listed on the permit application, or the written appeal if different from the permit application. The notice shall state the grounds of the complaint or reason for the denial and shall state the time and place where such hearing will be held.

(iii) The City Manager or hearing officer shall, within ten (10) calendar days following the conclusion of the hearing, make a written finding and decision, which shall be delivered to the City and the appellant by first class mail. Notwithstanding any provision in this Code, the decision of the City Manager or hearing officer shall be the final administrative decision of the City. Any party dissatisfied with the decision of the City Manager or hearing officer may seek review of such decision under the provisions of Code Civil Procedure, §§ 1094.5 and 1094.8, as amended from time to time.

(h) In addition to any other provisions of this Code, the use of sound-amplifying equipment and sound trucks in the City shall be subject to the following regulations:

- (1) The only sounds permitted are music and human speech;
 - (2) Sound shall not be emitted within one hundred (100) yards of hospitals, churches, schools and City Hall;
 - (3) The volume of sound shall be controlled so that it will not be audible for a distance in excess of one hundred (100) feet from the sound amplifying equipment or sound truck, and so that the volume is not unreasonably loud, raucous, jarring, disturbing or a nuisance to persons within the range of allowed audibility; or
 - (4) The sound amplifying equipment or sound truck shall not be used between the hours of 8:00 p.m. and 8:00 a.m.
- (§ 2, Ord. 2888, eff. March 6, 2008)

Sec. 5-29.14. Motor vehicles.

The use of any motor vehicle in such a condition as to create excessive, impulsive or intrusive noises is prohibited. The discharge into the open air of the exhaust of any internal combustion engine, stationary or mounted on wheels, motorboat or motor vehicle, including motor cycle, whether or not discharged through a muffler or other similar device, which discharge creates excessive, unusual, impulsive or intrusive noise is prohibited. Motor vehicles shall comply with the noise regulations of the California Vehicle Code.

(§ 2, Ord. 2888, eff. March 6, 2008)

Sec. 5-29.15. Noise level measurement.

(a) The location selected for measuring exterior noise levels in a residential area shall be at any part of a private yard, patio, deck or balcony normally used for human activity and identified by the owner or, if occupied by someone other than the owner, the occupant of the affected property as suspected of exceeding the noise level standard. This location may be the closest point in the private yard or patio, or on the deck or balcony, to the noise source, but should not be located in nonhuman activity areas such as trash container storage areas, planter beds, above or contacting a property line fence, or other areas not normally used as part of the yard, patio, deck or balcony. The location selected for measuring exterior noise levels in a nonresidential area shall be at the closest point to the noise source. The measurement microphone height shall be five (5) feet above finish elevation or, in the case of a deck or balcony, the measurement microphone height shall be five (5) feet above the finished floor level.

(b) The location selected for measuring interior noise levels shall be made within the affected residential unit. The measurements shall be made at a point at least four (4) feet from the wall, ceiling or floor, or within the frame of a window opening, nearest the noise source. The measurements shall be made with windows in an open position.

(c) Any decibel measurement made pursuant to the provisions of this chapter shall be measured in decibels (dBAs) as measured with a sound level meter using the A-weighted sound pressure level.

(§ 2, Ord. 2888, eff. March 6, 2008)

Sec. 5-29.16. Prima facie violation.

Any noise exceeding the noise level standard as specified in §§5-29.04 and 5-29.05, shall be deemed to be prima facie evidence of a violation of the provisions of this chapter.

(§ 2, Ord. 2888, eff. March 6, 2008)

Sec. 5-29.17. Penalty.

(a) Any person who negligently or knowingly violates any provision of this chapter shall be guilty of an infraction and upon conviction shall be punishable by a fine specified in OMC § 1-2.01. Each day a violation occurs shall constitute a separate offense and shall be punishable as such.

(b) Any person who negligently or knowingly violates any provision of this chapter may also be subject to fine(s) specified in the administrative citation schedule of fines set forth in OMC § 1-5.04. The manner of issuing administrative citations shall comply with all the procedures specified in OMC Chapter 5, Title 1.

(c) As an additional remedy, the operation or maintenance of any device, instrument, vehicle or machinery in violation of any provisions of this chapter, which operation or maintenance causes or creates sound levels exceeding the allowable standards as specified in this chapter, shall be deemed and is declared to be a public nuisance and may be subject to abatement by a restraining order or injunction issued by a court of competent jurisdiction.

(d) Any violation of this chapter is declared to be a public nuisance and may be abated in accordance with law. The expense of enforcing this chapter is declared to be public nuisance and may be by resolution of the City Council declared to be a lien and special assessment against the property on which such nuisance is maintained, and any such charge shall also be a personal obligation of the property owner.

(§ 2, Ord. 2888, eff. March 6, 2008)

Sec. 5-29.18. Enforcement and administration.

(a) It shall be the responsibility of Police or Code Enforcement Officers to enforce the provisions of this chapter and to perform all other functions required by this chapter. Such duties shall include, but not be limited to investigating potential violations, issuing warning notices and citations, and providing evidence to the City prosecutor for legal action.

(b) For violations of § 5-29.07, Police or Code Enforcement Officers shall obtain a declaration under penalty of perjury from two (2) declarants living in separate households within a sixty (60) day period stating in detail all of the following:

(1) That the declarant is a resident of a residential neighborhood located within two hundred (200) yards of the noise source; and

(2) Within the past month declarant has heard noise for substantially long periods to the extreme annoyance of the declarant.

(3) Declarations from two (2) declarants are required to prove a violation of §5-29.07, but are not required to prove that a person has violated any other provision of this chapter.

(§ 2, Ord. 2888, eff. March 6, 2008)

Sec. 5-29.19. City Manager waiver.

The City Manager is authorized to grant a temporary waiver to the provisions of this chapter for a period of time necessary to correct the violations of this chapter, if such temporary waiver would be in the public interest and there is no feasible and prudent alternative to the activity, or the method of conducting the activity, for which the temporary waiver is sought. This time period may include a commitment to a program that includes placing necessary orders and entering into necessary contracts within thirty (30) days for repair or installation.

(§ 2, Ord. 2888, eff. March 6, 2008)

Sec. 5-29.20. Noise abatement program.

(a) In circumstances where adopted community-wide noise standards and policies prove impractical in controlling noise generated from a specific source, the City Council may establish a noise abatement program that recognizes the characteristics of the noise source and affected property and that incorporates specialized mitigation measures.

(b) Noise abatement programs shall set forth in detail the approved terms, conditions and requirements for achieving maximum compliance with noise standards and policies. Said terms, conditions and requirements may include, but shall not be limited to, limitations, restrictions, or prohibitions on operating hours, location of operations, and the types of equipment.

(§ 2, Ord. 2888, eff. March 6, 2008)

This page intentionally left blank

APPENDIX 5.1:

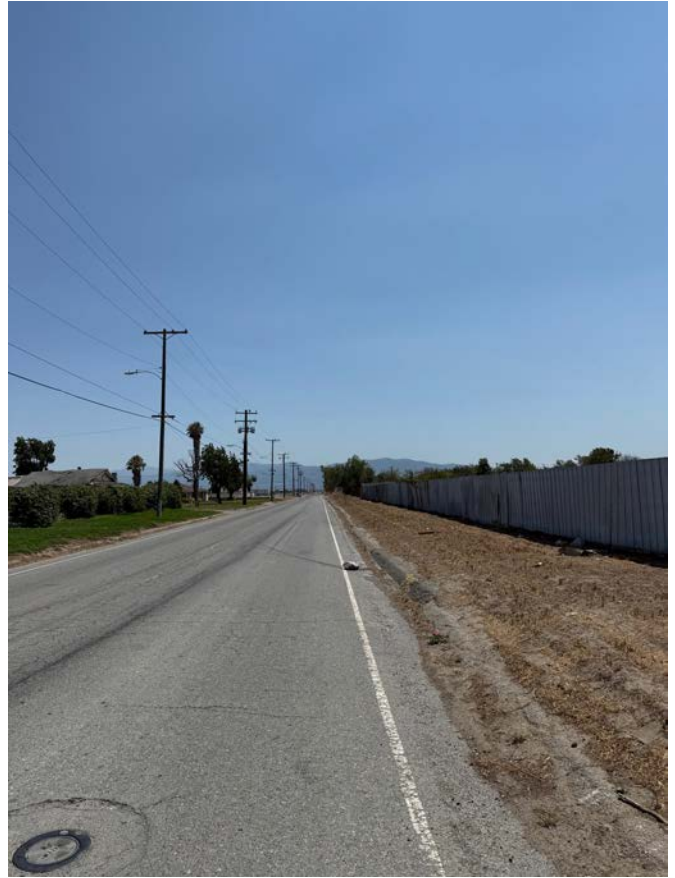
STUDY AREA PHOTOS

This page intentionally left blank

JN:16285



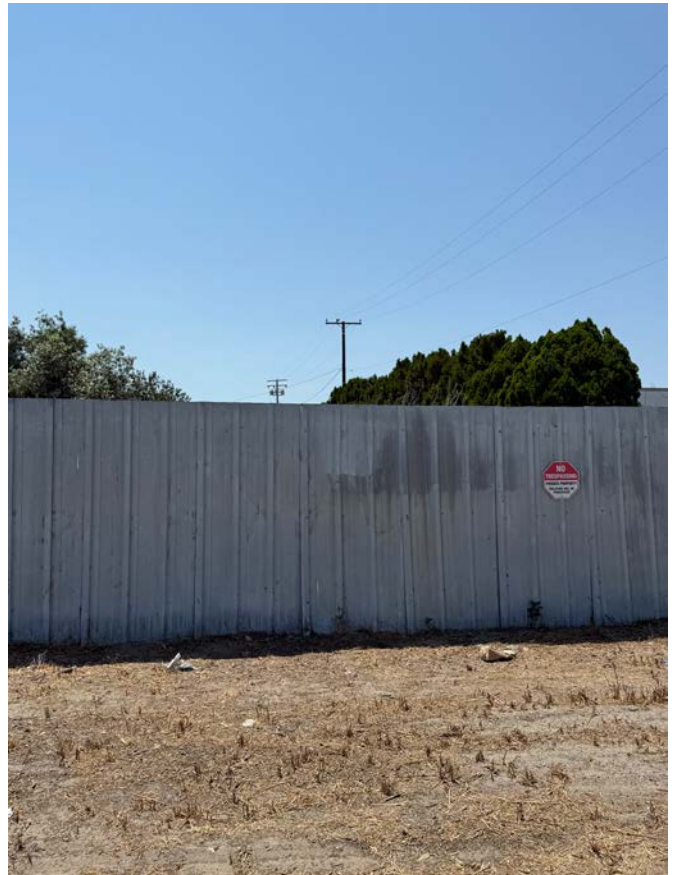
16285_L1_J 1.North
33, 59' 35.180000", 117, 38' 12.650000"



16285_L1_J 2.South
33, 59' 34.940000", 117, 38' 12.630000"



16285_L1_J 3.East
33, 59' 34.940000", 117, 38' 12.600000"

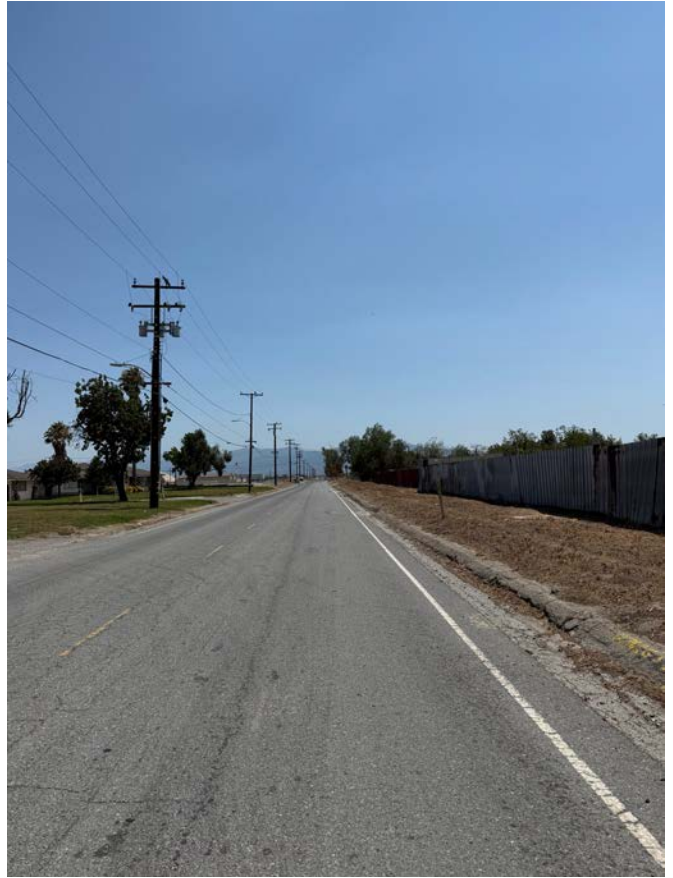


16285_L1_J 4.West
33, 59' 34.730000", 117, 38' 12.650000"

JN:16285



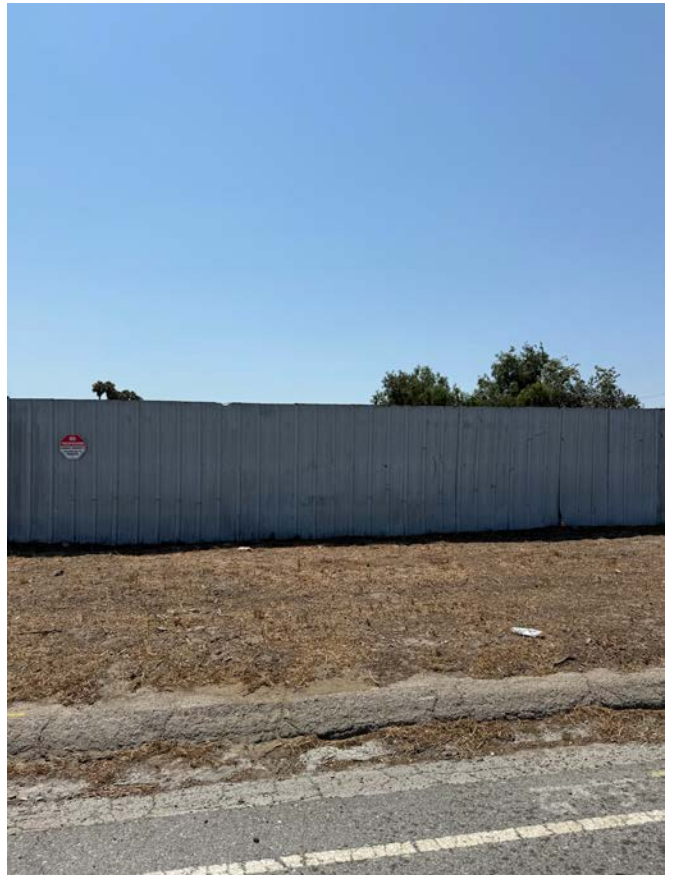
16285_L2_N 1.North
33, 59' 33.540000", 117, 38' 12.600000"



16285_L2_N 2.South
33, 59' 33.330000", 117, 38' 12.600000"



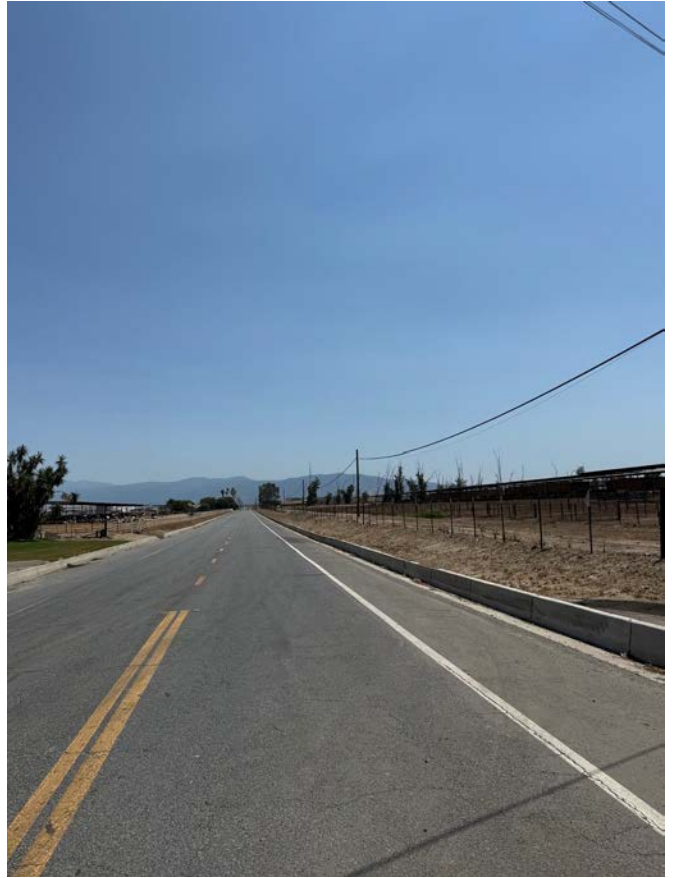
16285_L2_N 3.East
33, 59' 33.340000", 117, 38' 12.570000"



16285_L2_N 4.West
33, 59' 33.250000", 117, 38' 12.540000"



16285_L3_O 1.North
33, 59' 51.440000", 117, 37' 41.370000"



16285_L3_O 2.South
33, 59' 51.250000", 117, 37' 41.290000"



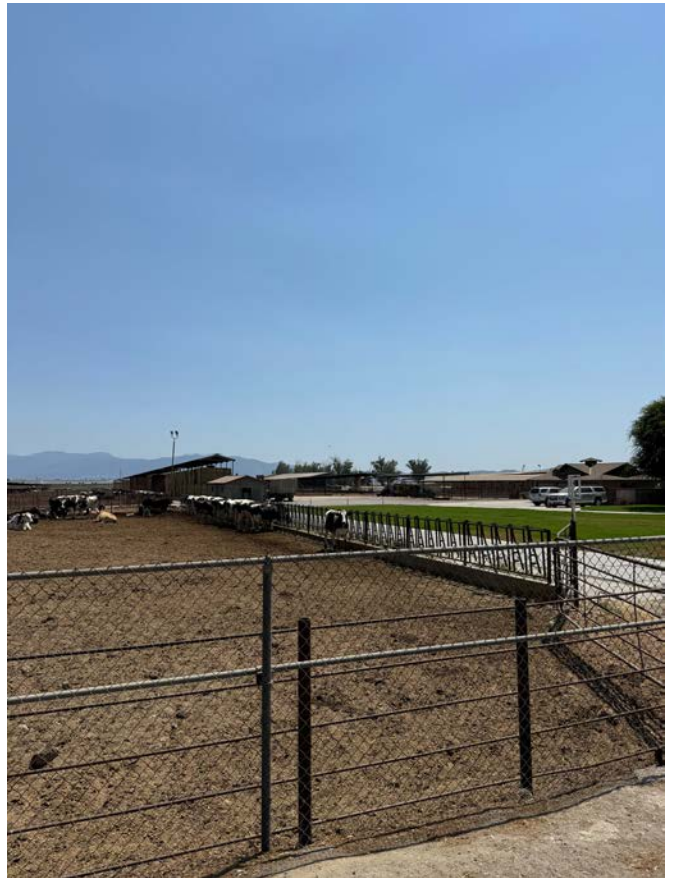
16285_L3_O 3.East
33, 59' 51.310000", 117, 37' 41.320000"



16285_L3_O 4.West
33, 59' 51.180000", 117, 37' 41.320000"



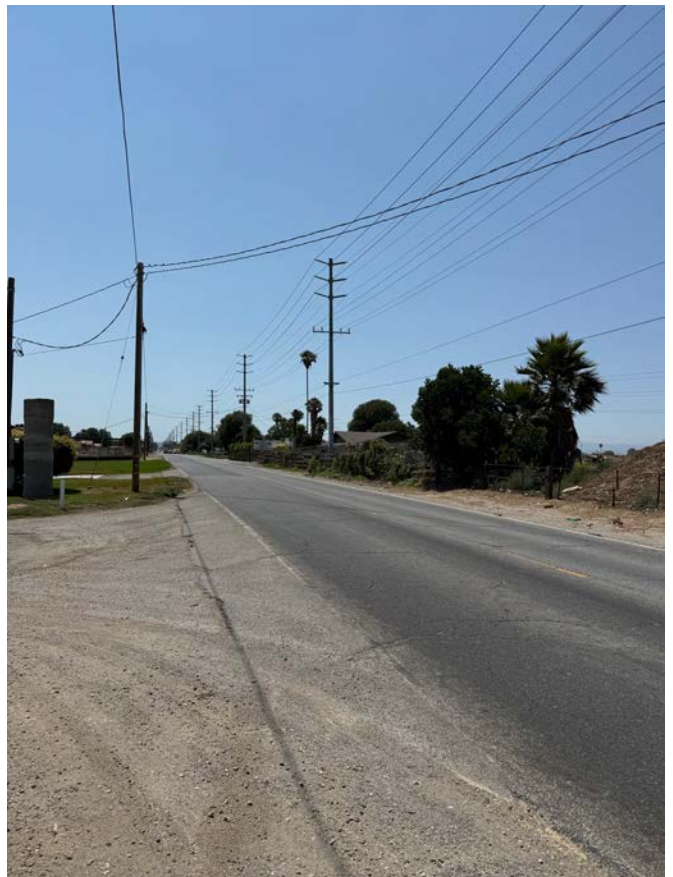
16285_L4_S 1.North
33, 59' 51.730000", 117, 37' 16.710000"



16285_L4_S 2.South
33, 59' 51.720000", 117, 37' 16.760000"



16285_L4_S 3.East
33, 59' 51.750000", 117, 37' 16.460000"

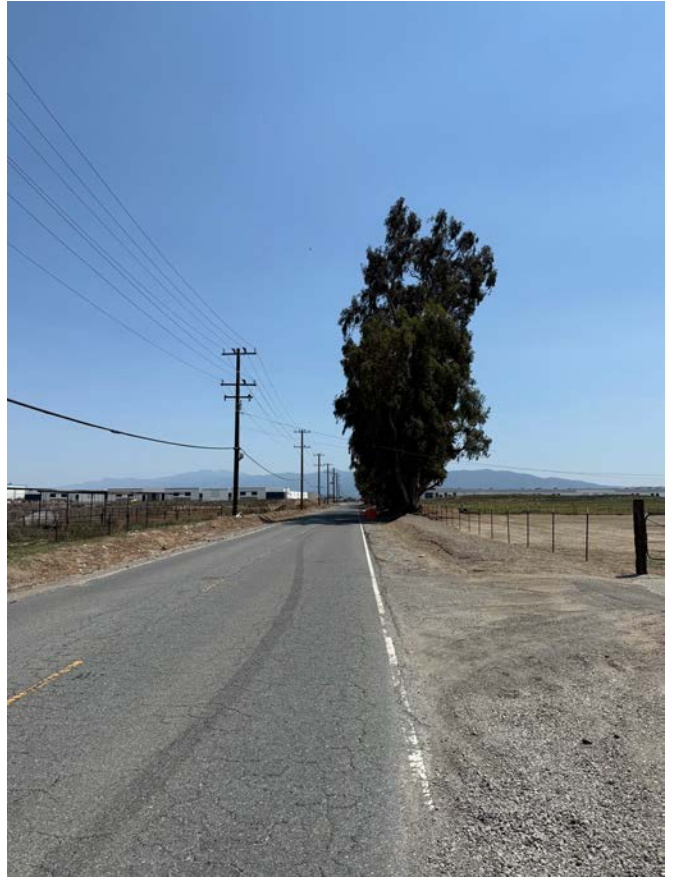


16285_L4_S 4.West
33, 59' 51.710000", 117, 37' 16.760000"

JN:16285



16285_L5_T 1.North
33, 59' 38.410000", 117, 37' 9.870000"



16285_L5_T 2.South
33, 59' 38.140000", 117, 37' 9.840000"



16285_L5_T 3.East
33, 59' 38.160000", 117, 37' 9.810000"



16285_L5_T 4.West
33, 59' 38.150000", 117, 37' 9.920000"



16285_L6_V 1.North
33, 59' 25.160000", 117, 38' 27.620000"



16285_L6_V 2.South
33, 59' 25.150000", 117, 38' 27.650000"



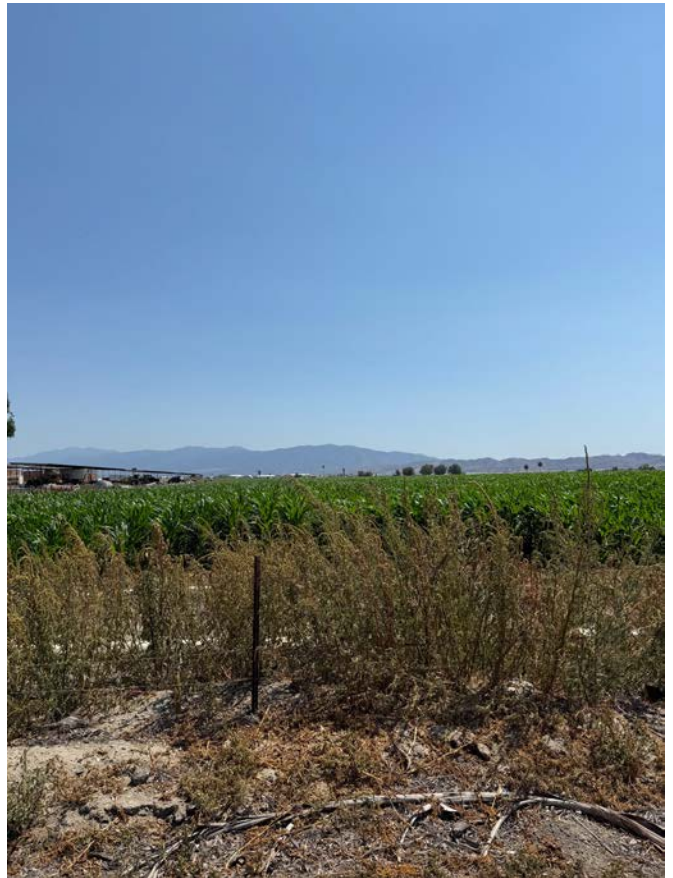
16285_L6_V 3.East
33, 59' 25.020000", 117, 38' 27.650000"



16285_L6_V 4.West
33, 59' 25.050000", 117, 38' 27.680000"



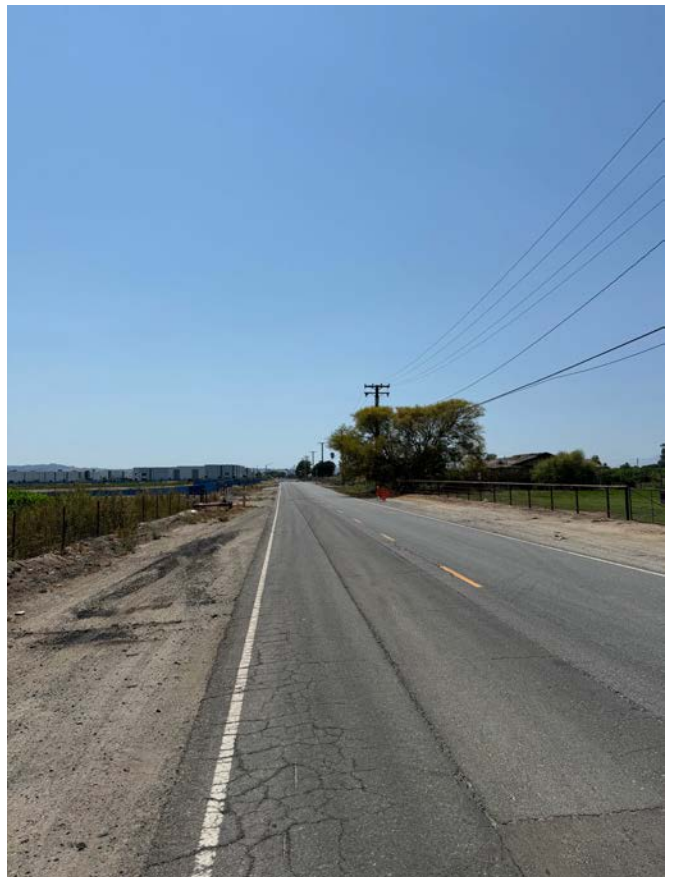
16285_L7_Z 1.North
33, 59' 25.130000", 117, 38' 25.760000"



16285_L7_Z 2.South
33, 59' 25.090000", 117, 38' 25.760000"



16285_L7_Z 3.East
33, 59' 25.170000", 117, 38' 25.480000"



16285_L7_Z 4.West
33, 59' 25.160000", 117, 38' 25.590000"

This page intentionally left blank

APPENDIX 5.2:

NOISE LEVEL MEASUREMENT WORKSHEETS

This page intentionally left blank

24-Hour Noise Level Measurement Summary

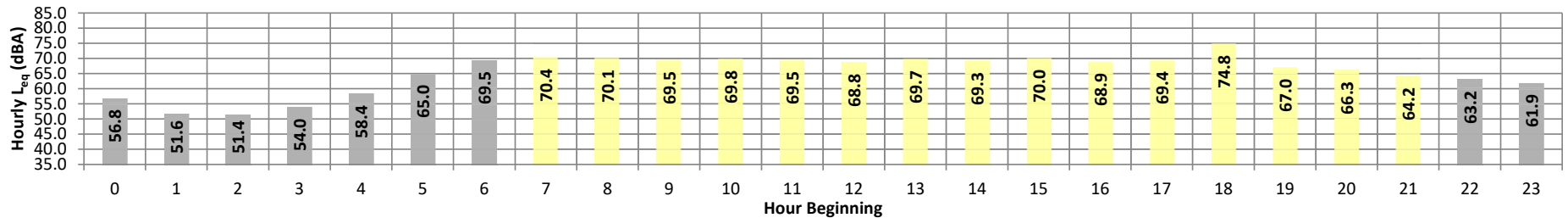
Date: Friday, July 25, 2025
Project: Eucalyptus Business Park

Location: L1 - Located north of the site near the residence at 14353 Bon
Source: View Av.

Meter: Piccolo II

JN: 16285
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	56.8	69.7	45.0	69.1	68.3	65.2	61.8	50.4	47.1	45.8	45.6	45.3	56.8	10.0	66.8
	1	51.6	64.1	44.4	63.6	62.5	58.9	55.5	47.2	46.2	45.1	44.9	44.6	51.6	10.0	61.6
	2	51.4	63.4	45.0	63.0	62.0	58.7	55.4	47.1	46.4	45.7	45.5	45.3	51.4	10.0	61.4
	3	54.0	67.8	44.9	67.2	66.1	60.5	56.5	47.4	46.2	45.5	45.3	45.1	54.0	10.0	64.0
	4	58.4	71.5	41.6	71.1	70.0	66.3	63.2	52.5	44.5	42.4	42.2	41.8	58.4	10.0	68.4
	5	65.0	76.9	39.8	76.4	75.4	72.3	70.5	63.3	54.0	41.9	40.8	39.9	65.0	10.0	75.0
Day	6	69.5	79.9	47.6	79.4	78.4	76.4	74.9	69.7	63.3	52.4	50.3	47.9	69.5	10.0	79.5
	7	70.4	80.3	51.1	79.9	79.0	77.0	75.7	71.0	65.7	54.6	52.7	51.4	70.4	0.0	70.4
	8	70.1	80.4	47.5	79.9	78.9	76.7	75.3	70.5	64.7	52.4	49.8	47.7	70.1	0.0	70.1
	9	69.5	79.5	50.7	79.0	78.1	76.1	74.9	69.9	64.1	53.4	52.0	50.9	69.5	0.0	69.5
	10	69.8	80.2	48.7	79.8	78.8	76.2	74.8	70.3	64.6	52.6	50.7	49.0	69.8	0.0	69.8
	11	69.5	79.6	47.1	79.2	78.3	75.9	74.6	70.2	64.4	50.5	48.7	47.4	69.5	0.0	69.5
	12	68.8	79.1	46.7	78.7	77.7	75.1	73.8	69.3	63.7	50.8	48.9	47.1	68.8	0.0	68.8
	13	69.7	79.9	52.0	79.4	78.6	76.2	74.7	70.2	64.6	55.0	53.6	52.3	69.7	0.0	69.7
	14	69.3	80.4	49.2	79.9	78.8	76.1	74.5	69.4	62.6	52.2	50.9	49.5	69.3	0.0	69.3
	15	70.0	80.6	48.2	80.1	79.1	76.5	75.2	70.4	64.4	52.3	50.6	48.5	70.0	0.0	70.0
	16	68.9	79.2	49.0	78.8	77.8	75.3	74.0	69.4	63.6	52.3	50.6	49.2	68.9	0.0	68.9
	17	69.4	80.3	48.4	79.7	78.6	75.5	73.9	69.9	65.0	52.3	50.2	48.6	69.4	0.0	69.4
	18	74.8	89.4	45.2	88.3	86.5	82.9	78.4	68.3	61.3	48.8	47.0	45.4	74.8	0.0	74.8
	19	67.0	77.0	46.5	76.6	75.8	73.8	72.4	67.4	61.4	50.3	48.5	46.8	67.0	5.0	72.0
	20	66.3	77.7	45.3	77.2	76.1	73.4	71.7	65.7	57.6	46.6	45.9	45.4	66.3	5.0	71.3
Night	21	64.2	74.7	48.8	74.3	73.5	71.2	69.8	64.0	56.8	49.6	49.3	49.0	64.2	5.0	69.2
	22	63.2	75.0	47.7	74.5	73.5	70.5	68.8	61.4	52.7	48.3	48.1	47.9	63.2	10.0	73.2
	23	61.9	74.7	48.2	73.9	72.8	69.6	66.9	58.8	52.1	48.8	48.7	48.4	61.9	10.0	71.9
Timeframe	Hour	L_{eq}	L_{max}	L_{min}	L1%	L2%	L5%	L8%	L25%	L50%	L90%	L95%	L99%			
Day	Min	64.2	74.7	45.2	74.3	73.5	71.2	69.8	64.0	56.8	46.6	45.9	45.4	24-Hour CNEL	Leq (dBA) Daytime (7am-10pm)	Nighttime (10pm-7am)
	Max	74.8	89.4	52.0	88.3	86.5	82.9	78.4	71.0	65.7	55.0	53.6	52.3			
Energy Average		69.8	Average:		79.4	78.4	75.9	74.2	69.1	63.0	51.6	50.0	48.6			
Night	Min	51.4	63.4	39.8	63.0	62.0	58.7	55.4	47.1	44.5	41.9	40.8	39.9	71.5	69.8	62.9
	Max	69.5	79.9	48.2	79.4	78.4	76.4	74.9	69.7	63.3	52.4	50.3	48.4			
Energy Average		62.9	Average:		70.9	69.9	66.5	63.7	55.3	50.3	46.2	45.7	45.1			

24-Hour Noise Level Measurement Summary

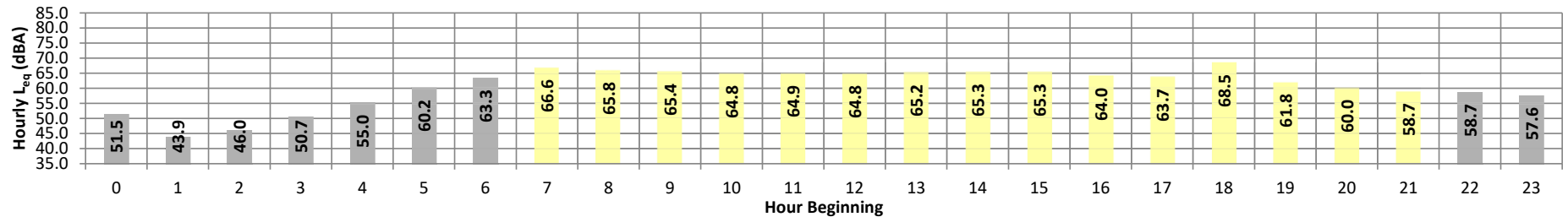
Date: Friday, July 25, 2025
Project: Eucalyptus Business Park

Location: L2 - Located north of the site near the residence at 14333 Bon
Source: View Av.

Meter: Piccolo II

JN: 16285
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	51.5	63.3	38.8	63.0	62.4	60.1	57.3	45.9	41.2	39.4	39.2	39.0	51.5	10.0	61.5
	1	43.9	54.0	38.7	53.7	53.3	51.2	48.4	41.6	40.0	39.2	39.1	38.9	43.9	10.0	53.9
	2	46.0	58.0	38.5	57.7	57.1	53.9	50.1	41.1	39.9	39.2	39.0	38.7	46.0	10.0	56.0
	3	50.7	63.8	40.0	63.5	62.7	59.0	54.4	43.2	41.5	40.7	40.5	40.2	50.7	10.0	60.7
	4	55.0	67.8	39.1	67.5	66.8	63.2	60.1	48.8	41.8	39.9	39.7	39.3	55.0	10.0	65.0
	5	60.2	72.4	37.0	72.1	71.4	68.2	65.2	56.8	48.8	39.2	38.2	37.2	60.2	10.0	70.2
	6	63.3	74.0	42.7	73.7	73.0	70.8	69.1	62.4	55.6	45.8	44.2	42.9	63.3	10.0	73.3
Day	7	66.6	76.6	47.2	76.3	75.5	73.3	72.1	67.0	60.6	50.9	49.3	47.4	66.6	0.0	66.6
	8	65.8	75.6	45.8	75.2	74.5	72.5	71.5	66.2	58.9	48.7	47.2	46.0	65.8	0.0	65.8
	9	65.4	75.5	45.8	75.1	74.3	72.2	70.6	65.9	59.8	48.9	47.1	46.0	65.4	0.0	65.4
	10	64.8	74.3	45.8	73.9	73.3	71.7	70.3	65.5	58.7	48.8	47.2	46.0	64.8	0.0	64.8
	11	64.9	75.2	45.1	74.9	74.1	71.7	70.2	65.0	58.8	48.4	46.8	45.4	64.9	0.0	64.9
	12	64.8	76.0	44.2	75.6	74.7	71.6	69.8	64.4	57.3	46.9	45.5	44.4	64.8	0.0	64.8
	13	65.2	74.9	50.5	74.6	73.8	71.8	70.3	65.6	59.8	52.9	51.7	50.7	65.2	0.0	65.2
	14	65.3	76.0	48.7	75.4	74.5	72.2	70.7	65.1	58.3	51.2	50.2	49.0	65.3	0.0	65.3
	15	65.3	75.8	47.8	75.4	74.6	72.2	70.6	65.2	58.7	50.5	49.2	48.0	65.3	0.0	65.3
	16	64.0	73.8	46.5	73.5	72.8	70.6	69.4	64.4	58.3	49.8	48.0	46.7	64.0	0.0	64.0
	17	63.7	73.9	45.2	73.6	72.9	70.6	69.1	63.8	57.8	48.1	46.6	45.4	63.7	0.0	63.7
	18	68.5	81.4	45.0	81.0	80.4	77.0	73.5	62.3	56.0	47.7	46.4	45.2	68.5	0.0	68.5
	19	61.8	72.5	45.6	72.2	71.5	69.1	67.3	61.0	55.1	47.9	46.8	45.8	61.8	5.0	66.8
	20	60.0	71.0	45.1	70.7	70.1	67.6	65.6	58.4	52.9	46.8	46.1	45.3	60.0	5.0	65.0
		21	58.7	69.9	48.1	69.6	68.9	66.0	63.9	56.8	52.5	49.2	48.8	48.4	58.7	5.0
Night	22	58.7	70.1	49.0	69.7	69.0	66.2	63.7	55.9	52.3	50.0	49.7	49.3	58.7	10.0	68.7
	23	57.6	69.3	48.5	68.9	68.2	65.0	62.3	54.0	51.1	49.4	49.2	48.8	57.6	10.0	67.6
Timeframe	Hour	L _{eq}	L _{max}	L _{min}	L1%	L2%	L5%	L8%	L25%	L50%	L90%	L95%	L99%	24-Hour CNEL	Leq (dBA)	
Day	Min	58.7	69.9	44.2	69.6	68.9	66.0	63.9	56.8	52.5	46.8	45.5	44.4		Daytime (7am-10pm)	Nighttime (10pm-7am)
	Max	68.5	81.4	50.5	81.0	80.4	77.0	73.5	67.0	60.6	52.9	51.7	50.7			
Energy Average		64.9	Average:		74.5	73.7	71.3	69.7	63.8	57.6	49.1	47.8	46.6			
Night	Min	43.9	54.0	37.0	53.7	53.3	51.2	48.4	41.1	39.9	39.2	38.2	37.2			
	Max	63.3	74.0	49.0	73.7	73.0	70.8	69.1	62.4	55.6	50.0	49.7	49.3			
Energy Average		57.6	Average:		65.5	64.9	62.0	59.0	50.0	45.8	42.5	42.1	41.6			

24-Hour Noise Level Measurement Summary

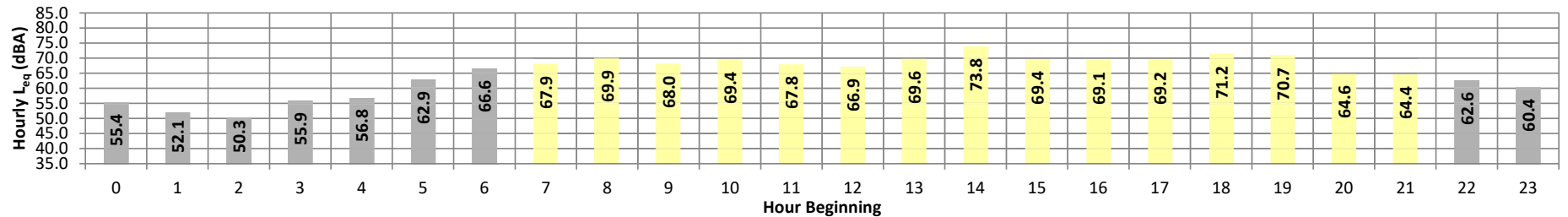
Date: Friday, July 25, 2025
Project: Eucalyptus Business Park

Location: L3 - Located north of the site near the residence at 14117 S.
Source: Grove Av.

Meter: Piccolo II

JN: 16285
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	55.4	66.2	40.0	65.8	65.2	62.9	60.5	54.5	50.0	42.1	41.1	40.2	55.4	10.0	65.4	
	1	52.1	62.7	39.9	62.2	61.6	59.3	57.1	51.6	46.5	40.9	40.5	40.0	52.1	10.0	62.1	
	2	50.3	61.9	38.3	61.6	60.9	57.9	55.0	48.4	44.1	39.0	38.7	38.4	50.3	10.0	60.3	
	3	55.9	68.3	37.8	68.0	67.2	64.1	61.5	51.0	44.0	39.2	38.6	38.0	55.9	10.0	65.9	
	4	56.8	68.4	40.0	68.2	67.6	64.9	62.0	53.9	49.0	42.0	41.1	40.2	56.8	10.0	66.8	
	5	62.9	72.3	50.5	71.9	71.4	69.7	68.1	62.6	58.9	52.7	51.9	50.7	62.9	10.0	72.9	
	6	66.6	76.4	55.2	76.0	75.4	73.1	71.3	66.4	62.8	57.4	56.4	55.4	66.6	10.0	76.6	
Day	7	67.9	76.7	57.1	76.4	75.9	74.0	72.4	68.4	64.7	59.0	58.0	57.3	67.9	0.0	67.9	
	8	69.9	81.2	58.2	80.7	79.9	76.7	74.2	68.8	65.3	60.2	59.3	58.4	69.9	0.0	69.9	
	9	68.0	77.9	56.3	77.5	76.8	74.4	72.7	68.0	64.1	58.5	57.3	56.5	68.0	0.0	68.0	
	10	69.4	80.0	56.2	79.6	78.9	76.2	74.0	68.8	64.9	58.4	57.3	56.4	69.4	0.0	69.4	
	11	67.8	77.2	54.9	76.8	76.2	74.2	72.7	68.0	63.9	57.3	56.3	55.1	67.8	0.0	67.8	
	12	66.9	76.2	54.1	75.8	75.1	72.9	71.6	67.5	63.4	56.8	55.6	54.3	66.9	0.0	66.9	
	13	69.6	80.2	56.4	79.7	78.9	76.5	74.7	68.9	65.1	59.3	58.1	56.7	69.6	0.0	69.6	
	14	73.8	87.2	55.9	86.7	85.7	81.4	77.1	69.2	65.5	58.7	57.5	56.3	73.8	0.0	73.8	
	15	69.4	78.4	56.6	78.0	77.4	75.3	74.0	69.6	66.6	59.5	58.1	56.9	69.4	0.0	69.4	
	16	69.1	79.2	55.6	78.6	78.1	75.8	73.5	68.9	65.3	58.7	57.1	55.8	69.1	0.0	69.1	
	17	69.2	79.8	56.1	79.3	78.4	75.9	73.8	68.9	65.0	58.6	57.6	56.4	69.2	0.0	69.2	
	18	71.2	84.0	54.6	83.6	82.6	78.5	75.5	67.9	63.8	57.0	55.8	54.7	71.2	0.0	71.2	
	19	70.7	84.1	52.3	83.3	82.5	78.4	74.6	66.5	62.5	55.0	53.8	52.5	70.7	5.0	75.7	
	20	64.6	74.4	53.3	73.8	73.2	71.2	69.4	64.6	61.1	55.3	54.4	53.5	64.6	5.0	69.6	
	21	64.4	76.0	52.6	75.7	74.6	71.1	68.5	63.4	59.5	54.5	53.5	52.7	64.4	5.0	69.4	
	Night	22	62.6	72.5	51.5	72.3	71.7	69.3	67.3	62.4	58.1	53.1	52.3	51.6	62.6	10.0	72.6
23		60.4	70.7	50.4	70.3	69.7	67.1	65.2	60.0	55.5	51.5	51.0	50.6	60.4	10.0	70.4	
Timeframe	Hour	L _{eq}	L _{max}	L _{min}	L1%	L2%	L5%	L8%	L25%	L50%	L90%	L95%	L99%	24-Hour CNEL	Leq (dBA)		
Day	Min	64.4	74.4	52.3	73.8	73.2	71.1	68.5	63.4	59.5	54.5	53.5	52.5		Daytime (7am-10pm)	Nighttime (10pm-7am)	
	Max	73.8	87.2	58.2	86.7	85.7	81.4	77.1	69.6	66.6	60.2	59.3	58.4				
Energy Average		69.4	Average:		79.0	78.3	75.5	73.2	67.8	64.0	57.8	56.6	55.6		70.6	69.4	60.8
Night	Min	50.3	61.9	37.8	61.6	60.9	57.9	55.0	48.4	44.0	39.0	38.6	38.0				
	Max	66.6	76.4	55.2	76.0	75.4	73.1	71.3	66.4	62.8	57.4	56.4	55.4				
Energy Average		60.8	Average:		68.5	67.9	65.4	63.1	56.8	52.1	46.4	45.7	45.0				

24-Hour Noise Level Measurement Summary

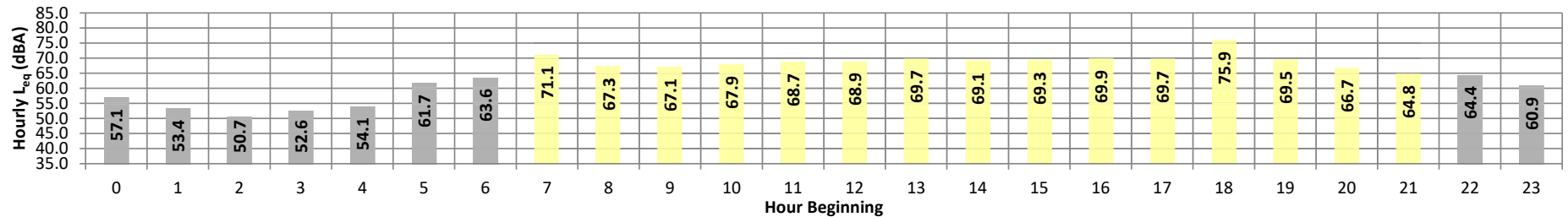
Date: Friday, July 25, 2025
Project: Eucalyptus Business Park

Location: L4 - Located north of the site near the residence at 8377
Source: Edison Av.

Meter: Piccolo II

JN: 16285
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	57.1	69.4	39.4	68.8	68.0	65.1	62.3	53.2	48.2	41.6	40.2	39.5	57.1	10.0	67.1
	1	53.4	65.3	43.1	64.9	64.1	61.2	58.5	50.0	45.9	43.6	43.4	43.1	53.4	10.0	63.4
	2	50.7	62.4	39.2	62.0	61.3	58.7	56.4	46.9	42.1	39.8	39.6	39.3	50.7	10.0	60.7
	3	52.6	65.1	37.4	64.8	64.0	60.6	57.7	48.7	42.2	38.1	37.8	37.5	52.6	10.0	62.6
	4	54.1	65.2	37.4	64.8	64.1	61.7	59.6	52.5	46.5	39.8	38.5	37.8	54.1	10.0	64.1
	5	61.7	74.1	43.5	73.6	72.6	69.3	66.5	59.2	53.4	45.6	44.5	43.8	61.7	10.0	71.7
	6	63.6	73.0	47.0	72.6	72.0	70.2	69.0	64.0	59.0	49.7	48.2	47.2	63.6	10.0	73.6
Day	7	71.1	84.9	51.9	84.4	83.1	78.4	74.1	66.2	62.0	54.7	53.4	52.1	71.1	0.0	71.1
	8	67.3	75.8	55.3	75.4	74.8	73.5	72.3	67.9	63.9	57.6	56.6	55.5	67.3	0.0	67.3
	9	67.1	75.5	54.7	75.2	74.7	73.3	72.2	67.7	63.4	57.1	56.0	55.0	67.1	0.0	67.1
	10	67.9	76.1	54.8	75.8	75.3	74.1	73.0	68.9	64.1	57.3	56.2	55.0	67.9	0.0	67.9
	11	68.7	78.7	55.1	78.3	77.5	75.3	73.7	68.7	64.2	57.8	56.7	55.4	68.7	0.0	68.7
	12	68.9	78.3	54.9	78.0	77.4	75.4	74.0	69.0	64.2	57.5	56.3	55.2	68.9	0.0	68.9
	13	69.7	79.9	56.9	79.5	78.6	76.2	74.3	69.9	65.4	59.4	58.4	57.2	69.7	0.0	69.7
	14	69.1	78.6	55.8	78.2	77.5	75.6	74.0	69.5	64.4	58.2	57.1	56.1	69.1	0.0	69.1
	15	69.3	78.0	56.2	77.7	77.0	75.3	74.3	70.3	65.1	58.6	57.5	56.5	69.3	0.0	69.3
	16	69.9	80.0	55.4	79.5	78.8	76.6	74.8	69.8	65.0	58.0	56.8	55.6	69.9	0.0	69.9
	17	69.7	79.5	56.3	79.1	78.4	76.0	74.5	70.2	64.9	58.7	57.8	56.7	69.7	0.0	69.7
	18	75.9	88.8	54.5	87.8	86.4	85.0	82.3	69.7	64.4	57.2	55.9	54.8	75.9	0.0	75.9
	19	69.5	80.5	53.4	80.1	79.2	76.6	74.9	68.8	62.4	55.7	54.6	53.6	69.5	5.0	74.5
	20	66.7	76.8	51.4	76.3	75.6	73.8	72.4	66.4	60.6	53.5	52.4	51.6	66.7	5.0	71.7
	21	64.8	75.2	50.3	74.8	74.1	72.2	70.4	63.9	58.6	52.5	51.5	50.5	64.8	5.0	69.8
Night	22	64.4	76.8	50.0	76.3	75.3	71.7	69.3	61.7	56.9	51.5	50.7	50.2	64.4	10.0	74.4
	23	60.9	74.1	44.8	73.6	72.6	68.6	64.7	56.4	50.6	45.7	45.3	44.9	60.9	10.0	70.9
Timeframe	Hour	L_{eq}	L_{max}	L_{min}	L1%	L2%	L5%	L8%	L25%	L50%	L90%	L95%	L99%			
Day	Min	64.8	75.2	50.3	74.8	74.1	72.2	70.4	63.9	58.6	52.5	51.5	50.5	24-Hour CNEL	Leq (dBA) Daytime (7am-10pm) Nighttime (10pm-7am)	
	Max	75.9	88.8	56.9	87.8	86.4	85.0	82.3	70.3	65.4	59.4	58.4	57.2			
Energy Average		69.9	Average:		78.7	77.9	75.8	74.1	68.5	63.5	56.9	55.8	54.7			
Night	Min	50.7	62.4	37.4	62.0	61.3	58.7	56.4	46.9	42.1	38.1	37.8	37.5	70.5	69.9	60.0
	Max	64.4	76.8	50.0	76.3	75.3	71.7	69.3	64.0	59.0	51.5	50.7	50.2			
Energy Average		60.0	Average:		69.0	68.2	65.2	62.7	54.7	49.4	43.9	43.1	42.6			

24-Hour Noise Level Measurement Summary

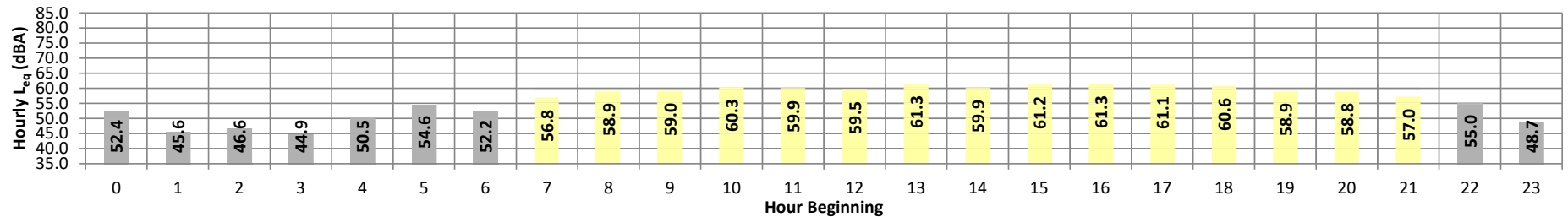
Date: Friday, July 25, 2025
Project: Eucalyptus Business Park

Location: L5 - Located north of the site near the residence at 14350
Source: Walker Av.

Meter: Piccolo II

JN: 16285
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	52.4	63.6	46.2	63.3	62.4	59.7	57.5	48.8	47.6	46.8	46.5	46.3	52.4	10.0	62.4
	1	45.6	54.5	41.4	54.1	53.4	50.4	48.2	44.9	43.9	42.3	41.9	41.5	45.6	10.0	55.6
	2	46.6	59.0	35.3	58.7	57.9	54.5	51.7	40.3	36.8	35.6	35.5	35.3	46.6	10.0	56.6
	3	44.9	56.8	37.2	56.6	56.0	52.5	49.3	39.6	37.9	37.5	37.4	37.3	44.9	10.0	54.9
	4	50.5	58.3	48.6	58.1	57.5	54.7	52.6	49.6	49.3	48.7	48.7	48.6	50.5	10.0	60.5
	5	54.6	61.8	52.9	61.6	61.1	58.6	56.9	53.9	53.4	53.1	53.1	53.0	54.6	10.0	64.6
Day	6	52.2	65.1	39.8	64.7	63.7	59.9	56.3	47.5	43.4	40.5	40.2	39.9	52.2	10.0	62.2
	7	56.8	68.6	42.5	68.2	67.4	64.7	62.5	53.0	48.0	44.0	43.5	42.8	56.8	0.0	56.8
	8	58.9	70.4	40.5	70.1	69.3	66.8	64.9	56.0	47.5	42.0	41.3	40.7	58.9	0.0	58.9
	9	59.0	71.0	39.6	70.7	69.7	67.1	65.1	55.3	47.1	41.0	40.4	39.8	59.0	0.0	59.0
	10	60.3	72.5	40.4	71.7	70.3	67.4	65.6	57.7	48.4	41.8	41.1	40.5	60.3	0.0	60.3
	11	59.9	72.0	41.8	71.5	70.4	67.6	65.9	57.7	50.3	43.3	42.7	42.0	59.9	0.0	59.9
	12	59.5	71.5	41.2	71.1	70.2	67.5	65.5	55.8	48.2	42.6	42.1	41.4	59.5	0.0	59.5
	13	61.3	73.4	45.0	72.9	71.8	69.1	67.2	58.0	51.8	46.5	45.8	45.1	61.3	0.0	61.3
	14	59.9	71.4	43.2	71.1	70.3	67.7	65.6	57.4	50.2	44.8	44.1	43.3	59.9	0.0	59.9
	15	61.2	73.0	43.3	72.6	71.7	69.0	67.0	58.1	49.6	44.7	44.1	43.5	61.2	0.0	61.2
	16	61.3	73.0	43.1	72.6	71.8	69.3	67.7	57.4	49.0	44.5	43.9	43.3	61.3	0.0	61.3
	17	61.1	73.7	42.4	73.3	72.2	68.7	66.2	57.9	48.8	43.7	43.1	42.6	61.1	0.0	61.1
	18	60.6	72.4	42.4	72.0	71.1	68.4	66.6	57.9	49.0	44.0	43.2	42.6	60.6	0.0	60.6
	19	58.9	70.1	40.7	69.7	69.0	66.7	65.1	57.0	47.8	42.1	41.5	40.9	58.9	5.0	63.9
	20	58.8	71.6	43.9	71.2	70.2	66.5	63.7	54.2	47.5	44.6	44.3	44.1	58.8	5.0	63.8
	21	57.0	69.1	43.8	68.7	67.9	64.8	62.3	53.7	47.7	44.5	44.2	44.0	57.0	5.0	62.0
Night	22	55.0	67.0	44.2	66.7	65.9	62.9	60.1	50.1	46.2	44.6	44.5	44.3	55.0	10.0	65.0
	23	48.7	57.6	46.0	57.2	56.3	53.2	51.1	47.7	47.1	46.5	46.3	46.1	48.7	10.0	58.7
Timeframe	Hour	L_{eq}	L_{max}	L_{min}	L1%	L2%	L5%	L8%	L25%	L50%	L90%	L95%	L99%			
Day	Min	56.8	68.6	39.6	68.2	67.4	64.7	62.3	53.0	47.1	41.0	40.4	39.8	24-Hour CNEL	Leq (dBA) Daytime (7am-10pm)	Nighttime (10pm-7am)
	Max	61.3	73.7	45.0	73.3	72.2	69.3	67.7	58.1	51.8	46.5	45.8	45.1			
Energy Average		59.8	Average:		71.2	70.2	67.4	65.4	56.5	48.7	43.6	43.0	42.4			
Night	Min	44.9	54.5	35.3	54.1	53.4	50.4	48.2	39.6	36.8	35.6	35.5	35.3	61.2	59.8	51.4
	Max	55.0	67.0	52.9	66.7	65.9	62.9	60.1	53.9	53.4	53.1	53.1	53.0			
Energy Average		51.4	Average:		60.1	59.4	56.3	53.8	46.9	45.1	44.0	43.8	43.6			

24-Hour Noise Level Measurement Summary

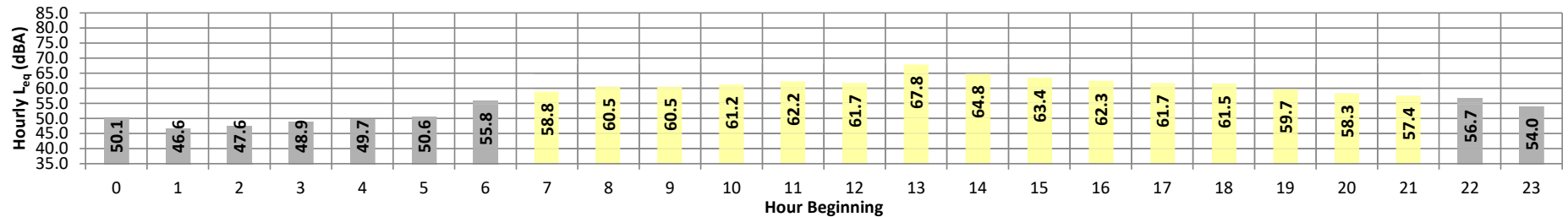
Date: Friday, July 25, 2025
Project: Eucalyptus Business Park

Location: L6 - Located south of the site near the residence at 7566
Source: Eucalyptus Av.

Meter: Piccolo II

JN: 16285
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	50.1	62.1	41.0	61.8	61.1	58.2	55.3	44.5	43.2	42.1	41.7	41.2	50.1	10.0	60.1
	1	46.6	57.7	41.1	57.4	56.7	53.2	50.3	43.5	42.6	41.6	41.4	41.2	46.6	10.0	56.6
	2	47.6	59.5	40.1	59.2	58.4	55.0	51.6	43.2	42.2	40.8	40.6	40.3	47.6	10.0	57.6
	3	48.9	58.7	44.8	58.4	57.7	54.6	51.9	47.4	46.5	45.5	45.2	45.0	48.9	10.0	58.9
	4	49.7	61.1	44.4	60.6	59.7	55.9	52.6	46.9	46.3	45.2	44.9	44.5	49.7	10.0	59.7
	5	50.6	64.2	33.2	63.7	62.9	58.7	54.9	40.4	35.5	33.9	33.6	33.4	50.6	10.0	60.6
Day	6	55.8	68.4	33.6	68.1	67.3	64.2	61.3	49.8	39.6	34.8	34.3	33.8	55.8	10.0	65.8
	7	58.8	70.4	38.6	70.0	69.3	66.9	65.0	55.6	47.2	40.8	40.2	39.1	58.8	0.0	58.8
	8	60.5	71.4	38.4	71.1	70.4	68.1	66.4	59.3	51.5	40.4	39.2	38.5	60.5	0.0	60.5
	9	60.5	71.1	38.1	70.7	70.1	68.2	66.9	58.9	50.3	39.6	38.9	38.3	60.5	0.0	60.5
	10	61.2	72.3	39.4	71.9	71.1	68.6	66.9	60.0	52.5	42.6	40.9	39.7	61.2	0.0	61.2
	11	62.2	72.4	44.3	72.0	71.2	69.2	67.7	62.1	56.5	47.6	46.4	44.7	62.2	0.0	62.2
	12	61.7	72.5	43.3	72.1	71.4	69.2	67.5	60.4	54.1	46.3	45.0	43.8	61.7	0.0	61.7
	13	67.8	75.7	53.2	75.3	74.7	73.3	72.4	69.0	65.4	57.5	55.6	53.6	67.8	0.0	67.8
	14	64.8	73.1	49.2	72.7	72.1	70.5	69.6	65.9	61.6	53.5	51.7	49.9	64.8	0.0	64.8
	15	63.4	72.3	48.5	71.9	71.3	69.5	68.5	64.0	59.7	51.7	50.4	49.0	63.4	0.0	63.4
	16	62.3	72.1	46.1	71.7	71.0	69.2	67.9	62.3	57.1	49.1	47.9	46.5	62.3	0.0	62.3
	17	61.7	72.3	46.3	71.8	70.9	68.2	66.8	61.5	56.6	49.3	48.2	46.7	61.7	0.0	61.7
	18	61.5	72.3	45.4	71.9	71.0	68.5	66.8	60.8	55.2	48.4	47.0	45.7	61.5	0.0	61.5
	19	59.7	70.6	43.0	70.2	69.5	67.4	65.7	58.0	50.7	45.2	44.2	43.2	59.7	5.0	64.7
	20	58.3	69.8	47.5	69.3	68.6	66.0	63.9	55.3	50.4	48.4	48.1	47.7	58.3	5.0	63.3
	21	57.4	69.2	48.2	68.8	68.0	65.0	62.8	54.0	50.2	48.8	48.6	48.4	57.4	5.0	62.4
Night	22	56.7	68.0	50.3	67.6	66.9	63.8	60.9	53.3	51.9	51.0	50.8	50.5	56.7	10.0	66.7
	23	54.0	59.1	52.6	58.8	58.4	56.5	55.3	53.8	53.4	53.0	52.9	52.7	54.0	10.0	64.0
Timeframe	Hour	L_{eq}	L_{max}	L_{min}	L1%	L2%	L5%	L8%	L25%	L50%	L90%	L95%	L99%			
Day	Min	57.4	69.2	38.1	68.8	68.0	65.0	62.8	54.0	47.2	39.6	38.9	38.3	24-Hour CNEL	Leq (dBA) Daytime (7am-10pm) Nighttime (10pm-7am)	
	Max	67.8	75.7	53.2	75.3	74.7	73.3	72.4	69.0	65.4	57.5	55.6	53.6			
Energy Average		62.3	Average:		71.4	70.7	68.5	67.0	60.5	54.6	47.3	46.1	45.0			
Night	Min	46.6	57.7	33.2	57.4	56.7	53.2	50.3	40.4	35.5	33.9	33.6	33.4	62.8	62.3	52.5
	Max	56.7	68.4	52.6	68.1	67.3	64.2	61.3	53.8	53.4	53.0	52.9	52.7			
Energy Average		52.5	Average:		61.7	61.0	57.8	54.9	47.0	44.6	43.1	42.8	42.5			

24-Hour Noise Level Measurement Summary

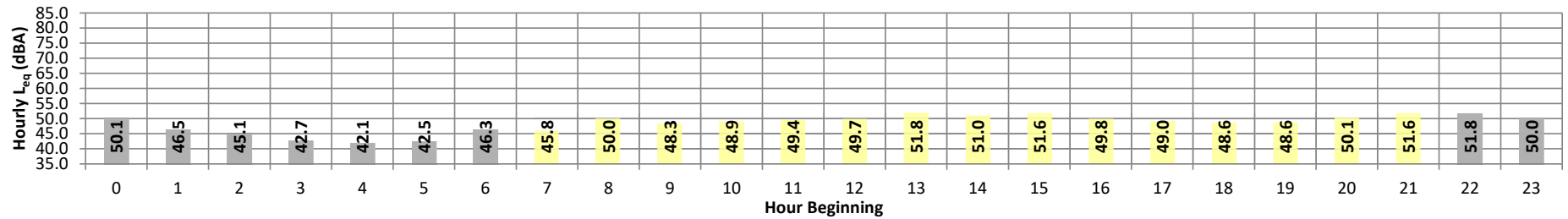
Date: Friday, July 25, 2025
Project: Eucalyptus Business Park

Location: L7 - Located west of the site near the residence at 7511
Source: Eucalyptus Av.

Meter: Piccolo II

JN: 16285
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	50.1	52.6	48.7	52.5	52.3	51.8	51.4	50.2	49.8	49.1	49.0	48.8	50.1	10.0	60.1
	1	46.5	49.0	45.4	48.8	48.5	48.0	47.5	46.7	46.3	45.8	45.7	45.5	46.5	10.0	56.5
	2	45.1	47.8	44.0	47.5	47.2	46.4	46.0	45.2	44.9	44.4	44.3	44.1	45.1	10.0	55.1
	3	42.7	46.8	38.0	46.5	46.1	45.0	43.9	40.0	39.2	38.5	38.4	38.2	42.7	10.0	52.7
	4	42.1	47.6	39.6	47.2	46.7	44.9	44.1	41.5	40.6	40.0	39.9	39.7	42.1	10.0	52.1
	5	42.5	51.2	34.0	50.2	49.3	46.6	45.0	39.9	36.1	34.4	34.2	34.0	42.5	10.0	52.5
Day	6	46.3	54.2	33.0	53.1	52.3	49.8	47.8	42.4	38.3	33.9	33.5	33.2	46.3	10.0	56.3
	7	45.8	54.5	35.1	54.2	53.7	52.0	50.8	46.7	41.7	36.1	35.6	35.2	45.8	0.0	45.8
	8	50.0	58.5	37.9	58.1	57.6	55.8	54.6	50.9	46.9	40.3	39.1	38.1	50.0	0.0	50.0
	9	48.3	56.9	36.5	56.4	55.9	54.3	53.2	49.1	44.7	38.3	37.6	36.7	48.3	0.0	48.3
	10	48.9	57.3	37.9	56.9	56.4	55.0	53.7	49.5	45.9	40.3	39.0	38.1	48.9	0.0	48.9
	11	49.4	59.1	39.2	58.6	57.8	55.3	53.8	49.7	46.0	40.8	40.0	39.3	49.4	0.0	49.4
	12	49.7	59.2	37.9	58.7	58.2	56.1	54.6	49.9	45.5	39.6	38.9	38.1	49.7	0.0	49.7
	13	51.8	60.3	42.2	59.8	59.3	57.6	56.3	52.3	48.9	43.9	43.2	42.4	51.8	0.0	51.8
	14	51.0	60.9	41.1	60.6	59.9	57.4	55.4	50.9	47.2	42.7	42.0	41.3	51.0	0.0	51.0
	15	51.6	61.3	41.2	60.7	60.0	58.5	57.1	51.2	47.4	43.0	42.3	41.4	51.6	0.0	51.6
	16	49.8	58.2	39.9	57.8	57.4	55.7	54.7	50.4	46.8	41.4	40.8	40.1	49.8	0.0	49.8
	17	49.0	57.2	39.6	56.8	56.3	54.9	53.9	49.7	45.8	41.2	40.5	39.8	49.0	0.0	49.0
	18	48.6	56.8	39.7	56.4	55.9	54.4	53.1	49.4	45.8	41.3	40.6	39.9	48.6	0.0	48.6
	19	48.6	56.8	40.2	56.4	56.1	54.7	53.5	49.2	45.5	41.4	40.9	40.3	48.6	5.0	53.6
	20	50.1	56.8	46.5	56.4	55.8	54.4	53.1	50.6	48.9	47.1	46.8	46.5	50.1	5.0	55.1
Night	21	51.6	56.4	49.0	56.1	55.8	55.0	54.2	52.1	50.9	49.6	49.4	49.1	51.6	5.0	56.6
	22	51.8	56.1	50.2	55.7	55.3	54.3	53.5	52.0	51.4	50.7	50.6	50.3	51.8	10.0	61.8
	23	50.0	53.5	48.5	53.2	53.0	52.2	51.5	50.3	49.5	48.9	48.8	48.6	50.0	10.0	60.0
Timeframe	Hour	L_{eq}	L_{max}	L_{min}	L1%	L2%	L5%	L8%	L25%	L50%	L90%	L95%	L99%			
Day	Min	45.8	54.5	35.1	54.2	53.7	52.0	50.8	46.7	41.7	36.1	35.6	35.2	24-Hour CNEL	Leq (dBA) Daytime (7am-10pm) Nighttime (10pm-7am)	
	Max	51.8	61.3	49.0	60.7	60.0	58.5	57.1	52.3	50.9	49.6	49.4	49.1			
Energy Average		49.9	Average:		57.6	57.1	55.4	54.1	50.1	46.5	41.8	41.1	40.4	54.9	49.9	47.7
Night	Min	42.1	46.8	33.0	46.5	46.1	44.9	43.9	39.9	36.1	33.9	33.5	33.2			
	Max	51.8	56.1	50.2	55.7	55.3	54.3	53.5	52.0	51.4	50.7	50.6	50.3			
Energy Average		47.7	Average:		50.5	50.1	48.8	47.8	45.3	44.0	42.9	42.7	42.5			

This page intentionally left blank

APPENDIX 7.1:

OFF-SITE TRAFFIC NOISE LEVEL CALCULATIONS

This page intentionally left blank

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)										
Scenario: E Road Name: Euclid Av. (SR-83) Road Segment: n/o Ontario Ranch Rd.					Project Name: Eucalyptus Business Park Job Number: 16285					
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS					
Highway Data					Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt): 26,344 vehicles					Autos: 15					
Peak Hour Percentage: 8.79%					Medium Trucks (2 Axles): 15					
Peak Hour Volume: 2,316 vehicles					Heavy Trucks (3+ Axles): 15					
Vehicle Speed: 55 mph					Vehicle Mix					
Near/Far Lane Distance: 110 feet					VehicleType					
Site Data					Day		Evening		Night	
					Autos: 69.2%		9.5%		21.3%	
					Medium Trucks: 80.7%		5.9%		13.4%	
					Heavy Trucks: 63.6%		9.8%		26.5%	
					Autos: 0.000					
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 80.0 feet Centerline Dist. to Observer: 80.0 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					Medium Trucks: 2.297					
					Heavy Trucks: 8.004				Grade Adjustment: 0.0	
					Noise Source Elevations (in feet)					
					Autos: 0.000					
					Medium Trucks: 2.297					
					Lane Equivalent Distance (in feet)					
					Autos: 58.310					
					Medium Trucks: 58.158					
					Heavy Trucks: 58.172					
					FHWA Noise Model Calculations					
VehicleType		REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:		71.78	0.13	-1.10	-1.20	-4.74	0.000	0.000		
Medium Trucks:		82.40	-15.06	-1.09	-1.20	-4.88	0.000	0.000		
Heavy Trucks:		86.40	-7.49	-1.09	-1.20	-5.23	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:		69.6	67.8	65.2	63.9	71.0	71.3			
Medium Trucks:		65.1	63.9	58.5	57.4	65.3	65.5			
Heavy Trucks:		76.6	74.4	72.3	71.9	78.7	78.9			
Vehicle Noise:		77.7	75.6	73.2	72.6	79.5	79.8			
Centerline Distance to Noise Contour (in feet)										
				70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:				345	744	1,603	3,453			
CNEL:				360	775	1,670	3,598			

Thursday, December 18, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)									
Scenario: E Road Name: Euclid Av. (SR-83) Road Segment: s/o Eucalyptus Av.					Project Name: Eucalyptus Business Park Job Number: 16285				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 32,049 vehicles Peak Hour Percentage: 8.79% Peak Hour Volume: 2,817 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 110 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
					Vehicle Type	Day	Evening	Night	Daily
					Autos: 69.2% 9.5% 21.3% 83.12%				
					Medium Trucks: 80.7% 5.9% 13.4% 2.51%				
					Heavy Trucks: 63.6% 9.8% 26.5% 14.36%				
					Noise Source Elevations (in feet)				
					Autos: 0.000				
					Medium Trucks: 2.297				
					Heavy Trucks: 8.004 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 58.310				
					Medium Trucks: 58.158				
					Heavy Trucks: 58.172				
FHWA Noise Model Calculations									
Vehicle Type	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	71.78	0.99	-1.10	-1.20	-4.74	0.000	0.000		
Medium Trucks:	82.40	-14.21	-1.09	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	86.40	-6.64	-1.09	-1.20	-5.23	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
Vehicle Type	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	70.5	68.6	66.0	64.8	71.9	72.2			
Medium Trucks:	65.9	64.7	59.4	58.2	66.1	66.4			
Heavy Trucks:	77.5	75.3	73.2	72.7	79.5	79.8			
Vehicle Noise:	78.5	76.4	74.1	73.5	80.4	80.6			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			394	848	1,827	3,935			
CNEL:			410	883	1,903	4,101			

Thursday, December 18, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)										
Scenario: E Road Name: Euclid Av. (SR-83) Road Segment: n/o Eucalyptus Av.					Project Name: Eucalyptus Business Park Job Number: 16285					
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS					
Highway Data					Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt):		20,968 vehicles			Autos: 15					
Peak Hour Percentage:		8.79%			Medium Trucks (2 Axles): 15					
Peak Hour Volume:		1,843 vehicles			Heavy Trucks (3+ Axles): 15					
Vehicle Speed:		55 mph			Vehicle Mix					
Near/Far Lane Distance:		110 feet			VehicleType		Day	Evening	Night	Daily
Site Data					Autos:		69.2%	9.5%	21.3%	83.12%
Barrier Height:		0.0 feet			Medium Trucks:		80.7%	5.9%	13.4%	2.51%
Barrier Type (0-Wall, 1-Berm):		0.0			Heavy Trucks:		63.6%	9.8%	26.5%	14.36%
Centerline Dist. to Barrier:		80.0 feet			Noise Source Elevations (in feet)					
Centerline Dist. to Observer:		80.0 feet			Autos:		0.000			
Barrier Distance to Observer:		0.0 feet			Medium Trucks:		2.297			
Observer Height (Above Pad):		5.0 feet			Heavy Trucks:		8.004		Grade Adjustment: 0.0	
Pad Elevation:		0.0 feet			Lane Equivalent Distance (in feet)					
Road Elevation:		0.0 feet			Autos:		58.310			
Road Grade:		0.0%			Medium Trucks:		58.158			
Left View:		-90.0 degrees			Heavy Trucks:		58.172			
Right View:		90.0 degrees								
FHWA Noise Model Calculations										
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten			
Autos:	71.78	-0.86	-1.10	-1.20	-4.74	0.000	0.000			
Medium Trucks:	82.40	-16.05	-1.09	-1.20	-4.88	0.000	0.000			
Heavy Trucks:	86.40	-8.48	-1.09	-1.20	-5.23	0.000	0.000			
Unmitigated Noise Levels (without Topo and barrier attenuation)										
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL				
Autos:	68.6	66.8	64.2	62.9	70.0	70.3				
Medium Trucks:	64.1	62.9	57.6	56.4	64.3	64.5				
Heavy Trucks:	75.6	73.4	71.3	70.9	77.7	77.9				
Vehicle Noise:	76.7	74.6	72.3	71.7	78.5	78.8				
Centerline Distance to Noise Contour (in feet)										
				70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:				297	639	1,377	2,966			
CNEL:				309	666	1,434	3,090			

Thursday, December 18, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)									
Scenario: E Road Name: Bon View Av. Road Segment: n/o Ontario Ranch Rd.					Project Name: Eucalyptus Business Park Job Number: 16285				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 2,275 vehicles Peak Hour Percentage: 8.79% Peak Hour Volume: 200 vehicles Vehicle Speed: 40 mph Near/Far Lane Distance: 12 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 44.0 feet Centerline Dist. to Observer: 44.0 feet 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					VehicleType	Day	Evening	Night	Daily
					Autos: 69.2% 9.5% 21.3% 83.12% Medium Trucks: 80.7% 5.9% 13.4% 2.51% Heavy Trucks: 63.6% 9.8% 26.5% 14.36%				
					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.004 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 43.875 Medium Trucks: 43.673 Heavy Trucks: 43.692				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	66.51	-9.12	0.75	-1.20	-4.61	0.000	0.000		
Medium Trucks:	77.72	-24.31	0.78	-1.20	-4.87	0.000	0.000		
Heavy Trucks:	82.99	-16.74	0.78	-1.20	-5.50	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	56.9	55.1	52.5	51.2	58.3	58.6			
Medium Trucks:	53.0	51.8	46.5	45.3	53.2	53.4			
Heavy Trucks:	65.8	63.6	61.5	61.1	67.9	68.1			
Vehicle Noise:	66.5	64.4	62.2	61.6	68.5	68.7			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			35	75	162	348			
CNEL:			36	78	168	363			

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)									
Scenario: E Road Name: Bon View Av. Road Segment: s/o Ontario Ranch Rd.				Project Name: Eucalyptus Business Park Job Number: 16285					
SITE SPECIFIC INPUT DATA				NOISE MODEL INPUTS					
Highway Data				Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt):		1,650 vehicles		Autos:		15			
Peak Hour Percentage:		8.79%		Medium Trucks (2 Axles):		15			
Peak Hour Volume:		145 vehicles		Heavy Trucks (3+ Axles):		15			
Vehicle Speed:		40 mph		Vehicle Mix					
Near/Far Lane Distance:		12 feet							
Site Data				Vehicle Type		Day	Evening	Night	Daily
Barrier Height:		0.0 feet		Autos:		69.2%	9.5%	21.3%	83.12%
Barrier Type (0-Wall, 1-Berm):		0.0		Medium Trucks:		80.7%	5.9%	13.4%	2.51%
Centerline Dist. to Barrier:		44.0 feet		Heavy Trucks:		63.6%	9.8%	26.5%	14.36%
Centerline Dist. to Observer:		44.0 feet		Noise Source Elevations (in feet)					
Barrier Distance to Observer:		0.0 feet							
Observer Height (Above Pad):		5.0 feet		Autos:		0.000			
Pad Elevation:		0.0 feet		Medium Trucks:		2.297			
Road Elevation:		0.0 feet		Heavy Trucks:		8.004			
Road Grade:		0.0%		Grade Adjustment: 0.0					
Left View:		-90.0 degrees							
Right View:		90.0 degrees		Lane Equivalent Distance (in feet)					
				Autos:		43.875			
				Medium Trucks:		43.673			
				Heavy Trucks:		43.692			
FHWA Noise Model Calculations									
Vehicle Type	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	66.51	-10.51	0.75	-1.20	-4.61	0.000	0.000		
Medium Trucks:	77.72	-25.71	0.78	-1.20	-4.87	0.000	0.000		
Heavy Trucks:	82.99	-18.14	0.78	-1.20	-5.50	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
Vehicle Type	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	55.5	53.7	51.1	49.8	56.9	57.2			
Medium Trucks:	51.6	50.4	45.1	43.9	51.8	52.0			
Heavy Trucks:	64.4	62.2	60.1	59.7	66.5	66.8			
Vehicle Noise:	65.2	63.1	60.8	60.2	67.1	67.3			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			28	61	130	281			
CNEL:			29	63	136	293			

Thursday, December 18, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)									
Scenario: E Road Name: Grove Av. Road Segment: s/o Ontario Ranch Rd.				Project Name: Eucalyptus Business Park Job Number: 16285					
SITE SPECIFIC INPUT DATA				NOISE MODEL INPUTS					
Highway Data				Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt):		3,754 vehicles		Autos:		15			
Peak Hour Percentage:		8.79%		Medium Trucks (2 Axles):		15			
Peak Hour Volume:		330 vehicles		Heavy Trucks (3+ Axles):		15			
Vehicle Speed:		50 mph		Vehicle Mix					
Near/Far Lane Distance:		45 feet		VehicleType		Day	Evening	Night	Daily
Site Data				Autos:		69.2%	9.5%	21.3%	83.12%
Barrier Height:		0.0 feet		Medium Trucks:		80.7%	5.9%	13.4%	2.51%
Barrier Type (0-Wall, 1-Berm):		0.0		Heavy Trucks:		63.6%	9.8%	26.5%	14.36%
Centerline Dist. to Barrier:		50.0 feet		Noise Source Elevations (in feet)					
Centerline Dist. to Observer:		50.0 feet		Autos:		0.000			
Barrier Distance to Observer:		0.0 feet		Medium Trucks:		2.297			
Observer Height (Above Pad):		5.0 feet		Heavy Trucks:		8.004		Grade Adjustment: 0.0	
Pad Elevation:		0.0 feet		Lane Equivalent Distance (in feet)					
Road Elevation:		0.0 feet		Autos:		44.931			
Road Grade:		0.0%		Medium Trucks:		44.733			
Left View:		-90.0 degrees		Heavy Trucks:		44.752			
Right View:		90.0 degrees							
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	70.20	-7.91	0.59	-1.20	-4.65	0.000	0.000		
Medium Trucks:	81.00	-23.11	0.62	-1.20	-4.87	0.000	0.000		
Heavy Trucks:	85.38	-15.54	0.62	-1.20	-5.43	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	61.7	59.9	57.3	56.0	63.1	63.4			
Medium Trucks:	57.3	56.1	50.8	49.6	57.5	57.8			
Heavy Trucks:	69.3	67.1	65.0	64.5	71.3	71.6			
Vehicle Noise:	70.2	68.1	65.8	65.2	72.1	72.3			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			69	148	319	688			
CNEL:			72	154	333	717			

Thursday, December 18, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)									
Scenario: E Road Name: Grove Av. Road Segment: n/o Ontario Ranch Rd.				Project Name: Eucalyptus Business Park Job Number: 16285					
SITE SPECIFIC INPUT DATA				NOISE MODEL INPUTS					
Highway Data				Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt): 5,154 vehicles Peak Hour Percentage: 8.79% Peak Hour Volume: 453 vehicles Vehicle Speed: 50 mph Near/Far Lane Distance: 45 feet				Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15					
Site Data				Vehicle Mix					
				VehicleType		Day	Evening	Night	Daily
				Autos:		69.2%	9.5%	21.3%	83.12%
				Medium Trucks:		80.7%	5.9%	13.4%	2.51%
				Heavy Trucks:		63.6%	9.8%	26.5%	14.36%
				Noise Source Elevations (in feet)					
				Autos:		0.000			
				Medium Trucks:		2.297			
				Heavy Trucks:		8.004			
				Grade Adjustment:		0.0			
				Lane Equivalent Distance (in feet)					
				Autos:		44.931			
				Medium Trucks:		44.733			
				Heavy Trucks:		44.752			
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	70.20	-6.54	0.59	-1.20	-4.65	0.000	0.000		
Medium Trucks:	81.00	-21.73	0.62	-1.20	-4.87	0.000	0.000		
Heavy Trucks:	85.38	-14.16	0.62	-1.20	-5.43	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	63.1	61.2	58.6	57.4	64.5	64.8			
Medium Trucks:	58.7	57.5	52.2	51.0	58.9	59.1			
Heavy Trucks:	70.6	68.4	66.4	65.9	72.7	73.0			
Vehicle Noise:	71.6	69.5	67.2	66.6	73.5	73.7			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			85	183	394	850			
CNEL:			89	191	411	886			

Thursday, December 18, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)									
Scenario: E Road Name: Walker Av. Road Segment: n/o Ontario Ranch Rd.				Project Name: Eucalyptus Business Park Job Number: 16285					
SITE SPECIFIC INPUT DATA				NOISE MODEL INPUTS					
Highway Data				Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt):		5,256 vehicles		Autos:		15			
Peak Hour Percentage:		8.79%		Medium Trucks (2 Axles):		15			
Peak Hour Volume:		462 vehicles		Heavy Trucks (3+ Axles):		15			
Vehicle Speed:		40 mph		Vehicle Mix					
Near/Far Lane Distance:		12 feet		VehicleType		Day	Evening	Night	Daily
Site Data				Autos:		69.2%	9.5%	21.3%	83.12%
Barrier Height:		0.0 feet		Medium Trucks:		80.7%	5.9%	13.4%	2.51%
Barrier Type (0-Wall, 1-Berm):		0.0		Heavy Trucks:		63.6%	9.8%	26.5%	14.36%
Centerline Dist. to Barrier:		44.0 feet		Noise Source Elevations (in feet)					
Centerline Dist. to Observer:		44.0 feet		Autos:		0.000			
Barrier Distance to Observer:		0.0 feet		Medium Trucks:		2.297			
Observer Height (Above Pad):		5.0 feet		Heavy Trucks:		8.004		Grade Adjustment: 0.0	
Pad Elevation:		0.0 feet		Lane Equivalent Distance (in feet)					
Road Elevation:		0.0 feet		Autos:		43.875			
Road Grade:		0.0%		Medium Trucks:		43.673			
Left View:		-90.0 degrees		Heavy Trucks:		43.692			
Right View:		90.0 degrees							
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	66.51	-5.48	0.75	-1.20	-4.61	0.000	0.000		
Medium Trucks:	77.72	-20.68	0.78	-1.20	-4.87	0.000	0.000		
Heavy Trucks:	82.99	-13.11	0.78	-1.20	-5.50	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	60.6	58.7	56.2	54.9	62.0	62.3			
Medium Trucks:	56.6	55.5	50.1	48.9	56.8	57.1			
Heavy Trucks:	69.5	67.3	65.2	64.7	71.5	71.8			
Vehicle Noise:	70.2	68.1	65.8	65.2	72.1	72.4			
Centerline Distance to Noise Contour (in feet)									
			70 dBA		65 dBA		60 dBA		55 dBA
Ldn:			61		131		282		608
CNEL:			63		136		294		634

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)									
Scenario: E Road Name: Walker Av. Road Segment: s/o Ontario Ranch Rd.				Project Name: Eucalyptus Business Park Job Number: 16285					
SITE SPECIFIC INPUT DATA				NOISE MODEL INPUTS					
Highway Data				Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt):		3,436 vehicles		Autos:		15			
Peak Hour Percentage:		8.79%		Medium Trucks (2 Axles):		15			
Peak Hour Volume:		302 vehicles		Heavy Trucks (3+ Axles):		15			
Vehicle Speed:		40 mph		Vehicle Mix					
Near/Far Lane Distance:		12 feet		VehicleType		Day	Evening	Night	Daily
Site Data				Autos:		69.2%	9.5%	21.3%	83.12%
Barrier Height:		0.0 feet		Medium Trucks:		80.7%	5.9%	13.4%	2.51%
Barrier Type (0-Wall, 1-Berm):		0.0		Heavy Trucks:		63.6%	9.8%	26.5%	14.36%
Centerline Dist. to Barrier:		44.0 feet		Noise Source Elevations (in feet)					
Centerline Dist. to Observer:		44.0 feet		Autos:		0.000			
Barrier Distance to Observer:		0.0 feet		Medium Trucks:		2.297			
Observer Height (Above Pad):		5.0 feet		Heavy Trucks:		8.004		Grade Adjustment: 0.0	
Pad Elevation:		0.0 feet		Lane Equivalent Distance (in feet)					
Road Elevation:		0.0 feet		Autos:		43.875			
Road Grade:		0.0%		Medium Trucks:		43.673			
Left View:		-90.0 degrees		Heavy Trucks:		43.692			
Right View:		90.0 degrees							
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	66.51	-7.33	0.75	-1.20	-4.61	0.000	0.000		
Medium Trucks:	77.72	-22.52	0.78	-1.20	-4.87	0.000	0.000		
Heavy Trucks:	82.99	-14.95	0.78	-1.20	-5.50	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	58.7	56.9	54.3	53.0	60.1	60.4			
Medium Trucks:	54.8	53.6	48.3	47.1	55.0	55.2			
Heavy Trucks:	67.6	65.4	63.3	62.9	69.7	69.9			
Vehicle Noise:	68.3	66.2	64.0	63.4	70.3	70.5			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			46	99	213	458			
CNEL:			48	103	221	477			

Thursday, December 18, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)									
Scenario: E Road Name: Archibald Av. Road Segment: s/o Ontario Ranch Rd.				Project Name: Eucalyptus Business Park Job Number: 16285					
SITE SPECIFIC INPUT DATA				NOISE MODEL INPUTS					
Highway Data				Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt): 22,891 vehicles Peak Hour Percentage: 8.79% Peak Hour Volume: 2,012 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 58 feet				Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15					
Site Data				Vehicle Mix					
				Vehicle Type		Day	Evening	Night	Daily
				Autos: 69.2% 9.5% 21.3% 83.12% Medium Trucks: 80.7% 5.9% 13.4% 2.51% Heavy Trucks: 63.6% 9.8% 26.5% 14.36%					
				Noise Source Elevations (in feet)					
				Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.004 Grade Adjustment: 0.0					
				Lane Equivalent Distance (in feet)					
				Autos: 52.764 Medium Trucks: 52.596 Heavy Trucks: 52.612					
FHWA Noise Model Calculations									
Vehicle Type	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	71.78	-0.48	-0.45	-1.20	-4.69	0.000	0.000		
Medium Trucks:	82.40	-15.67	-0.43	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	86.40	-8.10	-0.44	-1.20	-5.34	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
Vehicle Type	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	69.7	67.8	65.2	63.9	71.1	71.4			
Medium Trucks:	65.1	63.9	58.6	57.4	65.3	65.5			
Heavy Trucks:	76.7	74.5	72.4	71.9	78.7	79.0			
Vehicle Noise:	77.7	75.6	73.3	72.7	79.6	79.8			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				261	562	1,210	2,607		
CNEL:				272	585	1,261	2,717		

Thursday, December 18, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)								
Scenario: E Road Name: Archibald Av. Road Segment: n/o Ontario Ranch Rd.				Project Name: Eucalyptus Business Park Job Number: 16285				
SITE SPECIFIC INPUT DATA				NOISE MODEL INPUTS				
Highway Data				Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 17,396 vehicles Peak Hour Percentage: 8.79% Peak Hour Volume: 1,529 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 58 feet				Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data				Vehicle Mix				
				VehicleType	Day	Evening	Night	Daily
				Autos: 69.2% 9.5% 21.3% 83.12%				
				Medium Trucks: 80.7% 5.9% 13.4% 2.51%				
				Heavy Trucks: 63.6% 9.8% 26.5% 14.36%				
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 60.0 feet Centerline Dist. to Observer: 60.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road 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: 8.004 Grade Adjustment: 0.0				
				Lane Equivalent Distance (in feet)				
				Autos: 52.764				
				Medium Trucks: 52.596				
				Heavy Trucks: 52.612				
FHWA Noise Model Calculations								
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten	
Autos: 71.78 -1.67 -0.45 -1.20 -4.69 0.000 0.000								
Medium Trucks: 82.40 -16.86 -0.43 -1.20 -4.88 0.000 0.000								
Heavy Trucks: 86.40 -9.29 -0.44 -1.20 -5.34 0.000 0.000								
Unmitigated Noise Levels (without Topo and barrier attenuation)								
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL		
Autos: 68.5 66.6 64.0 62.8 69.9 70.2								
Medium Trucks: 63.9 62.7 57.4 56.2 64.1 64.4								
Heavy Trucks: 75.5 73.3 71.2 70.7 77.5 77.8								
Vehicle Noise: 76.5 74.4 72.1 71.5 78.4 78.6								
Centerline Distance to Noise Contour (in feet)								
			70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:			217	468	1,008	2,171		
CNEL:			226	487	1,050	2,263		

Thursday, December 18, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)										
Scenario: E Road Name: Ontario Ranch Rd. Road Segment: e/o Euclid Av. (SR-83)			Project Name: Eucalyptus Business Park Job Number: 16285							
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS							
Highway Data			Site Conditions (Hard = 10, Soft = 15)							
Average Daily Traffic (Adt): 9,380 vehicles Peak Hour Percentage: 8.79% Peak Hour Volume: 825 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 110 feet			Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15							
Site Data			Vehicle Mix							
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 80.0 feet Centerline Dist. to Observer: 80.0 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			VehicleType		Day	Evening	Night	Daily		
			Autos:		69.2%	9.5%	21.3%	83.12%		
			Medium Trucks:		80.7%	5.9%	13.4%	2.51%		
			Heavy Trucks:		63.6%	9.8%	26.5%	14.36%		
			Noise Source Elevations (in feet)							
			Autos:		0.000					
			Medium Trucks:		2.297					
			Heavy Trucks:		8.004		Grade Adjustment: 0.0			
			Lane Equivalent Distance (in feet)							
			Autos:		58.310					
			Medium Trucks:		58.158					
			Heavy Trucks:		58.172					
FHWA Noise Model Calculations										
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten			
Autos:	71.78	-4.35	-1.10	-1.20	-4.74	0.000	0.000			
Medium Trucks:	82.40	-19.55	-1.09	-1.20	-4.88	0.000	0.000			
Heavy Trucks:	86.40	-11.97	-1.09	-1.20	-5.23	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:	65.1	63.3	60.7	59.4	66.5	66.8				
Medium Trucks:	60.6	59.4	54.1	52.9	60.8	61.0				
Heavy Trucks:	72.1	69.9	67.8	67.4	74.2	74.5				
Vehicle Noise:	73.2	71.1	68.8	68.2	75.0	75.3				
Centerline Distance to Noise Contour (in feet)										
			70 dBA		65 dBA		60 dBA		55 dBA	
Ldn:			173		374		805		1,735	
CNEL:			181		389		839		1,808	

Thursday, December 18, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)									
Scenario: E Road Name: Ontario Ranch Rd. Road Segment: w/o Grove Av.				Project Name: Eucalyptus Business Park Job Number: 16285					
SITE SPECIFIC INPUT DATA				NOISE MODEL INPUTS					
Highway Data				Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt):		7,680 vehicles		Autos:		15			
Peak Hour Percentage:		8.79%		Medium Trucks (2 Axles):		15			
Peak Hour Volume:		675 vehicles		Heavy Trucks (3+ Axles):		15			
Vehicle Speed:		55 mph		Vehicle Mix					
Near/Far Lane Distance:		110 feet		Vehicle Type		Day	Evening	Night	Daily
Site Data				Autos:		69.2%	9.5%	21.3%	83.12%
Barrier Height:		0.0 feet		Medium Trucks:		80.7%	5.9%	13.4%	2.51%
Barrier Type (0-Wall, 1-Berm):		0.0		Heavy Trucks:		63.6%	9.8%	26.5%	14.36%
Centerline Dist. to Barrier:		80.0 feet		Noise Source Elevations (in feet)					
Centerline Dist. to Observer:		80.0 feet		Autos:		0.000			
Barrier Distance to Observer:		0.0 feet		Medium Trucks:		2.297			
Observer Height (Above Pad):		5.0 feet		Heavy Trucks:		8.004	Grade Adjustment: 0.0		
Pad Elevation:		0.0 feet		Lane Equivalent Distance (in feet)					
Road Elevation:		0.0 feet		Autos:		58.310			
Road Grade:		0.0%		Medium Trucks:		58.158			
Left View:		-90.0 degrees		Heavy Trucks:		58.172			
Right View:		90.0 degrees							
FHWA Noise Model Calculations									
Vehicle Type	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	71.78	-5.22	-1.10	-1.20	-4.74	0.000	0.000		
Medium Trucks:	82.40	-20.41	-1.09	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	86.40	-12.84	-1.09	-1.20	-5.23	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
Vehicle Type	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	64.3	62.4	59.8	58.6	65.7	66.0			
Medium Trucks:	59.7	58.5	53.2	52.0	59.9	60.1			
Heavy Trucks:	71.3	69.1	67.0	66.5	73.3	73.6			
Vehicle Noise:	72.3	70.2	67.9	67.3	74.2	74.4			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			152	327	705	1,518			
CNEL:			158	341	734	1,582			

Thursday, December 18, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)									
Scenario: E Road Name: Ontario Ranch Rd. Road Segment: e/o Grove Av.				Project Name: Eucalyptus Business Park Job Number: 16285					
SITE SPECIFIC INPUT DATA				NOISE MODEL INPUTS					
Highway Data				Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt):		7,873 vehicles		Autos:		15			
Peak Hour Percentage:		8.79%		Medium Trucks (2 Axles):		15			
Peak Hour Volume:		692 vehicles		Heavy Trucks (3+ Axles):		15			
Vehicle Speed:		55 mph		Vehicle Mix					
Near/Far Lane Distance:		110 feet		Vehicle Type		Day	Evening	Night	Daily
Site Data				Autos:		69.2%	9.5%	21.3%	83.12%
Barrier Height:		0.0 feet		Medium Trucks:		80.7%	5.9%	13.4%	2.51%
Barrier Type (0-Wall, 1-Berm):		0.0		Heavy Trucks:		63.6%	9.8%	26.5%	14.36%
Centerline Dist. to Barrier:		80.0 feet		Noise Source Elevations (in feet)					
Centerline Dist. to Observer:		80.0 feet		Autos:		0.000			
Barrier Distance to Observer:		0.0 feet		Medium Trucks:		2.297			
Observer Height (Above Pad):		5.0 feet		Heavy Trucks:		8.004		Grade Adjustment: 0.0	
Pad Elevation:		0.0 feet		Lane Equivalent Distance (in feet)					
Road Elevation:		0.0 feet		Autos:		58.310			
Road Grade:		0.0%		Medium Trucks:		58.158			
Left View:		-90.0 degrees		Heavy Trucks:		58.172			
Right View:		90.0 degrees							
FHWA Noise Model Calculations									
Vehicle Type	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	71.78	-5.11	-1.10	-1.20	-4.74	0.000	0.000		
Medium Trucks:	82.40	-20.31	-1.09	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	86.40	-12.74	-1.09	-1.20	-5.23	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
Vehicle Type	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	64.4	62.5	59.9	58.7	65.8	66.1			
Medium Trucks:	59.8	58.6	53.3	52.1	60.0	60.3			
Heavy Trucks:	71.4	69.2	67.1	66.6	73.4	73.7			
Vehicle Noise:	72.4	70.3	68.0	67.4	74.3	74.5			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			154	333	716	1,544			
CNEL:			161	347	747	1,608			

Thursday, December 18, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)									
Scenario: E Road Name: Ontario Ranch Rd. Road Segment: w/o Archibald Av.				Project Name: Eucalyptus Business Park Job Number: 16285					
SITE SPECIFIC INPUT DATA				NOISE MODEL INPUTS					
Highway Data				Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt): 11,889 vehicles Peak Hour Percentage: 8.79% Peak Hour Volume: 1,045 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 110 feet				Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15					
Site Data				Vehicle Mix					
				Vehicle Type		Day	Evening	Night	Daily
				Autos:		69.2%	9.5%	21.3%	83.12%
				Medium Trucks:		80.7%	5.9%	13.4%	2.51%
				Heavy Trucks:		63.6%	9.8%	26.5%	14.36%
				Noise Source Elevations (in feet)					
				Autos:		0.000			
				Medium Trucks:		2.297			
				Heavy Trucks:		8.004			
				Grade Adjustment: 0.0					
				Lane Equivalent Distance (in feet)					
				Autos:		58.310			
				Medium Trucks:		58.158			
				Heavy Trucks:		58.172			
FHWA Noise Model Calculations									
Vehicle Type	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	71.78	-3.32	-1.10	-1.20	-4.74	0.000	0.000		
Medium Trucks:	82.40	-18.52	-1.09	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	86.40	-10.94	-1.09	-1.20	-5.23	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
Vehicle Type	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	66.2	64.3	61.7	60.4	67.6	67.9			
Medium Trucks:	61.6	60.4	55.1	53.9	61.8	62.0			
Heavy Trucks:	73.2	71.0	68.9	68.4	75.2	75.5			
Vehicle Noise:	74.2	72.1	69.8	69.2	76.1	76.3			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			203	438	943	2,032			
CNEL:			212	456	983	2,117			

Thursday, December 18, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)									
Scenario: E Road Name: Ontario Ranch Rd. Road Segment: e/o Archibald Av.				Project Name: Eucalyptus Business Park Job Number: 16285					
SITE SPECIFIC INPUT DATA				NOISE MODEL INPUTS					
Highway Data				Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt): 14,289 vehicles				Autos: 15					
Peak Hour Percentage: 8.79%				Medium Trucks (2 Axles): 15					
Peak Hour Volume: 1,256 vehicles				Heavy Trucks (3+ Axles): 15					
Vehicle Speed: 55 mph				Vehicle Mix					
Near/Far Lane Distance: 110 feet				Vehicle Type		Day	Evening	Night	Daily
Site Data				Autos: 69.2% 9.5% 21.3% 83.12%					
Barrier Height: 0.0 feet				Medium Trucks: 80.7% 5.9% 13.4% 2.51%					
Barrier Type (0-Wall, 1-Berm): 0.0				Heavy Trucks: 63.6% 9.8% 26.5% 14.36%					
Centerline Dist. to Barrier: 80.0 feet				Noise Source Elevations (in feet)					
Centerline Dist. to Observer: 80.0 feet				Autos:		0.000			
Barrier Distance to Observer: 0.0 feet				Medium Trucks:		2.297			
Observer Height (Above Pad): 5.0 feet				Heavy Trucks:		8.004	Grade Adjustment: 0.0		
Pad Elevation: 0.0 feet				Lane Equivalent Distance (in feet)					
Road Elevation: 0.0 feet				Autos:		58.310			
Road Grade: 0.0%				Medium Trucks:		58.158			
Left View: -90.0 degrees				Heavy Trucks:		58.172			
Right View: 90.0 degrees									
FHWA Noise Model Calculations									
Vehicle Type	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	71.78	-2.52	-1.10	-1.20	-4.74	0.000	0.000		
Medium Trucks:	82.40	-17.72	-1.09	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	86.40	-10.15	-1.09	-1.20	-5.23	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
Vehicle Type	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	67.0	65.1	62.5	61.2	68.4	68.7			
Medium Trucks:	62.4	61.2	55.9	54.7	62.6	62.8			
Heavy Trucks:	74.0	71.8	69.7	69.2	76.0	76.3			
Vehicle Noise:	75.0	72.9	70.6	70.0	76.9	77.1			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				230	495	1,066	2,297		
CNEL:				239	516	1,111	2,393		

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)										
Scenario: E Road Name: Eucalyptus Av. Road Segment: e/o Euclid Av. (SR-83)					Project Name: Eucalyptus Business Park Job Number: 16285					
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS					
Highway Data					Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt):		3,823 vehicles			Autos:		15			
Peak Hour Percentage:		8.79%			Medium Trucks (2 Axles):		15			
Peak Hour Volume:		336 vehicles			Heavy Trucks (3+ Axles):		15			
Vehicle Speed:		40 mph			Vehicle Mix					
Near/Far Lane Distance:		12 feet								
Site Data					VehicleType					
Barrier Height:		0.0 feet			Autos:		69.2%	9.5%	21.3%	83.12%
Barrier Type (0-Wall, 1-Berm):		0.0			Medium Trucks:		80.7%	5.9%	13.4%	2.51%
Centerline Dist. to Barrier:		44.0 feet			Heavy Trucks:		63.6%	9.8%	26.5%	14.36%
Centerline Dist. to Observer:		44.0 feet			Noise Source Elevations (in feet)					
Barrier Distance to Observer:		0.0 feet								
Observer Height (Above Pad):		5.0 feet			Autos:		0.000			
Pad Elevation:		0.0 feet			Medium Trucks:		2.297			
Road Elevation:		0.0 feet			Heavy Trucks:		8.004			
Road Grade:		0.0%			Grade Adjustment: 0.0					
Left View:		-90.0 degrees								
Right View:		90.0 degrees			Lane Equivalent Distance (in feet)					
					Autos:		43.875			
					Medium Trucks:		43.673			
					Heavy Trucks:		43.692			
FHWA Noise Model Calculations										
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten			
Autos:	66.51	-6.87	0.75	-1.20	-4.61	0.000	0.000			
Medium Trucks:	77.72	-22.06	0.78	-1.20	-4.87	0.000	0.000			
Heavy Trucks:	82.99	-14.49	0.78	-1.20	-5.50	0.000	0.000			
Unmitigated Noise Levels (without Topo and barrier attenuation)										
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL				
Autos:	59.2	57.4	54.8	53.5	60.6	60.9				
Medium Trucks:	55.2	54.1	48.7	47.5	55.4	55.7				
Heavy Trucks:	68.1	65.9	63.8	63.3	70.1	70.4				
Vehicle Noise:	68.8	66.7	64.4	63.9	70.7	71.0				
Centerline Distance to Noise Contour (in feet)										
			70 dBA	65 dBA	60 dBA	55 dBA				
Ldn:			49	106	228	492				
CNEL:			51	110	238	512				

Thursday, December 18, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)									
Scenario: E Road Name: Eucalyptus Av. Road Segment: e/o Grove Av.					Project Name: Eucalyptus Business Park Job Number: 16285				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 6,789 vehicles Peak Hour Percentage: 8.79% Peak Hour Volume: 597 vehicles Vehicle Speed: 40 mph Near/Far Lane Distance: 12 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 44.0 feet Centerline Dist. to Observer: 44.0 feet 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					VehicleType	Day	Evening	Night	Daily
					Autos: 69.2% 9.5% 21.3% 83.12% Medium Trucks: 80.7% 5.9% 13.4% 2.51% Heavy Trucks: 63.6% 9.8% 26.5% 14.36%				
					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.004 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 43.875 Medium Trucks: 43.673 Heavy Trucks: 43.692				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	66.51	-4.37	0.75	-1.20	-4.61	0.000	0.000		
Medium Trucks:	77.72	-19.57	0.78	-1.20	-4.87	0.000	0.000		
Heavy Trucks:	82.99	-12.00	0.78	-1.20	-5.50	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	61.7	59.9	57.3	56.0	63.1	63.4			
Medium Trucks:	57.7	56.6	51.2	50.0	57.9	58.2			
Heavy Trucks:	70.6	68.4	66.3	65.8	72.6	72.9			
Vehicle Noise:	71.3	69.2	66.9	66.4	73.2	73.5			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			72	155	335	721			
CNEL:			75	162	349	751			

Thursday, December 18, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)							
Scenario: E Road Name: Eucalyptus Av. Road Segment: w/o Grove Av.				Project Name: Eucalyptus Business Park Job Number: 16285			
SITE SPECIFIC INPUT DATA				NOISE MODEL INPUTS			
Highway Data				Site Conditions (Hard = 10, Soft = 15)			
Average Daily Traffic (Adt):		2,924 vehicles		Autos: 15			
Peak Hour Percentage:		8.79%		Medium Trucks (2 Axles): 15			
Peak Hour Volume:		257 vehicles		Heavy Trucks (3+ Axles): 15			
Vehicle Speed:		40 mph		Vehicle Mix			
Near/Far Lane Distance:		12 feet		VehicleType			
Site Data				Day	Evening	Night	Daily
Barrier Height:		0.0 feet		Autos: 69.2% 9.5% 21.3% 83.12%			
Barrier Type (0-Wall, 1-Berm):		0.0		Medium Trucks: 80.7% 5.9% 13.4% 2.51%			
Centerline Dist. to Barrier:		44.0 feet		Heavy Trucks: 63.6% 9.8% 26.5% 14.36%			
Centerline Dist. to Observer:		44.0 feet		Noise Source Elevations (in feet)			
Barrier Distance to Observer:		0.0 feet		Autos: 0.000			
Observer Height (Above Pad):		5.0 feet		Medium Trucks: 2.297			
Pad Elevation:		0.0 feet		Heavy Trucks: 8.004 Grade Adjustment: 0.0			
Road Elevation:		0.0 feet		Lane Equivalent Distance (in feet)			
Road Grade:		0.0%		Autos: 43.875			
Left View:		-90.0 degrees		Medium Trucks: 43.673			
Right View:		90.0 degrees		Heavy Trucks: 43.692			
FHWA Noise Model Calculations							
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	66.51	-8.03	0.75	-1.20	-4.61	0.000	0.000
Medium Trucks:	77.72	-23.22	0.78	-1.20	-4.87	0.000	0.000
Heavy Trucks:	82.99	-15.65	0.78	-1.20	-5.50	0.000	0.000
Unmitigated Noise Levels (without Topo and barrier attenuation)							
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	58.0	56.2	53.6	52.3	59.4	59.7	
Medium Trucks:	54.1	52.9	47.6	46.4	54.3	54.5	
Heavy Trucks:	66.9	64.7	62.6	62.2	69.0	69.2	
Vehicle Noise:	67.6	65.5	63.3	62.7	69.6	69.8	
Centerline Distance to Noise Contour (in feet)							
			70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:			41	89	191	411	
CNEL:			43	92	199	429	

Thursday, December 18, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)									
Scenario: E Road Name: Eucalyptus Av. Road Segment: e/o Walker Av.				Project Name: Eucalyptus Business Park Job Number: 16285					
SITE SPECIFIC INPUT DATA				NOISE MODEL INPUTS					
Highway Data				Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt):		5,916 vehicles		Autos: 15					
Peak Hour Percentage:		8.79%		Medium Trucks (2 Axles): 15					
Peak Hour Volume:		520 vehicles		Heavy Trucks (3+ Axles): 15					
Vehicle Speed:		40 mph							
Near/Far Lane Distance:		12 feet		Vehicle Mix					
Site Data				VehicleType	Day	Evening	Night	Daily	
Barrier Height:		0.0 feet		Autos:		69.2%	9.5%	21.3%	83.12%
Barrier Type (0-Wall, 1-Berm):		0.0		Medium Trucks:		80.7%	5.9%	13.4%	2.51%
Centerline Dist. to Barrier:		44.0 feet		Heavy Trucks:		63.6%	9.8%	26.5%	14.36%
Centerline Dist. to Observer:		44.0 feet		Noise Source Elevations (in feet)					
Barrier Distance to Observer:		0.0 feet		Autos:		0.000			
Observer Height (Above Pad):		5.0 feet		Medium Trucks:		2.297			
Pad Elevation:		0.0 feet		Heavy Trucks:		8.004		Grade Adjustment: 0.0	
Road Elevation:		0.0 feet		Lane Equivalent Distance (in feet)					
Road Grade:		0.0%		Autos:		43.875			
Left View:		-90.0 degrees		Medium Trucks:		43.673			
Right View:		90.0 degrees		Heavy Trucks:		43.692			
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	66.51	-4.97	0.75	-1.20	-4.61	0.000	0.000		
Medium Trucks:	77.72	-20.16	0.78	-1.20	-4.87	0.000	0.000		
Heavy Trucks:	82.99	-12.59	0.78	-1.20	-5.50	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	61.1	59.3	56.7	55.4	62.5	62.8			
Medium Trucks:	57.1	56.0	50.6	49.4	57.3	57.6			
Heavy Trucks:	70.0	67.8	65.7	65.2	72.0	72.3			
Vehicle Noise:	70.7	68.6	66.3	65.8	72.6	72.9			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			66	142	305	658			
CNEL:			69	148	318	686			

Thursday, December 18, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)									
Scenario: OYC Road Name: Euclid Av. (SR-83) Road Segment: n/o Ontario Ranch Rd.				Project Name: Eucalyptus Business Park Job Number: 16285					
SITE SPECIFIC INPUT DATA				NOISE MODEL INPUTS					
Highway Data				Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt):		30,108 vehicles		Autos:		15			
Peak Hour Percentage:		8.79%		Medium Trucks (2 Axles):		15			
Peak Hour Volume:		2,646 vehicles		Heavy Trucks (3+ Axles):		15			
Vehicle Speed:		55 mph		Vehicle Mix					
Near/Far Lane Distance:		110 feet		Vehicle Type		Day	Evening	Night	Daily
Site Data				Autos:		69.2%	9.5%	21.3%	83.12%
Barrier Height:		0.0 feet		Medium Trucks:		80.7%	5.9%	13.4%	2.51%
Barrier Type (0-Wall, 1-Berm):		0.0		Heavy Trucks:		63.6%	9.8%	26.5%	14.36%
Centerline Dist. to Barrier:		80.0 feet		Noise Source Elevations (in feet)					
Centerline Dist. to Observer:		80.0 feet		Autos:		0.000			
Barrier Distance to Observer:		0.0 feet		Medium Trucks:		2.297			
Observer Height (Above Pad):		5.0 feet		Heavy Trucks:		8.004		Grade Adjustment: 0.0	
Pad Elevation:		0.0 feet		Lane Equivalent Distance (in feet)					
Road Elevation:		0.0 feet		Autos:		58.310			
Road Grade:		0.0%		Medium Trucks:		58.158			
Left View:		-90.0 degrees		Heavy Trucks:		58.172			
Right View:		90.0 degrees							
FHWA Noise Model Calculations									
Vehicle Type	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	71.78	0.71	-1.10	-1.20	-4.74	0.000	0.000		
Medium Trucks:	82.40	-14.48	-1.09	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	86.40	-6.91	-1.09	-1.20	-5.23	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
Vehicle Type	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	70.2	68.4	65.8	64.5	71.6	71.9			
Medium Trucks:	65.6	64.5	59.1	57.9	65.8	66.1			
Heavy Trucks:	77.2	75.0	72.9	72.5	79.3	79.5			
Vehicle Noise:	78.2	76.2	73.8	73.2	80.1	80.4			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			377	813	1,752	3,775			
CNEL:			393	847	1,826	3,933			

Thursday, December 18, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)									
Scenario: OYC Road Name: Euclid Av. (SR-83) Road Segment: s/o Eucalyptus Av.				Project Name: Eucalyptus Business Park Job Number: 16285					
SITE SPECIFIC INPUT DATA				NOISE MODEL INPUTS					
Highway Data				Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt): 36,916 vehicles				Autos: 15					
Peak Hour Percentage: 8.79%				Medium Trucks (2 Axles): 15					
Peak Hour Volume: 3,245 vehicles				Heavy Trucks (3+ Axles): 15					
Vehicle Speed: 55 mph				Vehicle Mix					
Near/Far Lane Distance: 110 feet				Vehicle Type		Day	Evening	Night	Daily
Site Data				Autos: 69.2% 9.5% 21.3% 83.12%					
Barrier Height: 0.0 feet				Medium Trucks: 80.7% 5.9% 13.4% 2.51%					
Barrier Type (0-Wall, 1-Berm): 0.0				Heavy Trucks: 63.6% 9.8% 26.5% 14.36%					
Centerline Dist. to Barrier: 80.0 feet				Noise Source Elevations (in feet)					
Centerline Dist. to Observer: 80.0 feet				Autos: 0.000					
Barrier Distance to Observer: 0.0 feet				Medium Trucks: 2.297					
Observer Height (Above Pad): 5.0 feet				Heavy Trucks: 8.004		Grade Adjustment: 0.0			
Pad Elevation: 0.0 feet				Lane Equivalent Distance (in feet)					
Road Elevation: 0.0 feet				Autos: 58.310					
Road Grade: 0.0%				Medium Trucks: 58.158					
Left View: -90.0 degrees				Heavy Trucks: 58.172					
Right View: 90.0 degrees									
FHWA Noise Model Calculations									
Vehicle Type	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	71.78	1.60	-1.10	-1.20	-4.74	0.000	0.000		
Medium Trucks:	82.40	-13.60	-1.09	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	86.40	-6.02	-1.09	-1.20	-5.23	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
Vehicle Type	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	71.1	69.2	66.7	65.4	72.5	72.8			
Medium Trucks:	66.5	65.4	60.0	58.8	66.7	67.0			
Heavy Trucks:	78.1	75.9	73.8	73.3	80.1	80.4			
Vehicle Noise:	79.1	77.0	74.7	74.1	81.0	81.3			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			432	932	2,007	4,324			
CNEL:			451	971	2,091	4,506			

Thursday, December 18, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)									
Scenario: OYC Road Name: Euclid Av. (SR-83) Road Segment: n/o Eucalyptus Av.				Project Name: Eucalyptus Business Park Job Number: 16285					
SITE SPECIFIC INPUT DATA				NOISE MODEL INPUTS					
Highway Data				Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt): 25,936 vehicles Peak Hour Percentage: 8.79% Peak Hour Volume: 2,280 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 110 feet				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: 80.0 feet Centerline Dist. to Observer: 80.0 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					
				Vehicle Type		Day	Evening	Night	Daily
				Autos:		69.2%	9.5%	21.3%	83.12%
				Medium Trucks:		80.7%	5.9%	13.4%	2.51%
				Heavy Trucks:		63.6%	9.8%	26.5%	14.36%
Noise Source Elevations (in feet)									
Autos:						0.000			
Medium Trucks:						2.297			
Heavy Trucks:						8.004		Grade Adjustment: 0.0	
Lane Equivalent Distance (in feet)									
Autos:						58.310			
Medium Trucks:						58.158			
Heavy Trucks:						58.172			
FHWA Noise Model Calculations									
Vehicle Type	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	71.78	0.07	-1.10	-1.20	-4.74	0.000	0.000		
Medium Trucks:	82.40	-15.13	-1.09	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	86.40	-7.56	-1.09	-1.20	-5.23	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
Vehicle Type	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	69.5	67.7	65.1	63.8	70.9	71.2			
Medium Trucks:	65.0	63.8	58.5	57.3	65.2	65.4			
Heavy Trucks:	76.5	74.4	72.3	71.8	78.6	78.9			
Vehicle Noise:	77.6	75.5	73.2	72.6	79.5	79.7			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			342	736	1,586	3,417			
CNEL:			356	767	1,653	3,561			

Thursday, December 18, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)									
Scenario: OYC Road Name: Bon View Av. Road Segment: n/o Ontario Ranch Rd.				Project Name: Eucalyptus Business Park Job Number: 16285					
SITE SPECIFIC INPUT DATA				NOISE MODEL INPUTS					
Highway Data				Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt):		3,558 vehicles		Autos:		15			
Peak Hour Percentage:		8.79%		Medium Trucks (2 Axles):		15			
Peak Hour Volume:		313 vehicles		Heavy Trucks (3+ Axles):		15			
Vehicle Speed:		40 mph							
Near/Far Lane Distance:		12 feet							
Site Data				Vehicle Mix					
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 44.0 feet Centerline Dist. to Observer: 44.0 feet 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				VehicleType	Day	Evening	Night	Daily	
				Autos:		69.2%	9.5%	21.3%	83.12%
				Medium Trucks:		80.7%	5.9%	13.4%	2.51%
				Heavy Trucks:		63.6%	9.8%	26.5%	14.36%
				Noise Source Elevations (in feet)					
				Autos:		0.000			
				Medium Trucks:		2.297			
				Heavy Trucks:		8.004		Grade Adjustment: 0.0	
				Lane Equivalent Distance (in feet)					
				Autos:		43.875			
				Medium Trucks:		43.673			
				Heavy Trucks:		43.692			
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	66.51	-7.18	0.75	-1.20	-4.61	0.000	0.000		
Medium Trucks:	77.72	-22.37	0.78	-1.20	-4.87	0.000	0.000		
Heavy Trucks:	82.99	-14.80	0.78	-1.20	-5.50	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	58.9	57.1	54.5	53.2	60.3	60.6			
Medium Trucks:	54.9	53.8	48.4	47.2	55.1	55.4			
Heavy Trucks:	67.8	65.6	63.5	63.0	69.8	70.1			
Vehicle Noise:	68.5	66.4	64.1	63.6	70.4	70.7			
Centerline Distance to Noise Contour (in feet)									
			70 dBA		65 dBA		60 dBA		55 dBA
Ldn:			47		101		218		469
CNEL:			49		105		227		488

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)									
Scenario: OYC Road Name: Bon View Av. Road Segment: s/o Ontario Ranch Rd.				Project Name: Eucalyptus Business Park Job Number: 16285					
SITE SPECIFIC INPUT DATA				NOISE MODEL INPUTS					
Highway Data				Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt):		2,867 vehicles		Autos:		15			
Peak Hour Percentage:		8.79%		Medium Trucks (2 Axles):		15			
Peak Hour Volume:		252 vehicles		Heavy Trucks (3+ Axles):		15			
Vehicle Speed:		40 mph		Vehicle Mix					
Near/Far Lane Distance:		12 feet							
Site Data				Vehicle Type		Day	Evening	Night	Daily
Barrier Height:		0.0 feet		Autos:		69.2%	9.5%	21.3%	83.12%
Barrier Type (0-Wall, 1-Berm):		0.0		Medium Trucks:		80.7%	5.9%	13.4%	2.51%
Centerline Dist. to Barrier:		44.0 feet		Heavy Trucks:		63.6%	9.8%	26.5%	14.36%
Centerline Dist. to Observer:		44.0 feet		Noise Source Elevations (in feet)					
Barrier Distance to Observer:		0.0 feet							
Observer Height (Above Pad):		5.0 feet		Autos:		0.000			
Pad Elevation:		0.0 feet		Medium Trucks:		2.297			
Road Elevation:		0.0 feet		Heavy Trucks:		8.004			
Road Grade:		0.0%		Grade Adjustment:		0.0			
Left View:		-90.0 degrees		Lane Equivalent Distance (in feet)					
Right View:		90.0 degrees							
				Autos:		43.875			
				Medium Trucks:		43.673			
				Heavy Trucks:		43.692			
FHWA Noise Model Calculations									
Vehicle Type	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	66.51	-8.11	0.75	-1.20	-4.61	0.000	0.000		
Medium Trucks:	77.72	-23.31	0.78	-1.20	-4.87	0.000	0.000		
Heavy Trucks:	82.99	-15.74	0.78	-1.20	-5.50	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
Vehicle Type	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	57.9	56.1	53.5	52.2	59.3	59.6			
Medium Trucks:	54.0	52.8	47.5	46.3	54.2	54.4			
Heavy Trucks:	66.8	64.6	62.5	62.1	68.9	69.2			
Vehicle Noise:	67.6	65.5	63.2	62.6	69.5	69.7			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			41	87	188	406			
CNEL:			42	91	196	423			

Thursday, December 18, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)									
Scenario: OYC Road Name: Grove Av. Road Segment: s/o Ontario Ranch Rd.				Project Name: Eucalyptus Business Park Job Number: 16285					
SITE SPECIFIC INPUT DATA				NOISE MODEL INPUTS					
Highway Data				Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt):		5,330 vehicles		Autos:		15			
Peak Hour Percentage:		8.79%		Medium Trucks (2 Axles):		15			
Peak Hour Volume:		468 vehicles		Heavy Trucks (3+ Axles):		15			
Vehicle Speed:		50 mph							
Near/Far Lane Distance:		45 feet		Vehicle Mix					
Site Data				Vehicle Type		Day	Evening	Night	Daily
				Autos:		69.2%	9.5%	21.3%	83.12%
				Medium Trucks:		80.7%	5.9%	13.4%	2.51%
				Heavy Trucks:		63.6%	9.8%	26.5%	14.36%
				Noise Source Elevations (in feet)					
				Autos:		0.000			
				Medium Trucks:		2.297			
Heavy Trucks:		8.004							
Observer Height (Above Pad):		5.0 feet		Grade Adjustment: 0.0					
Pad Elevation:		0.0 feet							
Road Elevation:		0.0 feet		Lane Equivalent Distance (in feet)					
Road Grade:		0.0%		Autos:		44.931			
Left View:		-90.0 degrees		Medium Trucks:		44.733			
Right View:		90.0 degrees		Heavy Trucks:		44.752			
FHWA Noise Model Calculations									
Vehicle Type	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	70.20	-6.39	0.59	-1.20	-4.65	0.000	0.000		
Medium Trucks:	81.00	-21.59	0.62	-1.20	-4.87	0.000	0.000		
Heavy Trucks:	85.38	-14.02	0.62	-1.20	-5.43	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
Vehicle Type	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	63.2	61.4	58.8	57.5	64.6	64.9			
Medium Trucks:	58.8	57.7	52.3	51.1	59.0	59.3			
Heavy Trucks:	70.8	68.6	66.5	66.0	72.8	73.1			
Vehicle Noise:	71.7	69.6	67.3	66.7	73.6	73.9			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			87	187	403	869			
CNEL:			91	195	420	906			

Thursday, December 18, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)									
Scenario: OYC Road Name: Grove Av. Road Segment: n/o Ontario Ranch Rd.				Project Name: Eucalyptus Business Park Job Number: 16285					
SITE SPECIFIC INPUT DATA				NOISE MODEL INPUTS					
Highway Data				Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt):		7,280 vehicles		Autos:		15			
Peak Hour Percentage:		8.79%		Medium Trucks (2 Axles):		15			
Peak Hour Volume:		640 vehicles		Heavy Trucks (3+ Axles):		15			
Vehicle Speed:		50 mph		Vehicle Mix					
Near/Far Lane Distance:		45 feet		VehicleType		Day	Evening	Night	Daily
Site Data				Autos:		69.2%	9.5%	21.3%	83.12%
Barrier Height:		0.0 feet		Medium Trucks:		80.7%	5.9%	13.4%	2.51%
Barrier Type (0-Wall, 1-Berm):		0.0		Heavy Trucks:		63.6%	9.8%	26.5%	14.36%
Centerline Dist. to Barrier:		50.0 feet		Noise Source Elevations (in feet)					
Centerline Dist. to Observer:		50.0 feet		Autos:		0.000			
Barrier Distance to Observer:		0.0 feet		Medium Trucks:		2.297			
Observer Height (Above Pad):		5.0 feet		Heavy Trucks:		8.004	Grade Adjustment: 0.0		
Pad Elevation:		0.0 feet		Lane Equivalent Distance (in feet)					
Road Elevation:		0.0 feet		Autos:		44.931			
Road Grade:		0.0%		Medium Trucks:		44.733			
Left View:		-90.0 degrees		Heavy Trucks:		44.752			
Right View:		90.0 degrees							
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	70.20	-5.04	0.59	-1.20	-4.65	0.000	0.000		
Medium Trucks:	81.00	-20.23	0.62	-1.20	-4.87	0.000	0.000		
Heavy Trucks:	85.38	-12.66	0.62	-1.20	-5.43	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	64.6	62.7	60.1	58.9	66.0	66.3			
Medium Trucks:	60.2	59.0	53.7	52.5	60.4	60.6			
Heavy Trucks:	72.1	69.9	67.9	67.4	74.2	74.5			
Vehicle Noise:	73.1	71.0	68.7	68.1	75.0	75.2			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			107	231	497	1,070			
CNEL:			111	240	517	1,115			

Thursday, December 18, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)									
Scenario: OYC Road Name: Walker Av. Road Segment: n/o Ontario Ranch Rd.				Project Name: Eucalyptus Business Park Job Number: 16285					
SITE SPECIFIC INPUT DATA				NOISE MODEL INPUTS					
Highway Data				Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt): 7,215 vehicles Peak Hour Percentage: 8.79% Peak Hour Volume: 634 vehicles Vehicle Speed: 40 mph Near/Far Lane Distance: 12 feet				Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15					
Site Data				Vehicle Mix					
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 44.0 feet Centerline Dist. to Observer: 44.0 feet 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				VehicleType	Day	Evening	Night	Daily	
				Autos: 69.2% 9.5% 21.3% 83.12% Medium Trucks: 80.7% 5.9% 13.4% 2.51% Heavy Trucks: 63.6% 9.8% 26.5% 14.36%					
				Noise Source Elevations (in feet)					
				Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.004 Grade Adjustment: 0.0					
				Lane Equivalent Distance (in feet)					
				Autos: 43.875 Medium Trucks: 43.673 Heavy Trucks: 43.692					
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	66.51	-4.11	0.75	-1.20	-4.61	0.000	0.000		
Medium Trucks:	77.72	-19.30	0.78	-1.20	-4.87	0.000	0.000		
Heavy Trucks:	82.99	-11.73	0.78	-1.20	-5.50	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn		CNEL		
Autos:	62.0	60.1	57.5	56.2	63.4		63.7		
Medium Trucks:	58.0	56.8	51.5	50.3	58.2		58.4		
Heavy Trucks:	70.8	68.6	66.6	66.1	72.9		73.2		
Vehicle Noise:	71.6	69.5	67.2	66.6	73.5		73.8		
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				75	162	349	751		
CNEL:				78	169	363	782		

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)									
Scenario: OYC Road Name: Walker Av. Road Segment: s/o Ontario Ranch Rd.					Project Name: Eucalyptus Business Park Job Number: 16285				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt):		5,523 vehicles			Autos:		15		
Peak Hour Percentage:		8.79%			Medium Trucks (2 Axles):		15		
Peak Hour Volume:		485 vehicles			Heavy Trucks (3+ Axles):		15		
Vehicle Speed:		40 mph			Vehicle Mix				
Near/Far Lane Distance:		12 feet			VehicleType				
Site Data					Day		Evening		Night
Barrier Height:		0.0 feet			Autos:		69.2%		9.5%
Barrier Type (0-Wall, 1-Berm):		0.0			Medium Trucks:		80.7%		5.9%
Centerline Dist. to Barrier:		44.0 feet			Heavy Trucks:		63.6%		9.8%
Centerline Dist. to Observer:		44.0 feet					26.5%		14.36%
Barrier Distance to Observer:		0.0 feet			Noise Source Elevations (in feet)				
Observer Height (Above Pad):		5.0 feet			Autos:		0.000		
Pad Elevation:		0.0 feet			Medium Trucks:		2.297		
Road Elevation:		0.0 feet			Heavy Trucks:		8.004		Grade Adjustment: 0.0
Road Grade:		0.0%			Lane Equivalent Distance (in feet)				
Left View:		-90.0 degrees			Autos:		43.875		
Right View:		90.0 degrees			Medium Trucks:		43.673		
					Heavy Trucks:		43.692		
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	66.51	-5.27	0.75	-1.20	-4.61	0.000	0.000		
Medium Trucks:	77.72	-20.46	0.78	-1.20	-4.87	0.000	0.000		
Heavy Trucks:	82.99	-12.89	0.78	-1.20	-5.50	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	60.8	59.0	56.4	55.1	62.2	62.5			
Medium Trucks:	56.8	55.7	50.3	49.1	57.0	57.3			
Heavy Trucks:	69.7	67.5	65.4	64.9	71.7	72.0			
Vehicle Noise:	70.4	68.3	66.0	65.5	72.3	72.6			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			63	135	292	629			
CNEL:			65	141	304	655			

Thursday, December 18, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)									
Scenario: OYC Road Name: Archibald Av. Road Segment: s/o Ontario Ranch Rd.					Project Name: Eucalyptus Business Park Job Number: 16285				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 28,195 vehicles Peak Hour Percentage: 8.79% Peak Hour Volume: 2,478 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 58 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 60.0 feet Centerline Dist. to Observer: 60.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					VehicleType	Day	Evening	Night	Daily
					Autos: 69.2% 9.5% 21.3% 83.12%				
					Medium Trucks: 80.7% 5.9% 13.4% 2.51%				
					Heavy Trucks: 63.6% 9.8% 26.5% 14.36%				
					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.004 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 52.764 Medium Trucks: 52.596 Heavy Trucks: 52.612				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	71.78	0.43	-0.45	-1.20	-4.69	0.000	0.000		
Medium Trucks:	82.40	-14.77	-0.43	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	86.40	-7.19	-0.44	-1.20	-5.34	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	68.7	66.1	64.8	72.0	72.3			
Medium Trucks:	66.0	64.8	59.5	58.3	66.2	66.5			
Heavy Trucks:	77.6	75.4	73.3	72.8	79.6	79.9			
Vehicle Noise:	78.6	76.5	74.2	73.6	80.5	80.7			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				300	645	1,391	2,996		
CNEL:				312	673	1,449	3,122		

Thursday, December 18, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)								
Scenario: OYC Road Name: Archibald Av. Road Segment: n/o Ontario Ranch Rd.				Project Name: Eucalyptus Business Park Job Number: 16285				
SITE SPECIFIC INPUT DATA				NOISE MODEL INPUTS				
Highway Data				Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 22,011 vehicles Peak Hour Percentage: 8.79% Peak Hour Volume: 1,935 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 58 feet				Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data				Vehicle Mix				
				VehicleType	Day	Evening	Night	Daily
				Autos: 69.2% 9.5% 21.3% 83.12%				
				Medium Trucks: 80.7% 5.9% 13.4% 2.51%				
				Heavy Trucks: 63.6% 9.8% 26.5% 14.36%				
				Noise Source Elevations (in feet)				
				Autos: 0.000				
				Medium Trucks: 2.297				
				Heavy Trucks: 8.004 Grade Adjustment: 0.0				
				Lane Equivalent Distance (in feet)				
				Autos: 52.764				
				Medium Trucks: 52.596				
				Heavy Trucks: 52.612				
FHWA Noise Model Calculations								
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten	
Autos:	71.78	-0.65	-0.45	-1.20	-4.69	0.000	0.000	
Medium Trucks:	82.40	-15.84	-0.43	-1.20	-4.88	0.000	0.000	
Heavy Trucks:	86.40	-8.27	-0.44	-1.20	-5.34	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:	69.5	67.7	65.1	63.8	70.9	71.2		
Medium Trucks:	64.9	63.8	58.4	57.2	65.1	65.4		
Heavy Trucks:	76.5	74.3	72.2	71.7	78.5	78.8		
Vehicle Noise:	77.5	75.5	73.1	72.5	79.4	79.7		
Centerline Distance to Noise Contour (in feet)								
			70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:			254	547	1,179	2,540		
CNEL:			265	570	1,229	2,647		

Thursday, December 18, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)								
Scenario: OYC Road Name: Ontario Ranch Rd. Road Segment: e/o Euclid Av. (SR-83)			Project Name: Eucalyptus Business Park Job Number: 16285					
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS					
Highway Data			Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt): 12,080 vehicles Peak Hour Percentage: 8.79% Peak Hour Volume: 1,062 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 110 feet			Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15					
Site Data			Vehicle Mix					
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 80.0 feet Centerline Dist. to Observer: 80.0 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			VehicleType		Day	Evening	Night	Daily
			Autos:		69.2%	9.5%	21.3%	83.12%
			Medium Trucks:		80.7%	5.9%	13.4%	2.51%
			Heavy Trucks:		63.6%	9.8%	26.5%	14.36%
			Noise Source Elevations (in feet)					
			Autos:		0.000			
			Medium Trucks:		2.297			
			Heavy Trucks:		8.004		Grade Adjustment: 0.0	
			Lane Equivalent Distance (in feet)					
			Autos:		58.310			
			Medium Trucks:		58.158			
			Heavy Trucks:		58.172			
FHWA Noise Model Calculations								
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten	
Autos:	71.78	-3.25	-1.10	-1.20	-4.74	0.000	0.000	
Medium Trucks:	82.40	-18.45	-1.09	-1.20	-4.88	0.000	0.000	
Heavy Trucks:	86.40	-10.88	-1.09	-1.20	-5.23	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:	66.2	64.4	61.8	60.5	67.6	67.9		
Medium Trucks:	61.7	60.5	55.2	54.0	61.9	62.1		
Heavy Trucks:	73.2	71.0	68.9	68.5	75.3	75.6		
Vehicle Noise:	74.3	72.2	69.9	69.3	76.1	76.4		
Centerline Distance to Noise Contour (in feet)								
			70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:			205	442	953	2,053		
CNEL:			214	461	993	2,140		

Thursday, December 18, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)									
Scenario: OYC Road Name: Ontario Ranch Rd. Road Segment: w/o Grove Av.					Project Name: Eucalyptus Business Park Job Number: 16285				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt):		10,066 vehicles			Autos:		15		
Peak Hour Percentage:		8.79%			Medium Trucks (2 Axles):		15		
Peak Hour Volume:		885 vehicles			Heavy Trucks (3+ Axles):		15		
Vehicle Speed:		55 mph			Vehicle Mix				
Near/Far Lane Distance:		110 feet			VehicleType				
Site Data					Day	Evening	Night	Daily	
Barrier Height:		0.0 feet			Autos:		69.2%	9.5%	21.3% 83.12%
Barrier Type (0-Wall, 1-Berm):		0.0			Medium Trucks:		80.7%	5.9%	13.4% 2.51%
Centerline Dist. to Barrier:		80.0 feet			Heavy Trucks:		63.6%	9.8%	26.5% 14.36%
Centerline Dist. to Observer:		80.0 feet			Noise Source Elevations (in feet)				
Barrier Distance to Observer:		0.0 feet			Autos:		0.000		
Observer Height (Above Pad):		5.0 feet			Medium Trucks:		2.297		
Pad Elevation:		0.0 feet			Heavy Trucks:		8.004 Grade Adjustment: 0.0		
Road Elevation:		0.0 feet			Lane Equivalent Distance (in feet)				
Road Grade:		0.0%			Autos:		58.310		
Left View:		-90.0 degrees			Medium Trucks:		58.158		
Right View:		90.0 degrees			Heavy Trucks:		58.172		
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	71.78	-4.04	-1.10	-1.20	-4.74	0.000	0.000		
Medium Trucks:	82.40	-19.24	-1.09	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	86.40	-11.67	-1.09	-1.20	-5.23	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:	65.4	63.6	61.0	59.7	66.8	67.1			
Medium Trucks:	60.9	59.7	54.4	53.2	61.1	61.3			
Heavy Trucks:	72.4	70.2	68.2	67.7	74.5	74.8			
Vehicle Noise:	73.5	71.4	69.1	68.5	75.3	75.6			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			182	392	844	1,818			
CNEL:			189	408	879	1,895			

Thursday, December 18, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)									
Scenario: OYC Road Name: Ontario Ranch Rd. Road Segment: w/o Archibald Av.					Project Name: Eucalyptus Business Park Job Number: 16285				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 15,875 vehicles					Autos: 15				
Peak Hour Percentage: 8.79%					Medium Trucks (2 Axles): 15				
Peak Hour Volume: 1,395 vehicles					Heavy Trucks (3+ Axles): 15				
Vehicle Speed: 55 mph									
Near/Far Lane Distance: 110 feet					Vehicle Mix				
					Vehicle Type	Day	Evening	Night	Daily
Site Data					Autos: 69.2% 9.5% 21.3% 83.12%				
					Medium Trucks: 80.7% 5.9% 13.4% 2.51%				
					Heavy Trucks: 63.6% 9.8% 26.5% 14.36%				
					Noise Source Elevations (in feet)				
					Autos: 0.000				
Barrier Height: 0.0 feet					Medium Trucks: 2.297				
Barrier Type (0-Wall, 1-Berm): 0.0					Heavy Trucks: 8.004				
Centerline Dist. to Barrier: 80.0 feet					Grade Adjustment: 0.0				
Centerline Dist. to Observer: 80.0 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									
FHWA Noise Model Calculations									
Vehicle Type	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	71.78	-2.06	-1.10	-1.20	-4.74	0.000	0.000		
Medium Trucks:	82.40	-17.26	-1.09	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	86.40	-9.69	-1.09	-1.20	-5.23	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
Vehicle Type	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	67.4	65.6	63.0	61.7	68.8	69.1			
Medium Trucks:	62.9	61.7	56.3	55.2	63.1	63.3			
Heavy Trucks:	74.4	72.2	70.1	69.7	76.5	76.7			
Vehicle Noise:	75.5	73.4	71.0	70.4	77.3	77.6			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			246	531	1,144	2,464			
CNEL:			257	553	1,192	2,567			

Thursday, December 18, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)									
Scenario: OYC Road Name: Ontario Ranch Rd. Road Segment: e/o Grove Av.				Project Name: Eucalyptus Business Park Job Number: 16285					
SITE SPECIFIC INPUT DATA				NOISE MODEL INPUTS					
Highway Data				Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt):		10,003 vehicles		Autos:		15			
Peak Hour Percentage:		8.79%		Medium Trucks (2 Axles):		15			
Peak Hour Volume:		879 vehicles		Heavy Trucks (3+ Axles):		15			
Vehicle Speed:		55 mph		Vehicle Mix					
Near/Far Lane Distance:		110 feet		VehicleType		Day	Evening	Night	Daily
Site Data				Autos:		69.2%	9.5%	21.3%	83.12%
Barrier Height:		0.0 feet		Medium Trucks:		80.7%	5.9%	13.4%	2.51%
Barrier Type (0-Wall, 1-Berm):		0.0		Heavy Trucks:		63.6%	9.8%	26.5%	14.36%
Centerline Dist. to Barrier:		80.0 feet		Noise Source Elevations (in feet)					
Centerline Dist. to Observer:		80.0 feet		Autos:		0.000			
Barrier Distance to Observer:		0.0 feet		Medium Trucks:		2.297			
Observer Height (Above Pad):		5.0 feet		Heavy Trucks:		8.004		Grade Adjustment: 0.0	
Pad Elevation:		0.0 feet		Lane Equivalent Distance (in feet)					
Road Elevation:		0.0 feet		Autos:		58.310			
Road Grade:		0.0%		Medium Trucks:		58.158			
Left View:		-90.0 degrees		Heavy Trucks:		58.172			
Right View:		90.0 degrees							
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	71.78	-4.07	-1.10	-1.20	-4.74	0.000	0.000		
Medium Trucks:	82.40	-19.27	-1.09	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	86.40	-11.70	-1.09	-1.20	-5.23	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:	65.4	63.6	61.0	59.7	66.8	67.1			
Medium Trucks:	60.8	59.7	54.3	53.2	61.1	61.3			
Heavy Trucks:	72.4	70.2	68.1	67.7	74.5	74.7			
Vehicle Noise:	73.4	71.4	69.0	68.4	75.3	75.6			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			181	390	840	1,811			
CNEL:			189	407	876	1,887			

Thursday, December 18, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)									
Scenario: OYC Road Name: Ontario Ranch Rd. Road Segment: e/o Archibald Av.				Project Name: Eucalyptus Business Park Job Number: 16285					
SITE SPECIFIC INPUT DATA				NOISE MODEL INPUTS					
Highway Data				Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt):		20,129 vehicles		Autos:		15			
Peak Hour Percentage:		8.79%		Medium Trucks (2 Axles):		15			
Peak Hour Volume:		1,769 vehicles		Heavy Trucks (3+ Axles):		15			
Vehicle Speed:		55 mph		Vehicle Mix					
Near/Far Lane Distance:		110 feet		VehicleType		Day	Evening	Night	Daily
Site Data				Autos:		69.2%	9.5%	21.3%	83.12%
Barrier Height:		0.0 feet		Medium Trucks:		80.7%	5.9%	13.4%	2.51%
Barrier Type (0-Wall, 1-Berm):		0.0		Heavy Trucks:		63.6%	9.8%	26.5%	14.36%
Centerline Dist. to Barrier:		80.0 feet		Noise Source Elevations (in feet)					
Centerline Dist. to Observer:		80.0 feet		Autos:		0.000			
Barrier Distance to Observer:		0.0 feet		Medium Trucks:		2.297			
Observer Height (Above Pad):		5.0 feet		Heavy Trucks:		8.004	Grade Adjustment: 0.0		
Pad Elevation:		0.0 feet		Lane Equivalent Distance (in feet)					
Road Elevation:		0.0 feet		Autos:		58.310			
Road Grade:		0.0%		Medium Trucks:		58.158			
Left View:		-90.0 degrees		Heavy Trucks:		58.172			
Right View:		90.0 degrees							
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	71.78	-1.03	-1.10	-1.20	-4.74	0.000	0.000		
Medium Trucks:	82.40	-16.23	-1.09	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	86.40	-8.66	-1.09	-1.20	-5.23	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	68.4	66.6	64.0	62.7	69.8	70.1			
Medium Trucks:	63.9	62.7	57.4	56.2	64.1	64.3			
Heavy Trucks:	75.4	73.3	71.2	70.7	77.5	77.8			
Vehicle Noise:	76.5	74.4	72.1	71.5	78.4	78.6			
Centerline Distance to Noise Contour (in feet)									
			70 dBA		65 dBA		60 dBA		55 dBA
Ldn:			289		622		1,340		2,886
CNEL:			301		648		1,396		3,007

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)										
Scenario: OYC Road Name: Eucalyptus Av. Road Segment: e/o Euclid Av. (SR-83)					Project Name: Eucalyptus Business Park Job Number: 16285					
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS					
Highway Data					Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt):		6,436 vehicles			Autos:		15			
Peak Hour Percentage:		8.79%			Medium Trucks (2 Axles):		15			
Peak Hour Volume:		566 vehicles			Heavy Trucks (3+ Axles):		15			
Vehicle Speed:		40 mph			Vehicle Mix					
Near/Far Lane Distance:		12 feet								
Site Data					VehicleType					
Barrier Height:		0.0 feet			Autos:		69.2%	9.5%	21.3%	83.12%
Barrier Type (0-Wall, 1-Berm):		0.0			Medium Trucks:		80.7%	5.9%	13.4%	2.51%
Centerline Dist. to Barrier:		44.0 feet			Heavy Trucks:		63.6%	9.8%	26.5%	14.36%
Centerline Dist. to Observer:		44.0 feet			Noise Source Elevations (in feet)					
Barrier Distance to Observer:		0.0 feet								
Observer Height (Above Pad):		5.0 feet			Autos:		0.000			
Pad Elevation:		0.0 feet			Medium Trucks:		2.297			
Road Elevation:		0.0 feet			Heavy Trucks:		8.004			
Road Grade:		0.0%			Grade Adjustment:		0.0			
Left View:		-90.0 degrees			Lane Equivalent Distance (in feet)					
Right View:		90.0 degrees								
					Autos:		43.875			
					Medium Trucks:		43.673			
					Heavy Trucks:		43.692			
FHWA Noise Model Calculations										
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten			
Autos:	66.51	-4.60	0.75	-1.20	-4.61	0.000	0.000			
Medium Trucks:	77.72	-19.80	0.78	-1.20	-4.87	0.000	0.000			
Heavy Trucks:	82.99	-12.23	0.78	-1.20	-5.50	0.000	0.000			
Unmitigated Noise Levels (without Topo and barrier attenuation)										
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL				
Autos:	61.5	59.6	57.0	55.8	62.9	63.2				
Medium Trucks:	57.5	56.3	51.0	49.8	57.7	57.9				
Heavy Trucks:	70.3	68.1	66.1	65.6	72.4	72.7				
Vehicle Noise:	71.1	69.0	66.7	66.1	73.0	73.3				
Centerline Distance to Noise Contour (in feet)										
			70 dBA	65 dBA	60 dBA	55 dBA				
Ldn:			70	150	323	696				
CNEL:			73	156	337	725				

Thursday, December 18, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)									
Scenario: OYC Road Name: Eucalyptus Av. Road Segment: e/o Grove Av.					Project Name: Eucalyptus Business Park Job Number: 16285				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 9,087 vehicles Peak Hour Percentage: 8.79% Peak Hour Volume: 799 vehicles Vehicle Speed: 40 mph Near/Far Lane Distance: 12 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
					Vehicle Type	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 44.0 feet Centerline Dist. to Observer: 44.0 feet 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					Autos: 69.2% 9.5% 21.3% 83.12% Medium Trucks: 80.7% 5.9% 13.4% 2.51% Heavy Trucks: 63.6% 9.8% 26.5% 14.36%				
					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.004 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 43.875 Medium Trucks: 43.673 Heavy Trucks: 43.692				
FHWA Noise Model Calculations									
Vehicle Type	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	66.51	-3.10	0.75	-1.20	-4.61	0.000	0.000		
Medium Trucks:	77.72	-18.30	0.78	-1.20	-4.87	0.000	0.000		
Heavy Trucks:	82.99	-10.73	0.78	-1.20	-5.50	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
Vehicle Type	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	63.0	61.1	58.5	57.2	64.4	64.7			
Medium Trucks:	59.0	57.8	52.5	51.3	59.2	59.4			
Heavy Trucks:	71.8	69.6	67.6	67.1	73.9	74.2			
Vehicle Noise:	72.6	70.5	68.2	67.6	74.5	74.8			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			88	189	407	876			
CNEL:			91	197	424	913			

Thursday, December 18, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)							
Scenario: OYC Road Name: Eucalyptus Av. Road Segment: w/o Grove Av.				Project Name: Eucalyptus Business Park Job Number: 16285			
SITE SPECIFIC INPUT DATA				NOISE MODEL INPUTS			
Highway Data				Site Conditions (Hard = 10, Soft = 15)			
Average Daily Traffic (Adt):		4,818 vehicles		Autos:		15	
Peak Hour Percentage:		8.79%		Medium Trucks (2 Axles):		15	
Peak Hour Volume:		424 vehicles		Heavy Trucks (3+ Axles):		15	
Vehicle Speed:		40 mph		Vehicle Mix			
Near/Far Lane Distance:		12 feet		VehicleType			
Site Data				Day		Evening	
Barrier Height:		0.0 feet		Night		Daily	
Barrier Type (0-Wall, 1-Berm):		0.0		Autos:		69.2% 9.5% 21.3% 83.12%	
Centerline Dist. to Barrier:		44.0 feet		Medium Trucks:		80.7% 5.9% 13.4% 2.51%	
Centerline Dist. to Observer:		44.0 feet		Heavy Trucks:		63.6% 9.8% 26.5% 14.36%	
Barrier Distance to Observer:		0.0 feet		Noise Source Elevations (in feet)			
Observer Height (Above Pad):		5.0 feet		Autos:		0.000	
Pad Elevation:		0.0 feet		Medium Trucks:		2.297	
Road Elevation:		0.0 feet		Heavy Trucks:		8.004	
Road Grade:		0.0%		Grade Adjustment:		0.0	
Left View:		-90.0 degrees		Lane Equivalent Distance (in feet)			
Right View:		90.0 degrees		Autos:		43.875	
				Medium Trucks:		43.673	
				Heavy Trucks:		43.692	
FHWA Noise Model Calculations							
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	66.51	-5.86	0.75	-1.20	-4.61	0.000	0.000
Medium Trucks:	77.72	-21.06	0.78	-1.20	-4.87	0.000	0.000
Heavy Trucks:	82.99	-13.48	0.78	-1.20	-5.50	0.000	0.000
Unmitigated Noise Levels (without Topo and barrier attenuation)							
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	60.2	58.4	55.8	54.5	61.6	61.9	
Medium Trucks:	56.2	55.1	49.7	48.5	56.4	56.7	
Heavy Trucks:	69.1	66.9	64.8	64.3	71.1	71.4	
Vehicle Noise:	69.8	67.7	65.4	64.9	71.7	72.0	
Centerline Distance to Noise Contour (in feet)							
			70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:			57	124	266	574	
CNEL:			60	129	278	598	

Thursday, December 18, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)							
Scenario: OYC Road Name: Eucalyptus Av. Road Segment: e/o Walker Av.				Project Name: Eucalyptus Business Park Job Number: 16285			
SITE SPECIFIC INPUT DATA				NOISE MODEL INPUTS			
Highway Data				Site Conditions (Hard = 10, Soft = 15)			
Average Daily Traffic (Adt):		6,280 vehicles		Autos: 15			
Peak Hour Percentage:		8.79%		Medium Trucks (2 Axles): 15			
Peak Hour Volume:		552 vehicles		Heavy Trucks (3+ Axles): 15			
Vehicle Speed:		40 mph		Vehicle Mix			
Near/Far Lane Distance:		12 feet		VehicleType			
Site Data				Day	Evening	Night	Daily
Barrier Height:		0.0 feet		Autos: 69.2%			
Barrier Type (0-Wall, 1-Berm):		0.0		Medium Trucks: 80.7%			
Centerline Dist. to Barrier:		44.0 feet		Heavy Trucks: 63.6%			
Centerline Dist. to Observer:		44.0 feet		Grade Adjustment: 0.0			
Barrier Distance to Observer:		0.0 feet		Noise Source Elevations (in feet)			
Observer Height (Above Pad):		5.0 feet		Autos: 0.000			
Pad Elevation:		0.0 feet		Medium Trucks: 2.297			
Road Elevation:		0.0 feet		Heavy Trucks: 8.004			
Road Grade:		0.0%		Lane Equivalent Distance (in feet)			
Left View:		-90.0 degrees		Autos: 43.875			
Right View:		90.0 degrees		Medium Trucks: 43.673			
				Heavy Trucks: 43.692			
FHWA Noise Model Calculations							
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	66.51	-4.71	0.75	-1.20	-4.61	0.000	0.000
Medium Trucks:	77.72	-19.90	0.78	-1.20	-4.87	0.000	0.000
Heavy Trucks:	82.99	-12.33	0.78	-1.20	-5.50	0.000	0.000
Unmitigated Noise Levels (without Topo and barrier attenuation)							
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	61.4	59.5	56.9	55.6	62.8	63.0	
Medium Trucks:	57.4	56.2	50.9	49.7	57.6	57.8	
Heavy Trucks:	70.2	68.0	66.0	65.5	72.3	72.6	
Vehicle Noise:	71.0	68.9	66.6	66.0	72.9	73.1	
Centerline Distance to Noise Contour (in feet)							
			70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:			68	148	318	685	
CNEL:			71	154	331	713	

Thursday, December 18, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)									
Scenario: HY Road Name: Euclid Av. (SR-83) Road Segment: n/o Ontario Ranch Rd.				Project Name: Eucalyptus Business Park Job Number: 16285					
SITE SPECIFIC INPUT DATA				NOISE MODEL INPUTS					
Highway Data				Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt): 35,578 vehicles Peak Hour Percentage: 8.79% Peak Hour Volume: 3,127 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 110 feet				Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15					
Site Data				Vehicle Mix					
				Vehicle Type		Day	Evening	Night	Daily
				Autos:		69.2%	9.5%	21.3%	83.12%
				Medium Trucks:		80.7%	5.9%	13.4%	2.51%
				Heavy Trucks:		63.6%	9.8%	26.5%	14.36%
				Noise Source Elevations (in feet)					
				Autos:		0.000			
				Medium Trucks:		2.297			
				Heavy Trucks:		8.004			
				Grade Adjustment:		0.0			
				Lane Equivalent Distance (in feet)					
				Autos:		58.310			
				Medium Trucks:		58.158			
				Heavy Trucks:		58.172			
FHWA Noise Model Calculations									
Vehicle Type	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	71.78	1.44	-1.10	-1.20	-4.74	0.000	0.000		
Medium Trucks:	82.40	-13.76	-1.09	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	86.40	-6.18	-1.09	-1.20	-5.23	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
Vehicle Type	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	70.9	69.1	66.5	65.2	72.3	72.6			
Medium Trucks:	66.4	65.2	59.9	58.7	66.6	66.8			
Heavy Trucks:	77.9	75.7	73.6	73.2	80.0	80.2			
Vehicle Noise:	79.0	76.9	74.6	74.0	80.8	81.1			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			422	909	1,958	4,219			
CNEL:			440	947	2,041	4,396			

Thursday, December 18, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)									
Scenario: HY Road Name: Euclid Av. (SR-83) Road Segment: s/o Eucalyptus Av.				Project Name: Eucalyptus Business Park Job Number: 16285					
SITE SPECIFIC INPUT DATA				NOISE MODEL INPUTS					
Highway Data				Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt): 48,446 vehicles Peak Hour Percentage: 8.79% Peak Hour Volume: 4,258 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 110 feet				Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15					
Site Data				Vehicle Mix					
				Vehicle Type	Day	Evening	Night	Daily	
				Autos: 69.2% 9.5% 21.3% 83.12%					
				Medium Trucks: 80.7% 5.9% 13.4% 2.51%					
				Heavy Trucks: 63.6% 9.8% 26.5% 14.36%					
				Noise Source Elevations (in feet)					
				Autos: 0.000					
				Medium Trucks: 2.297					
				Heavy Trucks: 8.004					
				Grade Adjustment: 0.0					
				Lane Equivalent Distance (in feet)					
				Autos: 58.310					
				Medium Trucks: 58.158					
				Heavy Trucks: 58.172					
FHWA Noise Model Calculations									
Vehicle Type	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	71.78	2.78	-1.10	-1.20	-4.74	0.000	0.000		
Medium Trucks:	82.40	-12.41	-1.09	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	86.40	-4.84	-1.09	-1.20	-5.23	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
Vehicle Type	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	72.3	70.4	67.8	66.5	73.7	74.0			
Medium Trucks:	67.7	66.5	61.2	60.0	67.9	68.1			
Heavy Trucks:	79.3	77.1	75.0	74.5	81.3	81.6			
Vehicle Noise:	80.3	78.2	75.9	75.3	82.2	82.4			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			518	1,117	2,406	5,183			
CNEL:			540	1,164	2,507	5,401			

Thursday, December 18, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)									
Scenario: HY Road Name: Euclid Av. (SR-83) Road Segment: n/o Eucalyptus Av.				Project Name: Eucalyptus Business Park Job Number: 16285					
SITE SPECIFIC INPUT DATA				NOISE MODEL INPUTS					
Highway Data				Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt): 38,169 vehicles Peak Hour Percentage: 8.79% Peak Hour Volume: 3,355 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 110 feet				Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15					
Site Data				Vehicle Mix					
				VehicleType	Day	Evening	Night	Daily	
				Autos: 69.2% 9.5% 21.3% 83.12%					
				Medium Trucks: 80.7% 5.9% 13.4% 2.51%					
				Heavy Trucks: 63.6% 9.8% 26.5% 14.36%					
				Noise Source Elevations (in feet)					
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 80.0 feet Centerline Dist. to Observer: 80.0 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				Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.004 Grade Adjustment: 0.0					
				Lane Equivalent Distance (in feet)					
				Autos: 58.310 Medium Trucks: 58.158 Heavy Trucks: 58.172					
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	71.78	1.75	-1.10	-1.20	-4.74	0.000	0.000		
Medium Trucks:	82.40	-13.45	-1.09	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	86.40	-5.88	-1.09	-1.20	-5.23	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:	71.2	69.4	66.8	65.5	72.6	72.9			
Medium Trucks:	66.7	65.5	60.2	59.0	66.9	67.1			
Heavy Trucks:	78.2	76.0	73.9	73.5	80.3	80.5			
Vehicle Noise:	79.3	77.2	74.9	74.3	81.1	81.4			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			442	953	2,052	4,422			
CNEL:			461	993	2,139	4,607			

Thursday, December 18, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)									
Scenario: HY Road Name: Bon View Av. Road Segment: n/o Ontario Ranch Rd.				Project Name: Eucalyptus Business Park Job Number: 16285					
SITE SPECIFIC INPUT DATA				NOISE MODEL INPUTS					
Highway Data				Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt): 14,650 vehicles Peak Hour Percentage: 8.79% Peak Hour Volume: 1,288 vehicles Vehicle Speed: 40 mph Near/Far Lane Distance: 12 feet				Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15					
Site Data				Vehicle Mix					
				VehicleType	Day	Evening	Night	Daily	
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 44.0 feet Centerline Dist. to Observer: 44.0 feet 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				Autos: 69.2% 9.5% 21.3% 83.12% Medium Trucks: 80.7% 5.9% 13.4% 2.51% Heavy Trucks: 63.6% 9.8% 26.5% 14.36%					
				Noise Source Elevations (in feet)					
				Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.004 Grade Adjustment: 0.0					
				Lane Equivalent Distance (in feet)					
				Autos: 43.875 Medium Trucks: 43.673 Heavy Trucks: 43.692					
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	66.51	-1.03	0.75	-1.20	-4.61	0.000	0.000		
Medium Trucks:	77.72	-16.23	0.78	-1.20	-4.87	0.000	0.000		
Heavy Trucks:	82.99	-8.65	0.78	-1.20	-5.50	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	65.0	63.2	60.6	59.3	66.4	66.7			
Medium Trucks:	61.1	59.9	54.6	53.4	61.3	61.5			
Heavy Trucks:	73.9	71.7	69.6	69.2	76.0	76.2			
Vehicle Noise:	74.6	72.5	70.3	69.7	76.6	76.8			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				120	259	559	1,204		
CNEL:				125	270	582	1,255		

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)									
Scenario: HY Road Name: Bon View Av. Road Segment: s/o Ontario Ranch Rd.					Project Name: Eucalyptus Business Park Job Number: 16285				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 16,496 vehicles Peak Hour Percentage: 8.79% Peak Hour Volume: 1,450 vehicles Vehicle Speed: 40 mph Near/Far Lane Distance: 12 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
					Vehicle Type		Day	Evening	Night
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 44.0 feet Centerline Dist. to Observer: 44.0 feet 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					Autos: 69.2% 9.5% 21.3% 83.12% Medium Trucks: 80.7% 5.9% 13.4% 2.51% Heavy Trucks: 63.6% 9.8% 26.5% 14.36%				
					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.004				
					Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 43.875 Medium Trucks: 43.673 Heavy Trucks: 43.692				
FHWA Noise Model Calculations									
Vehicle Type	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	66.51	-0.52	0.75	-1.20	-4.61	0.000	0.000		
Medium Trucks:	77.72	-15.71	0.78	-1.20	-4.87	0.000	0.000		
Heavy Trucks:	82.99	-8.14	0.78	-1.20	-5.50	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
Vehicle Type	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	65.5	63.7	61.1	59.8	66.9	67.2			
Medium Trucks:	61.6	60.4	55.1	53.9	61.8	62.0			
Heavy Trucks:	74.4	72.2	70.1	69.7	76.5	76.8			
Vehicle Noise:	75.2	73.1	70.8	70.2	77.1	77.3			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				130	281	605	1,304		
CNEL:				136	293	630	1,358		

Thursday, December 18, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)									
Scenario: HY Road Name: Grove Av. Road Segment: n/o Ontario Ranch Rd.					Project Name: Eucalyptus Business Park Job Number: 16285				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 21,735 vehicles					Autos: 15				
Peak Hour Percentage: 8.79%					Medium Trucks (2 Axles): 15				
Peak Hour Volume: 1,910 vehicles					Heavy Trucks (3+ Axles): 15				
Vehicle Speed: 50 mph									
Near/Far Lane Distance: 45 feet					Vehicle Mix				
					Vehicle Type	Day	Evening	Night	Daily
Site Data					Autos: 69.2% 9.5% 21.3% 83.12%				
					Medium Trucks: 80.7% 5.9% 13.4% 2.51%				
					Heavy Trucks: 63.6% 9.8% 26.5% 14.36%				
					Noise Source Elevations (in feet)				
					Autos: 0.000				
Barrier Height: 0.0 feet					Medium Trucks: 2.297				
Barrier Type (0-Wall, 1-Berm): 0.0					Heavy Trucks: 8.004				
Centerline Dist. to Barrier: 50.0 feet					Grade Adjustment: 0.0				
Centerline Dist. to Observer: 50.0 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									
FHWA Noise Model Calculations									
Vehicle Type	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	70.20	-0.29	0.59	-1.20	-4.65	0.000	0.000		
Medium Trucks:	81.00	-15.48	0.62	-1.20	-4.87	0.000	0.000		
Heavy Trucks:	85.38	-7.91	0.62	-1.20	-5.43	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
Vehicle Type	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	69.3	67.5	64.9	63.6	70.7	71.0			
Medium Trucks:	64.9	63.8	58.4	57.2	65.1	65.4			
Heavy Trucks:	76.9	74.7	72.6	72.1	78.9	79.2			
Vehicle Noise:	77.8	75.7	73.4	72.8	79.7	80.0			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				222	478	1,030	2,218		
CNEL:				231	498	1,073	2,311		

Thursday, December 18, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)							
Scenario: HY Road Name: Grove Av. Road Segment: s/o Ontario Ranch Rd.				Project Name: Eucalyptus Business Park Job Number: 16285			
SITE SPECIFIC INPUT DATA				NOISE MODEL INPUTS			
Highway Data				Site Conditions (Hard = 10, Soft = 15)			
Average Daily Traffic (Adt): 16,161 vehicles Peak Hour Percentage: 8.79% Peak Hour Volume: 1,421 vehicles Vehicle Speed: 50 mph Near/Far Lane Distance: 45 feet				Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15			
Site Data				Vehicle Mix			
				Vehicle Type	Day	Evening	Night
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 50.0 feet Centerline Dist. to Observer: 50.0 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				Autos: 69.2% 9.5% 21.3% 83.12% Medium Trucks: 80.7% 5.9% 13.4% 2.51% Heavy Trucks: 63.6% 9.8% 26.5% 14.36%			
				Noise Source Elevations (in feet)			
				Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.004 Grade Adjustment: 0.0			
				Lane Equivalent Distance (in feet)			
				Autos: 44.931 Medium Trucks: 44.733 Heavy Trucks: 44.752			
FHWA Noise Model Calculations							
Vehicle Type	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	-1.57	0.59	-1.20	-4.65	0.000	0.000
Medium Trucks:	81.00	-16.77	0.62	-1.20	-4.87	0.000	0.000
Heavy Trucks:	85.38	-9.20	0.62	-1.20	-5.43	0.000	0.000
Unmitigated Noise Levels (without Topo and barrier attenuation)							
Vehicle Type	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	68.0	66.2	63.6	62.3	69.4	69.7	
Medium Trucks:	63.7	62.5	57.1	56.0	63.9	64.1	
Heavy Trucks:	75.6	73.4	71.3	70.9	77.7	77.9	
Vehicle Noise:	76.5	74.4	72.1	71.5	78.4	78.7	
Centerline Distance to Noise Contour (in feet)							
			70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:			182	392	845	1,821	
CNEL:			190	409	881	1,897	

Thursday, December 18, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)										
Scenario: HY Road Name: Walker Av. Road Segment: n/o Ontario Ranch Rd.					Project Name: Eucalyptus Business Park Job Number: 16285					
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS					
Highway Data					Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt): 19,668 vehicles Peak Hour Percentage: 8.79% Peak Hour Volume: 1,729 vehicles Vehicle Speed: 40 mph Near/Far Lane Distance: 12 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15					
Site Data					Vehicle Mix					
					Vehicle Type		Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 44.0 feet Centerline Dist. to Observer: 44.0 feet 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					Autos:		69.2%	9.5%	21.3%	83.12%
					Medium Trucks:		80.7%	5.9%	13.4%	2.51%
					Heavy Trucks:		63.6%	9.8%	26.5%	14.36%
					Noise Source Elevations (in feet)					
					Autos:		0.000			
					Medium Trucks:		2.297			
					Heavy Trucks:		8.004			
					Grade Adjustment:		0.0			
Lane Equivalent Distance (in feet)										
					Autos:		43.875			
					Medium Trucks:		43.673			
					Heavy Trucks:		43.692			
FHWA Noise Model Calculations										
Vehicle Type	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten			
Autos:	66.51	0.25	0.75	-1.20	-4.61	0.000	0.000			
Medium Trucks:	77.72	-14.95	0.78	-1.20	-4.87	0.000	0.000			
Heavy Trucks:	82.99	-7.38	0.78	-1.20	-5.50	0.000	0.000			
Unmitigated Noise Levels (without Topo and barrier attenuation)										
Vehicle Type	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL				
Autos:	66.3	64.5	61.9	60.6	67.7	68.0				
Medium Trucks:	62.3	61.2	55.8	54.6	62.5	62.8				
Heavy Trucks:	75.2	73.0	70.9	70.4	77.3	77.5				
Vehicle Noise:	75.9	73.8	71.5	71.0	77.8	78.1				
Centerline Distance to Noise Contour (in feet)										
				70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:				147	316	680	1,466			
CNEL:				153	329	709	1,527			

Thursday, December 18, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)									
Scenario: HY Road Name: Walker Av. Road Segment: s/o Ontario Ranch Rd.				Project Name: Eucalyptus Business Park Job Number: 16285					
SITE SPECIFIC INPUT DATA				NOISE MODEL INPUTS					
Highway Data				Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt): 24,831 vehicles Peak Hour Percentage: 8.79% Peak Hour Volume: 2,183 vehicles Vehicle Speed: 40 mph Near/Far Lane Distance: 12 feet				Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15					
Site Data				Vehicle Mix					
				Vehicle Type		Day	Evening	Night	Daily
				Autos:		69.2%	9.5%	21.3%	83.12%
				Medium Trucks:		80.7%	5.9%	13.4%	2.51%
				Heavy Trucks:		63.6%	9.8%	26.5%	14.36%
				Noise Source Elevations (in feet)					
				Autos:		0.000			
				Medium Trucks:		2.297			
				Heavy Trucks:		8.004			
				Grade Adjustment: 0.0					
				Lane Equivalent Distance (in feet)					
				Autos:		43.875			
				Medium Trucks:		43.673			
				Heavy Trucks:		43.692			
FHWA Noise Model Calculations									
Vehicle Type	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	66.51	1.26	0.75	-1.20	-4.61	0.000	0.000		
Medium Trucks:	77.72	-13.93	0.78	-1.20	-4.87	0.000	0.000		
Heavy Trucks:	82.99	-6.36	0.78	-1.20	-5.50	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
Vehicle Type	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	67.3	65.5	62.9	61.6	68.7	69.0			
Medium Trucks:	63.4	62.2	56.9	55.7	63.6	63.8			
Heavy Trucks:	76.2	74.0	71.9	71.5	78.3	78.5			
Vehicle Noise:	76.9	74.8	72.6	72.0	78.9	79.1			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			171	369	795	1,712			
CNEL:			178	384	828	1,784			

Thursday, December 18, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)											
Scenario: HY Road Name: Archibald Av. Road Segment: s/o Ontario Ranch Rd.				Project Name: Eucalyptus Business Park Job Number: 16285							
SITE SPECIFIC INPUT DATA				NOISE MODEL INPUTS							
Highway Data				Site Conditions (Hard = 10, Soft = 15)							
Average Daily Traffic (Adt): 44,921 vehicles				Autos: 15							
Peak Hour Percentage: 8.79%				Medium Trucks (2 Axles): 15							
Peak Hour Volume: 3,949 vehicles				Heavy Trucks (3+ Axles): 15							
Vehicle Speed: 55 mph				Vehicle Mix							
Near/Far Lane Distance: 58 feet											
Site Data				VehicleType							
Barrier Height: 0.0 feet				Autos: 69.2%		9.5%		21.3%		83.12%	
Barrier Type (0-Wall, 1-Berm): 0.0				Medium Trucks: 80.7%		5.9%		13.4%		2.51%	
Centerline Dist. to Barrier: 60.0 feet				Heavy Trucks: 63.6%		9.8%		26.5%		14.36%	
Centerline Dist. to Observer: 60.0 feet				Noise Source Elevations (in feet)							
Barrier Distance to Observer: 0.0 feet											
Observer Height (Above Pad): 5.0 feet				Autos: 0.000		Grade Adjustment: 0.0					
Pad Elevation: 0.0 feet				Medium Trucks: 2.297							
Road Elevation: 0.0 feet				Heavy Trucks: 8.004							
Road Grade: 0.0%				Lane Equivalent Distance (in feet)							
Left View: -90.0 degrees				Autos: 52.764		Medium Trucks: 52.596					
Right View: 90.0 degrees				Heavy Trucks: 52.612							
FHWA Noise Model Calculations											
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten				
Autos:	71.78	2.45	-0.45	-1.20	-4.69	0.000	0.000				
Medium Trucks:	82.40	-12.74	-0.43	-1.20	-4.88	0.000	0.000				
Heavy Trucks:	86.40	-5.17	-0.44	-1.20	-5.34	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:	72.6	70.8	68.2	66.9	74.0	74.3					
Medium Trucks:	68.0	66.9	61.5	60.3	68.2	68.5					
Heavy Trucks:	79.6	77.4	75.3	74.8	81.6	81.9					
Vehicle Noise:	80.6	78.6	76.2	75.6	82.5	82.8					
Centerline Distance to Noise Contour (in feet)											
			70 dBA	65 dBA	60 dBA	55 dBA					
Ldn:			409	881	1,897	4,087					
CNEL:			426	917	1,977	4,259					

Thursday, December 18, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)									
Scenario: HY Road Name: Archibald Av. Road Segment: n/o Ontario Ranch Rd.				Project Name: Eucalyptus Business Park Job Number: 16285					
SITE SPECIFIC INPUT DATA				NOISE MODEL INPUTS					
Highway Data				Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt):		42,239 vehicles		Autos: 15					
Peak Hour Percentage:		8.79%		Medium Trucks (2 Axles): 15					
Peak Hour Volume:		3,713 vehicles		Heavy Trucks (3+ Axles): 15					
Vehicle Speed:		55 mph		Vehicle Mix					
Near/Far Lane Distance:		58 feet		VehicleType		Day	Evening	Night	Daily
Site Data				Autos: 69.2% 9.5% 21.3% 83.12%					
Barrier Height:		0.0 feet		Medium Trucks: 80.7% 5.9% 13.4% 2.51%					
Barrier Type (0-Wall, 1-Berm):		0.0		Heavy Trucks: 63.6% 9.8% 26.5% 14.36%					
Centerline Dist. to Barrier:		60.0 feet		Noise Source Elevations (in feet)					
Centerline Dist. to Observer:		60.0 feet		Autos: 0.000					
Barrier Distance to Observer:		0.0 feet		Medium Trucks: 2.297					
Observer Height (Above Pad):		5.0 feet		Heavy Trucks: 8.004 Grade Adjustment: 0.0					
Pad Elevation:		0.0 feet		Lane Equivalent Distance (in feet)					
Road Elevation:		0.0 feet		Autos: 52.764					
Road Grade:		0.0%		Medium Trucks: 52.596					
Left View:		-90.0 degrees		Heavy Trucks: 52.612					
Right View:		90.0 degrees							
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	71.78	2.19	-0.45	-1.20	-4.69	0.000	0.000		
Medium Trucks:	82.40	-13.01	-0.43	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	86.40	-5.44	-0.44	-1.20	-5.34	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:	72.3	70.5	67.9	66.6	73.7	74.0			
Medium Trucks:	67.8	66.6	61.3	60.1	68.0	68.2			
Heavy Trucks:	79.3	77.1	75.0	74.6	81.4	81.6			
Vehicle Noise:	80.4	78.3	76.0	75.4	82.2	82.5			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			392	845	1,821	3,923			
CNEL:			409	881	1,897	4,087			

Thursday, December 18, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)									
Scenario: HY Road Name: Ontario Ranch Rd. Road Segment: e/o Euclid Av. (SR-83)				Project Name: Eucalyptus Business Park Job Number: 16285					
SITE SPECIFIC INPUT DATA				NOISE MODEL INPUTS					
Highway Data				Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt): 24,306 vehicles Peak Hour Percentage: 8.79% Peak Hour Volume: 2,136 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 110 feet				Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15					
Site Data				Vehicle Mix					
				VehicleType	Day	Evening	Night	Daily	
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 80.0 feet Centerline Dist. to Observer: 80.0 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				Autos: 69.2% 9.5% 21.3% 83.12% Medium Trucks: 80.7% 5.9% 13.4% 2.51% Heavy Trucks: 63.6% 9.8% 26.5% 14.36%					
				Noise Source Elevations (in feet)					
				Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.004 Grade Adjustment: 0.0					
				Lane Equivalent Distance (in feet)					
				Autos: 58.310 Medium Trucks: 58.158 Heavy Trucks: 58.172					
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	71.78	-0.21	-1.10	-1.20	-4.74	0.000	0.000		
Medium Trucks:	82.40	-15.41	-1.09	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	86.40	-7.84	-1.09	-1.20	-5.23	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:	69.3	67.4	64.8	63.6	70.7	71.0			
Medium Trucks:	64.7	63.5	58.2	57.0	64.9	65.2			
Heavy Trucks:	76.3	74.1	72.0	71.5	78.3	78.6			
Vehicle Noise:	77.3	75.2	72.9	72.3	79.2	79.4			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			327	705	1,519	3,273			
CNEL:			341	735	1,583	3,410			

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)									
Scenario: HY Road Name: Ontario Ranch Rd. Road Segment: w/o Grove Av.					Project Name: Eucalyptus Business Park Job Number: 16285				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 20,622 vehicles Peak Hour Percentage: 8.79% Peak Hour Volume: 1,813 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 110 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
					Vehicle Type		Day	Evening	Night
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 80.0 feet Centerline Dist. to Observer: 80.0 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					Autos: 69.2% 9.5% 21.3% 83.12% Medium Trucks: 80.7% 5.9% 13.4% 2.51% Heavy Trucks: 63.6% 9.8% 26.5% 14.36%				
					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.004				
					Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 58.310 Medium Trucks: 58.158 Heavy Trucks: 58.172				
FHWA Noise Model Calculations									
Vehicle Type	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	71.78	-0.93	-1.10	-1.20	-4.74	0.000	0.000		
Medium Trucks:	82.40	-16.12	-1.09	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	86.40	-8.55	-1.09	-1.20	-5.23	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
Vehicle Type	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	68.5	66.7	64.1	62.8	69.9	70.2			
Medium Trucks:	64.0	62.8	57.5	56.3	64.2	64.4			
Heavy Trucks:	75.6	73.4	71.3	70.8	77.6	77.9			
Vehicle Noise:	76.6	74.5	72.2	71.6	78.5	78.7			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			293	632	1,361	2,933			
CNEL:			306	658	1,419	3,056			

Thursday, December 18, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)									
Scenario: HY Road Name: Ontario Ranch Rd. Road Segment: elo Grove Av.					Project Name: Eucalyptus Business Park Job Number: 16285				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 18,551 vehicles Peak Hour Percentage: 8.79% Peak Hour Volume: 1,631 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 110 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
					VehicleType	Day	Evening	Night	Daily
					Autos: 69.2% 9.5% 21.3% 83.12%				
					Medium Trucks: 80.7% 5.9% 13.4% 2.51%				
					Heavy Trucks: 63.6% 9.8% 26.5% 14.36%				
					Noise Source Elevations (in feet)				
					Autos: 0.000				
					Medium Trucks: 2.297				
					Heavy Trucks: 8.004 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 58.310 Medium Trucks: 58.158 Heavy Trucks: 58.172				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	71.78	-1.39	-1.10	-1.20	-4.74	0.000	0.000		
Medium Trucks:	82.40	-16.58	-1.09	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	86.40	-9.01	-1.09	-1.20	-5.23	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	68.1	66.3	63.7	62.4	69.5	69.8			
Medium Trucks:	63.5	62.4	57.0	55.8	63.7	64.0			
Heavy Trucks:	75.1	72.9	70.8	70.3	77.2	77.4			
Vehicle Noise:	76.1	74.1	71.7	71.1	78.0	78.3			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				273	589	1,269	2,733		
CNEL:				285	614	1,322	2,848		

Thursday, December 18, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)											
Scenario: HY Road Name: Ontario Ranch Rd. Road Segment: w/o Archibald Av.					Project Name: Eucalyptus Business Park Job Number: 16285						
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS						
Highway Data					Site Conditions (Hard = 10, Soft = 15)						
Average Daily Traffic (Adt): 36,312 vehicles Peak Hour Percentage: 8.79% Peak Hour Volume: 3,192 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 110 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15						
Site Data					Vehicle Mix						
					VehicleType	Day	Evening	Night	Daily		
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 80.0 feet Centerline Dist. to Observer: 80.0 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					Autos: 69.2% 9.5% 21.3% 83.12% Medium Trucks: 80.7% 5.9% 13.4% 2.51% Heavy Trucks: 63.6% 9.8% 26.5% 14.36%						
					Noise Source Elevations (in feet)						
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.004					Grade Adjustment: 0.0	
					Lane Equivalent Distance (in feet)						
Autos: 58.310 Medium Trucks: 58.158 Heavy Trucks: 58.172											
FHWA Noise Model Calculations											
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten				
Autos:	71.78	1.53	-1.10	-1.20	-4.74	0.000	0.000				
Medium Trucks:	82.40	-13.67	-1.09	-1.20	-4.88	0.000	0.000				
Heavy Trucks:	86.40	-6.10	-1.09	-1.20	-5.23	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	69.2	66.6	65.3	72.4	72.7					
Medium Trucks:	66.4	65.3	59.9	58.8	66.7	66.9					
Heavy Trucks:	78.0	75.8	73.7	73.3	80.1	80.3					
Vehicle Noise:	79.0	77.0	74.6	74.0	80.9	81.2					
Centerline Distance to Noise Contour (in feet)											
			70 dBA	65 dBA	60 dBA	55 dBA					
Ldn:			428	921	1,985	4,277					
CNEL:			446	960	2,069	4,457					

Thursday, December 18, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)									
Scenario: HY Road Name: Ontario Ranch Rd. Road Segment: elo Archibald Av.					Project Name: Eucalyptus Business Park Job Number: 16285				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 46,855 vehicles Peak Hour Percentage: 8.79% Peak Hour Volume: 4,119 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 110 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 80.0 feet Centerline Dist. to Observer: 80.0 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					VehicleType	Day	Evening	Night	Daily
					Autos: 69.2% 9.5% 21.3% 83.12%				
					Medium Trucks: 80.7% 5.9% 13.4% 2.51%				
					Heavy Trucks: 63.6% 9.8% 26.5% 14.36%				
					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.004 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 58.310 Medium Trucks: 58.158 Heavy Trucks: 58.172				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	71.78	2.64	-1.10	-1.20	-4.74	0.000	0.000		
Medium Trucks:	82.40	-12.56	-1.09	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	86.40	-4.99	-1.09	-1.20	-5.23	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:	72.1	70.3	67.7	66.4	73.5	73.8			
Medium Trucks:	67.6	66.4	61.0	59.9	67.8	68.0			
Heavy Trucks:	79.1	76.9	74.8	74.4	81.2	81.4			
Vehicle Noise:	80.2	78.1	75.7	75.1	82.0	82.3			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				507	1,092	2,353	5,069		
CNEL:				528	1,138	2,452	5,282		

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)											
Scenario: HY Road Name: Eucalyptus Av. Road Segment: e/o Euclid Av. (SR-83)				Project Name: Eucalyptus Business Park Job Number: 16285							
SITE SPECIFIC INPUT DATA				NOISE MODEL INPUTS							
Highway Data				Site Conditions (Hard = 10, Soft = 15)							
Average Daily Traffic (Adt): 26,381 vehicles Peak Hour Percentage: 8.79% Peak Hour Volume: 2,319 vehicles Vehicle Speed: 40 mph Near/Far Lane Distance: 12 feet				Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15							
Site Data				Vehicle Mix							
				Vehicle Type		Day	Evening	Night	Daily		
				Autos: 69.2% 9.5% 21.3% 83.12%							
				Medium Trucks: 80.7% 5.9% 13.4% 2.51%							
				Heavy Trucks: 63.6% 9.8% 26.5% 14.36%							
				Noise Source Elevations (in feet)							
				Autos: 0.000							
				Medium Trucks: 2.297							
				Heavy Trucks: 8.004 Grade Adjustment: 0.0							
				Lane Equivalent Distance (in feet)							
				Autos: 43.875							
				Medium Trucks: 43.673							
				Heavy Trucks: 43.692							
				FHWA Noise Model Calculations							
				Vehicle Type	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:				66.51	1.52	0.75	-1.20	-4.61	0.000	0.000	
Medium Trucks:				77.72	-13.67	0.78	-1.20	-4.87	0.000	0.000	
Heavy Trucks:				82.99	-6.10	0.78	-1.20	-5.50	0.000	0.000	
Unmitigated Noise Levels (without Topo and barrier attenuation)											
Vehicle Type	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL					
Autos:		67.6	65.8	63.2	61.9	69.0	69.3				
Medium Trucks:		63.6	62.5	57.1	55.9	63.8	64.1				
Heavy Trucks:		76.5	74.3	72.2	71.7	78.5	78.8				
Vehicle Noise:		77.2	75.1	72.8	72.3	79.1	79.4				
Centerline Distance to Noise Contour (in feet)											
				70 dBA		65 dBA		60 dBA		55 dBA	
Ldn:				178		384		827		1,783	
CNEL:				186		400		862		1,857	

Thursday, December 18, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)								
Scenario: HY Road Name: Eucalyptus Av. Road Segment: w/o Grove Av.				Project Name: Eucalyptus Business Park Job Number: 16285				
SITE SPECIFIC INPUT DATA				NOISE MODEL INPUTS				
Highway Data				Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt):		20,086 vehicles		Autos:		15		
Peak Hour Percentage:		8.79%		Medium Trucks (2 Axles):		15		
Peak Hour Volume:		1,766 vehicles		Heavy Trucks (3+ Axles):		15		
Vehicle Speed:		40 mph		Vehicle Mix				
Near/Far Lane Distance:		12 feet		VehicleType	Day	Evening	Night	Daily
Site Data				Autos: 69.2% 9.5% 21.3% 83.12%				
Barrier Height:		0.0 feet		Medium Trucks: 80.7% 5.9% 13.4% 2.51%				
Barrier Type (0-Wall, 1-Berm):		0.0		Heavy Trucks: 63.6% 9.8% 26.5% 14.36%				
Centerline Dist. to Barrier:		44.0 feet		Noise Source Elevations (in feet)				
Centerline Dist. to Observer:		44.0 feet		Autos: 0.000				
Barrier Distance to Observer:		0.0 feet		Medium Trucks: 2.297				
Observer Height (Above Pad):		5.0 feet		Heavy Trucks: 8.004				
Pad Elevation:		0.0 feet		Grade Adjustment: 0.0				
Road Elevation:		0.0 feet		Lane Equivalent Distance (in feet)				
Road Grade:		0.0%		Autos: 43.875				
Left View:		-90.0 degrees		Medium Trucks: 43.673				
Right View:		90.0 degrees		Heavy Trucks: 43.692				
FHWA Noise Model Calculations								
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten	
Autos:	66.51	0.34	0.75	-1.20	-4.61	0.000	0.000	
Medium Trucks:	77.72	-14.86	0.78	-1.20	-4.87	0.000	0.000	
Heavy Trucks:	82.99	-7.28	0.78	-1.20	-5.50	0.000	0.000	
Unmitigated Noise Levels (without Topo and barrier attenuation)								
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL		
Autos:	66.4	64.6	62.0	60.7	67.8	68.1		
Medium Trucks:	62.4	61.3	55.9	54.7	62.6	62.9		
Heavy Trucks:	75.3	73.1	71.0	70.5	77.3	77.6		
Vehicle Noise:	76.0	73.9	71.6	71.1	77.9	78.2		
Centerline Distance to Noise Contour (in feet)								
			70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:			149	320	690	1,486		
CNEL:			155	334	719	1,549		

Thursday, December 18, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)									
Scenario: HY Road Name: Eucalyptus Av. Road Segment: e/o Grove Av.					Project Name: Eucalyptus Business Park Job Number: 16285				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 22,871 vehicles					Autos: 15				
Peak Hour Percentage: 8.79%					Medium Trucks (2 Axles): 15				
Peak Hour Volume: 2,010 vehicles					Heavy Trucks (3+ Axles): 15				
Vehicle Speed: 40 mph					Vehicle Mix				
Near/Far Lane Distance: 12 feet					VehicleType				
Site Data					Day				
Barrier Height: 0.0 feet					Evening				
Barrier Type (0-Wall, 1-Berm): 0.0					Night				
Centerline Dist. to Barrier: 44.0 feet					Daily				
Centerline Dist. to Observer: 44.0 feet					Autos: 69.2% 9.5% 21.3% 83.12%				
Barrier Distance to Observer: 0.0 feet					Medium Trucks: 80.7% 5.9% 13.4% 2.51%				
Observer Height (Above Pad): 5.0 feet					Heavy Trucks: 63.6% 9.8% 26.5% 14.36%				
Pad Elevation: 0.0 feet					Noise Source Elevations (in feet)				
Road Elevation: 0.0 feet					Autos: 0.000				
Road Grade: 0.0%					Medium Trucks: 2.297				
Left View: -90.0 degrees					Heavy Trucks: 8.004				
Right View: 90.0 degrees					Grade Adjustment: 0.0				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	66.51	0.90	0.75	-1.20	-4.61	0.000	0.000		
Medium Trucks:	77.72	-14.29	0.78	-1.20	-4.87	0.000	0.000		
Heavy Trucks:	82.99	-6.72	0.78	-1.20	-5.50	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn		CNEL		
Autos:	67.0	65.1	62.5	61.3	68.4		68.7		
Medium Trucks:	63.0	61.8	56.5	55.3	63.2		63.4		
Heavy Trucks:	75.8	73.7	71.6	71.1	77.9		78.2		
Vehicle Noise:	76.6	74.5	72.2	71.6	78.5		78.8		
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			162	349	752	1,621			
CNEL:			169	364	784	1,689			

Thursday, December 18, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)							
Scenario: HY Road Name: Eucalyptus Av. Road Segment: e/o Walker Av.				Project Name: Eucalyptus Business Park Job Number: 16285			
SITE SPECIFIC INPUT DATA				NOISE MODEL INPUTS			
Highway Data				Site Conditions (Hard = 10, Soft = 15)			
Average Daily Traffic (Adt):		7,587 vehicles		Autos: 15			
Peak Hour Percentage:		8.79%		Medium Trucks (2 Axles): 15			
Peak Hour Volume:		667 vehicles		Heavy Trucks (3+ Axles): 15			
Vehicle Speed:		40 mph		Vehicle Mix			
Near/Far Lane Distance:		12 feet		VehicleType			
Site Data				Day	Evening	Night	Daily
				Autos: 69.2% 9.5% 21.3% 83.12%			
Barrier Height:		0.0 feet		Medium Trucks: 80.7% 5.9% 13.4% 2.51%			
Barrier Type (0-Wall, 1-Berm):		0.0		Heavy Trucks: 63.6% 9.8% 26.5% 14.36%			
Centerline Dist. to Barrier:		44.0 feet		Noise Source Elevations (in feet)			
Centerline Dist. to Observer:		44.0 feet		Autos: 0.000			
Barrier Distance to Observer:		0.0 feet		Medium Trucks: 2.297			
Observer Height (Above Pad):		5.0 feet		Heavy Trucks: 8.004 Grade Adjustment: 0.0			
Pad Elevation:		0.0 feet		Lane Equivalent Distance (in feet)			
Road Elevation:		0.0 feet		Autos: 43.875			
Road Grade:		0.0%		Medium Trucks: 43.673			
Left View:		-90.0 degrees		Heavy Trucks: 43.692			
Right View:		90.0 degrees					
FHWA Noise Model Calculations							
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	66.51	-3.89	0.75	-1.20	-4.61	0.000	0.000
Medium Trucks:	77.72	-19.08	0.78	-1.20	-4.87	0.000	0.000
Heavy Trucks:	82.99	-11.51	0.78	-1.20	-5.50	0.000	0.000
Unmitigated Noise Levels (without Topo and barrier attenuation)							
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	62.2	60.3	57.7	56.5	63.6	63.9	
Medium Trucks:	58.2	57.0	51.7	50.5	58.4	58.7	
Heavy Trucks:	71.1	68.9	66.8	66.3	73.1	73.4	
Vehicle Noise:	71.8	69.7	67.4	66.8	73.7	74.0	
Centerline Distance to Noise Contour (in feet)							
			70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:			78	167	361	777	
CNEL:			81	174	376	809	

Thursday, December 18, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)									
Scenario: EP1 Road Name: Euclid Av. (SR-83) Road Segment: n/o Ontario Ranch Rd.					Project Name: Eucalyptus Business Park Job Number: 16285				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 26,718 vehicles Peak Hour Percentage: 8.79% Peak Hour Volume: 2,348 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 110 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
					Vehicle Type	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 80.0 feet Centerline Dist. to Observer: 80.0 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					Autos: 69.2% 9.5% 21.3% 82.90% Medium Trucks: 80.7% 5.9% 13.4% 2.55% Heavy Trucks: 63.6% 9.8% 26.5% 14.54%				
					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.004 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 58.310 Medium Trucks: 58.158 Heavy Trucks: 58.172				
FHWA Noise Model Calculations									
Vehicle Type	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	71.78	0.18	-1.10	-1.20	-4.74	0.000	0.000		
Medium Trucks:	82.40	-14.93	-1.09	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	86.40	-7.37	-1.09	-1.20	-5.23	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
Vehicle Type	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	69.7	67.8	65.2	64.0	71.1	71.4			
Medium Trucks:	65.2	64.0	58.7	57.5	65.4	65.6			
Heavy Trucks:	76.7	74.5	72.4	72.0	78.8	79.1			
Vehicle Noise:	77.8	75.7	73.4	72.8	79.6	79.9			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			351	756	1,629	3,510			
CNEL:			366	788	1,698	3,658			

Thursday, December 18, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)									
Scenario: EP1 Road Name: Euclid Av. (SR-83) Road Segment: n/o Eucalyptus Av.					Project Name: Eucalyptus Business Park Job Number: 16285				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 21,954 vehicles Peak Hour Percentage: 8.79% Peak Hour Volume: 1,930 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 110 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
					VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 80.0 feet Centerline Dist. to Observer: 80.0 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					Autos: 69.2% 9.5% 21.3% 82.81% Medium Trucks: 80.7% 5.9% 13.4% 2.57% Heavy Trucks: 63.6% 9.8% 26.5% 14.62%				
					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.004 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 58.310 Medium Trucks: 58.158 Heavy Trucks: 58.172				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	71.78	-0.67	-1.10	-1.20	-4.74	0.000	0.000		
Medium Trucks:	82.40	-15.75	-1.09	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	86.40	-8.20	-1.09	-1.20	-5.23	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	68.8	67.0	64.4	63.1	70.2	70.5			
Medium Trucks:	64.4	63.2	57.9	56.7	64.6	64.8			
Heavy Trucks:	75.9	73.7	71.6	71.2	78.0	78.2			
Vehicle Noise:	76.9	74.9	72.5	71.9	78.8	79.1			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			309	665	1,434	3,089			
CNEL:			322	693	1,494	3,218			

Thursday, December 18, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)									
Scenario: EP1 Road Name: Euclid Av. (SR-83) Road Segment: s/o Eucalyptus Av.					Project Name: Eucalyptus Business Park Job Number: 16285				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 32,370 vehicles Peak Hour Percentage: 8.79% Peak Hour Volume: 2,845 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 110 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
					VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 80.0 feet Centerline Dist. to Observer: 80.0 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					Autos: 69.2% 9.5% 21.3% 83.04% Medium Trucks: 80.7% 5.9% 13.4% 2.53% Heavy Trucks: 63.6% 9.8% 26.5% 14.43%				
					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.004 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 58.310 Medium Trucks: 58.158 Heavy Trucks: 58.172				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	71.78	1.03	-1.10	-1.20	-4.74	0.000	0.000		
Medium Trucks:	82.40	-14.14	-1.09	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	86.40	-6.57	-1.09	-1.20	-5.23	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	68.7	66.1	64.8	71.9	72.2			
Medium Trucks:	66.0	64.8	59.5	58.3	66.2	66.4			
Heavy Trucks:	77.5	75.3	73.2	72.8	79.6	79.9			
Vehicle Noise:	78.6	76.5	74.2	73.6	80.4	80.7			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			397	856	1,844	3,972			
CNEL:			414	892	1,921	4,139			

Thursday, December 18, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)									
Scenario: EP1 Road Name: Bon View Av. Road Segment: n/o Ontario Ranch Rd.					Project Name: Eucalyptus Business Park Job Number: 16285				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt):		2,265 vehicles			Autos: 15				
Peak Hour Percentage:		8.79%			Medium Trucks (2 Axles): 15				
Peak Hour Volume:		199 vehicles			Heavy Trucks (3+ Axles): 15				
Vehicle Speed:		40 mph			Vehicle Mix				
Near/Far Lane Distance:		12 feet			VehicleType				
Site Data					Day	Evening	Night	Daily	
					Autos: 69.2% 9.5% 21.3% 83.54%				
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 44.0 feet Centerline Dist. to Observer: 44.0 feet 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					Medium Trucks: 80.7% 5.9% 13.4% 2.45%				
					Heavy Trucks: 63.6% 9.8% 26.5% 14.01%				
					Noise Source Elevations (in feet)				
					Autos: 0.000				
					Medium Trucks: 2.297				
					Heavy Trucks: 8.004 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 43.875				
					Medium Trucks: 43.673				
					Heavy Trucks: 43.692				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	66.51	-9.12	0.75	-1.20	-4.61	0.000	0.000		
Medium Trucks:	77.72	-24.44	0.78	-1.20	-4.87	0.000	0.000		
Heavy Trucks:	82.99	-16.87	0.78	-1.20	-5.50	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	56.9	55.1	52.5	51.2	58.3	58.6			
Medium Trucks:	52.9	51.7	46.3	45.2	53.1	53.3			
Heavy Trucks:	65.7	63.5	61.4	61.0	67.8	68.0			
Vehicle Noise:	66.4	64.3	62.1	61.5	68.4	68.6			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				34	74	159	342		
CNEL:				36	77	165	356		

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)												
Scenario: EP1 Road Name: Bon View Av. Road Segment: s/o Ontario Ranch Rd.					Project Name: Eucalyptus Business Park Job Number: 16285							
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS							
Highway Data					Site Conditions (Hard = 10, Soft = 15)							
Average Daily Traffic (Adt): 1,632 vehicles					Autos: 15							
Peak Hour Percentage: 8.79%					Medium Trucks (2 Axles): 15							
Peak Hour Volume: 143 vehicles					Heavy Trucks (3+ Axles): 15							
Vehicle Speed: 40 mph					Vehicle Mix							
Near/Far Lane Distance: 12 feet					VehicleType							
Site Data					Day		Evening		Night		Daily	
					Autos: 69.2% 9.5% 21.3% 83.21%							
					Medium Trucks: 80.7% 5.9% 13.4% 2.50%							
					Heavy Trucks: 63.6% 9.8% 26.5% 14.29%							
					Noise Source Elevations (in feet)							
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 44.0 feet Centerline Dist. to Observer: 44.0 feet 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					Autos: 0.000							
					Medium Trucks: 2.297							
					Heavy Trucks: 8.004		Grade Adjustment: 0.0					
					Lane Equivalent Distance (in feet)							
					Autos: 43.875							
					Medium Trucks: 43.673							
					Heavy Trucks: 43.692							
FHWA Noise Model Calculations												
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten					
Autos:	66.51	-10.56	0.75	-1.20	-4.61	0.000	0.000					
Medium Trucks:	77.72	-25.78	0.78	-1.20	-4.87	0.000	0.000					
Heavy Trucks:	82.99	-18.21	0.78	-1.20	-5.50	0.000	0.000					
Unmitigated Noise Levels (without Topo and barrier attenuation)												
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL						
Autos:	55.5	53.7	51.1	49.8	56.9	57.2						
Medium Trucks:	51.5	50.3	45.0	43.8	51.7	52.0						
Heavy Trucks:	64.4	62.2	60.1	59.6	66.4	66.7						
Vehicle Noise:	65.1	63.0	60.7	60.1	67.0	67.3						
Centerline Distance to Noise Contour (in feet)												
			70 dBA	65 dBA	60 dBA	55 dBA						
Ldn:			28	60	129	278						
CNEL:			29	62	134	290						

Thursday, December 18, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)									
Scenario: EP1 Road Name: Grove Av. Road Segment: s/o Ontario Ranch Rd.					Project Name: Eucalyptus Business Park Job Number: 16285				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt):		4,462 vehicles			Autos:		15		
Peak Hour Percentage:		8.79%			Medium Trucks (2 Axles):		15		
Peak Hour Volume:		392 vehicles			Heavy Trucks (3+ Axles):		15		
Vehicle Speed:		50 mph			Vehicle Mix				
Near/Far Lane Distance:		45 feet			VehicleType				
Site Data					Day	Evening	Night	Daily	
Barrier Height:		0.0 feet			Autos:		69.2%	9.5%	21.3% 85.95%
Barrier Type (0-Wall, 1-Berm):		0.0			Medium Trucks:		80.7%	5.9%	13.4% 2.09%
Centerline Dist. to Barrier:		50.0 feet			Heavy Trucks:		63.6%	9.8%	26.5% 11.96%
Centerline Dist. to Observer:		50.0 feet			Noise Source Elevations (in feet)				
Barrier Distance to Observer:		0.0 feet			Autos:		0.000		
Observer Height (Above Pad):		5.0 feet			Medium Trucks:		2.297		
Pad Elevation:		0.0 feet			Heavy Trucks:		8.004		
Road Elevation:		0.0 feet			Grade Adjustment: 0.0				
Road Grade:		0.0%			Lane Equivalent Distance (in feet)				
Left View:		-90.0 degrees			Autos:		44.931		
Right View:		90.0 degrees			Medium Trucks:		44.733		
					Heavy Trucks:		44.752		
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	70.20	-7.02	0.59	-1.20	-4.65	0.000	0.000		
Medium Trucks:	81.00	-23.15	0.62	-1.20	-4.87	0.000	0.000		
Heavy Trucks:	85.38	-15.58	0.62	-1.20	-5.43	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	62.6	60.8	58.2	56.9	64.0	64.3			
Medium Trucks:	57.3	56.1	50.8	49.6	57.5	57.7			
Heavy Trucks:	69.2	67.0	64.9	64.5	71.3	71.5			
Vehicle Noise:	70.3	68.2	65.9	65.3	72.2	72.4			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				70	150	324	697		
CNEL:				73	156	337	726		

Thursday, December 18, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)									
Scenario: EP1 Road Name: Grove Av. Road Segment: n/o Ontario Ranch Rd.				Project Name: Eucalyptus Business Park Job Number: 16285					
SITE SPECIFIC INPUT DATA				NOISE MODEL INPUTS					
Highway Data				Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt):		5,632 vehicles		Autos:		15			
Peak Hour Percentage:		8.79%		Medium Trucks (2 Axles):		15			
Peak Hour Volume:		495 vehicles		Heavy Trucks (3+ Axles):		15			
Vehicle Speed:		50 mph		Vehicle Mix					
Near/Far Lane Distance:		45 feet		VehicleType		Day	Evening	Night	Daily
Site Data				Autos:		69.2%	9.5%	21.3%	84.96%
Barrier Height:		0.0 feet		Medium Trucks:		80.7%	5.9%	13.4%	2.24%
Barrier Type (0-Wall, 1-Berm):		0.0		Heavy Trucks:		63.6%	9.8%	26.5%	12.80%
Centerline Dist. to Barrier:		50.0 feet		Noise Source Elevations (in feet)					
Centerline Dist. to Observer:		50.0 feet		Autos:		0.000			
Barrier Distance to Observer:		0.0 feet		Medium Trucks:		2.297			
Observer Height (Above Pad):		5.0 feet		Heavy Trucks:		8.004		Grade Adjustment: 0.0	
Pad Elevation:		0.0 feet		Lane Equivalent Distance (in feet)					
Road Elevation:		0.0 feet		Autos:		44.931			
Road Grade:		0.0%		Medium Trucks:		44.733			
Left View:		-90.0 degrees		Heavy Trucks:		44.752			
Right View:		90.0 degrees							
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	70.20	-6.06	0.59	-1.20	-4.65	0.000	0.000		
Medium Trucks:	81.00	-21.85	0.62	-1.20	-4.87	0.000	0.000		
Heavy Trucks:	85.38	-14.28	0.62	-1.20	-5.43	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	63.5	61.7	59.1	57.8	64.9	65.2			
Medium Trucks:	58.6	57.4	52.1	50.9	58.8	59.0			
Heavy Trucks:	70.5	68.3	66.2	65.8	72.6	72.8			
Vehicle Noise:	71.5	69.5	67.1	66.5	73.4	73.7			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			85	182	392	845			
CNEL:			88	190	409	881			

Thursday, December 18, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)							
Scenario: EP1 Road Name: Walker Av. Road Segment: n/o Ontario Ranch Rd.				Project Name: Eucalyptus Business Park Job Number: 16285			
SITE SPECIFIC INPUT DATA				NOISE MODEL INPUTS			
Highway Data				Site Conditions (Hard = 10, Soft = 15)			
Average Daily Traffic (Adt): 5,272 vehicles Peak Hour Percentage: 8.79% Peak Hour Volume: 463 vehicles Vehicle Speed: 40 mph Near/Far Lane Distance: 12 feet				Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15			
Site Data				Vehicle Mix			
				VehicleType	Day	Evening	Night
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 44.0 feet Centerline Dist. to Observer: 44.0 feet 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				Autos: 69.2% 9.5% 21.3% 83.30% Medium Trucks: 80.7% 5.9% 13.4% 2.49% Heavy Trucks: 63.6% 9.8% 26.5% 14.21%			
				Noise Source Elevations (in feet)			
				Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.004 Grade Adjustment: 0.0			
				Lane Equivalent Distance (in feet)			
				Autos: 43.875 Medium Trucks: 43.673 Heavy Trucks: 43.692			
FHWA Noise Model Calculations							
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	66.51	-5.46	0.75	-1.20	-4.61	0.000	0.000
Medium Trucks:	77.72	-20.71	0.78	-1.20	-4.87	0.000	0.000
Heavy Trucks:	82.99	-13.14	0.78	-1.20	-5.50	0.000	0.000
Unmitigated Noise Levels (without Topo and barrier attenuation)							
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	60.6	58.8	56.2	54.9	62.0	62.3	
Medium Trucks:	56.6	55.4	50.1	48.9	56.8	57.0	
Heavy Trucks:	69.4	67.2	65.1	64.7	71.5	71.8	
Vehicle Noise:	70.2	68.1	65.8	65.2	72.1	72.3	
Centerline Distance to Noise Contour (in feet)							
			70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:			61	130	281	606	
CNEL:			63	136	293	631	

Thursday, December 18, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)										
Scenario: EP1 Road Name: Walker Av. Road Segment: s/o Ontario Ranch Rd.					Project Name: Eucalyptus Business Park Job Number: 16285					
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS					
Highway Data					Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt):		4,882 vehicles			Autos:		15			
Peak Hour Percentage:		8.79%			Medium Trucks (2 Axles):		15			
Peak Hour Volume:		429 vehicles			Heavy Trucks (3+ Axles):		15			
Vehicle Speed:		40 mph			Vehicle Mix					
Near/Far Lane Distance:		12 feet			Vehicle Type		Day	Evening	Night	Daily
Site Data					Autos:		69.2%	9.5%	21.3%	79.74%
Barrier Height:		0.0 feet			Medium Trucks:		80.7%	5.9%	13.4%	3.13%
Barrier Type (0-Wall, 1-Berm):		0.0			Heavy Trucks:		63.6%	9.8%	26.5%	17.13%
Centerline Dist. to Barrier:		44.0 feet			Noise Source Elevations (in feet)					
Centerline Dist. to Observer:		44.0 feet			Autos:		0.000			
Barrier Distance to Observer:		0.0 feet			Medium Trucks:		2.297			
Observer Height (Above Pad):		5.0 feet			Heavy Trucks:		8.004			
Pad Elevation:		0.0 feet			Grade Adjustment:		0.0			
Road Elevation:		0.0 feet			Lane Equivalent Distance (in feet)					
Road Grade:		0.0%			Autos:		43.875			
Left View:		-90.0 degrees			Medium Trucks:		43.673			
Right View:		90.0 degrees			Heavy Trucks:		43.692			
FHWA Noise Model Calculations										
Vehicle Type	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten			
Autos:	66.51	-5.98	0.75	-1.20	-4.61	0.000	0.000			
Medium Trucks:	77.72	-20.05	0.78	-1.20	-4.87	0.000	0.000			
Heavy Trucks:	82.99	-12.66	0.78	-1.20	-5.50	0.000	0.000			
Unmitigated Noise Levels (without Topo and barrier attenuation)										
Vehicle Type	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL				
Autos:	60.1	58.2	55.7	54.4	61.5	61.8				
Medium Trucks:	57.2	56.1	50.7	49.5	57.4	57.7				
Heavy Trucks:	69.9	67.7	65.6	65.2	72.0	72.2				
Vehicle Noise:	70.5	68.4	66.2	65.6	72.5	72.7				
Centerline Distance to Noise Contour (in feet)										
				70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:				64	139	299	643			
CNEL:				67	144	311	670			

Thursday, December 18, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)										
Scenario: EP1 Road Name: Archibald Av. Road Segment: n/o Ontario Ranch Rd.					Project Name: Eucalyptus Business Park Job Number: 16285					
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS					
Highway Data					Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt): 16,277 vehicles Peak Hour Percentage: 8.79% Peak Hour Volume: 1,431 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 58 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15					
Site Data					Vehicle Mix					
					Vehicle Type		Day	Evening	Night	Daily
					Autos: 69.2% 9.5% 21.3% 83.56%					
					Medium Trucks: 80.7% 5.9% 13.4% 2.45%					
					Heavy Trucks: 63.6% 9.8% 26.5% 14.00%					
					Noise Source Elevations (in feet)					
					Autos: 0.000					
					Medium Trucks: 2.297					
					Heavy Trucks: 8.004 Grade Adjustment: 0.0					
					Lane Equivalent Distance (in feet)					
					Autos: 52.764					
					Medium Trucks: 52.596					
					Heavy Trucks: 52.612					
FHWA Noise Model Calculations										
Vehicle Type	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten			
Autos:	71.78	-1.93	-0.45	-1.20	-4.69	0.000	0.000			
Medium Trucks:	82.40	-17.26	-0.43	-1.20	-4.88	0.000	0.000			
Heavy Trucks:	86.40	-9.69	-0.44	-1.20	-5.34	0.000	0.000			
Unmitigated Noise Levels (without Topo and barrier attenuation)										
Vehicle Type	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL				
Autos:	68.2	66.4	63.8	62.5	69.6	69.9				
Medium Trucks:	63.5	62.3	57.0	55.8	63.7	64.0				
Heavy Trucks:	75.1	72.9	70.8	70.3	77.1	77.4				
Vehicle Noise:	76.1	74.1	71.7	71.1	78.0	78.3				
Centerline Distance to Noise Contour (in feet)										
				70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:				205	441	950	2,048			
CNEL:				213	460	990	2,134			

Thursday, December 18, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)											
Scenario: EP1 Road Name: Archibald Av. Road Segment: s/o Ontario Ranch Rd.					Project Name: Eucalyptus Business Park Job Number: 16285						
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS						
Highway Data					Site Conditions (Hard = 10, Soft = 15)						
Average Daily Traffic (Adt): 21,437 vehicles Peak Hour Percentage: 8.79% Peak Hour Volume: 1,884 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 58 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15						
Site Data					Vehicle Mix						
					Vehicle Type	Day	Evening	Night	Daily		
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 60.0 feet Centerline Dist. to Observer: 60.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					Autos: 69.2% 9.5% 21.3% 83.69% Medium Trucks: 80.7% 5.9% 13.4% 2.43% Heavy Trucks: 63.6% 9.8% 26.5% 13.88%						
					Noise Source Elevations (in feet)						
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.004					Grade Adjustment: 0.0	
					Lane Equivalent Distance (in feet)						
					Autos: 52.764 Medium Trucks: 52.596 Heavy Trucks: 52.612						
FHWA Noise Model Calculations											
Vehicle Type	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten				
Autos:	71.78	-0.73	-0.45	-1.20	-4.69	0.000	0.000				
Medium Trucks:	82.40	-16.10	-0.43	-1.20	-4.88	0.000	0.000				
Heavy Trucks:	86.40	-8.53	-0.44	-1.20	-5.34	0.000	0.000				
Unmitigated Noise Levels (without Topo and barrier attenuation)											
Vehicle Type	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL					
Autos:	69.4	67.6	65.0	63.7	70.8	71.1					
Medium Trucks:	64.7	63.5	58.2	57.0	64.9	65.1					
Heavy Trucks:	76.2	74.0	71.9	71.5	78.3	78.5					
Vehicle Noise:	77.3	75.2	72.9	72.3	79.2	79.4					
Centerline Distance to Noise Contour (in feet)											
				70 dBA	65 dBA	60 dBA	55 dBA				
Ldn:				245	528	1,137	2,449				
CNEL:				255	550	1,184	2,552				

Thursday, December 18, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)									
Scenario: EP1 Road Name: Ontario Ranch Rd. Road Segment: e/o Euclid Av. (SR-83)					Project Name: Eucalyptus Business Park Job Number: 16285				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 8,654 vehicles					Autos: 15				
Peak Hour Percentage: 8.79%					Medium Trucks (2 Axles): 15				
Peak Hour Volume: 761 vehicles					Heavy Trucks (3+ Axles): 15				
Vehicle Speed: 55 mph									
Near/Far Lane Distance: 110 feet					Vehicle Mix				
					Vehicle Type	Day	Evening	Night	Daily
Site Data					Autos: 69.2% 9.5% 21.3% 83.40%				
					Medium Trucks: 80.7% 5.9% 13.4% 2.47%				
					Heavy Trucks: 63.6% 9.8% 26.5% 14.13%				
					Noise Source Elevations (in feet)				
					Autos: 0.000				
Barrier Height: 0.0 feet					Medium Trucks: 2.297				
Barrier Type (0-Wall, 1-Berm): 0.0					Heavy Trucks: 8.004				
Centerline Dist. to Barrier: 80.0 feet					Grade Adjustment: 0.0				
Centerline Dist. to Observer: 80.0 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									
FHWA Noise Model Calculations									
Vehicle Type	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	71.78	-4.69	-1.10	-1.20	-4.74	0.000	0.000		
Medium Trucks:	82.40	-19.97	-1.09	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	86.40	-12.40	-1.09	-1.20	-5.23	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
Vehicle Type	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	64.8	63.0	60.4	59.1	66.2	66.5			
Medium Trucks:	60.1	59.0	53.6	52.5	60.4	60.6			
Heavy Trucks:	71.7	69.5	67.4	67.0	73.8	74.0			
Vehicle Noise:	72.8	70.7	68.4	67.8	74.6	74.9			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			163	351	756	1,629			
CNEL:			170	366	788	1,698			

Thursday, December 18, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)										
Scenario: EP1 Road Name: Ontario Ranch Rd. Road Segment: w/o Grove Av.					Project Name: Eucalyptus Business Park Job Number: 16285					
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS					
Highway Data					Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt):		7,171 vehicles			Autos:		15			
Peak Hour Percentage:		8.79%			Medium Trucks (2 Axles):		15			
Peak Hour Volume:		630 vehicles			Heavy Trucks (3+ Axles):		15			
Vehicle Speed:		55 mph			Vehicle Mix					
Near/Far Lane Distance:		110 feet			VehicleType					
Site Data					Day		Evening		Night	
Barrier Height:		0.0 feet			Autos:		69.2%		9.5%	
Barrier Type (0-Wall, 1-Berm):		0.0			Medium Trucks:		80.7%		5.9%	
Centerline Dist. to Barrier:		80.0 feet			Heavy Trucks:		63.6%		9.8%	
Centerline Dist. to Observer:		80.0 feet					26.5%		13.96%	
Barrier Distance to Observer:		0.0 feet			Noise Source Elevations (in feet)					
Observer Height (Above Pad):		5.0 feet			Autos:		0.000			
Pad Elevation:		0.0 feet			Medium Trucks:		2.297			
Road Elevation:		0.0 feet			Heavy Trucks:		8.004		Grade Adjustment: 0.0	
Road Grade:		0.0%			Lane Equivalent Distance (in feet)					
Left View:		-90.0 degrees			Autos:		58.310			
Right View:		90.0 degrees			Medium Trucks:		58.158			
					Heavy Trucks:		58.172			
FHWA Noise Model Calculations										
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten			
Autos:	71.78	-5.49	-1.10	-1.20	-4.74	0.000	0.000			
Medium Trucks:	82.40	-20.83	-1.09	-1.20	-4.88	0.000	0.000			
Heavy Trucks:	86.40	-13.26	-1.09	-1.20	-5.23	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:	64.0	62.2	59.6	58.3	65.4	65.7				
Medium Trucks:	59.3	58.1	52.8	51.6	59.5	59.7				
Heavy Trucks:	70.8	68.6	66.6	66.1	72.9	73.2				
Vehicle Noise:	71.9	69.8	67.5	66.9	73.8	74.0				
Centerline Distance to Noise Contour (in feet)										
				70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:				143	308	663	1,428			
CNEL:				149	321	691	1,488			

Thursday, December 18, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)									
Scenario: EP1 Road Name: Ontario Ranch Rd. Road Segment: w/o Archibald Av.					Project Name: Eucalyptus Business Park Job Number: 16285				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 14,564 vehicles					Autos: 15				
Peak Hour Percentage: 8.79%					Medium Trucks (2 Axles): 15				
Peak Hour Volume: 1,280 vehicles					Heavy Trucks (3+ Axles): 15				
Vehicle Speed: 55 mph					Vehicle Mix				
Near/Far Lane Distance: 110 feet									
Site Data					VehicleType				
Barrier Height: 0.0 feet					Autos: 69.2% 9.5% 21.3% 81.93%				
Barrier Type (0-Wall, 1-Berm): 0.0					Medium Trucks: 80.7% 5.9% 13.4% 2.73%				
Centerline Dist. to Barrier: 80.0 feet					Heavy Trucks: 63.6% 9.8% 26.5% 15.34%				
Centerline Dist. to Observer: 80.0 feet					Noise Source Elevations (in feet)				
Barrier Distance to Observer: 0.0 feet									
Observer Height (Above Pad): 5.0 feet					Autos: 0.000				
Pad Elevation: 0.0 feet					Medium Trucks: 2.297				
Road Elevation: 0.0 feet					Heavy Trucks: 8.004 Grade Adjustment: 0.0				
Road Grade: 0.0%					Lane Equivalent Distance (in feet)				
Left View: -90.0 degrees									
Right View: 90.0 degrees					Autos: 58.310				
					Medium Trucks: 58.158				
					Heavy Trucks: 58.172				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	71.78	-2.50	-1.10	-1.20	-4.74	0.000	0.000		
Medium Trucks:	82.40	-17.28	-1.09	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	86.40	-9.78	-1.09	-1.20	-5.23	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:	67.0	65.1	62.5	61.3	68.4	68.7			
Medium Trucks:	62.8	61.7	56.3	55.1	63.0	63.3			
Heavy Trucks:	74.3	72.1	70.0	69.6	76.4	76.7			
Vehicle Noise:	75.3	73.2	70.9	70.3	77.2	77.5			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			241	520	1,120	2,414			
CNEL:			252	542	1,167	2,515			

Thursday, December 18, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)										
Scenario: EP1 Road Name: Ontario Ranch Rd. Road Segment: e/o Grove Av.					Project Name: Eucalyptus Business Park Job Number: 16285					
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS					
Highway Data					Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt): 7,154 vehicles Peak Hour Percentage: 8.79% Peak Hour Volume: 629 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 110 feet					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: 80.0 feet Centerline Dist. to Observer: 80.0 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					
					Vehicle Type		Day	Evening	Night	Daily
					Autos:		69.2%	9.5%	21.3%	83.13%
					Medium Trucks:		80.7%	5.9%	13.4%	2.51%
					Heavy Trucks:		63.6%	9.8%	26.5%	14.36%
					Noise Source Elevations (in feet)					
					Autos:		0.000			
					Medium Trucks:		2.297			
					Heavy Trucks:		8.004			
					Grade Adjustment: 0.0					
					Lane Equivalent Distance (in feet)					
					Autos:		58.310			
					Medium Trucks:		58.158			
					Heavy Trucks:		58.172			
FHWA Noise Model Calculations										
Vehicle Type	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten			
Autos:	71.78	-5.53	-1.10	-1.20	-4.74	0.000	0.000			
Medium Trucks:	82.40	-20.72	-1.09	-1.20	-4.88	0.000	0.000			
Heavy Trucks:	86.40	-13.15	-1.09	-1.20	-5.23	0.000	0.000			
Unmitigated Noise Levels (without Topo and barrier attenuation)										
Vehicle Type	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL				
Autos:	64.0	62.1	59.5	58.2	65.4	65.6				
Medium Trucks:	59.4	58.2	52.9	51.7	59.6	59.8				
Heavy Trucks:	71.0	68.8	66.7	66.2	73.0	73.3				
Vehicle Noise:	72.0	69.9	67.6	67.0	73.9	74.1				
Centerline Distance to Noise Contour (in feet)										
			70 dBA	65 dBA	60 dBA	55 dBA				
Ldn:			145	312	672	1,448				
CNEL:			151	325	700	1,509				

Thursday, December 18, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)									
Scenario: EP1 Road Name: Ontario Ranch Rd. Road Segment: e/o Archibald Av.					Project Name: Eucalyptus Business Park Job Number: 16285				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 16,629 vehicles Peak Hour Percentage: 8.79% Peak Hour Volume: 1,462 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 110 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
					VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 80.0 feet Centerline Dist. to Observer: 80.0 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					Autos: 69.2% 9.5% 21.3% 82.39% Medium Trucks: 80.7% 5.9% 13.4% 2.66% Heavy Trucks: 63.6% 9.8% 26.5% 14.96%				
					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.004 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 58.310 Medium Trucks: 58.158 Heavy Trucks: 58.172				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	71.78	-1.90	-1.10	-1.20	-4.74	0.000	0.000		
Medium Trucks:	82.40	-16.82	-1.09	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	86.40	-9.31	-1.09	-1.20	-5.23	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:	67.6	65.7	63.1	61.9	69.0	69.3			
Medium Trucks:	63.3	62.1	56.8	55.6	63.5	63.7			
Heavy Trucks:	74.8	72.6	70.5	70.1	76.9	77.1			
Vehicle Noise:	75.8	73.7	71.4	70.8	77.7	77.9			
Centerline Distance to Noise Contour (in feet)									
			70 dBA		65 dBA		60 dBA		55 dBA
Ldn:			260		560		1,207		2,600
CNEL:			271		584		1,257		2,709

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)										
Scenario: EP1 Road Name: Eucalyptus Av. Road Segment: e/o Euclid Av. (SR-83)					Project Name: Eucalyptus Business Park Job Number: 16285					
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS					
Highway Data					Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt): 5,315 vehicles					Autos: 15					
Peak Hour Percentage: 8.79%					Medium Trucks (2 Axles): 15					
Peak Hour Volume: 467 vehicles					Heavy Trucks (3+ Axles): 15					
Vehicle Speed: 40 mph					Vehicle Mix					
Near/Far Lane Distance: 12 feet					VehicleType					
Site Data					Day		Evening		Night	
					Autos: 69.2%		9.5%		21.3%	
					Medium Trucks: 80.7%		5.9%		13.4%	
					Heavy Trucks: 63.6%		9.8%		26.5%	
					Autos: 0.000					
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 44.0 feet Centerline Dist. to Observer: 44.0 feet 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					Medium Trucks: 2.297					
					Heavy Trucks: 8.004				Grade Adjustment: 0.0	
					Noise Source Elevations (in feet)					
					Autos: 0.000					
					Medium Trucks: 43.673					
					Lane Equivalent Distance (in feet)					
					Autos: 43.875					
					Medium Trucks: 43.673					
					Heavy Trucks: 43.692					
					FHWA Noise Model Calculations					
VehicleType		REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:		66.51	-5.53	0.75	-1.20	-4.61	0.000	0.000		
Medium Trucks:		77.72	-20.08	0.78	-1.20	-4.87	0.000	0.000		
Heavy Trucks:		82.99	-12.63	0.78	-1.20	-5.50	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)										
VehicleType		Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:		60.5	58.7	56.1	54.8	61.9	62.2			
Medium Trucks:		57.2	56.1	50.7	49.5	57.4	57.7			
Heavy Trucks:		69.9	67.7	65.7	65.2	72.0	72.3			
Vehicle Noise:		70.6	68.5	66.2	65.7	72.5	72.8			
Centerline Distance to Noise Contour (in feet)										
				70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:				65	140	302	650			
CNEL:				68	146	314	677			

Thursday, December 18, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)									
Scenario: EP1 Road Name: Eucalyptus Av. Road Segment: e/o Grove Av.					Project Name: Eucalyptus Business Park Job Number: 16285				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 8,229 vehicles Peak Hour Percentage: 8.79% Peak Hour Volume: 723 vehicles Vehicle Speed: 40 mph Near/Far Lane Distance: 12 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
					Vehicle Type	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 44.0 feet Centerline Dist. to Observer: 44.0 feet 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					Autos: 69.2% 9.5% 21.3% 82.80% Medium Trucks: 80.7% 5.9% 13.4% 2.60% Heavy Trucks: 63.6% 9.8% 26.5% 14.61%				
					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.004 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 43.875 Medium Trucks: 43.673 Heavy Trucks: 43.692				
FHWA Noise Model Calculations									
Vehicle Type	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	66.51	-3.55	0.75	-1.20	-4.61	0.000	0.000		
Medium Trucks:	77.72	-18.59	0.78	-1.20	-4.87	0.000	0.000		
Heavy Trucks:	82.99	-11.09	0.78	-1.20	-5.50	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
Vehicle Type	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	62.5	60.7	58.1	56.8	63.9	64.2			
Medium Trucks:	58.7	57.5	52.2	51.0	58.9	59.2			
Heavy Trucks:	71.5	69.3	67.2	66.7	73.5	73.8			
Vehicle Noise:	72.2	70.1	67.8	67.3	74.1	74.4			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			83	178	384	828			
CNEL:			86	186	401	863			

Thursday, December 18, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)							
Scenario: EP1 Road Name: Eucalyptus Av. Road Segment: w/o Grove Av.				Project Name: Eucalyptus Business Park Job Number: 16285			
SITE SPECIFIC INPUT DATA				NOISE MODEL INPUTS			
Highway Data				Site Conditions (Hard = 10, Soft = 15)			
Average Daily Traffic (Adt):		4,162 vehicles		Autos: 15			
Peak Hour Percentage:		8.79%		Medium Trucks (2 Axles): 15			
Peak Hour Volume:		366 vehicles		Heavy Trucks (3+ Axles): 15			
Vehicle Speed:		40 mph		Vehicle Mix			
Near/Far Lane Distance:		12 feet		VehicleType			
Site Data				Day	Evening	Night	Daily
Barrier Height:		0.0 feet		Autos: 69.2% 9.5% 21.3% 80.78%			
Barrier Type (0-Wall, 1-Berm):		0.0		Medium Trucks: 80.7% 5.9% 13.4% 2.95%			
Centerline Dist. to Barrier:		44.0 feet		Heavy Trucks: 63.6% 9.8% 26.5% 16.27%			
Centerline Dist. to Observer:		44.0 feet		Noise Source Elevations (in feet)			
Barrier Distance to Observer:		0.0 feet		Autos: 0.000			
Observer Height (Above Pad):		5.0 feet		Medium Trucks: 2.297			
Pad Elevation:		0.0 feet		Heavy Trucks: 8.004 Grade Adjustment: 0.0			
Road Elevation:		0.0 feet		Lane Equivalent Distance (in feet)			
Road Grade:		0.0%		Autos: 43.875			
Left View:		-90.0 degrees		Medium Trucks: 43.673			
Right View:		90.0 degrees		Heavy Trucks: 43.692			
FHWA Noise Model Calculations							
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	66.51	-6.62	0.75	-1.20	-4.61	0.000	0.000
Medium Trucks:	77.72	-21.00	0.78	-1.20	-4.87	0.000	0.000
Heavy Trucks:	82.99	-13.58	0.78	-1.20	-5.50	0.000	0.000
Unmitigated Noise Levels (without Topo and barrier attenuation)							
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	59.4	57.6	55.0	53.7	60.8	61.1	
Medium Trucks:	56.3	55.1	49.8	48.6	56.5	56.7	
Heavy Trucks:	69.0	66.8	64.7	64.2	71.0	71.3	
Vehicle Noise:	69.7	67.5	65.3	64.7	71.6	71.8	
Centerline Distance to Noise Contour (in feet)							
			70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:			56	121	260	561	
CNEL:			58	126	271	584	

Thursday, December 18, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)								
Scenario: EP1 Road Name: Eucalyptus Av. Road Segment: e/o Walker Av.				Project Name: Eucalyptus Business Park Job Number: 16285				
SITE SPECIFIC INPUT DATA				NOISE MODEL INPUTS				
Highway Data				Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 6,784 vehicles Peak Hour Percentage: 8.79% Peak Hour Volume: 596 vehicles Vehicle Speed: 40 mph Near/Far Lane Distance: 12 feet				Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data				Vehicle Mix				
				VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 44.0 feet Centerline Dist. to Observer: 44.0 feet 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				Autos: 69.2% 9.5% 21.3% 85.28% Medium Trucks: 80.7% 5.9% 13.4% 2.19% Heavy Trucks: 63.6% 9.8% 26.5% 12.53%				
				Noise Source Elevations (in feet)				
				Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.004 Grade Adjustment: 0.0				
				Lane Equivalent Distance (in feet)				
				Autos: 43.875 Medium Trucks: 43.673 Heavy Trucks: 43.692				
FHWA Noise Model Calculations								
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten	
Autos:	66.51	-4.26	0.75	-1.20	-4.61	0.000	0.000	
Medium Trucks:	77.72	-20.16	0.78	-1.20	-4.87	0.000	0.000	
Heavy Trucks:	82.99	-12.59	0.78	-1.20	-5.50	0.000	0.000	
Unmitigated Noise Levels (without Topo and barrier attenuation)								
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL		
Autos:	61.8	60.0	57.4	56.1	63.2	63.5		
Medium Trucks:	57.1	56.0	50.6	49.4	57.3	57.6		
Heavy Trucks:	70.0	67.8	65.7	65.2	72.0	72.3		
Vehicle Noise:	70.8	68.7	66.4	65.8	72.7	73.0		
Centerline Distance to Noise Contour (in feet)								
			70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:			67	143	309	666		
CNEL:			69	149	322	693		

Thursday, December 18, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)									
Scenario: EP2 Road Name: Euclid Av. (SR-83) Road Segment: n/o Ontario Ranch Rd.				Project Name: Eucalyptus Business Park Job Number: 16285					
SITE SPECIFIC INPUT DATA				NOISE MODEL INPUTS					
Highway Data				Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt): 27,175 vehicles Peak Hour Percentage: 8.79% Peak Hour Volume: 2,389 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 110 feet				Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15					
Site Data				Vehicle Mix					
				Vehicle Type		Day	Evening	Night	Daily
				Autos:		69.2%	9.5%	21.3%	82.78%
				Medium Trucks:		80.7%	5.9%	13.4%	2.58%
				Heavy Trucks:		63.6%	9.8%	26.5%	14.64%
				Noise Source Elevations (in feet)					
				Autos:		0.000			
				Medium Trucks:		2.297			
				Heavy Trucks:		8.004			
				Grade Adjustment: 0.0					
				Lane Equivalent Distance (in feet)					
				Autos:		58.310			
				Medium Trucks:		58.158			
				Heavy Trucks:		58.172			
FHWA Noise Model Calculations									
Vehicle Type	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	71.78	0.25	-1.10	-1.20	-4.74	0.000	0.000		
Medium Trucks:	82.40	-14.81	-1.09	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	86.40	-7.27	-1.09	-1.20	-5.23	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
Vehicle Type	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	69.7	67.9	65.3	64.0	71.1	71.4			
Medium Trucks:	65.3	64.1	58.8	57.6	65.5	65.7			
Heavy Trucks:	76.8	74.6	72.5	72.1	78.9	79.2			
Vehicle Noise:	77.9	75.8	73.5	72.9	79.7	80.0			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			356	768	1,654	3,563			
CNEL:			371	800	1,723	3,713			

Thursday, December 18, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)									
Scenario: EP2 Road Name: Euclid Av. (SR-83) Road Segment: s/o Eucalyptus Av.				Project Name: Eucalyptus Business Park Job Number: 16285					
SITE SPECIFIC INPUT DATA				NOISE MODEL INPUTS					
Highway Data				Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt): 32,634 vehicles Peak Hour Percentage: 8.79% Peak Hour Volume: 2,868 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 110 feet				Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15					
Site Data				Vehicle Mix					
				Vehicle Type	Day	Evening	Night	Daily	
				Autos: 69.2% 9.5% 21.3% 82.97%					
				Medium Trucks: 80.7% 5.9% 13.4% 2.54%					
				Heavy Trucks: 63.6% 9.8% 26.5% 14.49%					
				Noise Source Elevations (in feet)					
				Autos: 0.000					
				Medium Trucks: 2.297					
				Heavy Trucks: 8.004					
				Grade Adjustment: 0.0					
				Lane Equivalent Distance (in feet)					
				Autos: 58.310					
				Medium Trucks: 58.158					
				Heavy Trucks: 58.172					
FHWA Noise Model Calculations									
Vehicle Type	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	71.78	1.06	-1.10	-1.20	-4.74	0.000	0.000		
Medium Trucks:	82.40	-14.08	-1.09	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	86.40	-6.52	-1.09	-1.20	-5.23	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
Vehicle Type	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	70.5	68.7	66.1	64.8	71.9	72.2			
Medium Trucks:	66.0	64.9	59.5	58.3	66.2	66.5			
Heavy Trucks:	77.6	75.4	73.3	72.8	79.6	79.9			
Vehicle Noise:	78.6	76.5	74.2	73.6	80.5	80.8			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			400	862	1,858	4,002			
CNEL:			417	898	1,936	4,170			

Thursday, December 18, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)									
Scenario: EP2 Road Name: Euclid Av. (SR-83) Road Segment: n/o Eucalyptus Av.				Project Name: Eucalyptus Business Park Job Number: 16285					
SITE SPECIFIC INPUT DATA				NOISE MODEL INPUTS					
Highway Data				Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt):		22,313 vehicles		Autos:		15			
Peak Hour Percentage:		8.79%		Medium Trucks (2 Axles):		15			
Peak Hour Volume:		1,961 vehicles		Heavy Trucks (3+ Axles):		15			
Vehicle Speed:		55 mph		Vehicle Mix					
Near/Far Lane Distance:		110 feet		VehicleType		Day	Evening	Night	Daily
Site Data				Autos:		69.2%	9.5%	21.3%	82.59%
Barrier Height:		0.0 feet		Medium Trucks:		80.7%	5.9%	13.4%	2.61%
Barrier Type (0-Wall, 1-Berm):		0.0		Heavy Trucks:		63.6%	9.8%	26.5%	14.80%
Centerline Dist. to Barrier:		80.0 feet		Noise Source Elevations (in feet)					
Centerline Dist. to Observer:		80.0 feet		Autos:		0.000			
Barrier Distance to Observer:		0.0 feet		Medium Trucks:		2.297			
Observer Height (Above Pad):		5.0 feet		Heavy Trucks:		8.004		Grade Adjustment: 0.0	
Pad Elevation:		0.0 feet		Lane Equivalent Distance (in feet)					
Road Elevation:		0.0 feet		Autos:		58.310			
Road Grade:		0.0%		Medium Trucks:		58.158			
Left View:		-90.0 degrees		Heavy Trucks:		58.172			
Right View:		90.0 degrees							
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	71.78	-0.61	-1.10	-1.20	-4.74	0.000	0.000		
Medium Trucks:	82.40	-15.62	-1.09	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	86.40	-8.08	-1.09	-1.20	-5.23	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	68.9	67.0	64.4	63.2	70.3	70.6			
Medium Trucks:	64.5	63.3	58.0	56.8	64.7	64.9			
Heavy Trucks:	76.0	73.8	71.7	71.3	78.1	78.3			
Vehicle Noise:	77.0	75.0	72.6	72.0	78.9	79.2			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			314	677	1,459	3,143			
CNEL:			328	706	1,520	3,275			

Thursday, December 18, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)									
Scenario: EP2 Road Name: Bon View Av. Road Segment: n/o Ontario Ranch Rd.				Project Name: Eucalyptus Business Park Job Number: 16285					
SITE SPECIFIC INPUT DATA				NOISE MODEL INPUTS					
Highway Data				Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt): 2,363 vehicles Peak Hour Percentage: 8.79% Peak Hour Volume: 208 vehicles Vehicle Speed: 40 mph Near/Far Lane Distance: 12 feet				Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15					
Site Data				Vehicle Mix					
				VehicleType	Day	Evening	Night	Daily	
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 44.0 feet Centerline Dist. to Observer: 44.0 feet 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				Autos: 69.2% 9.5% 21.3% 84.23% Medium Trucks: 80.7% 5.9% 13.4% 2.35% Heavy Trucks: 63.6% 9.8% 26.5% 13.42%					
				Noise Source Elevations (in feet)					
				Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.004 Grade Adjustment: 0.0					
				Lane Equivalent Distance (in feet)					
				Autos: 43.875 Medium Trucks: 43.673 Heavy Trucks: 43.692					
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	66.51	-8.90	0.75	-1.20	-4.61	0.000	0.000		
Medium Trucks:	77.72	-24.44	0.78	-1.20	-4.87	0.000	0.000		
Heavy Trucks:	82.99	-16.87	0.78	-1.20	-5.50	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	57.2	55.3	52.7	51.5	58.6	58.9			
Medium Trucks:	52.9	51.7	46.3	45.2	53.1	53.3			
Heavy Trucks:	65.7	63.5	61.4	61.0	67.8	68.0			
Vehicle Noise:	66.5	64.4	62.1	61.5	68.4	68.6			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			34	74	159	343			
CNEL:			36	77	166	357			

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)									
Scenario: EP2 Road Name: Bon View Av. Road Segment: s/o Ontario Ranch Rd.					Project Name: Eucalyptus Business Park Job Number: 16285				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt):		2,202 vehicles			Autos:		15		
Peak Hour Percentage:		8.79%			Medium Trucks (2 Axles):		15		
Peak Hour Volume:		194 vehicles			Heavy Trucks (3+ Axles):		15		
Vehicle Speed:		40 mph			Vehicle Mix				
Near/Far Lane Distance:		12 feet			VehicleType				
Site Data					Day		Evening		Night
Barrier Height:		0.0 feet			Autos:		69.2%		87.56%
Barrier Type (0-Wall, 1-Berm):		0.0			Medium Trucks:		80.7%		1.85%
Centerline Dist. to Barrier:		44.0 feet			Heavy Trucks:		63.6%		10.58%
Centerline Dist. to Observer:		44.0 feet			Noise Source Elevations (in feet)				
Barrier Distance to Observer:		0.0 feet			Autos:		0.000		
Observer Height (Above Pad):		5.0 feet			Medium Trucks:		2.297		
Pad Elevation:		0.0 feet			Heavy Trucks:		8.004		Grade Adjustment: 0.0
Road Elevation:		0.0 feet			Lane Equivalent Distance (in feet)				
Road Grade:		0.0%			Autos:		43.875		
Left View:		-90.0 degrees			Medium Trucks:		43.673		
Right View:		90.0 degrees			Heavy Trucks:		43.692		
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	66.51	-9.03	0.75	-1.20	-4.61	0.000	0.000		
Medium Trucks:	77.72	-25.78	0.78	-1.20	-4.87	0.000	0.000		
Heavy Trucks:	82.99	-18.21	0.78	-1.20	-5.50	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	57.0	55.2	52.6	51.3	58.4	58.7			
Medium Trucks:	51.5	50.3	45.0	43.8	51.7	52.0			
Heavy Trucks:	64.4	62.2	60.1	59.6	66.4	66.7			
Vehicle Noise:	65.3	63.2	60.9	60.3	67.2	67.4			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			29	62	133	285			
CNEL:			30	64	138	297			

Thursday, December 18, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)									
Scenario: EP2 Road Name: Grove Av. Road Segment: s/o Ontario Ranch Rd.					Project Name: Eucalyptus Business Park Job Number: 16285				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 5,089 vehicles Peak Hour Percentage: 8.79% Peak Hour Volume: 447 vehicles Vehicle Speed: 50 mph Near/Far Lane Distance: 45 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
					Vehicle Type	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 50.0 feet Centerline Dist. to Observer: 50.0 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					Autos: 69.2% 9.5% 21.3% 87.68% Medium Trucks: 80.7% 5.9% 13.4% 1.83% Heavy Trucks: 63.6% 9.8% 26.5% 10.48%				
					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.004 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 44.931 Medium Trucks: 44.733 Heavy Trucks: 44.752				
FHWA Noise Model Calculations									
Vehicle Type	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	70.20	-6.36	0.59	-1.20	-4.65	0.000	0.000		
Medium Trucks:	81.00	-23.15	0.62	-1.20	-4.87	0.000	0.000		
Heavy Trucks:	85.38	-15.58	0.62	-1.20	-5.43	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
Vehicle Type	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	63.2	61.4	58.8	57.5	64.6	64.9			
Medium Trucks:	57.3	56.1	50.8	49.6	57.5	57.7			
Heavy Trucks:	69.2	67.0	64.9	64.5	71.3	71.5			
Vehicle Noise:	70.4	68.3	66.0	65.4	72.3	72.5			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			71	153	329	709			
CNEL:			74	159	343	738			

Thursday, December 18, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)											
Scenario: EP2 Road Name: Grove Av. Road Segment: n/o Ontario Ranch Rd.				Project Name: Eucalyptus Business Park Job Number: 16285							
SITE SPECIFIC INPUT DATA				NOISE MODEL INPUTS							
Highway Data				Site Conditions (Hard = 10, Soft = 15)							
Average Daily Traffic (Adt): 6,351 vehicles Peak Hour Percentage: 8.79% Peak Hour Volume: 558 vehicles Vehicle Speed: 50 mph Near/Far Lane Distance: 45 feet				Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15							
Site Data				Vehicle Mix							
				VehicleType		Day	Evening	Night	Daily		
				Autos: 69.2% 9.5% 21.3% 86.66%							
				Medium Trucks: 80.7% 5.9% 13.4% 1.99%							
				Heavy Trucks: 63.6% 9.8% 26.5% 11.35%							
				Noise Source Elevations (in feet)							
				Autos: 0.000							
				Medium Trucks: 2.297							
				Heavy Trucks: 8.004 Grade Adjustment: 0.0							
				Lane Equivalent Distance (in feet)							
				Autos: 44.931							
				Medium Trucks: 44.733							
				Heavy Trucks: 44.752							
				FHWA Noise Model Calculations							
				VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:				70.20	-5.45	0.59	-1.20	-4.65	0.000	0.000	
Medium Trucks:				81.00	-21.85	0.62	-1.20	-4.87	0.000	0.000	
Heavy Trucks:				85.38	-14.28	0.62	-1.20	-5.43	0.000	0.000	
Unmitigated Noise Levels (without Topo and barrier attenuation)											
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL					
Autos:				64.1	62.3	59.7	58.4	65.5	65.8		
Medium Trucks:				58.6	57.4	52.1	50.9	58.8	59.0		
Heavy Trucks:				70.5	68.3	66.2	65.8	72.6	72.8		
Vehicle Noise:				71.6	69.6	67.2	66.6	73.5	73.8		
Centerline Distance to Noise Contour (in feet)											
				70 dBA		65 dBA		60 dBA		55 dBA	
Ldn:				86		185		398		857	
CNEL:				89		192		415		893	

Thursday, December 18, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)									
Scenario: EP2 Road Name: Walker Av. Road Segment: n/o Ontario Ranch Rd.				Project Name: Eucalyptus Business Park Job Number: 16285					
SITE SPECIFIC INPUT DATA				NOISE MODEL INPUTS					
Highway Data				Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt):		5,353 vehicles		Autos: 15					
Peak Hour Percentage:		8.79%		Medium Trucks (2 Axles): 15					
Peak Hour Volume:		471 vehicles		Heavy Trucks (3+ Axles): 15					
Vehicle Speed:		40 mph							
Near/Far Lane Distance:		12 feet							
Site Data				Vehicle Mix					
Barrier Height:		0.0 feet		VehicleType	Day	Evening	Night	Daily	
Barrier Type (0-Wall, 1-Berm):		0.0		Autos:		69.2%	9.5%	21.3%	83.55%
Centerline Dist. to Barrier:		44.0 feet		Medium Trucks:		80.7%	5.9%	13.4%	2.45%
Centerline Dist. to Observer:		44.0 feet		Heavy Trucks:		63.6%	9.8%	26.5%	14.00%
Barrier Distance to Observer:		0.0 feet		Noise Source Elevations (in feet)					
Observer Height (Above Pad):		5.0 feet		Autos:		0.000			
Pad Elevation:		0.0 feet		Medium Trucks:		2.297			
Road Elevation:		0.0 feet		Heavy Trucks:		8.004		Grade Adjustment: 0.0	
Road Grade:		0.0%		Lane Equivalent Distance (in feet)					
Left View:		-90.0 degrees		Autos:		43.875			
Right View:		90.0 degrees		Medium Trucks:		43.673			
				Heavy Trucks:		43.692			
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	66.51	-5.38	0.75	-1.20	-4.61	0.000	0.000		
Medium Trucks:	77.72	-20.71	0.78	-1.20	-4.87	0.000	0.000		
Heavy Trucks:	82.99	-13.14	0.78	-1.20	-5.50	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	60.7	58.9	56.3	55.0	62.1	62.4			
Medium Trucks:	56.6	55.4	50.1	48.9	56.8	57.0			
Heavy Trucks:	69.4	67.2	65.1	64.7	71.5	71.8			
Vehicle Noise:	70.2	68.1	65.8	65.2	72.1	72.4			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			61	131	281	606			
CNEL:			63	136	293	632			

Thursday, December 18, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)									
Scenario: EP2 Road Name: Walker Av. Road Segment: s/o Ontario Ranch Rd.					Project Name: Eucalyptus Business Park Job Number: 16285				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt):		5,541 vehicles			Autos:		15		
Peak Hour Percentage:		8.79%			Medium Trucks (2 Axles):		15		
Peak Hour Volume:		487 vehicles			Heavy Trucks (3+ Axles):		15		
Vehicle Speed:		40 mph			Vehicle Mix				
Near/Far Lane Distance:		12 feet			VehicleType				
Site Data					Day	Evening	Night	Daily	
Barrier Height:		0.0 feet			Autos:		69.2%	9.5%	21.3% 77.39%
Barrier Type (0-Wall, 1-Berm):		0.0			Medium Trucks:		80.7%	5.9%	13.4% 3.55%
Centerline Dist. to Barrier:		44.0 feet			Heavy Trucks:		63.6%	9.8%	26.5% 19.06%
Centerline Dist. to Observer:		44.0 feet			Noise Source Elevations (in feet)				
Barrier Distance to Observer:		0.0 feet			Autos:		0.000		
Observer Height (Above Pad):		5.0 feet			Medium Trucks:		2.297		
Pad Elevation:		0.0 feet			Heavy Trucks:		8.004		
Road Elevation:		0.0 feet			Grade Adjustment:		0.0		
Road Grade:		0.0%			Lane Equivalent Distance (in feet)				
Left View:		-90.0 degrees			Autos:		43.875		
Right View:		90.0 degrees			Medium Trucks:		43.673		
					Heavy Trucks:		43.692		
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	66.51	-5.56	0.75	-1.20	-4.61	0.000	0.000		
Medium Trucks:	77.72	-18.94	0.78	-1.20	-4.87	0.000	0.000		
Heavy Trucks:	82.99	-11.65	0.78	-1.20	-5.50	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	60.5	58.7	56.1	54.8	61.9	62.2			
Medium Trucks:	58.3	57.2	51.8	50.7	58.6	58.8			
Heavy Trucks:	70.9	68.7	66.6	66.2	73.0	73.2			
Vehicle Noise:	71.5	69.4	67.1	66.6	73.4	73.7			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				75	161	347	747		
CNEL:				78	168	361	778		

Thursday, December 18, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)									
Scenario: EP2 Road Name: Archibald Av. Road Segment: s/o Ontario Ranch Rd.				Project Name: Eucalyptus Business Park Job Number: 16285					
SITE SPECIFIC INPUT DATA				NOISE MODEL INPUTS					
Highway Data				Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt): 22,317 vehicles Peak Hour Percentage: 8.79% Peak Hour Volume: 1,962 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 58 feet				Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15					
Site Data				Vehicle Mix					
				Vehicle Type		Day	Evening	Night	Daily
				Autos: 69.2% 9.5% 21.3% 84.34%					
				Medium Trucks: 80.7% 5.9% 13.4% 2.33%					
				Heavy Trucks: 63.6% 9.8% 26.5% 13.33%					
				Noise Source Elevations (in feet)					
				Autos: 0.000					
				Medium Trucks: 2.297					
				Heavy Trucks: 8.004 Grade Adjustment: 0.0					
				Lane Equivalent Distance (in feet)					
				Autos: 52.764					
				Medium Trucks: 52.596					
				Heavy Trucks: 52.612					
FHWA Noise Model Calculations									
Vehicle Type	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	71.78	-0.52	-0.45	-1.20	-4.69	0.000	0.000		
Medium Trucks:	82.40	-16.10	-0.43	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	86.40	-8.53	-0.44	-1.20	-5.34	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
Vehicle Type	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	69.6	67.8	65.2	63.9	71.0	71.3			
Medium Trucks:	64.7	63.5	58.2	57.0	64.9	65.1			
Heavy Trucks:	76.2	74.0	71.9	71.5	78.3	78.5			
Vehicle Noise:	77.3	75.3	72.9	72.3	79.2	79.5			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				246	530	1,142	2,461		
CNEL:				256	552	1,190	2,564		

Thursday, December 18, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)								
Scenario: EP2 Road Name: Archibald Av. Road Segment: n/o Ontario Ranch Rd.				Project Name: Eucalyptus Business Park Job Number: 16285				
SITE SPECIFIC INPUT DATA				NOISE MODEL INPUTS				
Highway Data				Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 16,798 vehicles Peak Hour Percentage: 8.79% Peak Hour Volume: 1,477 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 58 feet				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: 60.0 feet Centerline Dist. to Observer: 60.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road 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: 69.2% 9.5% 21.3% 84.07% Medium Trucks: 80.7% 5.9% 13.4% 2.37% Heavy Trucks: 63.6% 9.8% 26.5% 13.56%				
				Noise Source Elevations (in feet)				
				Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.004 Grade Adjustment: 0.0				
				Lane Equivalent Distance (in feet)				
				Autos: 52.764 Medium Trucks: 52.596 Heavy Trucks: 52.612				
FHWA Noise Model Calculations								
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten	
Autos:	71.78	-1.77	-0.45	-1.20	-4.69	0.000	0.000	
Medium Trucks:	82.40	-17.26	-0.43	-1.20	-4.88	0.000	0.000	
Heavy Trucks:	86.40	-9.69	-0.44	-1.20	-5.34	0.000	0.000	
Unmitigated Noise Levels (without Topo and barrier attenuation)								
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL		
Autos:	68.4	66.5	63.9	62.6	69.8	70.1		
Medium Trucks:	63.5	62.3	57.0	55.8	63.7	64.0		
Heavy Trucks:	75.1	72.9	70.8	70.3	77.1	77.4		
Vehicle Noise:	76.2	74.1	71.7	71.1	78.0	78.3		
Centerline Distance to Noise Contour (in feet)								
				70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:				206	443	954	2,055	
CNEL:				214	461	994	2,142	

Thursday, December 18, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)							
Scenario: EP2 Road Name: Ontario Ranch Rd. Road Segment: e/o Euclid Av. (SR-83)			Project Name: Eucalyptus Business Park Job Number: 16285				
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS				
Highway Data			Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 8,908 vehicles Peak Hour Percentage: 8.79% Peak Hour Volume: 783 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 110 feet			Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data			Vehicle Mix				
			VehicleType	Day	Evening	Night	Daily
			Autos: 69.2% 9.5% 21.3% 83.87%				
			Medium Trucks: 80.7% 5.9% 13.4% 2.40%				
			Heavy Trucks: 63.6% 9.8% 26.5% 13.73%				
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 80.0 feet Centerline Dist. to Observer: 80.0 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: 8.004 Grade Adjustment: 0.0				
			Lane Equivalent Distance (in feet)				
			Autos: 58.310				
			Medium Trucks: 58.158				
			Heavy Trucks: 58.172				
FHWA Noise Model Calculations							
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	71.78	-4.54	-1.10	-1.20	-4.74	0.000	0.000
Medium Trucks:	82.40	-19.97	-1.09	-1.20	-4.88	0.000	0.000
Heavy Trucks:	86.40	-12.40	-1.09	-1.20	-5.23	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:	64.9	63.1	60.5	59.2	66.3	66.6	
Medium Trucks:	60.1	59.0	53.6	52.5	60.4	60.6	
Heavy Trucks:	71.7	69.5	67.4	67.0	73.8	74.0	
Vehicle Noise:	72.8	70.7	68.4	67.8	74.7	74.9	
Centerline Distance to Noise Contour (in feet)							
			70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:			163	352	759	1,635	
CNEL:			170	367	791	1,703	

Thursday, December 18, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)										
Scenario: EP2 Road Name: Ontario Ranch Rd. Road Segment: w/o Grove Av.					Project Name: Eucalyptus Business Park Job Number: 16285					
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS					
Highway Data					Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt):		7,714 vehicles			Autos:		15			
Peak Hour Percentage:		8.79%			Medium Trucks (2 Axles):		15			
Peak Hour Volume:		678 vehicles			Heavy Trucks (3+ Axles):		15			
Vehicle Speed:		55 mph			Vehicle Mix					
Near/Far Lane Distance:		110 feet								
Site Data					Vehicle Type					
Barrier Height:		0.0 feet			Autos:		69.2%	9.5%	21.3%	84.75%
Barrier Type (0-Wall, 1-Berm):		0.0			Medium Trucks:		80.7%	5.9%	13.4%	2.27%
Centerline Dist. to Barrier:		80.0 feet			Heavy Trucks:		63.6%	9.8%	26.5%	12.98%
Centerline Dist. to Observer:		80.0 feet			Noise Source Elevations (in feet)					
Barrier Distance to Observer:		0.0 feet								
Observer Height (Above Pad):		5.0 feet			Autos:		0.000			
Pad Elevation:		0.0 feet			Medium Trucks:		2.297			
Road Elevation:		0.0 feet			Heavy Trucks:		8.004			
Road Grade:		0.0%			Grade Adjustment:		0.0			
Left View:		-90.0 degrees			Lane Equivalent Distance (in feet)					
Right View:		90.0 degrees								
					Autos:		58.310			
					Medium Trucks:		58.158			
					Heavy Trucks:		58.172			
FHWA Noise Model Calculations										
Vehicle Type	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten			
Autos:	71.78	-5.12	-1.10	-1.20	-4.74	0.000	0.000			
Medium Trucks:	82.40	-20.83	-1.09	-1.20	-4.88	0.000	0.000			
Heavy Trucks:	86.40	-13.26	-1.09	-1.20	-5.23	0.000	0.000			
Unmitigated Noise Levels (without Topo and barrier attenuation)										
Vehicle Type	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL				
Autos:	64.4	62.5	59.9	58.7	65.8	66.1				
Medium Trucks:	59.3	58.1	52.8	51.6	59.5	59.7				
Heavy Trucks:	70.8	68.6	66.6	66.1	72.9	73.2				
Vehicle Noise:	72.0	69.9	67.6	66.9	73.8	74.1				
Centerline Distance to Noise Contour (in feet)										
				70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:				144	310	669	1,440			
CNEL:				150	323	697	1,501			

Thursday, December 18, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)										
Scenario: EP2 Road Name: Ontario Ranch Rd. Road Segment: e/o Grove Av.					Project Name: Eucalyptus Business Park Job Number: 16285					
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS					
Highway Data					Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt): 7,327 vehicles					Autos: 15					
Peak Hour Percentage: 8.79%					Medium Trucks (2 Axles): 15					
Peak Hour Volume: 644 vehicles					Heavy Trucks (3+ Axles): 15					
Vehicle Speed: 55 mph					Vehicle Mix					
Near/Far Lane Distance: 110 feet					VehicleType		Day	Evening	Night	Daily
Site Data					Autos: 69.2% 9.5% 21.3% 83.53%					
Barrier Height: 0.0 feet					Medium Trucks: 80.7% 5.9% 13.4% 2.45%					
Barrier Type (0-Wall, 1-Berm): 0.0					Heavy Trucks: 63.6% 9.8% 26.5% 14.02%					
Centerline Dist. to Barrier: 80.0 feet					Noise Source Elevations (in feet)					
Centerline Dist. to Observer: 80.0 feet					Autos: 0.000					
Barrier Distance to Observer: 0.0 feet					Medium Trucks: 2.297					
Observer Height (Above Pad): 5.0 feet					Heavy Trucks: 8.004					
Pad Elevation: 0.0 feet					Grade Adjustment: 0.0					
Road Elevation: 0.0 feet					Lane Equivalent Distance (in feet)					
Road Grade: 0.0%					Autos: 58.310					
Left View: -90.0 degrees					Medium Trucks: 58.158					
Right View: 90.0 degrees					Heavy Trucks: 58.172					
FHWA Noise Model Calculations										
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten			
Autos:	71.78	-5.40	-1.10	-1.20	-4.74	0.000	0.000			
Medium Trucks:	82.40	-20.72	-1.09	-1.20	-4.88	0.000	0.000			
Heavy Trucks:	86.40	-13.15	-1.09	-1.20	-5.23	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:	64.1	62.2	59.6	58.4	65.5		65.8			
Medium Trucks:	59.4	58.2	52.9	51.7	59.6		59.8			
Heavy Trucks:	71.0	68.8	66.7	66.2	73.0		73.3			
Vehicle Noise:	72.0	69.9	67.6	67.0	73.9		74.2			
Centerline Distance to Noise Contour (in feet)										
			70 dBA	65 dBA	60 dBA	55 dBA				
Ldn:			145	313	674	1,452				
CNEL:			151	326	702	1,513				

Thursday, December 18, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)									
Scenario: EP2 Road Name: Ontario Ranch Rd. Road Segment: w/o Archibald Av.				Project Name: Eucalyptus Business Park Job Number: 16285					
SITE SPECIFIC INPUT DATA				NOISE MODEL INPUTS					
Highway Data				Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt):		15,315 vehicles		Autos:		15			
Peak Hour Percentage:		8.79%		Medium Trucks (2 Axles):		15			
Peak Hour Volume:		1,346 vehicles		Heavy Trucks (3+ Axles):		15			
Vehicle Speed:		55 mph		Vehicle Mix					
Near/Far Lane Distance:		110 feet		VehicleType		Day	Evening	Night	Daily
Site Data				Autos:		69.2%	9.5%	21.3%	81.09%
Barrier Height:		0.0 feet		Medium Trucks:		80.7%	5.9%	13.4%	2.88%
Barrier Type (0-Wall, 1-Berm):		0.0		Heavy Trucks:		63.6%	9.8%	26.5%	16.03%
Centerline Dist. to Barrier:		80.0 feet		Noise Source Elevations (in feet)					
Centerline Dist. to Observer:		80.0 feet		Autos:		0.000			
Barrier Distance to Observer:		0.0 feet		Medium Trucks:		2.297			
Observer Height (Above Pad):		5.0 feet		Heavy Trucks:		8.004		Grade Adjustment: 0.0	
Pad Elevation:		0.0 feet		Lane Equivalent Distance (in feet)					
Road Elevation:		0.0 feet		Autos:		58.310			
Road Grade:		0.0%		Medium Trucks:		58.158			
Left View:		-90.0 degrees		Heavy Trucks:		58.172			
Right View:		90.0 degrees							
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	71.78	-2.33	-1.10	-1.20	-4.74	0.000	0.000		
Medium Trucks:	82.40	-16.82	-1.09	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	86.40	-9.37	-1.09	-1.20	-5.23	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:	67.1	65.3	62.7	61.4	68.5	68.8			
Medium Trucks:	63.3	62.1	56.8	55.6	63.5	63.7			
Heavy Trucks:	74.7	72.5	70.5	70.0	76.8	77.1			
Vehicle Noise:	75.7	73.6	71.3	70.7	77.6	77.8			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			256	551	1,188	2,559			
CNEL:			267	574	1,237	2,666			

Thursday, December 18, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)									
Scenario: EP2 Road Name: Ontario Ranch Rd. Road Segment: e/o Archibald Av.				Project Name: Eucalyptus Business Park Job Number: 16285					
SITE SPECIFIC INPUT DATA				NOISE MODEL INPUTS					
Highway Data				Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt):		17,739 vehicles		Autos:		15			
Peak Hour Percentage:		8.79%		Medium Trucks (2 Axles):		15			
Peak Hour Volume:		1,559 vehicles		Heavy Trucks (3+ Axles):		15			
Vehicle Speed:		55 mph		Vehicle Mix					
Near/Far Lane Distance:		110 feet		VehicleType		Day	Evening	Night	Daily
Site Data				Autos:		69.2%	9.5%	21.3%	82.00%
Barrier Height:		0.0 feet		Medium Trucks:		80.7%	5.9%	13.4%	2.74%
Barrier Type (0-Wall, 1-Berm):		0.0		Heavy Trucks:		63.6%	9.8%	26.5%	15.26%
Centerline Dist. to Barrier:		80.0 feet		Noise Source Elevations (in feet)					
Centerline Dist. to Observer:		80.0 feet		Autos:		0.000			
Barrier Distance to Observer:		0.0 feet		Medium Trucks:		2.297			
Observer Height (Above Pad):		5.0 feet		Heavy Trucks:		8.004		Grade Adjustment: 0.0	
Pad Elevation:		0.0 feet		Lane Equivalent Distance (in feet)					
Road Elevation:		0.0 feet		Autos:		58.310			
Road Grade:		0.0%		Medium Trucks:		58.158			
Left View:		-90.0 degrees		Heavy Trucks:		58.172			
Right View:		90.0 degrees							
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	71.78	-1.64	-1.10	-1.20	-4.74	0.000	0.000		
Medium Trucks:	82.40	-16.41	-1.09	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	86.40	-8.94	-1.09	-1.20	-5.23	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:	67.8	66.0	63.4	62.1	69.2	69.5			
Medium Trucks:	63.7	62.5	57.2	56.0	63.9	64.2			
Heavy Trucks:	75.2	73.0	70.9	70.4	77.2	77.5			
Vehicle Noise:	76.2	74.1	71.7	71.2	78.0	78.3			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			275	591	1,274	2,745			
CNEL:			286	616	1,328	2,861			

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)										
Scenario: EP2 Road Name: Eucalyptus Av. Road Segment: e/o Euclid Av. (SR-83)					Project Name: Eucalyptus Business Park Job Number: 16285					
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS					
Highway Data					Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt):		5,816 vehicles			Autos:		15			
Peak Hour Percentage:		8.79%			Medium Trucks (2 Axles):		15			
Peak Hour Volume:		511 vehicles			Heavy Trucks (3+ Axles):		15			
Vehicle Speed:		40 mph			Vehicle Mix					
Near/Far Lane Distance:		12 feet			VehicleType		Day	Evening	Night	Daily
Site Data					Autos:		69.2%	9.5%	21.3%	79.87%
Barrier Height:		0.0 feet			Medium Trucks:		80.7%	5.9%	13.4%	3.11%
Barrier Type (0-Wall, 1-Berm):		0.0			Heavy Trucks:		63.6%	9.8%	26.5%	17.01%
Centerline Dist. to Barrier:		44.0 feet			Noise Source Elevations (in feet)					
Centerline Dist. to Observer:		44.0 feet			Autos:		0.000			
Barrier Distance to Observer:		0.0 feet			Medium Trucks:		2.297			
Observer Height (Above Pad):		5.0 feet			Heavy Trucks:		8.004			
Pad Elevation:		0.0 feet			Grade Adjustment:		0.0			
Road Elevation:		0.0 feet			Lane Equivalent Distance (in feet)					
Road Grade:		0.0%			Autos:		43.875			
Left View:		-90.0 degrees			Medium Trucks:		43.673			
Right View:		90.0 degrees			Heavy Trucks:		43.692			
FHWA Noise Model Calculations										
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten			
Autos:	66.51	-5.22	0.75	-1.20	-4.61	0.000	0.000			
Medium Trucks:	77.72	-19.31	0.78	-1.20	-4.87	0.000	0.000			
Heavy Trucks:	82.99	-11.93	0.78	-1.20	-5.50	0.000	0.000			
Unmitigated Noise Levels (without Topo and barrier attenuation)										
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL				
Autos:	60.8	59.0	56.4	55.1	62.2	62.5				
Medium Trucks:	58.0	56.8	51.5	50.3	58.2	58.4				
Heavy Trucks:	70.6	68.4	66.4	65.9	72.7	73.0				
Vehicle Noise:	71.3	69.2	66.9	66.4	73.2	73.5				
Centerline Distance to Noise Contour (in feet)										
			70 dBA	65 dBA	60 dBA	55 dBA				
Ldn:			72	155	334	720				
CNEL:			75	162	348	750				

Thursday, December 18, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)									
Scenario: EP2 Road Name: Eucalyptus Av. Road Segment: e/o Grove Av.					Project Name: Eucalyptus Business Park Job Number: 16285				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 9,057 vehicles					Autos: 15				
Peak Hour Percentage: 8.79%					Medium Trucks (2 Axles): 15				
Peak Hour Volume: 796 vehicles					Heavy Trucks (3+ Axles): 15				
Vehicle Speed: 40 mph									
Near/Far Lane Distance: 12 feet					Vehicle Mix				
					VehicleType	Day	Evening	Night	Daily
Site Data					Autos: 69.2% 9.5% 21.3% 81.12%				
					Medium Trucks: 80.7% 5.9% 13.4% 2.90%				
					Heavy Trucks: 63.6% 9.8% 26.5% 15.97%				
					Noise Source Elevations (in feet)				
					Autos: 0.000				
Barrier Height: 0.0 feet					Medium Trucks: 2.297				
Barrier Type (0-Wall, 1-Berm): 0.0					Heavy Trucks: 8.004				
Centerline Dist. to Barrier: 44.0 feet					Grade Adjustment: 0.0				
Centerline Dist. to Observer: 44.0 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									
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	66.51	-3.22	0.75	-1.20	-4.61	0.000	0.000		
Medium Trucks:	77.72	-17.69	0.78	-1.20	-4.87	0.000	0.000		
Heavy Trucks:	82.99	-10.28	0.78	-1.20	-5.50	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	62.8	61.0	58.4	57.1	64.2	64.5			
Medium Trucks:	59.6	58.4	53.1	51.9	59.8	60.1			
Heavy Trucks:	72.3	70.1	68.0	67.5	74.3	74.6			
Vehicle Noise:	73.0	70.9	68.6	68.0	74.9	75.2			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			93	201	432	931			
CNEL:			97	209	450	970			

Thursday, December 18, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)							
Scenario: EP2 Road Name: Eucalyptus Av. Road Segment: w/o Grove Av.				Project Name: Eucalyptus Business Park Job Number: 16285			
SITE SPECIFIC INPUT DATA				NOISE MODEL INPUTS			
Highway Data				Site Conditions (Hard = 10, Soft = 15)			
Average Daily Traffic (Adt):		5,089 vehicles		Autos: 15			
Peak Hour Percentage:		8.79%		Medium Trucks (2 Axles): 15			
Peak Hour Volume:		447 vehicles		Heavy Trucks (3+ Axles): 15			
Vehicle Speed:		40 mph		Vehicle Mix			
Near/Far Lane Distance:		12 feet		VehicleType			
Site Data				Day	Evening	Night	Daily
Barrier Height:		0.0 feet		Autos: 69.2% 9.5% 21.3% 80.46%			
Barrier Type (0-Wall, 1-Berm):		0.0		Medium Trucks: 80.7% 5.9% 13.4% 3.05%			
Centerline Dist. to Barrier:		44.0 feet		Heavy Trucks: 63.6% 9.8% 26.5% 16.49%			
Centerline Dist. to Observer:		44.0 feet		Noise Source Elevations (in feet)			
Barrier Distance to Observer:		0.0 feet		Autos: 0.000			
Observer Height (Above Pad):		5.0 feet		Medium Trucks: 2.297			
Pad Elevation:		0.0 feet		Heavy Trucks: 8.004 Grade Adjustment: 0.0			
Road Elevation:		0.0 feet		Lane Equivalent Distance (in feet)			
Road Grade:		0.0%		Autos: 43.875			
Left View:		-90.0 degrees		Medium Trucks: 43.673			
Right View:		90.0 degrees		Heavy Trucks: 43.692			
FHWA Noise Model Calculations							
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	66.51	-5.76	0.75	-1.20	-4.61	0.000	0.000
Medium Trucks:	77.72	-19.97	0.78	-1.20	-4.87	0.000	0.000
Heavy Trucks:	82.99	-12.65	0.78	-1.20	-5.50	0.000	0.000
Unmitigated Noise Levels (without Topo and barrier attenuation)							
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	60.3	58.5	55.9	54.6	61.7	62.0	
Medium Trucks:	57.3	56.2	50.8	49.6	57.5	57.8	
Heavy Trucks:	69.9	67.7	65.6	65.2	72.0	72.2	
Vehicle Noise:	70.6	68.5	66.2	65.7	72.5	72.8	
Centerline Distance to Noise Contour (in feet)							
			70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:			65	139	300	647	
CNEL:			67	145	313	674	

Thursday, December 18, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)								
Scenario: EP2 Road Name: Eucalyptus Av. Road Segment: e/o Walker Av.				Project Name: Eucalyptus Business Park Job Number: 16285				
SITE SPECIFIC INPUT DATA				NOISE MODEL INPUTS				
Highway Data				Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 8,126 vehicles Peak Hour Percentage: 8.79% Peak Hour Volume: 714 vehicles Vehicle Speed: 40 mph Near/Far Lane Distance: 12 feet				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: 44.0 feet Centerline Dist. to Observer: 44.0 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: 69.2% 9.5% 21.3% 87.71%				
				Medium Trucks: 80.7% 5.9% 13.4% 1.83%				
				Heavy Trucks: 63.6% 9.8% 26.5% 10.46%				
				Noise Source Elevations (in feet)				
				Autos: 0.000				
				Medium Trucks: 2.297				
				Heavy Trucks: 8.004 Grade Adjustment: 0.0				
				Lane Equivalent Distance (in feet)				
				Autos: 43.875				
				Medium Trucks: 43.673				
				Heavy Trucks: 43.692				
FHWA Noise Model Calculations								
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten	
Autos:	66.51	-3.36	0.75	-1.20	-4.61	0.000	0.000	
Medium Trucks:	77.72	-20.16	0.78	-1.20	-4.87	0.000	0.000	
Heavy Trucks:	82.99	-12.59	0.78	-1.20	-5.50	0.000	0.000	
Unmitigated Noise Levels (without Topo and barrier attenuation)								
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL		
Autos:	62.7	60.9	58.3	57.0	64.1	64.4		
Medium Trucks:	57.1	56.0	50.6	49.4	57.3	57.6		
Heavy Trucks:	70.0	67.8	65.7	65.2	72.0	72.3		
Vehicle Noise:	70.9	68.8	66.5	65.9	72.8	73.1		
Centerline Distance to Noise Contour (in feet)								
			70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:			68	146	314	677		
CNEL:			71	152	327	705		

Thursday, December 18, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)										
Scenario: EBO Road Name: Euclid Av. (SR-83) Road Segment: n/o Ontario Ranch Rd.					Project Name: Eucalyptus Business Park Job Number: 16285					
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS					
Highway Data					Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt): 27,385 vehicles Peak Hour Percentage: 8.79% Peak Hour Volume: 2,407 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 110 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15					
Site Data					Vehicle Mix					
					Vehicle Type		Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 80.0 feet Centerline Dist. to Observer: 80.0 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					Autos: 69.2% 9.5% 21.3% 82.65% Medium Trucks: 80.7% 5.9% 13.4% 2.60% Heavy Trucks: 63.6% 9.8% 26.5% 14.74%					
					Noise Source Elevations (in feet)					
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.004					Grade Adjustment: 0.0
					Lane Equivalent Distance (in feet)					
					Autos: 58.310 Medium Trucks: 58.158 Heavy Trucks: 58.172					
FHWA Noise Model Calculations										
Vehicle Type	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten			
Autos:	71.78	0.28	-1.10	-1.20	-4.74	0.000	0.000			
Medium Trucks:	82.40	-14.74	-1.09	-1.20	-4.88	0.000	0.000			
Heavy Trucks:	86.40	-7.21	-1.09	-1.20	-5.23	0.000	0.000			
Unmitigated Noise Levels (without Topo and barrier attenuation)										
Vehicle Type	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL				
Autos:	69.8	67.9	65.3	64.0	71.2	71.5				
Medium Trucks:	65.4	64.2	58.9	57.7	65.6	65.8				
Heavy Trucks:	76.9	74.7	72.6	72.2	79.0	79.2				
Vehicle Noise:	77.9	75.8	73.5	72.9	79.8	80.1				
Centerline Distance to Noise Contour (in feet)										
			70 dBA	65 dBA	60 dBA	55 dBA				
Ldn:			360	775	1,669	3,596				
CNEL:			375	807	1,739	3,747				

Thursday, December 18, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)									
Scenario: EBO Road Name: Euclid Av. (SR-83) Road Segment: n/o Eucalyptus Av.					Project Name: Eucalyptus Business Park Job Number: 16285				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt):		22,492 vehicles			Autos:		15		
Peak Hour Percentage:		8.79%			Medium Trucks (2 Axles):		15		
Peak Hour Volume:		1,977 vehicles			Heavy Trucks (3+ Axles):		15		
Vehicle Speed:		55 mph			Vehicle Mix				
Near/Far Lane Distance:		110 feet			VehicleType	Day	Evening	Night	Daily
Site Data					Autos: 69.2% 9.5% 21.3% 82.41%				
Barrier Height:		0.0 feet			Medium Trucks:		80.7% 5.9% 13.4% 2.64%		
Barrier Type (0-Wall, 1-Berm):		0.0			Heavy Trucks:		63.6% 9.8% 26.5% 14.94%		
Centerline Dist. to Barrier:		80.0 feet			Noise Source Elevations (in feet)				
Centerline Dist. to Observer:		80.0 feet			Autos:		0.000		
Barrier Distance to Observer:		0.0 feet			Medium Trucks:		2.297		
Observer Height (Above Pad):		5.0 feet			Heavy Trucks:		8.004		
Pad Elevation:		0.0 feet			Grade Adjustment:		0.0		
Road Elevation:		0.0 feet			Lane Equivalent Distance (in feet)				
Road Grade:		0.0%			Autos:		58.310		
Left View:		-90.0 degrees			Medium Trucks:		58.158		
Right View:		90.0 degrees			Heavy Trucks:		58.172		
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	71.78	-0.59	-1.10	-1.20	-4.74	0.000	0.000		
Medium Trucks:	82.40	-15.53	-1.09	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	86.40	-8.00	-1.09	-1.20	-5.23	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	68.9	67.1	64.5	63.2	70.3	70.6			
Medium Trucks:	64.6	63.4	58.1	56.9	64.8	65.0			
Heavy Trucks:	76.1	73.9	71.8	71.4	78.2	78.4			
Vehicle Noise:	77.1	75.0	72.7	72.1	79.0	79.3			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				318	685	1,475	3,178		
CNEL:				331	713	1,537	3,311		

Thursday, December 18, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)										
Scenario: EBO Road Name: Euclid Av. (SR-83) Road Segment: s/o Eucalyptus Av.					Project Name: Eucalyptus Business Park Job Number: 16285					
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS					
Highway Data					Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt): 32,783 vehicles Peak Hour Percentage: 8.79% Peak Hour Volume: 2,882 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 110 feet					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: 80.0 feet Centerline Dist. to Observer: 80.0 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:		69.2%	9.5%	21.3%	82.92%
					Medium Trucks:		80.7%	5.9%	13.4%	2.55%
					Heavy Trucks:		63.6%	9.8%	26.5%	14.53%
					Noise Source Elevations (in feet)					
					Autos:		0.000			
					Medium Trucks:		2.297			
					Heavy Trucks:		8.004	Grade Adjustment: 0.0		
					Lane Equivalent Distance (in feet)					
					Autos:		58.310			
					Medium Trucks:		58.158			
					Heavy Trucks:		58.172			
FHWA Noise Model Calculations										
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten			
Autos:	71.78	1.07	-1.10	-1.20	-4.74	0.000	0.000			
Medium Trucks:	82.40	-14.04	-1.09	-1.20	-4.88	0.000	0.000			
Heavy Trucks:	86.40	-6.49	-1.09	-1.20	-5.23	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	68.7	66.1	64.8	72.0	72.2				
Medium Trucks:	66.1	64.9	59.6	58.4	66.3	66.5				
Heavy Trucks:	77.6	75.4	73.3	72.9	79.7	79.9				
Vehicle Noise:	78.6	76.6	74.2	73.6	80.5	80.8				
Centerline Distance to Noise Contour (in feet)										
			70 dBA	65 dBA	60 dBA	55 dBA				
Ldn:			402	866	1,866	4,021				
CNEL:			419	903	1,945	4,190				

Thursday, December 18, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)									
Scenario: EBO Road Name: Bon View Av. Road Segment: n/o Ontario Ranch Rd.					Project Name: Eucalyptus Business Park Job Number: 16285				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 2,394 vehicles Peak Hour Percentage: 8.79% Peak Hour Volume: 210 vehicles Vehicle Speed: 40 mph Near/Far Lane Distance: 12 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
					VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 44.0 feet Centerline Dist. to Observer: 44.0 feet 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					Autos: 69.2% 9.5% 21.3% 84.43% Medium Trucks: 80.7% 5.9% 13.4% 2.32% Heavy Trucks: 63.6% 9.8% 26.5% 13.25%				
					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.004 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 43.875 Medium Trucks: 43.673 Heavy Trucks: 43.692				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	66.51	-8.83	0.75	-1.20	-4.61	0.000	0.000		
Medium Trucks:	77.72	-24.44	0.78	-1.20	-4.87	0.000	0.000		
Heavy Trucks:	82.99	-16.87	0.78	-1.20	-5.50	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	57.2	55.4	52.8	51.5	58.6	58.9			
Medium Trucks:	52.9	51.7	46.3	45.2	53.1	53.3			
Heavy Trucks:	65.7	63.5	61.4	61.0	67.8	68.0			
Vehicle Noise:	66.5	64.4	62.1	61.5	68.4	68.7			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			34	74	159	343			
CNEL:			36	77	166	358			

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)									
Scenario: EBO Road Name: Bon View Av. Road Segment: s/o Ontario Ranch Rd.				Project Name: Eucalyptus Business Park Job Number: 16285					
SITE SPECIFIC INPUT DATA				NOISE MODEL INPUTS					
Highway Data				Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt):		2,471 vehicles		Autos:		15			
Peak Hour Percentage:		8.79%		Medium Trucks (2 Axles):		15			
Peak Hour Volume:		217 vehicles		Heavy Trucks (3+ Axles):		15			
Vehicle Speed:		40 mph		Vehicle Mix					
Near/Far Lane Distance:		12 feet		Vehicle Type		Day	Evening	Night	Daily
Site Data				Autos:		69.2%	9.5%	21.3%	88.92%
Barrier Height:		0.0 feet		Medium Trucks:		80.7%	5.9%	13.4%	1.65%
Barrier Type (0-Wall, 1-Berm):		0.0		Heavy Trucks:		63.6%	9.8%	26.5%	9.43%
Centerline Dist. to Barrier:		44.0 feet		Noise Source Elevations (in feet)					
Centerline Dist. to Observer:		44.0 feet		Autos:		0.000			
Barrier Distance to Observer:		0.0 feet		Medium Trucks:		2.297			
Observer Height (Above Pad):		5.0 feet		Heavy Trucks:		8.004			
Pad Elevation:		0.0 feet		Grade Adjustment:		0.0			
Road Elevation:		0.0 feet		Lane Equivalent Distance (in feet)					
Road Grade:		0.0%		Autos:		43.875			
Left View:		-90.0 degrees		Medium Trucks:		43.673			
Right View:		90.0 degrees		Heavy Trucks:		43.692			
FHWA Noise Model Calculations									
Vehicle Type	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	66.51	-8.47	0.75	-1.20	-4.61	0.000	0.000		
Medium Trucks:	77.72	-25.78	0.78	-1.20	-4.87	0.000	0.000		
Heavy Trucks:	82.99	-18.21	0.78	-1.20	-5.50	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
Vehicle Type	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	57.6	55.8	53.2	51.9	59.0	59.3			
Medium Trucks:	51.5	50.3	45.0	43.8	51.7	52.0			
Heavy Trucks:	64.4	62.2	60.1	59.6	66.4	66.7			
Vehicle Noise:	65.4	63.3	61.0	60.4	67.3	67.5			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			29	62	134	289			
CNEL:			30	65	140	301			

Thursday, December 18, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)									
Scenario: EBO Road Name: Grove Av. Road Segment: n/o Ontario Ranch Rd.				Project Name: Eucalyptus Business Park Job Number: 16285					
SITE SPECIFIC INPUT DATA				NOISE MODEL INPUTS					
Highway Data				Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt):		6,686 vehicles		Autos:		15			
Peak Hour Percentage:		8.79%		Medium Trucks (2 Axles):		15			
Peak Hour Volume:		588 vehicles		Heavy Trucks (3+ Axles):		15			
Vehicle Speed:		50 mph		Vehicle Mix					
Near/Far Lane Distance:		45 feet		VehicleType		Day	Evening	Night	Daily
Site Data				Autos:		69.2%	9.5%	21.3%	87.33%
Barrier Height:		0.0 feet		Medium Trucks:		80.7%	5.9%	13.4%	1.89%
Barrier Type (0-Wall, 1-Berm):		0.0		Heavy Trucks:		63.6%	9.8%	26.5%	10.78%
Centerline Dist. to Barrier:		50.0 feet		Noise Source Elevations (in feet)					
Centerline Dist. to Observer:		50.0 feet		Autos:		0.000			
Barrier Distance to Observer:		0.0 feet		Medium Trucks:		2.297			
Observer Height (Above Pad):		5.0 feet		Heavy Trucks:		8.004		Grade Adjustment: 0.0	
Pad Elevation:		0.0 feet		Lane Equivalent Distance (in feet)					
Road Elevation:		0.0 feet		Autos:		44.931			
Road Grade:		0.0%		Medium Trucks:		44.733			
Left View:		-90.0 degrees		Heavy Trucks:		44.752			
Right View:		90.0 degrees							
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	70.20	-5.19	0.59	-1.20	-4.65	0.000	0.000		
Medium Trucks:	81.00	-21.85	0.62	-1.20	-4.87	0.000	0.000		
Heavy Trucks:	85.38	-14.28	0.62	-1.20	-5.43	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	64.4	62.6	60.0	58.7	65.8	66.1			
Medium Trucks:	58.6	57.4	52.1	50.9	58.8	59.0			
Heavy Trucks:	70.5	68.3	66.2	65.8	72.6	72.8			
Vehicle Noise:	71.7	69.6	67.3	66.7	73.6	73.8			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			86	186	401	863			
CNEL:			90	194	417	899			

Thursday, December 18, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)											
Scenario: EBO Road Name: Grove Av. Road Segment: s/o Ontario Ranch Rd.					Project Name: Eucalyptus Business Park Job Number: 16285						
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS						
Highway Data					Site Conditions (Hard = 10, Soft = 15)						
Average Daily Traffic (Adt): 5,829 vehicles Peak Hour Percentage: 8.79% Peak Hour Volume: 512 vehicles Vehicle Speed: 50 mph Near/Far Lane Distance: 45 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15						
Site Data					Vehicle Mix						
					Vehicle Type		Day	Evening	Night	Daily	
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 50.0 feet Centerline Dist. to Observer: 50.0 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					Autos: 69.2% 9.5% 21.3% 89.25% Medium Trucks: 80.7% 5.9% 13.4% 1.60% Heavy Trucks: 63.6% 9.8% 26.5% 9.15%						
					Noise Source Elevations (in feet)						
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.004					Grade Adjustment: 0.0	
					Lane Equivalent Distance (in feet)						
					Autos: 44.931 Medium Trucks: 44.733 Heavy Trucks: 44.752						
					FHWA Noise Model Calculations						
					Vehicle Type	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten
Autos:					70.20	-5.69	0.59	-1.20	-4.65	0.000	0.000
Medium Trucks:					81.00	-23.15	0.62	-1.20	-4.87	0.000	0.000
Heavy Trucks:					85.38	-15.58	0.62	-1.20	-5.43	0.000	0.000
Unmitigated Noise Levels (without Topo and barrier attenuation)											
Vehicle Type	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL					
Autos:		63.9	62.1	59.5	58.2	65.3	65.6				
Medium Trucks:		57.3	56.1	50.8	49.6	57.5	57.7				
Heavy Trucks:		69.2	67.0	64.9	64.5	71.3	71.5				
Vehicle Noise:		70.5	68.5	66.1	65.5	72.4	72.7				
Centerline Distance to Noise Contour (in feet)											
				70 dBA		65 dBA		60 dBA		55 dBA	
Ldn:				72		156		335		722	
CNEL:				75		162		349		752	

Thursday, December 18, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)									
Scenario: EBO Road Name: Walker Av. Road Segment: n/o Ontario Ranch Rd.				Project Name: Eucalyptus Business Park Job Number: 16285					
SITE SPECIFIC INPUT DATA				NOISE MODEL INPUTS					
Highway Data				Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt):		5,384 vehicles		Autos:		15			
Peak Hour Percentage:		8.79%		Medium Trucks (2 Axles):		15			
Peak Hour Volume:		473 vehicles		Heavy Trucks (3+ Axles):		15			
Vehicle Speed:		40 mph		Vehicle Mix					
Near/Far Lane Distance:		12 feet		VehicleType		Day	Evening	Night	Daily
Site Data				Autos:		69.2%	9.5%	21.3%	83.65%
Barrier Height:		0.0 feet		Medium Trucks:		80.7%	5.9%	13.4%	2.43%
Barrier Type (0-Wall, 1-Berm):		0.0		Heavy Trucks:		63.6%	9.8%	26.5%	13.92%
Centerline Dist. to Barrier:		44.0 feet		Noise Source Elevations (in feet)					
Centerline Dist. to Observer:		44.0 feet		Autos:		0.000			
Barrier Distance to Observer:		0.0 feet		Medium Trucks:		2.297			
Observer Height (Above Pad):		5.0 feet		Heavy Trucks:		8.004		Grade Adjustment: 0.0	
Pad Elevation:		0.0 feet		Lane Equivalent Distance (in feet)					
Road Elevation:		0.0 feet		Autos:		43.875			
Road Grade:		0.0%		Medium Trucks:		43.673			
Left View:		-90.0 degrees		Heavy Trucks:		43.692			
Right View:		90.0 degrees							
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	66.51	-5.35	0.75	-1.20	-4.61	0.000	0.000		
Medium Trucks:	77.72	-20.71	0.78	-1.20	-4.87	0.000	0.000		
Heavy Trucks:	82.99	-13.14	0.78	-1.20	-5.50	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	60.7	58.9	56.3	55.0	62.1	62.4			
Medium Trucks:	56.6	55.4	50.1	48.9	56.8	57.0			
Heavy Trucks:	69.4	67.2	65.1	64.7	71.5	71.8			
Vehicle Noise:	70.2	68.1	65.8	65.2	72.1	72.4			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			61	131	282	607			
CNEL:			63	136	293	632			

Thursday, December 18, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)									
Scenario: EBO Road Name: Walker Av. Road Segment: s/o Ontario Ranch Rd.				Project Name: Eucalyptus Business Park Job Number: 16285					
SITE SPECIFIC INPUT DATA				NOISE MODEL INPUTS					
Highway Data				Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt):		5,641 vehicles		Autos:		15			
Peak Hour Percentage:		8.79%		Medium Trucks (2 Axles):		15			
Peak Hour Volume:		496 vehicles		Heavy Trucks (3+ Axles):		15			
Vehicle Speed:		40 mph		Vehicle Mix					
Near/Far Lane Distance:		12 feet		Vehicle Type		Day	Evening	Night	Daily
Site Data				Autos:		69.2%	9.5%	21.3%	74.73%
Barrier Height:		0.0 feet		Medium Trucks:		80.7%	5.9%	13.4%	4.00%
Barrier Type (0-Wall, 1-Berm):		0.0		Heavy Trucks:		63.6%	9.8%	26.5%	21.27%
Centerline Dist. to Barrier:		44.0 feet		Noise Source Elevations (in feet)					
Centerline Dist. to Observer:		44.0 feet		Autos:		0.000			
Barrier Distance to Observer:		0.0 feet		Medium Trucks:		2.297			
Observer Height (Above Pad):		5.0 feet		Heavy Trucks:		8.004		Grade Adjustment: 0.0	
Pad Elevation:		0.0 feet		Lane Equivalent Distance (in feet)					
Road Elevation:		0.0 feet		Autos:		43.875			
Road Grade:		0.0%		Medium Trucks:		43.673			
Left View:		-90.0 degrees		Heavy Trucks:		43.692			
Right View:		90.0 degrees							
FHWA Noise Model Calculations									
Vehicle Type	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	66.51	-5.64	0.75	-1.20	-4.61	0.000	0.000		
Medium Trucks:	77.72	-18.35	0.78	-1.20	-4.87	0.000	0.000		
Heavy Trucks:	82.99	-11.09	0.78	-1.20	-5.50	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
Vehicle Type	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	60.4	58.6	56.0	54.7	61.8	62.1			
Medium Trucks:	58.9	57.8	52.4	51.2	59.1	59.4			
Heavy Trucks:	71.5	69.3	67.2	66.7	73.5	73.8			
Vehicle Noise:	72.0	69.9	67.6	67.1	74.0	74.2			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			81	174	375	808			
CNEL:			84	181	391	842			

Thursday, December 18, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)									
Scenario: EBO Road Name: Archibald Av. Road Segment: s/o Ontario Ranch Rd.				Project Name: Eucalyptus Business Park Job Number: 16285					
SITE SPECIFIC INPUT DATA				NOISE MODEL INPUTS					
Highway Data				Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt): 22,714 vehicles Peak Hour Percentage: 8.79% Peak Hour Volume: 1,997 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 58 feet				Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15					
Site Data				Vehicle Mix					
				Vehicle Type	Day	Evening	Night	Daily	
				Autos: 69.2% 9.5% 21.3% 84.61%					
				Medium Trucks: 80.7% 5.9% 13.4% 2.29%					
				Heavy Trucks: 63.6% 9.8% 26.5% 13.10%					
				Noise Source Elevations (in feet)					
				Autos: 0.000					
				Medium Trucks: 2.297					
				Heavy Trucks: 8.004					
				Grade Adjustment: 0.0					
				Lane Equivalent Distance (in feet)					
				Autos: 52.764					
				Medium Trucks: 52.596					
				Heavy Trucks: 52.612					
FHWA Noise Model Calculations									
Vehicle Type	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	71.78	-0.43	-0.45	-1.20	-4.69	0.000	0.000		
Medium Trucks:	82.40	-16.10	-0.43	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	86.40	-8.53	-0.44	-1.20	-5.34	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
Vehicle Type	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	69.7	67.9	65.3	64.0	71.1	71.4			
Medium Trucks:	64.7	63.5	58.2	57.0	64.9	65.1			
Heavy Trucks:	76.2	74.0	71.9	71.5	78.3	78.5			
Vehicle Noise:	77.3	75.3	72.9	72.3	79.2	79.5			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			247	531	1,145	2,466			
CNEL:			257	554	1,193	2,570			

Thursday, December 18, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)									
Scenario: EBO Road Name: Archibald Av. Road Segment: n/o Ontario Ranch Rd.				Project Name: Eucalyptus Business Park Job Number: 16285					
SITE SPECIFIC INPUT DATA				NOISE MODEL INPUTS					
Highway Data				Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt): 17,027 vehicles Peak Hour Percentage: 8.79% Peak Hour Volume: 1,497 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 58 feet				Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15					
Site Data				Vehicle Mix					
				VehicleType		Day	Evening	Night	Daily
				Autos:		69.2%	9.5%	21.3%	84.28%
				Medium Trucks:		80.7%	5.9%	13.4%	2.34%
				Heavy Trucks:		63.6%	9.8%	26.5%	13.38%
				Noise Source Elevations (in feet)					
				Autos:		0.000			
				Medium Trucks:		2.297			
				Heavy Trucks:		8.004		Grade Adjustment: 0.0	
				Lane Equivalent Distance (in feet)					
				Autos:		52.764			
				Medium Trucks:		52.596			
				Heavy Trucks:		52.612			
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:		71.78	-1.70	-0.45	-1.20	-4.69	0.000	0.000	
Medium Trucks:		82.40	-17.26	-0.43	-1.20	-4.88	0.000	0.000	
Heavy Trucks:		86.40	-9.69	-0.44	-1.20	-5.34	0.000	0.000	
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:		68.4	66.6	64.0	62.7	69.8	70.1		
Medium Trucks:		63.5	62.3	57.0	55.8	63.7	64.0		
Heavy Trucks:		75.1	72.9	70.8	70.3	77.1	77.4		
Vehicle Noise:		76.2	74.1	71.8	71.1	78.0	78.3		
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				206	443	955	2,058		
CNEL:				215	462	996	2,145		

Thursday, December 18, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)										
Scenario: EBO Road Name: Ontario Ranch Rd. Road Segment: e/o Euclid Av. (SR-83)				Project Name: Eucalyptus Business Park Job Number: 16285						
SITE SPECIFIC INPUT DATA				NOISE MODEL INPUTS						
Highway Data				Site Conditions (Hard = 10, Soft = 15)						
Average Daily Traffic (Adt): 8,985 vehicles Peak Hour Percentage: 8.79% Peak Hour Volume: 790 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 110 feet				Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15						
Site Data				Vehicle Mix						
				VehicleType	Day	Evening	Night	Daily		
				Autos: 69.2% 9.5% 21.3% 84.01%						
				Medium Trucks: 80.7% 5.9% 13.4% 2.38%						
				Heavy Trucks: 63.6% 9.8% 26.5% 13.61%						
				Noise Source Elevations (in feet)						
				Autos: 0.000						
				Medium Trucks: 2.297						
				Heavy Trucks: 8.004 Grade Adjustment: 0.0						
				Lane Equivalent Distance (in feet)						
				Autos: 58.310						
				Medium Trucks: 58.158						
				Heavy Trucks: 58.172						
FHWA Noise Model Calculations										
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten			
Autos:	71.78	-4.49	-1.10	-1.20	-4.74	0.000	0.000			
Medium Trucks:	82.40	-19.97	-1.09	-1.20	-4.88	0.000	0.000			
Heavy Trucks:	86.40	-12.40	-1.09	-1.20	-5.23	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:	65.0	63.2	60.6	59.3	66.4	66.7				
Medium Trucks:	60.1	59.0	53.6	52.5	60.4	60.6				
Heavy Trucks:	71.7	69.5	67.4	67.0	73.8	74.0				
Vehicle Noise:	72.8	70.7	68.4	67.8	74.7	74.9				
Centerline Distance to Noise Contour (in feet)										
				70 dBA		65 dBA		60 dBA		55 dBA
Ldn:				164		353		760		1,636
CNEL:				171		367		791		1,705

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)										
Scenario: EBO Road Name: Ontario Ranch Rd. Road Segment: w/o Grove Av.					Project Name: Eucalyptus Business Park Job Number: 16285					
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS					
Highway Data					Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt): 8,220 vehicles Peak Hour Percentage: 8.79% Peak Hour Volume: 723 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 110 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15					
Site Data					Vehicle Mix					
					Vehicle Type		Day	Evening	Night	Daily
					Autos: 69.2% 9.5% 21.3% 85.69%					
					Medium Trucks: 80.7% 5.9% 13.4% 2.13%					
					Heavy Trucks: 63.6% 9.8% 26.5% 12.18%					
					Noise Source Elevations (in feet)					
					Autos: 0.000					
					Medium Trucks: 2.297					
					Heavy Trucks: 8.004 Grade Adjustment: 0.0					
					Lane Equivalent Distance (in feet)					
					Autos: 58.310					
					Medium Trucks: 58.158					
					Heavy Trucks: 58.172					
FHWA Noise Model Calculations										
Vehicle Type	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten			
Autos:	71.78	-4.79	-1.10	-1.20	-4.74	0.000	0.000			
Medium Trucks:	82.40	-20.83	-1.09	-1.20	-4.88	0.000	0.000			
Heavy Trucks:	86.40	-13.26	-1.09	-1.20	-5.23	0.000	0.000			
Unmitigated Noise Levels (without Topo and barrier attenuation)										
Vehicle Type	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL				
Autos:	64.7	62.9	60.3	59.0	66.1	66.4				
Medium Trucks:	59.3	58.1	52.8	51.6	59.5	59.7				
Heavy Trucks:	70.8	68.6	66.6	66.1	72.9	73.2				
Vehicle Noise:	72.0	70.0	67.6	67.0	73.9	74.2				
Centerline Distance to Noise Contour (in feet)										
			70 dBA	65 dBA	60 dBA	55 dBA				
Ldn:			145	313	674	1,452				
CNEL:			151	326	702	1,513				

Thursday, December 18, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)									
Scenario: EBO Road Name: Ontario Ranch Rd. Road Segment: e/o Grove Av.				Project Name: Eucalyptus Business Park Job Number: 16285					
SITE SPECIFIC INPUT DATA				NOISE MODEL INPUTS					
Highway Data				Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt):		7,659 vehicles		Autos:		15			
Peak Hour Percentage:		8.79%		Medium Trucks (2 Axles):		15			
Peak Hour Volume:		673 vehicles		Heavy Trucks (3+ Axles):		15			
Vehicle Speed:		55 mph		Vehicle Mix					
Near/Far Lane Distance:		110 feet		Vehicle Type		Day	Evening	Night	Daily
Site Data				Autos:		69.2%	9.5%	21.3%	84.24%
Barrier Height:		0.0 feet		Medium Trucks:		80.7%	5.9%	13.4%	2.35%
Barrier Type (0-Wall, 1-Berm):		0.0		Heavy Trucks:		63.6%	9.8%	26.5%	13.41%
Centerline Dist. to Barrier:		80.0 feet		Noise Source Elevations (in feet)					
Centerline Dist. to Observer:		80.0 feet		Autos:		0.000			
Barrier Distance to Observer:		0.0 feet		Medium Trucks:		2.297			
Observer Height (Above Pad):		5.0 feet		Heavy Trucks:		8.004	Grade Adjustment: 0.0		
Pad Elevation:		0.0 feet		Lane Equivalent Distance (in feet)					
Road Elevation:		0.0 feet		Autos:		58.310			
Road Grade:		0.0%		Medium Trucks:		58.158			
Left View:		-90.0 degrees		Heavy Trucks:		58.172			
Right View:		90.0 degrees							
FHWA Noise Model Calculations									
Vehicle Type	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	71.78	-5.17	-1.10	-1.20	-4.74	0.000	0.000		
Medium Trucks:	82.40	-20.72	-1.09	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	86.40	-13.15	-1.09	-1.20	-5.23	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
Vehicle Type	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	64.3	62.5	59.9	58.6	65.7	66.0			
Medium Trucks:	59.4	58.2	52.9	51.7	59.6	59.8			
Heavy Trucks:	71.0	68.8	66.7	66.2	73.0	73.3			
Vehicle Noise:	72.0	70.0	67.6	67.0	73.9	74.2			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			146	314	677	1,459			
CNEL:			152	328	706	1,521			

Thursday, December 18, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)									
Scenario: EBO Road Name: Ontario Ranch Rd. Road Segment: w/o Archibald Av.					Project Name: Eucalyptus Business Park Job Number: 16285				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt):		15,717 vehicles			Autos:		15		
Peak Hour Percentage:		8.79%			Medium Trucks (2 Axles):		15		
Peak Hour Volume:		1,382 vehicles			Heavy Trucks (3+ Axles):		15		
Vehicle Speed:		55 mph			Vehicle Mix				
Near/Far Lane Distance:		110 feet			VehicleType				
Site Data					Day		Evening		Night
Barrier Height:		0.0 feet			Autos:		69.2%		9.5%
Barrier Type (0-Wall, 1-Berm):		0.0			Medium Trucks:		80.7%		5.9%
Centerline Dist. to Barrier:		80.0 feet			Heavy Trucks:		63.6%		9.8%
Centerline Dist. to Observer:		80.0 feet					21.3%		80.47%
Barrier Distance to Observer:		0.0 feet			Noise Source Elevations (in feet)				
Observer Height (Above Pad):		5.0 feet			Autos:		0.000		
Pad Elevation:		0.0 feet			Medium Trucks:		2.297		
Road Elevation:		0.0 feet			Heavy Trucks:		8.004		Grade Adjustment: 0.0
Road Grade:		0.0%			Lane Equivalent Distance (in feet)				
Left View:		-90.0 degrees			Autos:		58.310		
Right View:		90.0 degrees			Medium Trucks:		58.158		
					Heavy Trucks:		58.172		
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	71.78	-2.25	-1.10	-1.20	-4.74	0.000	0.000		
Medium Trucks:	82.40	-16.54	-1.09	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	86.40	-9.12	-1.09	-1.20	-5.23	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:	67.2	65.4	62.8	61.5	68.6	68.9			
Medium Trucks:	63.6	62.4	57.1	55.9	63.8	64.0			
Heavy Trucks:	75.0	72.8	70.7	70.2	77.0	77.3			
Vehicle Noise:	75.9	73.8	71.5	70.9	77.8	78.1			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			265	571	1,230	2,650			
CNEL:			276	595	1,281	2,761			

Thursday, December 18, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)									
Scenario: EBO Road Name: Ontario Ranch Rd. Road Segment: e/o Archibald Av.				Project Name: Eucalyptus Business Park Job Number: 16285					
SITE SPECIFIC INPUT DATA				NOISE MODEL INPUTS					
Highway Data				Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt): 18,308 vehicles				Autos: 15					
Peak Hour Percentage: 8.79%				Medium Trucks (2 Axles): 15					
Peak Hour Volume: 1,609 vehicles				Heavy Trucks (3+ Axles): 15					
Vehicle Speed: 55 mph				Vehicle Mix					
Near/Far Lane Distance: 110 feet				Vehicle Type		Day	Evening	Night	Daily
Site Data				Autos: 69.2% 9.5% 21.3% 81.62%					
Barrier Height: 0.0 feet				Medium Trucks: 80.7% 5.9% 13.4% 2.81%					
Barrier Type (0-Wall, 1-Berm): 0.0				Heavy Trucks: 63.6% 9.8% 26.5% 15.57%					
Centerline Dist. to Barrier: 80.0 feet				Noise Source Elevations (in feet)					
Centerline Dist. to Observer: 80.0 feet				Autos:		0.000			
Barrier Distance to Observer: 0.0 feet				Medium Trucks:		2.297			
Observer Height (Above Pad): 5.0 feet				Heavy Trucks:		8.004		Grade Adjustment: 0.0	
Pad Elevation: 0.0 feet				Lane Equivalent Distance (in feet)					
Road Elevation: 0.0 feet				Autos:		58.310			
Road Grade: 0.0%				Medium Trucks:		58.158			
Left View: -90.0 degrees				Heavy Trucks:		58.172			
Right View: 90.0 degrees									
FHWA Noise Model Calculations									
Vehicle Type	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	71.78	-1.52	-1.10	-1.20	-4.74	0.000	0.000		
Medium Trucks:	82.40	-16.15	-1.09	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	86.40	-8.72	-1.09	-1.20	-5.23	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
Vehicle Type	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	68.0	66.1	63.5	62.2	69.4	69.6			
Medium Trucks:	64.0	62.8	57.5	56.3	64.2	64.4			
Heavy Trucks:	75.4	73.2	71.1	70.6	77.4	77.7			
Vehicle Noise:	76.4	74.3	72.0	71.4	78.2	78.5			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			284	611	1,316	2,836			
CNEL:			296	637	1,372	2,955			

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)										
Scenario: EBO Road Name: Eucalyptus Av. Road Segment: e/o Euclid Av. (SR-83)					Project Name: Eucalyptus Business Park Job Number: 16285					
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS					
Highway Data					Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt): 6,144 vehicles					Autos: 15					
Peak Hour Percentage: 8.79%					Medium Trucks (2 Axles): 15					
Peak Hour Volume: 540 vehicles					Heavy Trucks (3+ Axles): 15					
Vehicle Speed: 40 mph					Vehicle Mix					
Near/Far Lane Distance: 12 feet					Vehicle Type					
Site Data					Day		Evening		Night	
					Autos: 69.2%		9.5%		21.3%	
					Medium Trucks: 80.7%		5.9%		13.4%	
					Heavy Trucks: 63.6%		9.8%		26.5%	
					Autos: 0.000					
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 44.0 feet Centerline Dist. to Observer: 44.0 feet 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)					
					Medium Trucks: 2.297		Grade Adjustment: 0.0			
					Heavy Trucks: 8.004					
					Autos: 43.875					
					Lane Equivalent Distance (in feet)					Medium Trucks: 43.673
Heavy Trucks: 43.692										
FHWA Noise Model Calculations										
Vehicle Type	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten			
Autos:	66.51	-5.02	0.75	-1.20	-4.61	0.000	0.000			
Medium Trucks:	77.72	-18.87	0.78	-1.20	-4.87	0.000	0.000			
Heavy Trucks:	82.99	-11.53	0.78	-1.20	-5.50	0.000	0.000			
Unmitigated Noise Levels (without Topo and barrier attenuation)										
Vehicle Type	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL				
Autos:	61.0	59.2	56.6	55.3	62.4	62.7				
Medium Trucks:	58.4	57.3	51.9	50.7	58.6	58.9				
Heavy Trucks:	71.0	68.8	66.8	66.3	73.1	73.4				
Vehicle Noise:	71.7	69.6	67.3	66.7	73.6	73.9				
Centerline Distance to Noise Contour (in feet)										
				70 dBA		65 dBA		60 dBA		
				76		165		355		
Ldn:				80		171		369		
CNEL:								796		

Thursday, December 18, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)							
Scenario: EBO Road Name: Eucalyptus Av. Road Segment: w/o Grove Av.			Project Name: Eucalyptus Business Park Job Number: 16285				
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS				
Highway Data			Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt):		5,532 vehicles	Autos: 15				
Peak Hour Percentage:		8.79%	Medium Trucks (2 Axles): 15				
Peak Hour Volume:		486 vehicles	Heavy Trucks (3+ Axles): 15				
Vehicle Speed:		40 mph	Vehicle Mix				
Near/Far Lane Distance:		12 feet	VehicleType				
Site Data			Day	Evening	Night	Daily	
Barrier Height:		0.0 feet	Autos: 69.2% 9.5% 21.3% 80.05%				
Barrier Type (0-Wall, 1-Berm):		0.0	Medium Trucks: 80.7% 5.9% 13.4% 3.14%				
Centerline Dist. to Barrier:		44.0 feet	Heavy Trucks: 63.6% 9.8% 26.5% 16.81%				
Centerline Dist. to Observer:		44.0 feet	Noise Source Elevations (in feet)				
Barrier Distance to Observer:		0.0 feet	Autos: 0.000				
Observer Height (Above Pad):		5.0 feet	Medium Trucks: 2.297				
Pad Elevation:		0.0 feet	Heavy Trucks: 8.004				
Road Elevation:		0.0 feet	Grade Adjustment: 0.0				
Road Grade:		0.0%	Lane Equivalent Distance (in feet)				
Left View:		-90.0 degrees	Autos: 43.875				
Right View:		90.0 degrees	Medium Trucks: 43.673				
			Heavy Trucks: 43.692				
FHWA Noise Model Calculations							
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	66.51	-5.42	0.75	-1.20	-4.61	0.000	0.000
Medium Trucks:	77.72	-19.49	0.78	-1.20	-4.87	0.000	0.000
Heavy Trucks:	82.99	-12.20	0.78	-1.20	-5.50	0.000	0.000
Unmitigated Noise Levels (without Topo and barrier attenuation)							
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	60.6	58.8	56.2	54.9	62.0	62.3	
Medium Trucks:	57.8	56.6	51.3	50.1	58.0	58.2	
Heavy Trucks:	70.4	68.2	66.1	65.6	72.4	72.7	
Vehicle Noise:	71.0	68.9	66.6	66.1	72.9	73.2	
Centerline Distance to Noise Contour (in feet)							
			70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:			69	149	321	692	
CNEL:			72	155	334	720	

Thursday, December 18, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)										
Scenario: EBO Road Name: Eucalyptus Av. Road Segment: e/o Grove Av.					Project Name: Eucalyptus Business Park Job Number: 16285					
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS					
Highway Data					Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt):		10,232 vehicles			Autos:		15			
Peak Hour Percentage:		8.79%			Medium Trucks (2 Axles):		15			
Peak Hour Volume:		899 vehicles			Heavy Trucks (3+ Axles):		15			
Vehicle Speed:		40 mph			Vehicle Mix					
Near/Far Lane Distance:		12 feet			VehicleType		Day	Evening	Night	Daily
Site Data					Autos:		69.2%	9.5%	21.3%	81.67%
Barrier Height:		0.0 feet			Medium Trucks:		80.7%	5.9%	13.4%	2.84%
Barrier Type (0-Wall, 1-Berm):		0.0			Heavy Trucks:		63.6%	9.8%	26.5%	15.49%
Centerline Dist. to Barrier:		44.0 feet			Noise Source Elevations (in feet)					
Centerline Dist. to Observer:		44.0 feet			Autos:		0.000			
Barrier Distance to Observer:		0.0 feet			Medium Trucks:		2.297			
Observer Height (Above Pad):		5.0 feet			Heavy Trucks:		8.004			
Pad Elevation:		0.0 feet			Grade Adjustment: 0.0					
Road Elevation:		0.0 feet			Lane Equivalent Distance (in feet)					
Road Grade:		0.0%			Autos:		43.875			
Left View:		-90.0 degrees			Medium Trucks:		43.673			
Right View:		90.0 degrees			Heavy Trucks:		43.692			
FHWA Noise Model Calculations										
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten			
Autos:	66.51	-2.67	0.75	-1.20	-4.61	0.000	0.000			
Medium Trucks:	77.72	-17.25	0.78	-1.20	-4.87	0.000	0.000			
Heavy Trucks:	82.99	-9.89	0.78	-1.20	-5.50	0.000	0.000			
Unmitigated Noise Levels (without Topo and barrier attenuation)										
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL				
Autos:	63.4	61.6	59.0	57.7	64.8	65.1				
Medium Trucks:	60.0	58.9	53.5	52.3	60.2	60.5				
Heavy Trucks:	72.7	70.5	68.4	67.9	74.7	75.0				
Vehicle Noise:	73.4	71.3	69.0	68.4	75.3	75.6				
Centerline Distance to Noise Contour (in feet)										
			70 dBA	65 dBA	60 dBA	55 dBA				
Ldn:			99	214	460	992				
CNEL:			103	223	480	1,034				

Thursday, December 18, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)									
Scenario: EBO Road Name: Eucalyptus Av. Road Segment: e/o Walker Av.					Project Name: Eucalyptus Business Park Job Number: 16285				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt):		8,602 vehicles			Autos: 15				
Peak Hour Percentage:		8.79%			Medium Trucks (2 Axles): 15				
Peak Hour Volume:		756 vehicles			Heavy Trucks (3+ Axles): 15				
Vehicle Speed:		40 mph			Vehicle Mix				
Near/Far Lane Distance:		12 feet			VehicleType				
Site Data					Day				
Barrier Height:		0.0 feet			Evening				
Barrier Type (0-Wall, 1-Berm):		0.0			Night				
Centerline Dist. to Barrier:		44.0 feet			Daily				
Centerline Dist. to Observer:		44.0 feet			Autos: 69.2% 9.5% 21.3% 88.39%				
Barrier Distance to Observer:		0.0 feet			Medium Trucks: 80.7% 5.9% 13.4% 1.73%				
Observer Height (Above Pad):		5.0 feet			Heavy Trucks: 63.6% 9.8% 26.5% 9.88%				
Pad Elevation:		0.0 feet			Noise Source Elevations (in feet)				
Road Elevation:		0.0 feet			Autos: 0.000				
Road Grade:		0.0%			Medium Trucks: 2.297				
Left View:		-90.0 degrees			Heavy Trucks: 8.004 Grade Adjustment: 0.0				
Right View:		90.0 degrees			Lane Equivalent Distance (in feet)				
					Autos: 43.875				
					Medium Trucks: 43.673				
					Heavy Trucks: 43.692				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	66.51	-3.08	0.75	-1.20	-4.61	0.000	0.000		
Medium Trucks:	77.72	-20.16	0.78	-1.20	-4.87	0.000	0.000		
Heavy Trucks:	82.99	-12.59	0.78	-1.20	-5.50	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	63.0	61.2	58.6	57.3	64.4	64.7			
Medium Trucks:	57.1	56.0	50.6	49.4	57.3	57.6			
Heavy Trucks:	70.0	67.8	65.7	65.2	72.0	72.3			
Vehicle Noise:	71.0	68.9	66.6	66.0	72.8	73.1			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			68	147	316	681			
CNEL:			71	153	329	710			

Thursday, December 18, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)									
Scenario: OYCP Road Name: Euclid Av. (SR-83) Road Segment: n/o Ontario Ranch Rd.				Project Name: Eucalyptus Business Park Job Number: 16285					
SITE SPECIFIC INPUT DATA				NOISE MODEL INPUTS					
Highway Data				Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt):		31,149 vehicles		Autos:		15			
Peak Hour Percentage:		8.79%		Medium Trucks (2 Axles):		15			
Peak Hour Volume:		2,738 vehicles		Heavy Trucks (3+ Axles):		15			
Vehicle Speed:		55 mph		Vehicle Mix					
Near/Far Lane Distance:		110 feet		Vehicle Type		Day	Evening	Night	Daily
Site Data				Autos:		69.2%	9.5%	21.3%	82.71%
Barrier Height:		0.0 feet		Medium Trucks:		80.7%	5.9%	13.4%	2.59%
Barrier Type (0-Wall, 1-Berm):		0.0		Heavy Trucks:		63.6%	9.8%	26.5%	14.70%
Centerline Dist. to Barrier:		80.0 feet		Noise Source Elevations (in feet)					
Centerline Dist. to Observer:		80.0 feet		Autos:		0.000			
Barrier Distance to Observer:		0.0 feet		Medium Trucks:		2.297			
Observer Height (Above Pad):		5.0 feet		Heavy Trucks:		8.004		Grade Adjustment: 0.0	
Pad Elevation:		0.0 feet		Lane Equivalent Distance (in feet)					
Road Elevation:		0.0 feet		Autos:		58.310			
Road Grade:		0.0%		Medium Trucks:		58.158			
Left View:		-90.0 degrees		Heavy Trucks:		58.172			
Right View:		90.0 degrees							
FHWA Noise Model Calculations									
Vehicle Type	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	71.78	0.84	-1.10	-1.20	-4.74	0.000	0.000		
Medium Trucks:	82.40	-14.20	-1.09	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	86.40	-6.66	-1.09	-1.20	-5.23	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
Vehicle Type	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	70.3	68.5	65.9	64.6	71.7	72.0			
Medium Trucks:	65.9	64.8	59.4	58.2	66.1	66.4			
Heavy Trucks:	77.4	75.3	73.2	72.7	79.5	79.8			
Vehicle Noise:	78.5	76.4	74.1	73.5	80.3	80.6			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			391	843	1,816	3,912			
CNEL:			408	878	1,892	4,076			

Thursday, December 18, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)									
Scenario: OYCP Road Name: Euclid Av. (SR-83) Road Segment: n/o Eucalyptus Av.				Project Name: Eucalyptus Business Park Job Number: 16285					
SITE SPECIFIC INPUT DATA				NOISE MODEL INPUTS					
Highway Data				Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt):		26,791 vehicles		Autos:		15			
Peak Hour Percentage:		8.79%		Medium Trucks (2 Axles):		15			
Peak Hour Volume:		2,355 vehicles		Heavy Trucks (3+ Axles):		15			
Vehicle Speed:		55 mph		Vehicle Mix					
Near/Far Lane Distance:		110 feet		VehicleType		Day	Evening	Night	Daily
Site Data				Autos:		69.2%	9.5%	21.3%	82.53%
Barrier Height:		0.0 feet		Medium Trucks:		80.7%	5.9%	13.4%	2.62%
Barrier Type (0-Wall, 1-Berm):		0.0		Heavy Trucks:		63.6%	9.8%	26.5%	14.85%
Centerline Dist. to Barrier:		80.0 feet		Noise Source Elevations (in feet)					
Centerline Dist. to Observer:		80.0 feet		Autos:		0.000			
Barrier Distance to Observer:		0.0 feet		Medium Trucks:		2.297			
Observer Height (Above Pad):		5.0 feet		Heavy Trucks:		8.004	Grade Adjustment: 0.0		
Pad Elevation:		0.0 feet		Lane Equivalent Distance (in feet)					
Road Elevation:		0.0 feet		Autos:		58.310			
Road Grade:		0.0%		Medium Trucks:		58.158			
Left View:		-90.0 degrees		Heavy Trucks:		58.172			
Right View:		90.0 degrees							
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	71.78	0.18	-1.10	-1.20	-4.74	0.000	0.000		
Medium Trucks:	82.40	-14.80	-1.09	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	86.40	-7.27	-1.09	-1.20	-5.23	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:	69.7	67.8	65.2	63.9	71.1	71.4			
Medium Trucks:	65.3	64.1	58.8	57.6	65.5	65.8			
Heavy Trucks:	76.8	74.6	72.6	72.1	78.9	79.2			
Vehicle Noise:	77.8	75.8	73.4	72.8	79.7	80.0			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			356	767	1,652	3,558			
CNEL:			371	799	1,721	3,708			

Thursday, December 18, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)									
Scenario: OYCP Road Name: Euclid Av. (SR-83) Road Segment: s/o Eucalyptus Av.					Project Name: Eucalyptus Business Park Job Number: 16285				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 37,597 vehicles					Autos: 15				
Peak Hour Percentage: 8.79%					Medium Trucks (2 Axles): 15				
Peak Hour Volume: 3,305 vehicles					Heavy Trucks (3+ Axles): 15				
Vehicle Speed: 55 mph					Vehicle Mix				
Near/Far Lane Distance: 110 feet					VehicleType				
Site Data					Day				
Barrier Height: 0.0 feet					Evening				
Barrier Type (0-Wall, 1-Berm): 0.0					Night				
Centerline Dist. to Barrier: 80.0 feet					Daily				
Centerline Dist. to Observer: 80.0 feet					Autos: 69.2% 9.5% 21.3% 82.94%				
Barrier Distance to Observer: 0.0 feet					Medium Trucks: 80.7% 5.9% 13.4% 2.55%				
Observer Height (Above Pad): 5.0 feet					Heavy Trucks: 63.6% 9.8% 26.5% 14.51%				
Pad Elevation: 0.0 feet					Noise Source Elevations (in feet)				
Road Elevation: 0.0 feet					Autos: 0.000				
Road Grade: 0.0%					Medium Trucks: 2.297				
Left View: -90.0 degrees					Heavy Trucks: 8.004 Grade Adjustment: 0.0				
Right View: 90.0 degrees					Lane Equivalent Distance (in feet)				
					Autos: 58.310				
					Medium Trucks: 58.158				
					Heavy Trucks: 58.172				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	71.78	1.67	-1.10	-1.20	-4.74	0.000	0.000		
Medium Trucks:	82.40	-13.45	-1.09	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	86.40	-5.90	-1.09	-1.20	-5.23	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	69.3	66.7	65.4	72.5	72.8			
Medium Trucks:	66.7	65.5	60.2	59.0	66.9	67.1			
Heavy Trucks:	78.2	76.0	73.9	73.5	80.3	80.5			
Vehicle Noise:	79.2	77.2	74.8	74.2	81.1	81.4			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			440	948	2,043	4,402			
CNEL:			459	988	2,129	4,587			

Thursday, December 18, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)									
Scenario: OYCP Road Name: Bon View Av. Road Segment: n/o Ontario Ranch Rd.				Project Name: Eucalyptus Business Park Job Number: 16285					
SITE SPECIFIC INPUT DATA				NOISE MODEL INPUTS					
Highway Data				Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt):		3,743 vehicles		Autos:		15			
Peak Hour Percentage:		8.79%		Medium Trucks (2 Axles):		15			
Peak Hour Volume:		329 vehicles		Heavy Trucks (3+ Axles):		15			
Vehicle Speed:		40 mph		Vehicle Mix					
Near/Far Lane Distance:		12 feet							
Site Data				VehicleType		Day	Evening	Night	Daily
Barrier Height:		0.0 feet		Autos:		69.2%	9.5%	21.3%	83.96%
Barrier Type (0-Wall, 1-Berm):		0.0		Medium Trucks:		80.7%	5.9%	13.4%	2.39%
Centerline Dist. to Barrier:		44.0 feet		Heavy Trucks:		63.6%	9.8%	26.5%	13.65%
Centerline Dist. to Observer:		44.0 feet		Noise Source Elevations (in feet)					
Barrier Distance to Observer:		0.0 feet							
Observer Height (Above Pad):		5.0 feet		Autos:		0.000			
Pad Elevation:		0.0 feet		Medium Trucks:		2.297			
Road Elevation:		0.0 feet		Heavy Trucks:		8.004		Grade Adjustment: 0.0	
Road Grade:		0.0%		Lane Equivalent Distance (in feet)					
Left View:		-90.0 degrees							
Right View:		90.0 degrees		Autos:		43.875			
				Medium Trucks:		43.673			
				Heavy Trucks:		43.692			
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	66.51	-6.91	0.75	-1.20	-4.61	0.000	0.000		
Medium Trucks:	77.72	-22.37	0.78	-1.20	-4.87	0.000	0.000		
Heavy Trucks:	82.99	-14.80	0.78	-1.20	-5.50	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	59.1	57.3	54.7	53.4	60.5	60.8			
Medium Trucks:	54.9	53.8	48.4	47.2	55.1	55.4			
Heavy Trucks:	67.8	65.6	63.5	63.0	69.8	70.1			
Vehicle Noise:	68.5	66.4	64.1	63.6	70.4	70.7			
Centerline Distance to Noise Contour (in feet)									
			70 dBA		65 dBA		60 dBA		55 dBA
Ldn:			47		101		218		471
CNEL:			49		106		228		490

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)									
Scenario: OYCP Road Name: Bon View Av. Road Segment: s/o Ontario Ranch Rd.				Project Name: Eucalyptus Business Park Job Number: 16285					
SITE SPECIFIC INPUT DATA				NOISE MODEL INPUTS					
Highway Data				Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt):		3,715 vehicles		Autos:		15			
Peak Hour Percentage:		8.79%		Medium Trucks (2 Axles):		15			
Peak Hour Volume:		327 vehicles		Heavy Trucks (3+ Axles):		15			
Vehicle Speed:		40 mph		Vehicle Mix					
Near/Far Lane Distance:		12 feet		Vehicle Type					
Site Data				Day		Evening		Night	
Barrier Height:		0.0 feet		Autos:		69.2%		9.5%	
Barrier Type (0-Wall, 1-Berm):		0.0		Medium Trucks:		80.7%		5.9%	
Centerline Dist. to Barrier:		44.0 feet		Heavy Trucks:		63.6%		9.8%	
Centerline Dist. to Observer:		44.0 feet		Noise Source Elevations (in feet)		Autos:		0.000	
Barrier Distance to Observer:		0.0 feet		Medium Trucks:		2.297		Grade Adjustment: 0.0	
Observer Height (Above Pad):		5.0 feet		Heavy Trucks:		8.004			
Pad Elevation:		0.0 feet		Lane Equivalent Distance (in feet)					
Road Elevation:		0.0 feet		Autos:		43.875			
Road Grade:		0.0%		Medium Trucks:		43.673			
Left View:		-90.0 degrees		Heavy Trucks:		43.692			
Right View:		90.0 degrees							
FHWA Noise Model Calculations									
Vehicle Type	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	66.51	-6.79	0.75	-1.20	-4.61	0.000	0.000		
Medium Trucks:	77.72	-23.31	0.78	-1.20	-4.87	0.000	0.000		
Heavy Trucks:	82.99	-15.74	0.78	-1.20	-5.50	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
Vehicle Type	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	59.3	57.4	54.8	53.6	60.7	61.0			
Medium Trucks:	54.0	52.8	47.5	46.3	54.2	54.4			
Heavy Trucks:	66.8	64.6	62.5	62.1	68.9	69.2			
Vehicle Noise:	67.7	65.6	63.3	62.8	69.6	69.9			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			42	89	193	415			
CNEL:			43	93	201	433			

Thursday, December 18, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)									
Scenario: OYCP Road Name: Grove Av. Road Segment: n/o Ontario Ranch Rd.				Project Name: Eucalyptus Business Park Job Number: 16285					
SITE SPECIFIC INPUT DATA				NOISE MODEL INPUTS					
Highway Data				Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt): 8,946 vehicles Peak Hour Percentage: 8.79% Peak Hour Volume: 786 vehicles Vehicle Speed: 50 mph Near/Far Lane Distance: 45 feet				Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15					
Site Data				Vehicle Mix					
				Vehicle Type		Day	Evening	Night	Daily
				Autos:		69.2%	9.5%	21.3%	86.27%
				Medium Trucks:		80.7%	5.9%	13.4%	2.04%
				Heavy Trucks:		63.6%	9.8%	26.5%	11.69%
				Noise Source Elevations (in feet)					
				Autos:		0.000			
				Medium Trucks:		2.297			
				Heavy Trucks:		8.004			
				Grade Adjustment: 0.0					
				Lane Equivalent Distance (in feet)					
				Autos:		44.931			
				Medium Trucks:		44.733			
				Heavy Trucks:		44.752			
FHWA Noise Model Calculations									
Vehicle Type	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	70.20	-3.98	0.59	-1.20	-4.65	0.000	0.000		
Medium Trucks:	81.00	-20.23	0.62	-1.20	-4.87	0.000	0.000		
Heavy Trucks:	85.38	-12.66	0.62	-1.20	-5.43	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
Vehicle Type	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	65.6	63.8	61.2	59.9	67.0	67.3			
Medium Trucks:	60.2	59.0	53.7	52.5	60.4	60.6			
Heavy Trucks:	72.1	69.9	67.9	67.4	74.2	74.5			
Vehicle Noise:	73.2	71.2	68.8	68.2	75.1	75.4			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			109	236	508	1,095			
CNEL:			114	246	529	1,141			

Thursday, December 18, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)									
Scenario: OYCP Road Name: Grove Av. Road Segment: s/o Ontario Ranch Rd.				Project Name: Eucalyptus Business Park Job Number: 16285					
SITE SPECIFIC INPUT DATA				NOISE MODEL INPUTS					
Highway Data				Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt):		7,444 vehicles		Autos:		15			
Peak Hour Percentage:		8.79%		Medium Trucks (2 Axles):		15			
Peak Hour Volume:		654 vehicles		Heavy Trucks (3+ Axles):		15			
Vehicle Speed:		50 mph		Vehicle Mix					
Near/Far Lane Distance:		45 feet		Vehicle Type		Day	Evening	Night	Daily
Site Data				Autos:		69.2%	9.5%	21.3%	87.92%
Barrier Height:		0.0 feet		Medium Trucks:		80.7%	5.9%	13.4%	1.80%
Barrier Type (0-Wall, 1-Berm):		0.0		Heavy Trucks:		63.6%	9.8%	26.5%	10.28%
Centerline Dist. to Barrier:		50.0 feet		Noise Source Elevations (in feet)					
Centerline Dist. to Observer:		50.0 feet		Autos:		0.000			
Barrier Distance to Observer:		0.0 feet		Medium Trucks:		2.297			
Observer Height (Above Pad):		5.0 feet		Heavy Trucks:		8.004		Grade Adjustment: 0.0	
Pad Elevation:		0.0 feet		Lane Equivalent Distance (in feet)					
Road Elevation:		0.0 feet		Autos:		44.931			
Road Grade:		0.0%		Medium Trucks:		44.733			
Left View:		-90.0 degrees		Heavy Trucks:		44.752			
Right View:		90.0 degrees							
FHWA Noise Model Calculations									
Vehicle Type	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	70.20	-4.70	0.59	-1.20	-4.65	0.000	0.000		
Medium Trucks:	81.00	-21.59	0.62	-1.20	-4.87	0.000	0.000		
Heavy Trucks:	85.38	-14.02	0.62	-1.20	-5.43	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
Vehicle Type	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	64.9	63.1	60.5	59.2	66.3	66.6			
Medium Trucks:	58.8	57.7	52.3	51.1	59.0	59.3			
Heavy Trucks:	70.8	68.6	66.5	66.0	72.8	73.1			
Vehicle Noise:	72.0	69.9	67.6	67.0	73.9	74.1			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			90	195	419	904			
CNEL:			94	203	437	942			

Thursday, December 18, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)									
Scenario: OYCP Road Name: Walker Av. Road Segment: n/o Ontario Ranch Rd.				Project Name: Eucalyptus Business Park Job Number: 16285					
SITE SPECIFIC INPUT DATA				NOISE MODEL INPUTS					
Highway Data				Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt):		7,382 vehicles		Autos:		15			
Peak Hour Percentage:		8.79%		Medium Trucks (2 Axles):		15			
Peak Hour Volume:		649 vehicles		Heavy Trucks (3+ Axles):		15			
Vehicle Speed:		40 mph		Vehicle Mix					
Near/Far Lane Distance:		12 feet		Vehicle Type		Day	Evening	Night	Daily
Site Data				Autos:		69.2%	9.5%	21.3%	83.51%
Barrier Height:		0.0 feet		Medium Trucks:		80.7%	5.9%	13.4%	2.46%
Barrier Type (0-Wall, 1-Berm):		0.0		Heavy Trucks:		63.6%	9.8%	26.5%	14.04%
Centerline Dist. to Barrier:		44.0 feet		Noise Source Elevations (in feet)					
Centerline Dist. to Observer:		44.0 feet		Autos:		0.000			
Barrier Distance to Observer:		0.0 feet		Medium Trucks:		2.297			
Observer Height (Above Pad):		5.0 feet		Heavy Trucks:		8.004		Grade Adjustment: 0.0	
Pad Elevation:		0.0 feet		Lane Equivalent Distance (in feet)					
Road Elevation:		0.0 feet		Autos:		43.875			
Road Grade:		0.0%		Medium Trucks:		43.673			
Left View:		-90.0 degrees		Heavy Trucks:		43.692			
Right View:		90.0 degrees							
FHWA Noise Model Calculations									
Vehicle Type	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	66.51	-3.99	0.75	-1.20	-4.61	0.000	0.000		
Medium Trucks:	77.72	-19.30	0.78	-1.20	-4.87	0.000	0.000		
Heavy Trucks:	82.99	-11.73	0.78	-1.20	-5.50	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
Vehicle Type	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	62.1	60.2	57.6	56.4	63.5	63.8			
Medium Trucks:	58.0	56.8	51.5	50.3	58.2	58.4			
Heavy Trucks:	70.8	68.6	66.6	66.1	72.9	73.2			
Vehicle Noise:	71.6	69.5	67.2	66.6	73.5	73.8			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			75	162	349	752			
CNEL:			78	169	364	784			

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)										
Scenario: OYCP Road Name: Walker Av. Road Segment: s/o Ontario Ranch Rd.					Project Name: Eucalyptus Business Park Job Number: 16285					
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS					
Highway Data					Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt): 7,047 vehicles					Autos: 15					
Peak Hour Percentage: 8.79%					Medium Trucks (2 Axles): 15					
Peak Hour Volume: 619 vehicles					Heavy Trucks (3+ Axles): 15					
Vehicle Speed: 40 mph					Vehicle Mix					
Near/Far Lane Distance: 12 feet					VehicleType					
Site Data					Day		Evening		Night	
					Autos: 69.2%		9.5%		21.3%	
					Medium Trucks: 80.7%		5.9%		13.4%	
					Heavy Trucks: 63.6%		9.8%		26.5%	
					Autos: 0.000					
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 44.0 feet Centerline Dist. to Observer: 44.0 feet 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					Medium Trucks: 2.297					
					Heavy Trucks: 8.004		Grade Adjustment: 0.0			
					Noise Source Elevations (in feet)					
					Autos: 0.000					
					Medium Trucks: 43.673					
					Lane Equivalent Distance (in feet)					
					Autos: 43.875					
					Medium Trucks: 43.673					
					Heavy Trucks: 43.692					
					FHWA Noise Model Calculations					
VehicleType		REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:		66.51	-4.58	0.75	-1.20	-4.61	0.000	0.000		
Medium Trucks:		77.72	-17.72	0.78	-1.20	-4.87	0.000	0.000		
Heavy Trucks:		82.99	-10.42	0.78	-1.20	-5.50	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)										
VehicleType		Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:		61.5	59.7	57.1	55.8	62.9	63.2			
Medium Trucks:		59.6	58.4	53.1	51.9	59.8	60.0			
Heavy Trucks:		72.2	70.0	67.9	67.4	74.2	74.5			
Vehicle Noise:		72.7	70.6	68.3	67.8	74.7	74.9			
Centerline Distance to Noise Contour (in feet)										
				70 dBA		65 dBA		60 dBA		
				55 dBA						
Ldn:				90		194		418		
CNEL:				94		202		435		
								900		
								937		

Thursday, December 18, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)											
Scenario: OYCP Road Name: Archibald Av. Road Segment: s/o Ontario Ranch Rd.					Project Name: Eucalyptus Business Park Job Number: 16285						
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS						
Highway Data					Site Conditions (Hard = 10, Soft = 15)						
Average Daily Traffic (Adt): 30,196 vehicles Peak Hour Percentage: 8.79% Peak Hour Volume: 2,654 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 58 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15						
Site Data					Vehicle Mix						
					Vehicle Type	Day	Evening	Night	Daily		
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 60.0 feet Centerline Dist. to Observer: 60.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					Autos: 69.2% 9.5% 21.3% 84.24% Medium Trucks: 80.7% 5.9% 13.4% 2.35% Heavy Trucks: 63.6% 9.8% 26.5% 13.41%						
					Noise Source Elevations (in feet)						
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.004					Grade Adjustment: 0.0	
					Lane Equivalent Distance (in feet)						
Autos: 52.764 Medium Trucks: 52.596 Heavy Trucks: 52.612											
FHWA Noise Model Calculations											
Vehicle Type	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten				
Autos:	71.78	0.79	-0.45	-1.20	-4.69	0.000	0.000				
Medium Trucks:	82.40	-14.77	-0.43	-1.20	-4.88	0.000	0.000				
Heavy Trucks:	86.40	-7.19	-0.44	-1.20	-5.34	0.000	0.000				
Unmitigated Noise Levels (without Topo and barrier attenuation)											
Vehicle Type	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL					
Autos:	70.9	69.1	66.5	65.2	72.3	72.6					
Medium Trucks:	66.0	64.8	59.5	58.3	66.2	66.5					
Heavy Trucks:	77.6	75.4	73.3	72.8	79.6	79.9					
Vehicle Noise:	78.7	76.6	74.3	73.6	80.5	80.8					
Centerline Distance to Noise Contour (in feet)											
			70 dBA	65 dBA	60 dBA	55 dBA					
Ldn:			302	651	1,402	3,020					
CNEL:			315	678	1,461	3,147					

Thursday, December 18, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)									
Scenario: OYCP Road Name: Archibald Av. Road Segment: n/o Ontario Ranch Rd.			Project Name: Eucalyptus Business Park Job Number: 16285						
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS						
Highway Data			Site Conditions (Hard = 10, Soft = 15)						
Average Daily Traffic (Adt): 23,179 vehicles Peak Hour Percentage: 8.79% Peak Hour Volume: 2,037 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 58 feet			Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15						
Site Data			Vehicle Mix						
			VehicleType		Day	Evening	Night	Daily	
					Autos:	69.2%	9.5%	21.3%	83.97%
					Medium Trucks:	80.7%	5.9%	13.4%	2.39%
					Heavy Trucks:	63.6%	9.8%	26.5%	13.64%
			Noise Source Elevations (in feet)						
					Autos:	0.000			
					Medium Trucks:	2.297			
					Heavy Trucks:	8.004	Grade Adjustment: 0.0		
			Lane Equivalent Distance (in feet)						
					Autos:	52.764			
					Medium Trucks:	52.596			
					Heavy Trucks:	52.612			
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	71.78	-0.38	-0.45	-1.20	-4.69	0.000	0.000		
Medium Trucks:	82.40	-15.84	-0.43	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	86.40	-8.27	-0.44	-1.20	-5.34	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:	69.8	67.9	65.3	64.0	71.2	71.4			
Medium Trucks:	64.9	63.8	58.4	57.2	65.1	65.4			
Heavy Trucks:	76.5	74.3	72.2	71.7	78.5	78.8			
Vehicle Noise:	77.6	75.5	73.2	72.6	79.4	79.7			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			256	551	1,186	2,555			
CNEL:			266	574	1,236	2,663			

Thursday, December 18, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)								
Scenario: OYCP Road Name: Ontario Ranch Rd. Road Segment: e/o Euclid Av. (SR-83)				Project Name: Eucalyptus Business Park Job Number: 16285				
SITE SPECIFIC INPUT DATA				NOISE MODEL INPUTS				
Highway Data				Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 12,552 vehicles Peak Hour Percentage: 8.79% Peak Hour Volume: 1,103 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 110 feet				Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data				Vehicle Mix				
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 80.0 feet Centerline Dist. to Observer: 80.0 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				VehicleType	Day	Evening	Night	Daily
				Autos: 69.2% 9.5% 21.3% 83.76%				
				Medium Trucks: 80.7% 5.9% 13.4% 2.42%				
				Heavy Trucks: 63.6% 9.8% 26.5% 13.82%				
				Noise Source Elevations (in feet)				
				Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.004 Grade Adjustment: 0.0				
				Lane Equivalent Distance (in feet)				
				Autos: 58.310 Medium Trucks: 58.158 Heavy Trucks: 58.172				
FHWA Noise Model Calculations								
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten	
Autos:	71.78	-3.05	-1.10	-1.20	-4.74	0.000	0.000	
Medium Trucks:	82.40	-18.45	-1.09	-1.20	-4.88	0.000	0.000	
Heavy Trucks:	86.40	-10.88	-1.09	-1.20	-5.23	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:	66.4	64.6	62.0	60.7	67.8	68.1		
Medium Trucks:	61.7	60.5	55.2	54.0	61.9	62.1		
Heavy Trucks:	73.2	71.0	68.9	68.5	75.3	75.6		
Vehicle Noise:	74.3	72.2	69.9	69.3	76.2	76.4		
Centerline Distance to Noise Contour (in feet)								
			70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:			206	444	957	2,063		
CNEL:			215	463	998	2,149		

Thursday, December 18, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)									
Scenario: OYCP Road Name: Ontario Ranch Rd. Road Segment: w/o Grove Av.				Project Name: Eucalyptus Business Park Job Number: 16285					
SITE SPECIFIC INPUT DATA				NOISE MODEL INPUTS					
Highway Data				Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt):		11,314 vehicles		Autos:		15			
Peak Hour Percentage:		8.79%		Medium Trucks (2 Axles):		15			
Peak Hour Volume:		995 vehicles		Heavy Trucks (3+ Axles):		15			
Vehicle Speed:		55 mph							
Near/Far Lane Distance:		110 feet							
Site Data				Vehicle Mix					
Barrier Height:		0.0 feet		Vehicle Type		Day	Evening	Night	Daily
Barrier Type (0-Wall, 1-Berm):		0.0		Autos:		69.2%	9.5%	21.3%	84.99%
Centerline Dist. to Barrier:		80.0 feet		Medium Trucks:		80.7%	5.9%	13.4%	2.24%
Centerline Dist. to Observer:		80.0 feet		Heavy Trucks:		63.6%	9.8%	26.5%	12.78%
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:		8.004		Grade Adjustment: 0.0	
Lane Equivalent Distance (in feet)									
				Autos:		58.310			
				Medium Trucks:		58.158			
				Heavy Trucks:		58.172			
FHWA Noise Model Calculations									
Vehicle Type	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	71.78	-3.44	-1.10	-1.20	-4.74	0.000	0.000		
Medium Trucks:	82.40	-19.24	-1.09	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	86.40	-11.67	-1.09	-1.20	-5.23	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
Vehicle Type	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	66.0	64.2	61.6	60.3	67.4	67.7			
Medium Trucks:	60.9	59.7	54.4	53.2	61.1	61.3			
Heavy Trucks:	72.4	70.2	68.2	67.7	74.5	74.8			
Vehicle Noise:	73.6	71.5	69.2	68.6	75.4	75.7			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			184	397	856	1,844			
CNEL:			192	414	892	1,921			

Thursday, December 18, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)									
Scenario: OYCP Road Name: Ontario Ranch Rd. Road Segment: elo Grove Av.				Project Name: Eucalyptus Business Park Job Number: 16285					
SITE SPECIFIC INPUT DATA				NOISE MODEL INPUTS					
Highway Data				Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt):		10,510 vehicles		Autos:		15			
Peak Hour Percentage:		8.79%		Medium Trucks (2 Axles):		15			
Peak Hour Volume:		924 vehicles		Heavy Trucks (3+ Axles):		15			
Vehicle Speed:		55 mph		Vehicle Mix					
Near/Far Lane Distance:		110 feet		VehicleType		Day	Evening	Night	Daily
Site Data				Autos:		69.2%	9.5%	21.3%	83.94%
Barrier Height:		0.0 feet		Medium Trucks:		80.7%	5.9%	13.4%	2.39%
Barrier Type (0-Wall, 1-Berm):		0.0		Heavy Trucks:		63.6%	9.8%	26.5%	13.67%
Centerline Dist. to Barrier:		80.0 feet		Noise Source Elevations (in feet)					
Centerline Dist. to Observer:		80.0 feet		Autos:		0.000			
Barrier Distance to Observer:		0.0 feet		Medium Trucks:		2.297			
Observer Height (Above Pad):		5.0 feet		Heavy Trucks:		8.004		Grade Adjustment: 0.0	
Pad Elevation:		0.0 feet		Lane Equivalent Distance (in feet)					
Road Elevation:		0.0 feet		Autos:		58.310			
Road Grade:		0.0%		Medium Trucks:		58.158			
Left View:		-90.0 degrees		Heavy Trucks:		58.172			
Right View:		90.0 degrees							
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	71.78	-3.81	-1.10	-1.20	-4.74	0.000	0.000		
Medium Trucks:	82.40	-19.27	-1.09	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	86.40	-11.70	-1.09	-1.20	-5.23	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:	65.7	63.8	61.2	60.0	67.1	67.4			
Medium Trucks:	60.8	59.7	54.3	53.2	61.1	61.3			
Heavy Trucks:	72.4	70.2	68.1	67.7	74.5	74.7			
Vehicle Noise:	73.5	71.4	69.1	68.5	75.4	75.6			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			182	392	845	1,821			
CNEL:			190	409	881	1,898			

Thursday, December 18, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)									
Scenario: OYCP Road Name: Ontario Ranch Rd. Road Segment: w/o Archibald Av.				Project Name: Eucalyptus Business Park Job Number: 16285					
SITE SPECIFIC INPUT DATA				NOISE MODEL INPUTS					
Highway Data				Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt):		17,738 vehicles		Autos:		15			
Peak Hour Percentage:		8.79%		Medium Trucks (2 Axles):		15			
Peak Hour Volume:		1,559 vehicles		Heavy Trucks (3+ Axles):		15			
Vehicle Speed:		55 mph		Vehicle Mix					
Near/Far Lane Distance:		110 feet		VehicleType		Day	Evening	Night	Daily
Site Data				Autos:		69.2%	9.5%	21.3%	80.78%
Barrier Height:		0.0 feet		Medium Trucks:		80.7%	5.9%	13.4%	2.94%
Barrier Type (0-Wall, 1-Berm):		0.0		Heavy Trucks:		63.6%	9.8%	26.5%	16.29%
Centerline Dist. to Barrier:		80.0 feet		Noise Source Elevations (in feet)					
Centerline Dist. to Observer:		80.0 feet		Autos:		0.000			
Barrier Distance to Observer:		0.0 feet		Medium Trucks:		2.297			
Observer Height (Above Pad):		5.0 feet		Heavy Trucks:		8.004			
Pad Elevation:		0.0 feet		Grade Adjustment: 0.0					
Road Elevation:		0.0 feet		Lane Equivalent Distance (in feet)					
Road Grade:		0.0%		Autos:		58.310			
Left View:		-90.0 degrees		Medium Trucks:		58.158			
Right View:		90.0 degrees		Heavy Trucks:		58.172			
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	71.78	-1.71	-1.10	-1.20	-4.74	0.000	0.000		
Medium Trucks:	82.40	-16.10	-1.09	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	86.40	-8.66	-1.09	-1.20	-5.23	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:	67.8	65.9	63.3	62.1	69.2	69.5			
Medium Trucks:	64.0	62.9	57.5	56.3	64.2	64.5			
Heavy Trucks:	75.4	73.3	71.2	70.7	77.5	77.8			
Vehicle Noise:	76.4	74.3	72.0	71.4	78.3	78.5			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			285	614	1,322	2,848			
CNEL:			297	639	1,377	2,967			

Thursday, December 18, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)									
Scenario: OYCP Road Name: Ontario Ranch Rd. Road Segment: efo Archibald Av.				Project Name: Eucalyptus Business Park Job Number: 16285					
SITE SPECIFIC INPUT DATA				NOISE MODEL INPUTS					
Highway Data				Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt):		22,826 vehicles		Autos:		15			
Peak Hour Percentage:		8.79%		Medium Trucks (2 Axles):		15			
Peak Hour Volume:		2,006 vehicles		Heavy Trucks (3+ Axles):		15			
Vehicle Speed:		55 mph		Vehicle Mix					
Near/Far Lane Distance:		110 feet		VehicleType		Day	Evening	Night	Daily
Site Data				Autos:		69.2%	9.5%	21.3%	81.92%
Barrier Height:		0.0 feet		Medium Trucks:		80.7%	5.9%	13.4%	2.75%
Barrier Type (0-Wall, 1-Berm):		0.0		Heavy Trucks:		63.6%	9.8%	26.5%	15.33%
Centerline Dist. to Barrier:		80.0 feet		Noise Source Elevations (in feet)					
Centerline Dist. to Observer:		80.0 feet		Autos:		0.000			
Barrier Distance to Observer:		0.0 feet		Medium Trucks:		2.297			
Observer Height (Above Pad):		5.0 feet		Heavy Trucks:		8.004		Grade Adjustment: 0.0	
Pad Elevation:		0.0 feet		Lane Equivalent Distance (in feet)					
Road Elevation:		0.0 feet		Autos:		58.310			
Road Grade:		0.0%		Medium Trucks:		58.158			
Left View:		-90.0 degrees		Heavy Trucks:		58.172			
Right View:		90.0 degrees							
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	71.78	-0.55	-1.10	-1.20	-4.74	0.000	0.000		
Medium Trucks:	82.40	-15.29	-1.09	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	86.40	-7.83	-1.09	-1.20	-5.23	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	68.9	67.1	64.5	63.2	70.3	70.6			
Medium Trucks:	64.8	63.7	58.3	57.1	65.0	65.3			
Heavy Trucks:	76.3	74.1	72.0	71.5	78.3	78.6			
Vehicle Noise:	77.3	75.2	72.9	72.3	79.1	79.4			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			326	702	1,512	3,257			
CNEL:			339	731	1,575	3,393			

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)									
Scenario: OYCP Road Name: Eucalyptus Av. Road Segment: e/o Euclid Av. (SR-83)				Project Name: Eucalyptus Business Park Job Number: 16285					
SITE SPECIFIC INPUT DATA				NOISE MODEL INPUTS					
Highway Data				Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt): 7,849 vehicles				Autos: 15					
Peak Hour Percentage: 8.79%				Medium Trucks (2 Axles): 15					
Peak Hour Volume: 690 vehicles				Heavy Trucks (3+ Axles): 15					
Vehicle Speed: 40 mph				Vehicle Mix					
Near/Far Lane Distance: 12 feet				Vehicle Type		Day	Evening	Night	Daily
Site Data				Autos: 69.2% 9.5% 21.3% 79.95%					
Barrier Height: 0.0 feet				Medium Trucks: 80.7% 5.9% 13.4% 3.10%					
Barrier Type (0-Wall, 1-Berm): 0.0				Heavy Trucks: 63.6% 9.8% 26.5% 16.95%					
Centerline Dist. to Barrier: 44.0 feet				Noise Source Elevations (in feet)					
Centerline Dist. to Observer: 44.0 feet				Autos: 0.000					
Barrier Distance to Observer: 0.0 feet				Medium Trucks: 2.297					
Observer Height (Above Pad): 5.0 feet				Heavy Trucks: 8.004 Grade Adjustment: 0.0					
Pad Elevation: 0.0 feet				Lane Equivalent Distance (in feet)					
Road Elevation: 0.0 feet				Autos: 43.875					
Road Grade: 0.0%				Medium Trucks: 43.673					
Left View: -90.0 degrees				Heavy Trucks: 43.692					
Right View: 90.0 degrees									
FHWA Noise Model Calculations									
Vehicle Type	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	66.51	-3.91	0.75	-1.20	-4.61	0.000	0.000		
Medium Trucks:	77.72	-18.03	0.78	-1.20	-4.87	0.000	0.000		
Heavy Trucks:	82.99	-10.65	0.78	-1.20	-5.50	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
Vehicle Type	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	62.1	60.3	57.7	56.4	63.6	63.8			
Medium Trucks:	59.3	58.1	52.8	51.6	59.5	59.7			
Heavy Trucks:	71.9	69.7	67.6	67.2	74.0	74.2			
Vehicle Noise:	72.6	70.5	68.2	67.6	74.5	74.8			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			88	189	407	877			
CNEL:			91	197	424	914			

Thursday, December 18, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)									
Scenario: OYCP Road Name: Eucalyptus Av. Road Segment: e/o Grove Av.				Project Name: Eucalyptus Business Park Job Number: 16285					
SITE SPECIFIC INPUT DATA				NOISE MODEL INPUTS					
Highway Data				Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt): 11,888 vehicles Peak Hour Percentage: 8.79% Peak Hour Volume: 1,045 vehicles Vehicle Speed: 40 mph Near/Far Lane Distance: 12 feet				Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15					
Site Data				Vehicle Mix					
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 44.0 feet Centerline Dist. to Observer: 44.0 feet 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				VehicleType	Day	Evening	Night	Daily	
				Autos: 69.2% 9.5% 21.3% 81.88%					
				Medium Trucks: 80.7% 5.9% 13.4% 2.80%					
				Heavy Trucks: 63.6% 9.8% 26.5% 15.33%					
				Noise Source Elevations (in feet)					
				Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.004 Grade Adjustment: 0.0					
				Lane Equivalent Distance (in feet)					
				Autos: 43.875 Medium Trucks: 43.673 Heavy Trucks: 43.692					
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	66.51	-2.00	0.75	-1.20	-4.61	0.000	0.000		
Medium Trucks:	77.72	-16.67	0.78	-1.20	-4.87	0.000	0.000		
Heavy Trucks:	82.99	-9.28	0.78	-1.20	-5.50	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	64.1	62.2	59.6	58.3	65.5	65.8			
Medium Trucks:	60.6	59.5	54.1	52.9	60.8	61.1			
Heavy Trucks:	73.3	71.1	69.0	68.5	75.3	75.6			
Vehicle Noise:	74.0	71.9	69.6	69.0	75.9	76.2			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			109	235	506	1,090			
CNEL:			114	245	527	1,135			

Thursday, December 18, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)									
Scenario: OYCP Road Name: Eucalyptus Av. Road Segment: w/o Grove Av.				Project Name: Eucalyptus Business Park Job Number: 16285					
SITE SPECIFIC INPUT DATA				NOISE MODEL INPUTS					
Highway Data				Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt):		6,771 vehicles		Autos:		15			
Peak Hour Percentage:		8.79%		Medium Trucks (2 Axles):		15			
Peak Hour Volume:		595 vehicles		Heavy Trucks (3+ Axles):		15			
Vehicle Speed:		40 mph		Vehicle Mix					
Near/Far Lane Distance:		12 feet		VehicleType		Day	Evening	Night	Daily
Site Data				Autos:		69.2%	9.5%	21.3%	80.62%
Barrier Height:		0.0 feet		Medium Trucks:		80.7%	5.9%	13.4%	3.02%
Barrier Type (0-Wall, 1-Berm):		0.0		Heavy Trucks:		63.6%	9.8%	26.5%	16.36%
Centerline Dist. to Barrier:		44.0 feet		Noise Source Elevations (in feet)					
Centerline Dist. to Observer:		44.0 feet		Autos:		0.000			
Barrier Distance to Observer:		0.0 feet		Medium Trucks:		2.297			
Observer Height (Above Pad):		5.0 feet		Heavy Trucks:		8.004		Grade Adjustment: 0.0	
Pad Elevation:		0.0 feet		Lane Equivalent Distance (in feet)					
Road Elevation:		0.0 feet		Autos:		43.875			
Road Grade:		0.0%		Medium Trucks:		43.673			
Left View:		-90.0 degrees		Heavy Trucks:		43.692			
Right View:		90.0 degrees							
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	66.51	-4.52	0.75	-1.20	-4.61	0.000	0.000		
Medium Trucks:	77.72	-18.78	0.78	-1.20	-4.87	0.000	0.000		
Heavy Trucks:	82.99	-11.44	0.78	-1.20	-5.50	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	61.5	59.7	57.1	55.8	62.9	63.2			
Medium Trucks:	58.5	57.4	52.0	50.8	58.7	59.0			
Heavy Trucks:	71.1	68.9	66.8	66.4	73.2	73.4			
Vehicle Noise:	71.8	69.7	67.4	66.9	73.7	74.0			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			78	168	361	779			
CNEL:			81	175	376	811			

Thursday, December 18, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)									
Scenario: OYCP Road Name: Eucalyptus Av. Road Segment: e/o Walker Av.				Project Name: Eucalyptus Business Park Job Number: 16285					
SITE SPECIFIC INPUT DATA				NOISE MODEL INPUTS					
Highway Data				Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt):		8,966 vehicles		Autos:		15			
Peak Hour Percentage:		8.79%		Medium Trucks (2 Axles):		15			
Peak Hour Volume:		788 vehicles		Heavy Trucks (3+ Axles):		15			
Vehicle Speed:		40 mph		Vehicle Mix					
Near/Far Lane Distance:		12 feet		VehicleType		Day	Evening	Night	Daily
Site Data				Autos:		69.2%	9.5%	21.3%	88.18%
Barrier Height:		0.0 feet		Medium Trucks:		80.7%	5.9%	13.4%	1.76%
Barrier Type (0-Wall, 1-Berm):		0.0		Heavy Trucks:		63.6%	9.8%	26.5%	10.06%
Centerline Dist. to Barrier:		44.0 feet		Noise Source Elevations (in feet)					
Centerline Dist. to Observer:		44.0 feet		Autos:		0.000			
Barrier Distance to Observer:		0.0 feet		Medium Trucks:		2.297			
Observer Height (Above Pad):		5.0 feet		Heavy Trucks:		8.004		Grade Adjustment: 0.0	
Pad Elevation:		0.0 feet		Lane Equivalent Distance (in feet)					
Road Elevation:		0.0 feet		Autos:		43.875			
Road Grade:		0.0%		Medium Trucks:		43.673			
Left View:		-90.0 degrees		Heavy Trucks:		43.692			
Right View:		90.0 degrees							
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	66.51	-2.91	0.75	-1.20	-4.61	0.000	0.000		
Medium Trucks:	77.72	-19.90	0.78	-1.20	-4.87	0.000	0.000		
Heavy Trucks:	82.99	-12.33	0.78	-1.20	-5.50	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	63.2	61.3	58.7	57.4	64.6	64.9			
Medium Trucks:	57.4	56.2	50.9	49.7	57.6	57.8			
Heavy Trucks:	70.2	68.0	66.0	65.5	72.3	72.6			
Vehicle Noise:	71.2	69.1	66.8	66.2	73.1	73.4			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			71	152	328	707			
CNEL:			74	159	342	737			

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)										
Scenario: HYP Road Name: Euclid Av. (SR-83) Road Segment: n/o Ontario Ranch Rd.				Project Name: Eucalyptus Business Park Job Number: 16285						
SITE SPECIFIC INPUT DATA				NOISE MODEL INPUTS						
Highway Data				Site Conditions (Hard = 10, Soft = 15)						
Average Daily Traffic (Adt): 36,619 vehicles Peak Hour Percentage: 8.79% Peak Hour Volume: 3,219 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 110 feet				Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15						
Site Data				Vehicle Mix						
				Vehicle Type		Day	Evening	Night	Daily	
						Autos:	69.2%	9.5%	21.3%	82.77%
						Medium Trucks:	80.7%	5.9%	13.4%	2.58%
						Heavy Trucks:	63.6%	9.8%	26.5%	14.65%
				Noise Source Elevations (in feet)						
						Autos:	0.000			
						Medium Trucks:	2.297			
						Heavy Trucks:	8.004	Grade Adjustment: 0.0		
								Lane Equivalent Distance (in feet)		
		Autos:	58.310							
		Medium Trucks:	58.158							
		Heavy Trucks:	58.172							
FHWA Noise Model Calculations										
Vehicle Type	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten			
Autos:	71.78	1.55	-1.10	-1.20	-4.74	0.000	0.000			
Medium Trucks:	82.40	-13.51	-1.09	-1.20	-4.88	0.000	0.000			
Heavy Trucks:	86.40	-5.97	-1.09	-1.20	-5.23	0.000	0.000			
Unmitigated Noise Levels (without Topo and barrier attenuation)										
Vehicle Type	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL				
Autos:	71.0	69.2	66.6	65.3	72.4	72.7				
Medium Trucks:	66.6	65.4	60.1	58.9	66.8	67.0				
Heavy Trucks:	78.1	75.9	73.8	73.4	80.2	80.5				
Vehicle Noise:	79.2	77.1	74.7	74.1	81.0	81.3				
Centerline Distance to Noise Contour (in feet)										
			70 dBA	65 dBA	60 dBA	55 dBA				
Ldn:			435	937	2,018	4,349				
CNEL:			453	976	2,103	4,531				

Thursday, December 18, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)									
Scenario: HYP Road Name: Euclid Av. (SR-83) Road Segment: n/o Eucalyptus Av.				Project Name: Eucalyptus Business Park Job Number: 16285					
SITE SPECIFIC INPUT DATA				NOISE MODEL INPUTS					
Highway Data				Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt):		39,025 vehicles		Autos:		15			
Peak Hour Percentage:		8.79%		Medium Trucks (2 Axles):		15			
Peak Hour Volume:		3,430 vehicles		Heavy Trucks (3+ Axles):		15			
Vehicle Speed:		55 mph		Vehicle Mix					
Near/Far Lane Distance:		110 feet							
Site Data				VehicleType		Day	Evening	Night	Daily
Barrier Height:		0.0 feet		Autos:		69.2%	9.5%	21.3%	82.71%
Barrier Type (0-Wall, 1-Berm):		0.0		Medium Trucks:		80.7%	5.9%	13.4%	2.59%
Centerline Dist. to Barrier:		80.0 feet		Heavy Trucks:		63.6%	9.8%	26.5%	14.70%
Centerline Dist. to Observer:		80.0 feet		Noise Source Elevations (in feet)					
Barrier Distance to Observer:		0.0 feet							
Observer Height (Above Pad):		5.0 feet		Autos:		0.000			
Pad Elevation:		0.0 feet		Medium Trucks:		2.297		Grade Adjustment: 0.0	
Road Elevation:		0.0 feet		Heavy Trucks:		8.004			
Road Grade:		0.0%		Lane Equivalent Distance (in feet)					
Left View:		-90.0 degrees							
Right View:		90.0 degrees		Autos:		58.310			
				Medium Trucks:		58.158			
				Heavy Trucks:		58.172			
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	71.78	1.82	-1.10	-1.20	-4.74	0.000	0.000		
Medium Trucks:	82.40	-13.23	-1.09	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	86.40	-5.68	-1.09	-1.20	-5.23	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	69.5	66.9	65.6	72.7	73.0			
Medium Trucks:	66.9	65.7	60.4	59.2	67.1	67.3			
Heavy Trucks:	78.4	76.2	74.1	73.7	80.5	80.7			
Vehicle Noise:	79.4	77.4	75.0	74.4	81.3	81.6			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			455	979	2,110	4,546			
CNEL:			474	1,020	2,199	4,737			

Thursday, December 18, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)									
Scenario: HYP Road Name: Euclid Av. (SR-83) Road Segment: s/o Eucalyptus Av.				Project Name: Eucalyptus Business Park Job Number: 16285					
SITE SPECIFIC INPUT DATA				NOISE MODEL INPUTS					
Highway Data				Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt): 49,127 vehicles Peak Hour Percentage: 8.79% Peak Hour Volume: 4,318 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 110 feet				Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15					
Site Data				Vehicle Mix					
				VehicleType		Day	Evening	Night	Daily
						Autos: 69.2%	9.5%	21.3%	82.98%
						Medium Trucks: 80.7%	5.9%	13.4%	2.54%
						Heavy Trucks: 63.6%	9.8%	26.5%	14.47%
				Noise Source Elevations (in feet)					
						Autos: 0.000			
						Medium Trucks: 2.297			
						Heavy Trucks: 8.004	Grade Adjustment: 0.0		
				Lane Equivalent Distance (in feet)					
						Autos: 58.310			
						Medium Trucks: 58.158			
		Heavy Trucks: 58.172							
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	71.78	2.83	-1.10	-1.20	-4.74	0.000	0.000		
Medium Trucks:	82.40	-12.31	-1.09	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	86.40	-4.75	-1.09	-1.20	-5.23	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:	72.3	70.5	67.9	66.6	73.7	74.0			
Medium Trucks:	67.8	66.6	61.3	60.1	68.0	68.3			
Heavy Trucks:	79.4	77.2	75.1	74.6	81.4	81.7			
Vehicle Noise:	80.4	78.3	76.0	75.4	82.3	82.5			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			525	1,132	2,439	5,254			
CNEL:			548	1,180	2,541	5,475			

Thursday, December 18, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)									
Scenario: HYP Road Name: Bon View Av. Road Segment: n/o Ontario Ranch Rd.				Project Name: Eucalyptus Business Park Job Number: 16285					
SITE SPECIFIC INPUT DATA				NOISE MODEL INPUTS					
Highway Data				Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt):		14,835 vehicles		Autos:		15			
Peak Hour Percentage:		8.79%		Medium Trucks (2 Axles):		15			
Peak Hour Volume:		1,304 vehicles		Heavy Trucks (3+ Axles):		15			
Vehicle Speed:		40 mph		Vehicle Mix					
Near/Far Lane Distance:		12 feet		VehicleType		Day	Evening	Night	Daily
Site Data				Autos:		69.2%	9.5%	21.3%	83.33%
Barrier Height:		0.0 feet		Medium Trucks:		80.7%	5.9%	13.4%	2.48%
Barrier Type (0-Wall, 1-Berm):		0.0		Heavy Trucks:		63.6%	9.8%	26.5%	14.18%
Centerline Dist. to Barrier:		44.0 feet		Noise Source Elevations (in feet)					
Centerline Dist. to Observer:		44.0 feet		Autos:		0.000			
Barrier Distance to Observer:		0.0 feet		Medium Trucks:		2.297			
Observer Height (Above Pad):		5.0 feet		Heavy Trucks:		8.004		Grade Adjustment: 0.0	
Pad Elevation:		0.0 feet		Lane Equivalent Distance (in feet)					
Road Elevation:		0.0 feet		Autos:		43.875			
Road Grade:		0.0%		Medium Trucks:		43.673			
Left View:		-90.0 degrees		Heavy Trucks:		43.692			
Right View:		90.0 degrees							
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	66.51	-0.96	0.75	-1.20	-4.61	0.000	0.000		
Medium Trucks:	77.72	-16.23	0.78	-1.20	-4.87	0.000	0.000		
Heavy Trucks:	82.99	-8.65	0.78	-1.20	-5.50	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	65.1	63.3	60.7	59.4	66.5	66.8			
Medium Trucks:	61.1	59.9	54.6	53.4	61.3	61.5			
Heavy Trucks:	73.9	71.7	69.6	69.2	76.0	76.2			
Vehicle Noise:	74.6	72.5	70.3	69.7	76.6	76.8			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			121	260	560	1,206			
CNEL:			126	271	583	1,256			

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)									
Scenario: HYP Road Name: Bon View Av. Road Segment: s/o Ontario Ranch Rd.					Project Name: Eucalyptus Business Park Job Number: 16285				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 17,080 vehicles Peak Hour Percentage: 8.79% Peak Hour Volume: 1,501 vehicles Vehicle Speed: 40 mph Near/Far Lane Distance: 12 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
					Vehicle Type	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 44.0 feet Centerline Dist. to Observer: 44.0 feet 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					Autos: 69.2% 9.5% 21.3% 83.70% Medium Trucks: 80.7% 5.9% 13.4% 2.43% Heavy Trucks: 63.6% 9.8% 26.5% 13.87%				
					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.004 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 43.875 Medium Trucks: 43.673 Heavy Trucks: 43.692				
FHWA Noise Model Calculations									
Vehicle Type	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	66.51	-0.33	0.75	-1.20	-4.61	0.000	0.000		
Medium Trucks:	77.72	-15.71	0.78	-1.20	-4.87	0.000	0.000		
Heavy Trucks:	82.99	-8.14	0.78	-1.20	-5.50	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
Vehicle Type	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	65.7	63.9	61.3	60.0	67.1	67.4			
Medium Trucks:	61.6	60.4	55.1	53.9	61.8	62.0			
Heavy Trucks:	74.4	72.2	70.1	69.7	76.5	76.8			
Vehicle Noise:	75.2	73.1	70.8	70.2	77.1	77.4			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			131	282	607	1,307			
CNEL:			136	293	632	1,362			

Thursday, December 18, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)									
Scenario: HYP Road Name: Grove Av. Road Segment: s/o Ontario Ranch Rd.					Project Name: Eucalyptus Business Park Job Number: 16285				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 17,946 vehicles					Autos: 15				
Peak Hour Percentage: 8.79%					Medium Trucks (2 Axles): 15				
Peak Hour Volume: 1,577 vehicles					Heavy Trucks (3+ Axles): 15				
Vehicle Speed: 50 mph					Vehicle Mix				
Near/Far Lane Distance: 45 feet									
Site Data					VehicleType				
Barrier Height: 0.0 feet					Autos: 69.2% 9.5% 21.3% 84.80%				
Barrier Type (0-Wall, 1-Berm): 0.0					Medium Trucks: 80.7% 5.9% 13.4% 2.26%				
Centerline Dist. to Barrier: 50.0 feet					Heavy Trucks: 63.6% 9.8% 26.5% 12.94%				
Centerline Dist. to Observer: 50.0 feet					Noise Source Elevations (in feet)				
Barrier Distance to Observer: 0.0 feet									
Observer Height (Above Pad): 5.0 feet					Autos: 0.000				
Pad Elevation: 0.0 feet					Medium Trucks: 2.297				
Road Elevation: 0.0 feet					Heavy Trucks: 8.004 Grade Adjustment: 0.0				
Road Grade: 0.0%					Lane Equivalent Distance (in feet)				
Left View: -90.0 degrees									
Right View: 90.0 degrees					Autos: 44.931				
					Medium Trucks: 44.733				
					Heavy Trucks: 44.752				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	70.20	-1.03	0.59	-1.20	-4.65	0.000	0.000		
Medium Trucks:	81.00	-16.77	0.62	-1.20	-4.87	0.000	0.000		
Heavy Trucks:	85.38	-9.20	0.62	-1.20	-5.43	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	68.6	66.7	64.1	62.9	70.0	70.3			
Medium Trucks:	63.7	62.5	57.1	56.0	63.9	64.1			
Heavy Trucks:	75.6	73.4	71.3	70.9	77.7	77.9			
Vehicle Noise:	76.6	74.5	72.2	71.6	78.5	78.8			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			184	397	855	1,841			
CNEL:			192	413	890	1,918			

Thursday, December 18, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)								
Scenario: HYP Road Name: Grove Av. Road Segment: n/o Ontario Ranch Rd.				Project Name: Eucalyptus Business Park Job Number: 16285				
SITE SPECIFIC INPUT DATA				NOISE MODEL INPUTS				
Highway Data				Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 23,401 vehicles Peak Hour Percentage: 8.79% Peak Hour Volume: 2,057 vehicles Vehicle Speed: 50 mph Near/Far Lane Distance: 45 feet				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: 50.0 feet Centerline Dist. to Observer: 50.0 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: 69.2% 9.5% 21.3% 84.32%				
				Medium Trucks: 80.7% 5.9% 13.4% 2.33%				
				Heavy Trucks: 63.6% 9.8% 26.5% 13.34%				
				Noise Source Elevations (in feet)				
				Autos: 0.000				
				Medium Trucks: 2.297				
				Heavy Trucks: 8.004 Grade Adjustment: 0.0				
				Lane Equivalent Distance (in feet)				
				Autos: 44.931				
				Medium Trucks: 44.733				
				Heavy Trucks: 44.752				
FHWA Noise Model Calculations								
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten	
Autos:	70.20	0.10	0.59	-1.20	-4.65	0.000	0.000	
Medium Trucks:	81.00	-15.48	0.62	-1.20	-4.87	0.000	0.000	
Heavy Trucks:	85.38	-7.91	0.62	-1.20	-5.43	0.000	0.000	
Unmitigated Noise Levels (without Topo and barrier attenuation)								
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL		
Autos:	69.7	67.9	65.3	64.0	71.1	71.4		
Medium Trucks:	64.9	63.8	58.4	57.2	65.1	65.4		
Heavy Trucks:	76.9	74.7	72.6	72.1	78.9	79.2		
Vehicle Noise:	77.9	75.8	73.5	72.9	79.8	80.0		
Centerline Distance to Noise Contour (in feet)								
			70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:			224	482	1,038	2,236		
CNEL:			233	502	1,081	2,329		

Thursday, December 18, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)									
Scenario: HYP Road Name: Walker Av. Road Segment: n/o Ontario Ranch Rd.				Project Name: Eucalyptus Business Park Job Number: 16285					
SITE SPECIFIC INPUT DATA				NOISE MODEL INPUTS					
Highway Data				Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt): 19,836 vehicles Peak Hour Percentage: 8.79% Peak Hour Volume: 1,744 vehicles Vehicle Speed: 40 mph Near/Far Lane Distance: 12 feet				Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15					
Site Data				Vehicle Mix					
				VehicleType		Day	Evening	Night	Daily
				Autos: 69.2% 9.5% 21.3% 83.27% Medium Trucks: 80.7% 5.9% 13.4% 2.49% Heavy Trucks: 63.6% 9.8% 26.5% 14.24%					
				Noise Source Elevations (in feet)					
				Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.004 Grade Adjustment: 0.0					
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 44.0 feet Centerline Dist. to Observer: 44.0 feet 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				Lane Equivalent Distance (in feet)					
				Autos: 43.875 Medium Trucks: 43.673 Heavy Trucks: 43.692					
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	66.51	0.29	0.75	-1.20	-4.61	0.000	0.000		
Medium Trucks:	77.72	-14.95	0.78	-1.20	-4.87	0.000	0.000		
Heavy Trucks:	82.99	-7.38	0.78	-1.20	-5.50	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	66.4	64.5	61.9	60.6	67.8	68.1			
Medium Trucks:	62.3	61.2	55.8	54.6	62.5	62.8			
Heavy Trucks:	75.2	73.0	70.9	70.4	77.3	77.5			
Vehicle Noise:	75.9	73.8	71.5	71.0	77.8	78.1			
Centerline Distance to Noise Contour (in feet)									
			70 dBA		65 dBA		60 dBA		55 dBA
Ldn:			147		316		681		1,467
CNEL:			153		329		709		1,528

Thursday, December 18, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)									
Scenario: HYP Road Name: Walker Av. Road Segment: s/o Ontario Ranch Rd.				Project Name: Eucalyptus Business Park Job Number: 16285					
SITE SPECIFIC INPUT DATA				NOISE MODEL INPUTS					
Highway Data				Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt): 26,686 vehicles				Autos: 15					
Peak Hour Percentage: 8.79%				Medium Trucks (2 Axles): 15					
Peak Hour Volume: 2,346 vehicles				Heavy Trucks (3+ Axles): 15					
Vehicle Speed: 40 mph				Vehicle Mix					
Near/Far Lane Distance: 12 feet				Vehicle Type		Day	Evening	Night	Daily
Site Data				Autos: 69.2% 9.5% 21.3% 81.56%					
Barrier Height: 0.0 feet				Medium Trucks: 80.7% 5.9% 13.4% 2.80%					
Barrier Type (0-Wall, 1-Berm): 0.0				Heavy Trucks: 63.6% 9.8% 26.5% 15.65%					
Centerline Dist. to Barrier: 44.0 feet				Noise Source Elevations (in feet)					
Centerline Dist. to Observer: 44.0 feet				Autos: 0.000					
Barrier Distance to Observer: 0.0 feet				Medium Trucks: 2.297					
Observer Height (Above Pad): 5.0 feet				Heavy Trucks: 8.004 Grade Adjustment: 0.0					
Pad Elevation: 0.0 feet				Lane Equivalent Distance (in feet)					
Road Elevation: 0.0 feet				Autos: 43.875					
Road Grade: 0.0%				Medium Trucks: 43.673					
Left View: -90.0 degrees				Heavy Trucks: 43.692					
Right View: 90.0 degrees									
FHWA Noise Model Calculations									
Vehicle Type	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	66.51	1.49	0.75	-1.20	-4.61	0.000	0.000		
Medium Trucks:	77.72	-13.16	0.78	-1.20	-4.87	0.000	0.000		
Heavy Trucks:	82.99	-5.68	0.78	-1.20	-5.50	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
Vehicle Type	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	67.6	65.7	63.1	61.8	69.0	69.2			
Medium Trucks:	64.1	63.0	57.6	56.4	64.3	64.6			
Heavy Trucks:	76.9	74.7	72.6	72.1	78.9	79.2			
Vehicle Noise:	77.6	75.5	73.2	72.6	79.5	79.8			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			189	407	877	1,890			
CNEL:			197	424	914	1,969			

Thursday, December 18, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)									
Scenario: HYP Road Name: Archibald Av. Road Segment: s/o Ontario Ranch Rd.				Project Name: Eucalyptus Business Park Job Number: 16285					
SITE SPECIFIC INPUT DATA				NOISE MODEL INPUTS					
Highway Data				Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt): 46,922 vehicles				Autos: 15					
Peak Hour Percentage: 8.79%				Medium Trucks (2 Axles): 15					
Peak Hour Volume: 4,124 vehicles				Heavy Trucks (3+ Axles): 15					
Vehicle Speed: 55 mph				Vehicle Mix					
Near/Far Lane Distance: 58 feet									
Site Data				Autos: 69.2% 9.5% 21.3% 83.84%					
Barrier Height: 0.0 feet				Medium Trucks: 80.7% 5.9% 13.4% 2.41%					
Barrier Type (0-Wall, 1-Berm): 0.0				Heavy Trucks: 63.6% 9.8% 26.5% 13.75%					
Centerline Dist. to Barrier: 60.0 feet				Noise Source Elevations (in feet)					
Centerline Dist. to Observer: 60.0 feet									
Barrier Distance to Observer: 0.0 feet				Autos: 0.000					
Observer Height (Above Pad): 5.0 feet				Medium Trucks: 2.297					
Pad Elevation: 0.0 feet				Heavy Trucks: 8.004 Grade Adjustment: 0.0					
Road Elevation: 0.0 feet				Lane Equivalent Distance (in feet)					
Road Grade: 0.0%									
Left View: -90.0 degrees				Autos: 52.764					
Right View: 90.0 degrees				Medium Trucks: 52.596					
				Heavy Trucks: 52.612					
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	71.78	2.68	-0.45	-1.20	-4.69	0.000	0.000		
Medium Trucks:	82.40	-12.74	-0.43	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	86.40	-5.17	-0.44	-1.20	-5.34	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:	72.8	71.0	68.4	67.1	74.2	74.5			
Medium Trucks:	68.0	66.9	61.5	60.3	68.2	68.5			
Heavy Trucks:	79.6	77.4	75.3	74.8	81.6	81.9			
Vehicle Noise:	80.7	78.6	76.3	75.6	82.5	82.8			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			411	885	1,907	4,107			
CNEL:			428	922	1,987	4,280			

Thursday, December 18, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)									
Scenario: HYP Road Name: Archibald Av. Road Segment: n/o Ontario Ranch Rd.				Project Name: Eucalyptus Business Park Job Number: 16285					
SITE SPECIFIC INPUT DATA				NOISE MODEL INPUTS					
Highway Data				Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt): 43,407 vehicles Peak Hour Percentage: 8.79% Peak Hour Volume: 3,816 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 58 feet				Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15					
Site Data				Vehicle Mix					
				VehicleType		Day	Evening	Night	Daily
				Autos:		69.2%	9.5%	21.3%	83.58%
				Medium Trucks:		80.7%	5.9%	13.4%	2.45%
				Heavy Trucks:		63.6%	9.8%	26.5%	13.98%
				Noise Source Elevations (in feet)					
				Autos:		0.000			
				Medium Trucks:		2.297			
				Heavy Trucks:		8.004		Grade Adjustment: 0.0	
				Lane Equivalent Distance (in feet)					
				Autos:		52.764			
				Medium Trucks:		52.596			
				Heavy Trucks:		52.612			
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	71.78	2.33	-0.45	-1.20	-4.69	0.000	0.000		
Medium Trucks:	82.40	-13.01	-0.43	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	86.40	-5.44	-0.44	-1.20	-5.34	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:	72.5	70.6	68.0	66.7	73.9	74.2			
Medium Trucks:	67.8	66.6	61.3	60.1	68.0	68.2			
Heavy Trucks:	79.3	77.1	75.0	74.6	81.4	81.6			
Vehicle Noise:	80.4	78.3	76.0	75.4	82.3	82.5			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			393	848	1,826	3,935			
CNEL:			410	883	1,903	4,100			

Thursday, December 18, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)										
Scenario: HYP Road Name: Ontario Ranch Rd. Road Segment: e/o Euclid Av. (SR-83)				Project Name: Eucalyptus Business Park Job Number: 16285						
SITE SPECIFIC INPUT DATA				NOISE MODEL INPUTS						
Highway Data				Site Conditions (Hard = 10, Soft = 15)						
Average Daily Traffic (Adt): 24,778 vehicles Peak Hour Percentage: 8.79% Peak Hour Volume: 2,178 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 110 feet				Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15						
Site Data				Vehicle Mix						
				VehicleType		Day	Evening	Night	Daily	
				Autos: 69.2% 9.5% 21.3% 83.44%						
				Medium Trucks: 80.7% 5.9% 13.4% 2.47%						
				Heavy Trucks: 63.6% 9.8% 26.5% 14.09%						
				Noise Source Elevations (in feet)						
				Autos: 0.000						
				Medium Trucks: 2.297						
				Heavy Trucks: 8.004 Grade Adjustment: 0.0						
				Lane Equivalent Distance (in feet)						
				Autos: 58.310						
				Medium Trucks: 58.158						
				Heavy Trucks: 58.172						
FHWA Noise Model Calculations										
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten			
Autos:	71.78	-0.11	-1.10	-1.20	-4.74	0.000	0.000			
Medium Trucks:	82.40	-15.41	-1.09	-1.20	-4.88	0.000	0.000			
Heavy Trucks:	86.40	-7.84	-1.09	-1.20	-5.23	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:	69.4	67.5	64.9	63.7	70.8	71.1				
Medium Trucks:	64.7	63.5	58.2	57.0	64.9	65.2				
Heavy Trucks:	76.3	74.1	72.0	71.5	78.3	78.6				
Vehicle Noise:	77.3	75.2	72.9	72.3	79.2	79.5				
Centerline Distance to Noise Contour (in feet)										
				70 dBA		65 dBA		60 dBA		55 dBA
Ldn:				328		707		1,522		3,280
CNEL:				342		736		1,586		3,418

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)									
Scenario: HYP Road Name: Ontario Ranch Rd. Road Segment: w/o Grove Av.					Project Name: Eucalyptus Business Park Job Number: 16285				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 21,474 vehicles Peak Hour Percentage: 8.79% Peak Hour Volume: 1,888 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 110 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
					Vehicle Type	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 80.0 feet Centerline Dist. to Observer: 80.0 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					Autos: 69.2% 9.5% 21.3% 83.79% Medium Trucks: 80.7% 5.9% 13.4% 2.41% Heavy Trucks: 63.6% 9.8% 26.5% 13.79%				
					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.004 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 58.310 Medium Trucks: 58.158 Heavy Trucks: 58.172				
FHWA Noise Model Calculations									
Vehicle Type	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	71.78	-0.72	-1.10	-1.20	-4.74	0.000	0.000		
Medium Trucks:	82.40	-16.12	-1.09	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	86.40	-8.55	-1.09	-1.20	-5.23	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
Vehicle Type	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	68.8	66.9	64.3	63.1	70.2	70.5			
Medium Trucks:	64.0	62.8	57.5	56.3	64.2	64.4			
Heavy Trucks:	75.6	73.4	71.3	70.8	77.6	77.9			
Vehicle Noise:	76.6	74.6	72.2	71.6	78.5	78.8			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			295	635	1,368	2,947			
CNEL:			307	662	1,425	3,071			

Thursday, December 18, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)									
Scenario: HYP Road Name: Ontario Ranch Rd. Road Segment: w/o Archibald Av.					Project Name: Eucalyptus Business Park Job Number: 16285				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 38,175 vehicles Peak Hour Percentage: 8.79% Peak Hour Volume: 3,356 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 110 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
					Vehicle Type	Day	Evening	Night	Daily
					Autos: 69.2% 9.5% 21.3% 82.03%				
					Medium Trucks: 80.7% 5.9% 13.4% 2.71%				
					Heavy Trucks: 63.6% 9.8% 26.5% 15.26%				
					Noise Source Elevations (in feet)				
					Autos: 0.000				
					Medium Trucks: 2.297				
					Heavy Trucks: 8.004 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 58.310				
					Medium Trucks: 58.158				
					Heavy Trucks: 58.172				
FHWA Noise Model Calculations									
Vehicle Type	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	71.78	1.69	-1.10	-1.20	-4.74	0.000	0.000		
Medium Trucks:	82.40	-13.12	-1.09	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	86.40	-5.62	-1.09	-1.20	-5.23	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
Vehicle Type	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	71.2	69.3	66.7	65.5	72.6	72.9			
Medium Trucks:	67.0	65.8	60.5	59.3	67.2	67.4			
Heavy Trucks:	78.5	76.3	74.2	73.7	80.5	80.8			
Vehicle Noise:	79.5	77.4	75.1	74.5	81.4	81.6			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			457	986	2,123	4,575			
CNEL:			477	1,027	2,212	4,767			

Thursday, December 18, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)										
Scenario: HYP Road Name: Ontario Ranch Rd. Road Segment: e/o Grove Av.					Project Name: Eucalyptus Business Park Job Number: 16285					
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS					
Highway Data					Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt): 18,728 vehicles Peak Hour Percentage: 8.79% Peak Hour Volume: 1,646 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 110 feet					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: 80.0 feet Centerline Dist. to Observer: 80.0 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					
					Vehicle Type		Day	Evening	Night	Daily
					Autos:		69.2%	9.5%	21.3%	83.28%
					Medium Trucks:		80.7%	5.9%	13.4%	2.49%
					Heavy Trucks:		63.6%	9.8%	26.5%	14.23%
					Noise Source Elevations (in feet)					
					Autos:		0.000			
					Medium Trucks:		2.297			
					Heavy Trucks:		8.004 Grade Adjustment: 0.0			
					Lane Equivalent Distance (in feet)					
					Autos:		58.310			
					Medium Trucks:		58.158			
					Heavy Trucks:		58.172			
FHWA Noise Model Calculations										
Vehicle Type	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten			
Autos:	71.78	-1.34	-1.10	-1.20	-4.74	0.000	0.000			
Medium Trucks:	82.40	-16.58	-1.09	-1.20	-4.88	0.000	0.000			
Heavy Trucks:	86.40	-9.01	-1.09	-1.20	-5.23	0.000	0.000			
Unmitigated Noise Levels (without Topo and barrier attenuation)										
Vehicle Type	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn		CNEL			
Autos:	68.1	66.3	63.7	62.4	69.5		69.8			
Medium Trucks:	63.5	62.4	57.0	55.8	63.7		64.0			
Heavy Trucks:	75.1	72.9	70.8	70.3	77.2		77.4			
Vehicle Noise:	76.1	74.1	71.7	71.1	78.0		78.3			
Centerline Distance to Noise Contour (in feet)										
				70 dBA		65 dBA		60 dBA		55 dBA
Ldn:				274		589		1,270		2,736
CNEL:				285		614		1,323		2,851

Thursday, December 18, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)									
Scenario: HYP Road Name: Ontario Ranch Rd. Road Segment: e/o Archibald Av.					Project Name: Eucalyptus Business Park Job Number: 16285				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 49,552 vehicles Peak Hour Percentage: 8.79% Peak Hour Volume: 4,356 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 110 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
					VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 80.0 feet Centerline Dist. to Observer: 80.0 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					Autos: 69.2% 9.5% 21.3% 82.57% Medium Trucks: 80.7% 5.9% 13.4% 2.62% Heavy Trucks: 63.6% 9.8% 26.5% 14.81%				
					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.004 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
Autos: 58.310 Medium Trucks: 58.158 Heavy Trucks: 58.172									
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	71.78	2.85	-1.10	-1.20	-4.74	0.000	0.000		
Medium Trucks:	82.40	-12.13	-1.09	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	86.40	-4.61	-1.09	-1.20	-5.23	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:	72.3	70.5	67.9	66.6	73.7	74.0			
Medium Trucks:	68.0	66.8	61.5	60.3	68.2	68.4			
Heavy Trucks:	79.5	77.3	75.2	74.7	81.6	81.8			
Vehicle Noise:	80.5	78.4	76.1	75.5	82.4	82.7			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			535	1,153	2,485	5,354			
CNEL:			558	1,202	2,589	5,578			

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)										
Scenario: HYP Road Name: Eucalyptus Av. Road Segment: e/o Euclid Av. (SR-83)					Project Name: Eucalyptus Business Park Job Number: 16285					
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS					
Highway Data					Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt): 27,794 vehicles Peak Hour Percentage: 8.79% Peak Hour Volume: 2,443 vehicles Vehicle Speed: 40 mph Near/Far Lane Distance: 12 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15					
Site Data					Vehicle Mix					
					Vehicle Type		Day	Evening	Night	Daily
					Autos: 69.2% 9.5% 21.3% 82.23%					
					Medium Trucks: 80.7% 5.9% 13.4% 2.68%					
					Heavy Trucks: 63.6% 9.8% 26.5% 15.09%					
					Noise Source Elevations (in feet)					
					Autos: 0.000					
					Medium Trucks: 2.297					
					Heavy Trucks: 8.004					
					Grade Adjustment: 0.0					
					Lane Equivalent Distance (in feet)					
					Autos: 43.875					
					Medium Trucks: 43.673					
					Heavy Trucks: 43.692					
FHWA Noise Model Calculations										
Vehicle Type	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten			
Autos:	66.51	1.70	0.75	-1.20	-4.61	0.000	0.000			
Medium Trucks:	77.72	-13.17	0.78	-1.20	-4.87	0.000	0.000			
Heavy Trucks:	82.99	-5.66	0.78	-1.20	-5.50	0.000	0.000			
Unmitigated Noise Levels (without Topo and barrier attenuation)										
Vehicle Type	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL				
Autos:	67.8	65.9	63.3	62.1	69.2	69.5				
Medium Trucks:	64.1	63.0	57.6	56.4	64.3	64.6				
Heavy Trucks:	76.9	74.7	72.6	72.2	79.0	79.2				
Vehicle Noise:	77.6	75.5	73.2	72.7	79.5	79.8				
Centerline Distance to Noise Contour (in feet)										
				70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:				190	410	882	1,901			
CNEL:				198	427	919	1,980			

Thursday, December 18, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)										
Scenario: HYP Road Name: Eucalyptus Av. Road Segment: w/o Grove Av.					Project Name: Eucalyptus Business Park Job Number: 16285					
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS					
Highway Data					Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt):		21,498 vehicles			Autos:		15			
Peak Hour Percentage:		8.79%			Medium Trucks (2 Axles):		15			
Peak Hour Volume:		1,890 vehicles			Heavy Trucks (3+ Axles):		15			
Vehicle Speed:		40 mph			Vehicle Mix					
Near/Far Lane Distance:		12 feet								
Site Data					VehicleType		Day	Evening	Night	Daily
Barrier Height:		0.0 feet			Autos:		69.2%	9.5%	21.3%	81.97%
Barrier Type (0-Wall, 1-Berm):		0.0			Medium Trucks:		80.7%	5.9%	13.4%	2.73%
Centerline Dist. to Barrier:		44.0 feet			Heavy Trucks:		63.6%	9.8%	26.5%	15.31%
Centerline Dist. to Observer:		44.0 feet			Noise Source Elevations (in feet)					
Barrier Distance to Observer:		0.0 feet								
Observer Height (Above Pad):		5.0 feet			Autos:		0.000			
Pad Elevation:		0.0 feet			Medium Trucks:		2.297			
Road Elevation:		0.0 feet			Heavy Trucks:		8.004		Grade Adjustment: 0.0	
Road Grade:		0.0%			Lane Equivalent Distance (in feet)					
Left View:		-90.0 degrees								
Right View:		90.0 degrees			Autos:		43.875			
					Medium Trucks:		43.673			
					Heavy Trucks:		43.692			
FHWA Noise Model Calculations										
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten			
Autos:	66.51	0.57	0.75	-1.20	-4.61	0.000	0.000			
Medium Trucks:	77.72	-14.20	0.78	-1.20	-4.87	0.000	0.000			
Heavy Trucks:	82.99	-6.71	0.78	-1.20	-5.50	0.000	0.000			
Unmitigated Noise Levels (without Topo and barrier attenuation)										
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL				
Autos:	66.6	64.8	62.2	60.9	68.0	68.3				
Medium Trucks:	63.1	61.9	56.6	55.4	63.3	63.5				
Heavy Trucks:	75.9	73.7	71.6	71.1	77.9	78.2				
Vehicle Noise:	76.5	74.4	72.2	71.6	78.5	78.7				
Centerline Distance to Noise Contour (in feet)										
				70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:				162	348	750	1,615			
CNEL:				168	363	781	1,683			

Thursday, December 18, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)										
Scenario: HYP Road Name: Eucalyptus Av. Road Segment: e/o Grove Av.					Project Name: Eucalyptus Business Park Job Number: 16285					
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS					
Highway Data					Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt): 24,792 vehicles Peak Hour Percentage: 8.79% Peak Hour Volume: 2,179 vehicles Vehicle Speed: 40 mph Near/Far Lane Distance: 12 feet					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: 44.0 feet Centerline Dist. to Observer: 44.0 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:		69.2%	9.5%	21.3%	82.81%
					Medium Trucks:		80.7%	5.9%	13.4%	2.59%
					Heavy Trucks:		63.6%	9.8%	26.5%	14.60%
					Noise Source Elevations (in feet)					
					Autos:		0.000			
					Medium Trucks:		2.297			
					Heavy Trucks:		8.004	Grade Adjustment: 0.0		
					Lane Equivalent Distance (in feet)					
					Autos:		43.875			
					Medium Trucks:		43.673			
					Heavy Trucks:		43.692			
FHWA Noise Model Calculations										
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten			
Autos:	66.51	1.24	0.75	-1.20	-4.61	0.000	0.000			
Medium Trucks:	77.72	-13.81	0.78	-1.20	-4.87	0.000	0.000			
Heavy Trucks:	82.99	-6.30	0.78	-1.20	-5.50	0.000	0.000			
Unmitigated Noise Levels (without Topo and barrier attenuation)										
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL				
Autos:	67.3	65.5	62.9	61.6	68.7	69.0				
Medium Trucks:	63.5	62.3	57.0	55.8	63.7	63.9				
Heavy Trucks:	76.3	74.1	72.0	71.5	78.3	78.6				
Vehicle Noise:	77.0	74.9	72.6	72.0	78.9	79.2				
Centerline Distance to Noise Contour (in feet)										
			70 dBA	65 dBA	60 dBA	55 dBA				
Ldn:			173	372	802	1,727				
CNEL:			180	388	835	1,800				

Thursday, December 18, 2025

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)									
Scenario: HYP Road Name: Eucalyptus Av. Road Segment: e/o Walker Av.					Project Name: Eucalyptus Business Park Job Number: 16285				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 10,273 vehicles Peak Hour Percentage: 8.79% Peak Hour Volume: 903 vehicles Vehicle Speed: 40 mph Near/Far Lane Distance: 12 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 44.0 feet Centerline Dist. to Observer: 44.0 feet 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					VehicleType	Day	Evening	Night	Daily
					Autos: 69.2% 9.5% 21.3% 87.54% Medium Trucks: 80.7% 5.9% 13.4% 1.86% Heavy Trucks: 63.6% 9.8% 26.5% 10.61%				
					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.004 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 43.875 Medium Trucks: 43.673 Heavy Trucks: 43.692				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	66.51	-2.35	0.75	-1.20	-4.61	0.000	0.000		
Medium Trucks:	77.72	-19.08	0.78	-1.20	-4.87	0.000	0.000		
Heavy Trucks:	82.99	-11.51	0.78	-1.20	-5.50	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	63.7	61.9	59.3	58.0	65.1	65.4			
Medium Trucks:	58.2	57.0	51.7	50.5	58.4	58.7			
Heavy Trucks:	71.1	68.9	66.8	66.3	73.1	73.4			
Vehicle Noise:	72.0	69.9	67.6	67.0	73.9	74.1			
Centerline Distance to Noise Contour (in feet)									
			70 dBA		65 dBA		60 dBA		55 dBA
Ldn:			80		172		370		798
CNEL:			83		179		386		831

APPENDIX 9.1:

CADNAA OPERATIONAL NOISE CALCULATIONS

This page intentionally left blank

16285 - Eucalyptus Business Park

CadnaA Noise Prediction Model: 16285-03.cna

Date: 18.12.25

Analyst: B. Lawson

Calculation Configuration

Configuration	
Parameter	Value
General	
Max. Error (dB)	0.00
Max. Search Radius (ft)	10000.00
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 Rcvr - 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	49.5	49.5	56.1	69.8	62.9	0.0				5.00	a 6671620.52	1821541.89	5.00
R2		R2	52.8	52.7	59.4	65.0	57.6	0.0				5.00	a 6671825.66	1820963.26	5.00
R3		R3	49.4	49.3	56.0	69.4	60.8	0.0				5.00	a 6674471.64	1821547.39	5.00
R4		R4	47.7	47.6	54.3	69.9	60.0	0.0				5.00	a 6676256.71	1821576.56	5.00
R5		R5	48.3	48.1	54.8	65.0	51.4	0.0				5.00	a 6677114.67	1820347.49	5.00
R6		R6	47.2	46.9	53.6	65.0	52.5	0.0				5.00	a 6672005.04	1818965.64	5.00
R7		R7	44.2	43.9	50.6	65.0	52.5	0.0				5.00	a 6670745.94	1818953.47	5.00
R8		R8	43.3	42.7	49.4	65.0	47.7	0.0				5.00	a 6670404.49	1819194.36	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)
POINTSOURCE		AC01	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	5.00	g 6672165.73	1819828.67	5.00
POINTSOURCE		AC02	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	5.00	g 6672161.75	1819999.27	5.00
POINTSOURCE		AC03	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	5.00	g 6671875.27	1819836.13	5.00
POINTSOURCE		AC04	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	5.00	g 6671871.29	1819986.84	5.00
POINTSOURCE		AC05	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	5.00	g 6675175.81	1819993.15	50.00
POINTSOURCE		AC06	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	5.00	g 6675200.88	1820028.17	50.00
POINTSOURCE		AC07	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	5.00	g 6675565.87	1819966.23	50.00
POINTSOURCE		AC08	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	5.00	g 6675520.89	1819999.05	50.00
POINTSOURCE		AC09	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	5.00	g 6675868.18	1819965.50	50.00
POINTSOURCE		AC10	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	5.00	g 6675824.31	1819999.78	50.00
POINTSOURCE		AC11	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	5.00	g 6676405.89	1819971.36	50.00
POINTSOURCE		AC12	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	5.00	g 6676363.53	1820005.74	50.00

Name	M.	ID	Result. PWL			Lw / Li			Operating Time			Height		Coordinates		
			Day	Evening	Night	Type	Value	norm.	Day	Special	Night	(ft)		X	Y	Z
			(dBA)	(dBA)	(dBA)			dB(A)	(min)	(min)	(min)			(ft)	(ft)	(ft)
POINTSOURCE		AC13	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	5.00	g	6676881.58	1819976.22	50.00
POINTSOURCE		AC14	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	5.00	g	6676852.42	1820008.17	50.00
POINTSOURCE		AC15	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	5.00	g	6674201.32	1819309.04	50.00
POINTSOURCE		AC16	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	5.00	g	6674242.27	1819273.71	50.00
POINTSOURCE		AC17	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	5.00	g	6672962.17	1819297.80	50.00
POINTSOURCE		AC18	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	5.00	g	6672926.84	1819259.25	50.00
POINTSOURCE		AC19	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	5.00	g	6672638.95	1819285.56	50.00
POINTSOURCE		AC20	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	5.00	g	6672673.22	1819251.29	50.00
POINTSOURCE		AC21	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	5.00	g	6671962.83	1819278.22	50.00
POINTSOURCE		AC22	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	5.00	g	6671929.05	1819241.99	50.00
POINTSOURCE		AC23	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	5.00	g	6674637.85	1819316.56	50.00
POINTSOURCE		AC24	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	5.00	g	6674598.15	1819277.33	50.00
POINTSOURCE		AC25	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	5.00	g	6675881.54	1819324.97	50.00
POINTSOURCE		AC26	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	5.00	g	6675922.63	1819284.80	50.00
POINTSOURCE		AC27	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	5.00	g	6676869.29	1819336.64	50.00
POINTSOURCE		AC28	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	5.00	g	6676908.06	1819297.41	50.00
POINTSOURCE		AC29	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	5.00	g	6676189.77	1819328.71	50.00
POINTSOURCE		AC30	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	5.00	g	6676157.08	1819290.41	50.00
POINTSOURCE		AC31	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	5.00	g	6674958.52	1820084.53	50.00
POINTSOURCE		AC32	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	5.00	g	6674997.55	1820121.42	50.00
POINTSOURCE		AC33	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	5.00	g	6674600.12	1820084.84	50.00
POINTSOURCE		AC34	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	5.00	g	6674575.84	1820117.73	50.00
POINTSOURCE		AC35	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	5.00	g	6674206.10	1820082.98	50.00
POINTSOURCE		AC36	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	5.00	g	6674239.45	1820104.45	50.00
POINTSOURCE		AC37	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	5.00	g	6673868.70	1820075.63	50.00
POINTSOURCE		AC38	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	5.00	g	6673841.57	1820101.63	50.00
POINTSOURCE		AC39	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	5.00	g	6673670.33	1819997.07	50.00
POINTSOURCE		AC40	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	5.00	g	6673629.07	1820026.46	50.00
POINTSOURCE		AC41	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	5.00	g	6673222.76	1819944.78	50.00
POINTSOURCE		AC42	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	5.00	g	6673253.16	1819983.46	50.00
POINTSOURCE		AC43	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	5.00	g	6672923.41	1819941.71	50.00
POINTSOURCE		AC44	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	5.00	g	6672902.54	1819975.79	50.00
POINTSOURCE		AC45	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	5.00	g	6672684.24	1819939.56	50.00
POINTSOURCE		AC46	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	5.00	g	6672710.03	1819977.02	50.00
POINTSOURCE		AC47	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	5.00	g	6672349.89	1819933.42	50.00
POINTSOURCE		AC48	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	5.00	g	6672324.72	1819968.11	50.00
POINTSOURCE		AC49	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	5.00	g	6671599.74	1819931.61	50.00
POINTSOURCE		AC50	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	5.00	g	6671631.23	1819959.59	50.00
POINTSOURCE		AC51	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	5.00	g	6670633.75	1819917.61	50.00
POINTSOURCE		AC52	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	5.00	g	6670632.50	1819952.34	50.00
POINTSOURCE		AC53	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	5.00	g	6671080.52	1819918.61	50.00
POINTSOURCE		AC54	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	5.00	g	6671080.77	1819953.34	50.00
POINTSOURCE		AC55	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	5.00	g	6671547.95	1819556.55	50.00
POINTSOURCE		AC56	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	5.00	g	6671609.58	1819616.45	50.00
POINTSOURCE		AC57	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	5.00	g	6671543.60	1819311.76	50.00
POINTSOURCE		AC58	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	5.00	g	6671606.10	1819252.73	50.00
POINTSOURCE		AC59	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	5.00	g	6670703.33	1819302.21	50.00
POINTSOURCE		AC60	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	5.00	g	6670643.43	1819242.32	50.00
POINTSOURCE		AC61	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	5.00	g	6670690.31	1819552.21	50.00
POINTSOURCE		AC62	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	5.00	g	6670630.41	1819606.03	50.00
POINTSOURCE		DT01	84.0	84.0	84.0	Lw	84					3.00	a	6671869.30	1819799.83	3.00
POINTSOURCE		DT02	84.0	84.0	84.0	Lw	84					3.00	a	6671832.49	1819831.16	3.00
POINTSOURCE		DT03	84.0	84.0	84.0	Lw	84					3.00	a	6672197.07	1819998.77	3.00
POINTSOURCE		DT04	84.0	84.0	84.0	Lw	84					3.00	a	6672153.30	1820032.60	3.00
POINTSOURCE		DT05	84.0	84.0	84.0	Lw	84					3.00	a	6671832.00	1819994.30	3.00
POINTSOURCE		DT06	84.0	84.0	84.0	Lw	84					3.00	a	6671873.78	1820030.11	3.00
POINTSOURCE		PARK01	78.0	78.0	78.0	Lw	78		900.00	0.00	0.00	5.00	a	6675503.24	1820246.11	5.00
POINTSOURCE		PARK02	78.0	78.0	78.0	Lw	78		900.00	0.00	0.00	5.00	a	6676098.44	1820394.26	5.00
POINTSOURCE		PARK03	78.0	78.0	78.0	Lw	78		900.00	0.00	0.00	5.00	a	6676880.76	1820243.51	5.00
POINTSOURCE		PARK04	78.0	78.0	78.0	Lw	78		900.00	0.00	0.00	5.00	a	6674824.88	1820370.87	5.00
POINTSOURCE		PARK05	78.0	78.0	78.0	Lw	78		900.00	0.00	0.00	5.00	a	6673943.79	1820381.27	5.00
POINTSOURCE		PARK06	78.0	78.0	78.0	Lw	78		900.00	0.00	0.00	5.00	a	6673351.20	1820196.73	5.00
POINTSOURCE		PARK07	78.0	78.0	78.0	Lw	78		900.00	0.00	0.00	5.00	a	6672706.62	1820360.47	5.00
POINTSOURCE		PARK08	78.0	78.0	78.0	Lw	78		900.00	0.00	0.00	5.00	a	6672215.40	1820168.14	5.00
POINTSOURCE		PARK09	78.0	78.0	78.0	Lw	78		900.00	0.00	0.00	5.00	a	6671659.19	1820360.47	5.00
POINTSOURCE		PARK10	78.0	78.0	78.0	Lw	78		900.00	0.00	0.00	5.00	a	6671115.98	1820170.74	5.00
POINTSOURCE		PARK11	78.0	78.0	78.0	Lw	78		900.00	0.00	0.00	5.00	a	6670601.36	1820324.09	5.00
POINTSOURCE		TRASH01	89.0	89.0	89.0	Lw	89		900.00	0.00	270.00	5.00	a	6670739.79	1819751.00	5.00
POINTSOURCE		TRASH02	89.0	89.0	89.0	Lw	89		900.00	0.00	270.00	5.00	a	6671501.07	1819757.94	5.00
POINTSOURCE		TRASH03	89.0	89.0	89.0	Lw	89		900.00	0.00	270.00	5.00	a	6670961.33	1819891.13	5.00
POINTSOURCE		TRASH04	89.0	89.0	89.0	Lw	89		900.00	0.00	270.00	5.00	a	6670981.57	1819892.13	5.00
POINTSOURCE		TRASH05	89.0	89.0	89.0	Lw	89		900.00	0.00	270.00	5.00	a	6671315.64	1819895.12	5.00
POINTSOURCE		TRASH06	89.0	89.0	89.0	Lw	89		900.00	0.00	270.00	5.00	a	6672026.60	1819767.32	5.00
POINTSOURCE		TRASH07	89.0	89.0	89.0	Lw	89		900.00	0.00	270.00	5.00	a	6672793.24	1819904.86	5.00
POINTSOURCE		TRASH08	89.0	89.0	89.0	Lw	89		900.00	0.00	270.00	5.00	a	6672813.81	1819904.56	5.00
POINTSOURCE		TRASH09	89.0	89.0	89.0	Lw	89		900.00	0.00	270.00	5.00	a	6673333.29	1819911.31	5.00
POINTSOURCE		TRASH10	89.0	89.0	89.0	Lw	89		900.00	0.00	270.00	5.00	a	6673354.17	1819938.33	5.00

Name	M.	ID	Result. PWL			Lw / Li			Operating Time			Height		Coordinates		
			Day	Evening	Night	Type	Value	norm.	Day	Special	Night	(ft)		X	Y	Z
			(dBA)	(dBA)	(dBA)			dB(A)	(min)	(min)	(min)		a	(ft)	(ft)	(ft)
POINTSOURCE		TRASH11	89.0	89.0	89.0	Lw	89		900.00	0.00	270.00	5.00	a	6674161.64	1819877.54	5.00
POINTSOURCE		TRASH12	89.0	89.0	89.0	Lw	89		900.00	0.00	270.00	5.00	a	6673918.48	1819875.08	5.00
POINTSOURCE		TRASH13	89.0	89.0	89.0	Lw	89		900.00	0.00	270.00	5.00	a	6674911.49	1819881.36	5.00
POINTSOURCE		TRASH14	89.0	89.0	89.0	Lw	89		900.00	0.00	270.00	5.00	a	6674667.75	1819877.98	5.00
POINTSOURCE		TRASH15	89.0	89.0	89.0	Lw	89		900.00	0.00	270.00	5.00	a	6676257.49	1819811.14	5.00
POINTSOURCE		TRASH16	89.0	89.0	89.0	Lw	89		900.00	0.00	270.00	5.00	a	6676791.30	1819818.61	5.00
POINTSOURCE		TRASH17	89.0	89.0	89.0	Lw	89		900.00	0.00	270.00	5.00	a	6674699.03	1819793.86	5.00
POINTSOURCE		TRASH18	89.0	89.0	89.0	Lw	89		900.00	0.00	270.00	5.00	a	6675800.27	1819806.47	5.00
POINTSOURCE		TRASH19	89.0	89.0	89.0	Lw	89		900.00	0.00	270.00	5.00	a	6673028.17	1819776.13	5.00
POINTSOURCE		TRASH20	89.0	89.0	89.0	Lw	89		900.00	0.00	270.00	5.00	a	6674120.93	1819789.35	5.00
POINTSOURCE		TRASH21	89.0	89.0	89.0	Lw	89		900.00	0.00	270.00	5.00	a	6672556.70	1819770.74	5.00
POINTSOURCE		TRASH22	89.0	89.0	89.0	Lw	89		900.00	0.00	270.00	5.00	a	6676515.26	1819940.46	5.00
POINTSOURCE		TRASH23	89.0	89.0	89.0	Lw	89		900.00	0.00	270.00	5.00	a	6676493.04	1819939.42	5.00
POINTSOURCE		TRASH24	89.0	89.0	89.0	Lw	89		900.00	0.00	270.00	5.00	a	6675955.55	1819934.53	5.00
POINTSOURCE		TRASH25	89.0	89.0	89.0	Lw	89		900.00	0.00	270.00	5.00	a	6675976.57	1819934.53	5.00
POINTSOURCE		TRASH26	89.0	89.0	89.0	Lw	89		900.00	0.00	270.00	5.00	a	6675417.29	1819929.37	5.00
POINTSOURCE		TRASH27	89.0	89.0	89.0	Lw	89		900.00	0.00	270.00	5.00	a	6675439.04	1819929.00	5.00
POINTSOURCE		TRASH28	89.0	89.0	89.0	Lw	89		900.00	0.00	270.00	5.00	a	6672239.34	1819899.30	5.00

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			
			(dBA)	(dBA)	(dBA)	(dBA)	(dBA)	(dBA)		dB(A)		(min)	(min)	(min)	Day	Evening	Night	Speed
																		(mph)
LINESOURCE		TRUCK01	93.2	93.2	93.2	60.2	60.2	60.2	Lw	93.2								8
LINESOURCE		TRUCK02	93.2	93.2	93.2	70.9	70.9	70.9	Lw	93.2								8
LINESOURCE		TRUCK03	93.2	93.2	93.2	70.9	70.9	70.9	Lw	93.2								8
LINESOURCE		TRUCK04	93.2	93.2	93.2	65.5	65.5	65.5	Lw	93.2								8
LINESOURCE		TRUCK05	93.2	93.2	93.2	68.0	68.0	68.0	Lw	93.2								8
LINESOURCE		TRUCK06	93.2	93.2	93.2	74.8	74.8	74.8	Lw	93.2								8
LINESOURCE		TRUCK07	93.2	93.2	93.2	74.5	74.5	74.5	Lw	93.2								8
LINESOURCE		TRUCK08	93.2	93.2	93.2	74.9	74.9	74.9	Lw	93.2								8
LINESOURCE		TRUCK09	93.2	93.2	93.2	75.3	75.3	75.3	Lw	93.2								8
LINESOURCE		TRUCK10	93.2	93.2	93.2	68.7	68.7	68.7	Lw	93.2								8
LINESOURCE		TRUCK11	93.2	93.2	93.2	74.8	74.8	74.8	Lw	93.2								8
LINESOURCE		TRUCK12	93.2	93.2	93.2	74.9	74.9	74.9	Lw	93.2								8
LINESOURCE		TRUCK13	93.2	93.2	93.2	75.0	75.0	75.0	Lw	93.2								8
LINESOURCE		TRUCK14	93.2	93.2	93.2	74.1	74.1	74.1	Lw	93.2								8
LINESOURCE		TRUCK15	93.2	93.2	93.2	74.0	74.0	74.0	Lw	93.2								8
LINESOURCE		TRUCK16	93.2	93.2	93.2	74.4	74.4	74.4	Lw	93.2								8
LINESOURCE		TRUCK17	93.2	93.2	93.2	74.3	74.3	74.3	Lw	93.2								8
LINESOURCE		TRUCK18	93.2	93.2	93.2	74.4	74.4	74.4	Lw	93.2								8
LINESOURCE		TRUCK19	93.2	93.2	93.2	74.3	74.3	74.3	Lw	93.2								8

Name	ID	Height		Coordinates			
		Begin	End	x	y	z	Ground
		(ft)	(ft)	(ft)	(ft)	(ft)	(ft)
LINESOURCE	TRUCK01	8.00	a	6670507.38	1819670.37	8.00	0.00
				6677011.09	1819746.59	8.00	0.00
LINESOURCE	TRUCK02	8.00	a	6672791.45	1819697.14	8.00	0.00
				6672796.89	1819138.83	8.00	0.00
LINESOURCE	TRUCK03	8.00	a	6676036.22	1819735.17	8.00	0.00
				6676044.18	1819172.11	8.00	0.00
LINESOURCE	TRUCK04	8.00	a	6673794.22	1820180.88	8.00	0.00
				6673797.93	1819840.36	8.00	0.00
				6675054.03	1819853.02	8.00	0.00
				6675054.82	1820136.37	8.00	0.00
				6675090.26	1820179.79	8.00	0.00
LINESOURCE	TRUCK05	8.00	a	6674414.41	1820233.24	8.00	0.00
				6674427.23	1819155.19	8.00	0.00
LINESOURCE	TRUCK06	8.00	a	6673394.27	1819870.43	8.00	0.00
				6673378.44	1820015.27	8.00	0.00
				6673338.86	1820087.39	8.00	0.00
LINESOURCE	TRUCK07	8.00	a	6673301.67	1819849.85	8.00	0.00
				6673304.04	1819997.07	8.00	0.00
				6673338.86	1820087.39	8.00	0.00
LINESOURCE	TRUCK08	8.00	a	6672851.31	1819858.56	8.00	0.00
				6672843.40	1819988.36	8.00	0.00
				6672804.61	1820033.48	8.00	0.00
				6672803.05	1820067.02	8.00	0.00
LINESOURCE	TRUCK09	8.00	a	6672804.61	1820033.48	8.00	0.00
				6672763.46	1819997.07	8.00	0.00
				6672761.08	1819849.06	8.00	0.00
LINESOURCE	TRUCK10	8.00	a	6671765.37	1820055.73	8.00	0.00
				6671781.99	1819129.04	8.00	0.00
LINESOURCE	TRUCK11	8.00	a	6671352.23	1819822.94	8.00	0.00
				6671339.54	1820051.10	8.00	0.00

Name	ID	Height		Coordinates			
		Begin	End	x	y	z	Ground
		(ft)	(ft)	(ft)	(ft)	(ft)	(ft)
LINESOURCE	TRUCK12	8.00	a	6671015.06	1819837.98	8.00	0.00
				6671009.52	1819966.20	8.00	0.00
				6670965.99	1820046.86	8.00	0.00
LINESOURCE	TRUCK13	8.00	a	6670930.37	1819838.77	8.00	0.00
				6670929.58	1819966.20	8.00	0.00
				6670965.99	1820046.86	8.00	0.00
LINESOURCE	TRUCK14	8.00	a	6675392.42	1819853.90	8.00	0.00
				6675391.80	1820045.01	8.00	0.00
				6675425.31	1820114.51	8.00	0.00
LINESOURCE	TRUCK15	8.00	a	6675464.40	1819849.56	8.00	0.00
				6675461.30	1820038.19	8.00	0.00
				6675425.31	1820114.51	8.00	0.00
LINESOURCE	TRUCK16	8.00	a	6675929.16	1819856.38	8.00	0.00
				6675932.88	1820021.44	8.00	0.00
				6675966.39	1820099.62	8.00	0.00
LINESOURCE	TRUCK17	8.00	a	6676006.72	1819855.76	8.00	0.00
				6676001.75	1820026.40	8.00	0.00
				6675966.39	1820099.62	8.00	0.00
LINESOURCE	TRUCK18	8.00	a	6676473.34	1819861.35	8.00	0.00
				6676472.71	1820027.02	8.00	0.00
				6676503.12	1820102.72	8.00	0.00
LINESOURCE	TRUCK19	8.00	a	6672271.18	1819816.24	8.00	0.00
				6672267.70	1819989.82	8.00	0.00
				6672228.90	1820058.46	8.00	0.00

Area Source(s)

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)		
AREASOURCE		CAR001	81.1	81.1	81.1	57.3	57.3	57.3	Lw	81.1					5	a
AREASOURCE		CAR002	81.1	81.1	81.1	58.0	58.0	58.0	Lw	81.1					5	a
AREASOURCE		CAR003	81.1	81.1	81.1	54.9	54.9	54.9	Lw	81.1					5	a
AREASOURCE		CAR004	81.1	81.1	81.1	54.4	54.4	54.4	Lw	81.1					5	a
AREASOURCE		CAR005	81.1	81.1	81.1	57.7	57.7	57.7	Lw	81.1					5	a
AREASOURCE		CAR006	81.1	81.1	81.1	59.2	59.2	59.2	Lw	81.1					5	a
AREASOURCE		CAR007	81.1	81.1	81.1	52.3	52.3	52.3	Lw	81.1					5	a
AREASOURCE		CAR008	81.1	81.1	81.1	51.8	51.8	51.8	Lw	81.1					5	a
AREASOURCE		CAR009	81.1	81.1	81.1	52.5	52.5	52.5	Lw	81.1					5	a
AREASOURCE		CAR010	81.1	81.1	81.1	52.0	52.0	52.0	Lw	81.1					5	a
AREASOURCE		CAR011	81.1	81.1	81.1	57.8	57.8	57.8	Lw	81.1					5	a
AREASOURCE		CAR012	81.1	81.1	81.1	59.0	59.0	59.0	Lw	81.1					5	a
AREASOURCE		CAR013	81.1	81.1	81.1	54.9	54.9	54.9	Lw	81.1					5	a
AREASOURCE		CAR014	81.1	81.1	81.1	54.7	54.7	54.7	Lw	81.1					5	a
AREASOURCE		CAR015	81.1	81.1	81.1	57.5	57.5	57.5	Lw	81.1					5	a
AREASOURCE		CAR016	81.1	81.1	81.1	57.7	57.7	57.7	Lw	81.1					5	a
AREASOURCE		CAR017	81.1	81.1	81.1	64.3	64.3	64.3	Lw	81.1					5	a
AREASOURCE		CAR018	81.1	81.1	81.1	63.3	63.3	63.3	Lw	81.1					5	a
AREASOURCE		CAR019	81.1	81.1	81.1	58.3	58.3	58.3	Lw	81.1					5	a
AREASOURCE		CAR020	81.1	81.1	81.1	60.2	60.2	60.2	Lw	81.1					5	a
AREASOURCE		CAR021	81.1	81.1	81.1	53.2	53.2	53.2	Lw	81.1					5	a
AREASOURCE		CAR022	81.1	81.1	81.1	63.3	63.3	63.3	Lw	81.1					5	a
AREASOURCE		CAR023	81.1	81.1	81.1	61.0	61.0	61.0	Lw	81.1					5	a
AREASOURCE		CAR024	81.1	81.1	81.1	59.7	59.7	59.7	Lw	81.1					5	a
AREASOURCE		CAR025	81.1	81.1	81.1	66.2	66.2	66.2	Lw	81.1					5	a
AREASOURCE		CAR026	81.1	81.1	81.1	59.2	59.2	59.2	Lw	81.1					5	a
AREASOURCE		CAR027	81.1	81.1	81.1	59.8	59.8	59.8	Lw	81.1					5	a
AREASOURCE		CAR028	81.1	81.1	81.1	62.6	62.6	62.6	Lw	81.1					5	a
AREASOURCE		CAR029	81.1	81.1	81.1	62.4	62.4	62.4	Lw	81.1					5	a
AREASOURCE		CAR030	81.1	81.1	81.1	54.6	54.6	54.6	Lw	81.1					5	a
AREASOURCE		CAR031	81.1	81.1	81.1	59.6	59.6	59.6	Lw	81.1					5	a
AREASOURCE		CAR032	81.1	81.1	81.1	61.1	61.1	61.1	Lw	81.1					5	a
AREASOURCE		CAR033	81.1	81.1	81.1	53.9	53.9	53.9	Lw	81.1					5	a
AREASOURCE		CAR034	81.1	81.1	81.1	58.1	58.1	58.1	Lw	81.1					5	a
AREASOURCE		CAR035	81.1	81.1	81.1	63.2	63.2	63.2	Lw	81.1					5	a
AREASOURCE		CAR036	81.1	81.1	81.1	64.8	64.8	64.8	Lw	81.1					5	a
AREASOURCE		CAR037	81.1	81.1	81.1	62.4	62.4	62.4	Lw	81.1					5	a
AREASOURCE		CAR038	81.1	81.1	81.1	61.7	61.7	61.7	Lw	81.1					5	a
AREASOURCE		CAR039	81.1	81.1	81.1	56.9	56.9	56.9	Lw	81.1					5	a
AREASOURCE		CAR040	81.1	81.1	81.1	58.6	58.6	58.6	Lw	81.1					5	a
AREASOURCE		CAR041	81.1	81.1	81.1	60.9	60.9	60.9	Lw	81.1					5	a
AREASOURCE		CAR042	81.1	81.1	81.1	52.2	52.2	52.2	Lw	81.1					5	a
AREASOURCE		CAR043	81.1	81.1	81.1	63.4	63.4	63.4	Lw	81.1					5	a
AREASOURCE		CAR044	81.1	81.1	81.1	60.7	60.7	60.7	Lw	81.1					5	a
AREASOURCE		CAR045	81.1	81.1	81.1	60.5	60.5	60.5	Lw	81.1					5	a
AREASOURCE		CAR046	81.1	81.1	81.1	62.6	62.6	62.6	Lw	81.1					5	a
AREASOURCE		CAR047	81.1	81.1	81.1	63.1	63.1	63.1	Lw	81.1					5	a

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)		
AREASOURCE		CAR048	81.1	81.1	81.1	60.3	60.3	60.3	Lw	81.1					5	a
AREASOURCE		CAR049	81.1	81.1	81.1	61.2	61.2	61.2	Lw	81.1					5	a
AREASOURCE		CAR050	81.1	81.1	81.1	52.5	52.5	52.5	Lw	81.1					5	a
AREASOURCE		CAR051	81.1	81.1	81.1	63.3	63.3	63.3	Lw	81.1					5	a
AREASOURCE		CAR052	81.1	81.1	81.1	60.0	60.0	60.0	Lw	81.1					5	a
AREASOURCE		CAR053	81.1	81.1	81.1	60.8	60.8	60.8	Lw	81.1					5	a
AREASOURCE		CAR054	81.1	81.1	81.1	62.2	62.2	62.2	Lw	81.1					5	a
AREASOURCE		CAR055	81.1	81.1	81.1	66.3	66.3	66.3	Lw	81.1					5	a
AREASOURCE		CAR056	81.1	81.1	81.1	58.9	58.9	58.9	Lw	81.1					5	a
AREASOURCE		CAR057	81.1	81.1	81.1	60.8	60.8	60.8	Lw	81.1					5	a
AREASOURCE		CAR058	81.1	81.1	81.1	55.9	55.9	55.9	Lw	81.1					5	a
AREASOURCE		CAR059	81.1	81.1	81.1	58.5	58.5	58.5	Lw	81.1					5	a
AREASOURCE		CAR060	81.1	81.1	81.1	54.9	54.9	54.9	Lw	81.1					5	a
AREASOURCE		CAR061	81.1	81.1	81.1	60.3	60.3	60.3	Lw	81.1					5	a
AREASOURCE		CAR062	81.1	81.1	81.1	54.3	54.3	54.3	Lw	81.1					5	a
AREASOURCE		CAR063	81.1	81.1	81.1	53.4	53.4	53.4	Lw	81.1					5	a
AREASOURCE		CAR064	81.1	81.1	81.1	53.6	53.6	53.6	Lw	81.1					5	a
AREASOURCE		CAR065	81.1	81.1	81.1	54.5	54.5	54.5	Lw	81.1					5	a
AREASOURCE		CAR066	81.1	81.1	81.1	55.2	55.2	55.2	Lw	81.1					5	a
AREASOURCE		CAR067	81.1	81.1	81.1	53.6	53.6	53.6	Lw	81.1					5	a
AREASOURCE		CAR068	81.1	81.1	81.1	54.0	54.0	54.0	Lw	81.1					5	a
AREASOURCE		CAR069	81.1	81.1	81.1	54.3	54.3	54.3	Lw	81.1					5	a
AREASOURCE		CAR070	81.1	81.1	81.1	56.0	56.0	56.0	Lw	81.1					5	a
AREASOURCE		CAR071	81.1	81.1	81.1	55.6	55.6	55.6	Lw	81.1					5	a
AREASOURCE		CAR072	81.1	81.1	81.1	56.0	56.0	56.0	Lw	81.1					5	a
AREASOURCE		CAR073	81.1	81.1	81.1	57.5	57.5	57.5	Lw	81.1					5	a
AREASOURCE		CAR074	81.1	81.1	81.1	58.1	58.1	58.1	Lw	81.1					5	a
AREASOURCE		CAR075	81.1	81.1	81.1	54.6	54.6	54.6	Lw	81.1					5	a
AREASOURCE		CAR076	81.1	81.1	81.1	54.7	54.7	54.7	Lw	81.1					5	a
AREASOURCE		CAR077	81.1	81.1	81.1	57.7	57.7	57.7	Lw	81.1					5	a
AREASOURCE		CAR078	81.1	81.1	81.1	59.6	59.6	59.6	Lw	81.1					5	a
AREASOURCE		CAR079	81.1	81.1	81.1	53.2	53.2	53.2	Lw	81.1					5	a
AREASOURCE		CAR080	81.1	81.1	81.1	53.9	53.9	53.9	Lw	81.1					5	a
AREASOURCE		CAR081	81.1	81.1	81.1	53.9	53.9	53.9	Lw	81.1					5	a
AREASOURCE		CAR082	81.1	81.1	81.1	52.9	52.9	52.9	Lw	81.1					5	a
AREASOURCE		CAR083	81.1	81.1	81.1	57.8	57.8	57.8	Lw	81.1					5	a
AREASOURCE		CAR084	81.1	81.1	81.1	56.2	56.2	56.2	Lw	81.1					5	a
AREASOURCE		CAR085	81.1	81.1	81.1	56.8	56.8	56.8	Lw	81.1					5	a
AREASOURCE		CAR086	81.1	81.1	81.1	57.3	57.3	57.3	Lw	81.1					5	a
AREASOURCE		CAR087	81.1	81.1	81.1	56.4	56.4	56.4	Lw	81.1					5	a
AREASOURCE		CAR088	81.1	81.1	81.1	57.0	57.0	57.0	Lw	81.1					5	a
AREASOURCE		CAR089	81.1	81.1	81.1	57.7	57.7	57.7	Lw	81.1					5	a
AREASOURCE		CAR090	81.1	81.1	81.1	56.3	56.3	56.3	Lw	81.1					5	a
AREASOURCE		CAR091	81.1	81.1	81.1	51.4	51.4	51.4	Lw	81.1					5	a
AREASOURCE		CAR092	81.1	81.1	81.1	50.3	50.3	50.3	Lw	81.1					5	a
AREASOURCE		CAR093	81.1	81.1	81.1	51.0	51.0	51.0	Lw	81.1					5	a
AREASOURCE		CAR094	81.1	81.1	81.1	50.5	50.5	50.5	Lw	81.1					5	a
AREASOURCE		CAR095	81.1	81.1	81.1	54.8	54.8	54.8	Lw	81.1					5	a
AREASOURCE		CAR096	81.1	81.1	81.1	54.5	54.5	54.5	Lw	81.1					5	a
AREASOURCE		CAR097	81.1	81.1	81.1	59.3	59.3	59.3	Lw	81.1					5	a
AREASOURCE		CAR098	81.1	81.1	81.1	57.7	57.7	57.7	Lw	81.1					5	a
AREASOURCE		CAR099	81.1	81.1	81.1	57.5	57.5	57.5	Lw	81.1					5	a
AREASOURCE		CAR100	81.1	81.1	81.1	57.7	57.7	57.7	Lw	81.1					5	a
AREASOURCE		CAR101	81.1	81.1	81.1	57.8	57.8	57.8	Lw	81.1					5	a
AREASOURCE		CAR102	81.1	81.1	81.1	58.1	58.1	58.1	Lw	81.1					5	a
AREASOURCE		CAR103	81.1	81.1	81.1	55.0	55.0	55.0	Lw	81.1					5	a
AREASOURCE		CAR104	81.1	81.1	81.1	54.7	54.7	54.7	Lw	81.1					5	a
AREASOURCE		CAR105	81.1	81.1	81.1	58.0	58.0	58.0	Lw	81.1					5	a
AREASOURCE		CAR106	81.1	81.1	81.1	58.9	58.9	58.9	Lw	81.1					5	a
AREASOURCE		CAR107	81.1	81.1	81.1	51.1	51.1	51.1	Lw	81.1					5	a
AREASOURCE		CAR108	81.1	81.1	81.1	50.9	50.9	50.9	Lw	81.1					5	a
AREASOURCE		CAR109	81.1	81.1	81.1	51.3	51.3	51.3	Lw	81.1					5	a
AREASOURCE		CAR110	81.1	81.1	81.1	50.4	50.4	50.4	Lw	81.1					5	a
AREASOURCE		CAR111	81.1	81.1	81.1	56.9	56.9	56.9	Lw	81.1					5	a
AREASOURCE		CAR112	81.1	81.1	81.1	57.3	57.3	57.3	Lw	81.1					5	a
AREASOURCE		CAR113	81.1	81.1	81.1	58.1	58.1	58.1	Lw	81.1					5	a
AREASOURCE		CAR114	81.1	81.1	81.1	56.0	56.0	56.0	Lw	81.1					5	a
AREASOURCE		CAR115	81.1	81.1	81.1	57.6	57.6	57.6	Lw	81.1					5	a
AREASOURCE		CAR116	81.1	81.1	81.1	56.3	56.3	56.3	Lw	81.1					5	a
AREASOURCE		CAR117	81.1	81.1	81.1	54.4	54.4	54.4	Lw	81.1					5	a
AREASOURCE		CAR118	81.1	81.1	81.1	53.3	53.3	53.3	Lw	81.1					5	a
AREASOURCE		CAR119	81.1	81.1	81.1	53.8	53.8	53.8	Lw	81.1					5	a
AREASOURCE		CAR120	81.1	81.1	81.1	52.7	52.7	52.7	Lw	81.1					5	a
AREASOURCE		CAR121	81.1	81.1	81.1	54.6	54.6	54.6	Lw	81.1					5	a
AREASOURCE		CAR122	81.1	81.1	81.1	55.0	55.0	55.0	Lw	81.1					5	a
AREASOURCE		CAR123	81.1	81.1	81.1	58.5	58.5	58.5	Lw	81.1					5	a
AREASOURCE		CAR124	81.1	81.1	81.1	57.5	57.5	57.5	Lw	81.1					5	a

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)		
AREASOURCE		CAR125	81.1	81.1	81.1	55.6	55.6	55.6	Lw	81.1					5	a
AREASOURCE		CAR126	81.1	81.1	81.1	55.7	55.7	55.7	Lw	81.1					5	a
AREASOURCE		CAR127	81.1	81.1	81.1	58.3	58.3	58.3	Lw	81.1					5	a
AREASOURCE		CAR128	81.1	81.1	81.1	59.6	59.6	59.6	Lw	81.1					5	a
AREASOURCE		CAR129	81.1	81.1	81.1	61.6	61.6	61.6	Lw	81.1					5	a
AREASOURCE		CAR130	81.1	81.1	81.1	52.8	52.8	52.8	Lw	81.1					5	a
AREASOURCE		CAR131	81.1	81.1	81.1	62.6	62.6	62.6	Lw	81.1					5	a
AREASOURCE		CAR132	81.1	81.1	81.1	57.6	57.6	57.6	Lw	81.1					5	a
AREASOURCE		CAR133	81.1	81.1	81.1	60.9	60.9	60.9	Lw	81.1					5	a
AREASOURCE		CAR134	81.1	81.1	81.1	57.3	57.3	57.3	Lw	81.1					5	a
AREASOURCE		CAR135	81.1	81.1	81.1	60.7	60.7	60.7	Lw	81.1					5	a
AREASOURCE		CAR136	81.1	81.1	81.1	60.7	60.7	60.7	Lw	81.1					5	a
AREASOURCE		CAR137	81.1	81.1	81.1	62.0	62.0	62.0	Lw	81.1					5	a
AREASOURCE		CAR138	81.1	81.1	81.1	52.6	52.6	52.6	Lw	81.1					5	a
AREASOURCE		CAR139	81.1	81.1	81.1	57.3	57.3	57.3	Lw	81.1					5	a
AREASOURCE		CAR140	81.1	81.1	81.1	60.8	60.8	60.8	Lw	81.1					5	a
AREASOURCE		CAR141	81.1	81.1	81.1	60.8	60.8	60.8	Lw	81.1					5	a
AREASOURCE		CAR142	81.1	81.1	81.1	62.9	62.9	62.9	Lw	81.1					5	a
AREASOURCE		CAR143	81.1	81.1	81.1	61.9	61.9	61.9	Lw	81.1					5	a
AREASOURCE		CAR144	81.1	81.1	81.1	52.6	52.6	52.6	Lw	81.1					5	a
AREASOURCE		CAR145	81.1	81.1	81.1	59.6	59.6	59.6	Lw	81.1					5	a
AREASOURCE		CAR146	81.1	81.1	81.1	61.5	61.5	61.5	Lw	81.1					5	a
AREASOURCE		CAR147	81.1	81.1	81.1	60.4	60.4	60.4	Lw	81.1					5	a
AREASOURCE		CAR148	81.1	81.1	81.1	64.9	64.9	64.9	Lw	81.1					5	a
AREASOURCE		CAR149	81.1	81.1	81.1	56.1	56.1	56.1	Lw	81.1					5	a
AREASOURCE		CAR150	81.1	81.1	81.1	56.9	56.9	56.9	Lw	81.1					5	a
AREASOURCE		CAR151	81.1	81.1	81.1	61.8	61.8	61.8	Lw	81.1					5	a
AREASOURCE		CAR152	81.1	81.1	81.1	60.6	60.6	60.6	Lw	81.1					5	a
AREASOURCE		CAR153	81.1	81.1	81.1	62.6	62.6	62.6	Lw	81.1					5	a
AREASOURCE		CAR154	81.1	81.1	81.1	53.1	53.1	53.1	Lw	81.1					5	a
AREASOURCE		CAR155	81.1	81.1	81.1	53.4	53.4	53.4	Lw	81.1					5	a
AREASOURCE		COLD01	111.5	111.5	111.5	86.2	86.2	86.2	Lw	111.5					8	a
AREASOURCE		COLD02	111.5	111.5	111.5	85.5	85.5	85.5	Lw	111.5					8	a
AREASOURCE		COLD03	111.5	111.5	111.5	86.2	86.2	86.2	Lw	111.5					8	a
AREASOURCE		COLD04	111.5	111.5	111.5	86.0	86.0	86.0	Lw	111.5					8	a
AREASOURCE		COLD05	111.5	111.5	111.5	86.2	86.2	86.2	Lw	111.5					8	a
AREASOURCE		COLD06	111.5	111.5	111.5	85.2	85.2	85.2	Lw	111.5					8	a
AREASOURCE		COLD07	111.5	111.5	111.5	76.6	76.6	76.6	Lw	111.5					8	a
AREASOURCE		COLD08	111.5	111.5	111.5	73.6	73.6	73.6	Lw	111.5					8	a
AREASOURCE		COLD09	111.5	111.5	111.5	73.5	73.5	73.5	Lw	111.5					8	a
AREASOURCE		COLD10	111.5	111.5	111.5	76.5	76.5	76.5	Lw	111.5					8	a
AREASOURCE		COLD11	111.5	111.5	111.5	81.7	81.7	81.7	Lw	111.5					8	a
AREASOURCE		COLD12	111.5	111.5	111.5	81.6	81.6	81.6	Lw	111.5					8	a
AREASOURCE		COLD13	111.5	111.5	111.5	85.2	85.2	85.2	Lw	111.5					8	a
AREASOURCE		COLD14	111.5	111.5	111.5	86.2	86.2	86.2	Lw	111.5					8	a
AREASOURCE		COLD15	111.5	111.5	111.5	86.3	86.3	86.3	Lw	111.5					8	a
AREASOURCE		COLD16	111.5	111.5	111.5	86.2	86.2	86.2	Lw	111.5					8	a
AREASOURCE		COLD17	111.5	111.5	111.5	86.4	86.4	86.4	Lw	111.5					8	a
AREASOURCE		COLD18	111.5	111.5	111.5	86.0	86.0	86.0	Lw	111.5					8	a
AREASOURCE		COLD19	111.5	111.5	111.5	85.5	85.5	85.5	Lw	111.5					8	a
AREASOURCE		COLD20	111.5	111.5	111.5	83.5	83.5	83.5	Lw	111.5					8	a
AREASOURCE		COLD21	111.5	111.5	111.5	75.0	75.0	75.0	Lw	111.5					8	a
AREASOURCE		DRY01	103.4	103.4	103.4	69.7	69.7	69.7	Lw	103.4					8	a
AREASOURCE		DRY02	103.4	103.4	103.4	66.4	66.4	66.4	Lw	103.4					8	a
AREASOURCE		DRY03	103.4	103.4	103.4	66.3	66.3	66.3	Lw	103.4					8	a
AREASOURCE		DRY04	103.4	103.4	103.4	69.6	69.6	69.6	Lw	103.4					8	a
AREASOURCE		DRY05	103.4	103.4	103.4	68.0	68.0	68.0	Lw	103.4					8	a

Name	ID	Height		Coordinates			
		Begin	End	x	y	z	Ground
		(ft)	(ft)	(ft)	(ft)	(ft)	(ft)
AREASOURCE	CAR001	5.00	a	6670569.65	1819761.41	5.00	0.00
				6670715.48	1819762.28	5.00	0.00
				6670714.61	1819744.92	5.00	0.00
				6670570.51	1819743.18	5.00	0.00
AREASOURCE	CAR002	5.00	a	6670587.88	1819718.01	5.00	0.00
				6670713.74	1819719.75	5.00	0.00
				6670713.74	1819701.52	5.00	0.00
				6670588.74	1819701.52	5.00	0.00
AREASOURCE	CAR003	5.00	a	6670549.66	1819629.13	5.00	0.00
				6670552.00	1819374.60	5.00	0.00
				6670535.26	1819374.60	5.00	0.00
				6670531.37	1819629.13	5.00	0.00
AREASOURCE	CAR004	5.00	a	6670575.74	1819630.30	5.00	0.00
				6670594.03	1819631.08	5.00	0.00
				6670596.75	1819357.48	5.00	0.00
				6670578.46	1819356.70	5.00	0.00

Name	ID	Height		Coordinates			
		Begin	End	x	y	z	Ground
		(ft)	(ft)	(ft)	(ft)	(ft)	(ft)
AREASOURCE	CAR005	5.00	a	6670553.55	1819294.04	5.00	0.00
				6670554.72	1819164.83	5.00	0.00
				6670536.43	1819165.61	5.00	0.00
				6670535.26	1819293.26	5.00	0.00
AREASOURCE	CAR006	5.00	a	6670579.24	1819311.94	5.00	0.00
				6670595.59	1819312.33	5.00	0.00
				6670596.36	1819208.81	5.00	0.00
				6670580.41	1819209.98	5.00	0.00
AREASOURCE	CAR007	5.00	a	6670653.57	1819199.08	5.00	0.00
				6671103.47	1819205.31	5.00	0.00
				6671103.86	1819186.63	5.00	0.00
				6670653.96	1819181.57	5.00	0.00
AREASOURCE	CAR008	5.00	a	6670572.23	1819136.81	5.00	0.00
				6670571.85	1819155.10	5.00	0.00
				6671086.35	1819160.16	5.00	0.00
				6671086.74	1819142.65	5.00	0.00
AREASOURCE	CAR009	5.00	a	6671147.45	1819205.31	5.00	0.00
				6671599.30	1819209.98	5.00	0.00
				6671599.69	1819192.46	5.00	0.00
				6671148.62	1819188.18	5.00	0.00
AREASOURCE	CAR010	5.00	a	6671166.52	1819161.33	5.00	0.00
				6671680.25	1819165.61	5.00	0.00
				6671680.25	1819148.88	5.00	0.00
				6671165.74	1819143.82	5.00	0.00
AREASOURCE	CAR011	5.00	a	6671713.72	1819306.11	5.00	0.00
				6671715.67	1819178.84	5.00	0.00
				6671697.37	1819178.45	5.00	0.00
				6671696.21	1819307.27	5.00	0.00
AREASOURCE	CAR012	5.00	a	6671652.23	1819323.62	5.00	0.00
				6671669.74	1819324.01	5.00	0.00
				6671670.52	1819222.43	5.00	0.00
				6671653.40	1819223.21	5.00	0.00
AREASOURCE	CAR013	5.00	a	6671693.48	1819641.59	5.00	0.00
				6671710.22	1819642.75	5.00	0.00
				6671713.33	1819386.28	5.00	0.00
				6671694.65	1819387.45	5.00	0.00
AREASOURCE	CAR014	5.00	a	6671649.50	1819641.59	5.00	0.00
				6671667.41	1819641.20	5.00	0.00
				6671668.96	1819377.72	5.00	0.00
				6671651.45	1819376.55	5.00	0.00
AREASOURCE	CAR015	5.00	a	6671527.69	1819771.57	5.00	0.00
				6671661.57	1819774.30	5.00	0.00
				6671662.35	1819754.84	5.00	0.00
				6671526.52	1819754.06	5.00	0.00
AREASOURCE	CAR016	5.00	a	6671526.52	1819727.60	5.00	0.00
				6671654.56	1819729.54	5.00	0.00
				6671654.17	1819710.86	5.00	0.00
				6671526.91	1819709.69	5.00	0.00
AREASOURCE	CAR017	5.00	a	6670574.28	1819823.66	5.00	0.00
				6670592.27	1819822.66	5.00	0.00
				6670592.02	1819793.93	5.00	0.00
				6670573.78	1819795.43	5.00	0.00
AREASOURCE	CAR018	5.00	a	6670530.30	1819813.42	5.00	0.00
				6670548.04	1819814.17	5.00	0.00
				6670548.04	1819777.19	5.00	0.00
				6670530.80	1819776.94	5.00	0.00
AREASOURCE	CAR019	5.00	a	6670528.80	1819999.32	5.00	0.00
				6670545.80	1819999.57	5.00	0.00
				6670546.30	1819875.14	5.00	0.00
				6670530.05	1819875.39	5.00	0.00
AREASOURCE	CAR020	5.00	a	6670573.03	1819937.85	5.00	0.00
				6670590.77	1819938.10	5.00	0.00
				6670591.27	1819860.89	5.00	0.00
				6670574.28	1819861.14	5.00	0.00
AREASOURCE	CAR021	5.00	a	6670545.30	1820021.06	5.00	0.00
				6670916.35	1820024.31	5.00	0.00
				6670915.60	1820007.32	5.00	0.00
				6670546.30	1820002.57	5.00	0.00
AREASOURCE	CAR022	5.00	a	6670898.61	1819954.34	5.00	0.00
				6670915.35	1819955.34	5.00	0.00
				6670916.35	1819917.11	5.00	0.00
				6670898.11	1819917.61	5.00	0.00
AREASOURCE	CAR023	5.00	a	6670889.87	1819788.43	5.00	0.00
				6670954.08	1819789.43	5.00	0.00
				6670953.58	1819772.44	5.00	0.00
				6670890.86	1819770.94	5.00	0.00
AREASOURCE	CAR024	5.00	a	6670953.58	1819877.38	5.00	0.00

Name	ID	Height		Coordinates			
		Begin	End	x	y	z	Ground
		(ft)	(ft)	(ft)	(ft)	(ft)	(ft)
				6670970.82	1819877.88	5.00	0.00
				6670970.82	1819790.68	5.00	0.00
				6670954.08	1819789.43	5.00	0.00
AREASOURCE	CAR025	5.00	a	6671091.76	1819812.17	5.00	0.00
				6671110.69	1819812.44	5.00	0.00
				6671111.17	1819795.48	5.00	0.00
				6671091.76	1819794.68	5.00	0.00
AREASOURCE	CAR026	5.00	a	6671090.76	1819774.69	5.00	0.00
				6670990.81	1819771.69	5.00	0.00
				6670991.31	1819789.43	5.00	0.00
				6671090.76	1819790.43	5.00	0.00
AREASOURCE	CAR027	5.00	a	6670991.31	1819789.43	5.00	0.00
				6670974.32	1819788.93	5.00	0.00
				6670974.07	1819878.13	5.00	0.00
				6670989.31	1819878.38	5.00	0.00
AREASOURCE	CAR028	5.00	a	6670967.82	1819964.09	5.00	0.00
				6670984.32	1819963.59	5.00	0.00
				6670984.82	1819917.61	5.00	0.00
				6670968.57	1819917.86	5.00	0.00
AREASOURCE	CAR029	5.00	a	6671021.55	1819962.59	5.00	0.00
				6671040.04	1819962.09	5.00	0.00
				6671039.79	1819919.61	5.00	0.00
				6671021.05	1819919.36	5.00	0.00
AREASOURCE	CAR030	5.00	a	6671014.05	1820025.81	5.00	0.00
				6671302.15	1820028.55	5.00	0.00
				6671301.90	1820011.56	5.00	0.00
				6671013.80	1820009.07	5.00	0.00
AREASOURCE	CAR031	5.00	a	6671305.65	1819881.38	5.00	0.00
				6671321.89	1819881.38	5.00	0.00
				6671322.89	1819793.18	5.00	0.00
				6671304.65	1819793.18	5.00	0.00
AREASOURCE	CAR032	5.00	a	6671322.89	1819793.18	5.00	0.00
				6671385.36	1819794.43	5.00	0.00
				6671386.36	1819777.94	5.00	0.00
				6671322.64	1819775.69	5.00	0.00
AREASOURCE	CAR033	5.00	a	6671380.36	1820030.05	5.00	0.00
				6671696.19	1820033.05	5.00	0.00
				6671695.94	1820016.06	5.00	0.00
				6671380.11	1820011.56	5.00	0.00
AREASOURCE	CAR034	5.00	a	6671699.19	1820008.07	5.00	0.00
				6671718.68	1820008.57	5.00	0.00
				6671720.18	1819896.37	5.00	0.00
				6671701.44	1819896.12	5.00	0.00
AREASOURCE	CAR035	5.00	a	6671657.96	1819965.59	5.00	0.00
				6671675.95	1819965.34	5.00	0.00
				6671676.45	1819929.11	5.00	0.00
				6671658.71	1819928.36	5.00	0.00
AREASOURCE	CAR036	5.00	a	6671658.96	1819901.12	5.00	0.00
				6671675.20	1819901.62	5.00	0.00
				6671677.20	1819874.39	5.00	0.00
				6671658.71	1819874.89	5.00	0.00
AREASOURCE	CAR037	5.00	a	6671702.69	1819834.41	5.00	0.00
				6671720.68	1819834.16	5.00	0.00
				6671721.43	1819789.43	5.00	0.00
				6671703.94	1819788.68	5.00	0.00
AREASOURCE	CAR038	5.00	a	6671659.96	1819842.90	5.00	0.00
				6671675.45	1819843.90	5.00	0.00
				6671677.95	1819789.43	5.00	0.00
				6671659.21	1819788.18	5.00	0.00
AREASOURCE	CAR039	5.00	a	6671838.39	1819775.30	5.00	0.00
				6672000.50	1819776.53	5.00	0.00
				6672001.73	1819759.34	5.00	0.00
				6671838.39	1819757.80	5.00	0.00
AREASOURCE	CAR040	5.00	a	6671892.43	1819731.40	5.00	0.00
				6672001.73	1819732.32	5.00	0.00
				6672002.34	1819714.82	5.00	0.00
				6671893.04	1819713.90	5.00	0.00
AREASOURCE	CAR041	5.00	a	6672246.73	1819804.16	5.00	0.00
				6672310.29	1819804.78	5.00	0.00
				6672310.29	1819787.27	5.00	0.00
				6672246.43	1819786.05	5.00	0.00
AREASOURCE	CAR042	5.00	a	6672280.81	1820039.34	5.00	0.00
				6672749.02	1820045.17	5.00	0.00
				6672749.64	1820026.75	5.00	0.00
				6672280.51	1820021.84	5.00	0.00
AREASOURCE	CAR043	5.00	a	6672733.37	1819965.04	5.00	0.00
				6672749.02	1819965.96	5.00	0.00

Name	ID	Height			Coordinates			
		Begin	End		x	y	z	Ground
		(ft)	(ft)		(ft)	(ft)	(ft)	(ft)
					6672750.87	1819929.43	5.00	0.00
					6672732.14	1819928.51	5.00	0.00
AREASOURCE	CAR044	5.00	a		6672722.62	1819807.85	5.00	0.00
					6672786.48	1819808.77	5.00	0.00
					6672785.87	1819790.34	5.00	0.00
					6672723.23	1819788.81	5.00	0.00
AREASOURCE	CAR045	5.00	a		6672786.79	1819887.67	5.00	0.00
					6672802.75	1819887.06	5.00	0.00
					6672804.60	1819814.29	5.00	0.00
					6672787.10	1819813.68	5.00	0.00
AREASOURCE	CAR046	5.00	a		6672803.68	1819974.87	5.00	0.00
					6672821.18	1819975.79	5.00	0.00
					6672820.87	1819928.81	5.00	0.00
					6672805.52	1819928.81	5.00	0.00
AREASOURCE	CAR047	5.00	a		6672858.63	1819966.58	5.00	0.00
					6672875.21	1819967.80	5.00	0.00
					6672875.83	1819929.12	5.00	0.00
					6672856.79	1819929.43	5.00	0.00
AREASOURCE	CAR048	5.00	a		6672807.36	1819886.44	5.00	0.00
					6672824.25	1819886.75	5.00	0.00
					6672823.32	1819813.37	5.00	0.00
					6672804.60	1819814.29	5.00	0.00
AREASOURCE	CAR049	5.00	a		6672823.32	1819809.38	5.00	0.00
					6672886.57	1819810.30	5.00	0.00
					6672885.96	1819793.72	5.00	0.00
					6672823.32	1819792.19	5.00	0.00
AREASOURCE	CAR050	5.00	a		6672861.40	1820046.40	5.00	0.00
					6673286.01	1820051.62	5.00	0.00
					6673286.01	1820033.20	5.00	0.00
					6672862.01	1820028.29	5.00	0.00
AREASOURCE	CAR051	5.00	a		6673272.19	1819971.18	5.00	0.00
					6673288.77	1819971.18	5.00	0.00
					6673290.00	1819934.03	5.00	0.00
					6673271.58	1819934.34	5.00	0.00
AREASOURCE	CAR052	5.00	a		6673324.39	1819893.20	5.00	0.00
					6673341.58	1819893.20	5.00	0.00
					6673345.26	1819820.74	5.00	0.00
					6673324.69	1819819.82	5.00	0.00
AREASOURCE	CAR053	5.00	a		6673325.92	1819815.21	5.00	0.00
					6673326.54	1819797.71	5.00	0.00
					6673262.68	1819796.79	5.00	0.00
					6673262.06	1819815.21	5.00	0.00
AREASOURCE	CAR054	5.00	a		6673396.84	1820012.02	5.00	0.00
					6673414.34	1820011.40	5.00	0.00
					6673414.96	1819964.43	5.00	0.00
					6673397.46	1819963.81	5.00	0.00
AREASOURCE	CAR055	5.00	a		6673344.04	1819982.23	5.00	0.00
					6673360.62	1819982.23	5.00	0.00
					6673361.23	1819963.81	5.00	0.00
					6673342.19	1819964.12	5.00	0.00
AREASOURCE	CAR056	5.00	a		6673343.42	1819919.60	5.00	0.00
					6673361.84	1819919.29	5.00	0.00
					6673362.76	1819820.13	5.00	0.00
					6673345.26	1819820.74	5.00	0.00
AREASOURCE	CAR057	5.00	a		6673362.46	1819815.21	5.00	0.00
					6673426.63	1819816.13	5.00	0.00
					6673426.93	1819798.94	5.00	0.00
					6673362.76	1819796.49	5.00	0.00
AREASOURCE	CAR058	5.00	a		6673395.62	1820073.42	5.00	0.00
					6673590.27	1820115.79	5.00	0.00
					6673593.65	1820097.98	5.00	0.00
					6673398.99	1820055.92	5.00	0.00
AREASOURCE	CAR059	5.00	a		6673491.41	1820048.86	5.00	0.00
					6673599.79	1820071.58	5.00	0.00
					6673604.70	1820055.00	5.00	0.00
					6673495.40	1820031.05	5.00	0.00
AREASOURCE	CAR060	5.00	a		6673706.02	1820055.31	5.00	0.00
					6673724.13	1820055.61	5.00	0.00
					6673726.59	1819811.53	5.00	0.00
					6673708.17	1819809.99	5.00	0.00
AREASOURCE	CAR061	5.00	a		6673666.72	1820126.54	5.00	0.00
					6673738.87	1820127.15	5.00	0.00
					6673739.48	1820109.96	5.00	0.00
					6673666.72	1820108.42	5.00	0.00
AREASOURCE	CAR062	5.00	a		6673755.45	1820129.30	5.00	0.00
					6673773.56	1820129.61	5.00	0.00
					6673776.63	1819847.76	5.00	0.00

Name	ID	Height		Coordinates			
		Begin	End	x	y	z	Ground
		(ft)	(ft)	(ft)	(ft)	(ft)	(ft)
				6673757.90	1819847.76	5.00	0.00
AREASOURCE	CAR063	5.00	a	6673966.37	1820193.16	5.00	0.00
				6674309.62	1820196.23	5.00	0.00
				6674310.55	1820178.12	5.00	0.00
				6673966.68	1820174.12	5.00	0.00
AREASOURCE	CAR064	5.00	a	6673869.35	1820146.49	5.00	0.00
				6674215.98	1820150.18	5.00	0.00
				6674215.06	1820131.75	5.00	0.00
				6673870.27	1820129.91	5.00	0.00
AREASOURCE	CAR065	5.00	a	6674309.62	1820168.90	5.00	0.00
				6674327.13	1820168.60	5.00	0.00
				6674329.27	1819887.36	5.00	0.00
				6674312.08	1819887.67	5.00	0.00
AREASOURCE	CAR066	5.00	a	6674265.11	1820113.95	5.00	0.00
				6674283.22	1820114.87	5.00	0.00
				6674286.90	1819887.67	5.00	0.00
				6674267.87	1819887.67	5.00	0.00
AREASOURCE	CAR067	5.00	a	6674833.73	1820203.79	5.00	0.00
				6674834.96	1820185.35	5.00	0.00
				6674510.06	1820181.05	5.00	0.00
				6674509.76	1820200.10	5.00	0.00
AREASOURCE	CAR068	5.00	a	6674925.94	1820160.15	5.00	0.00
				6674926.86	1820141.09	5.00	0.00
				6674632.70	1820138.63	5.00	0.00
				6674632.70	1820156.77	5.00	0.00
AREASOURCE	CAR069	5.00	a	6674491.93	1820179.82	5.00	0.00
				6674510.06	1820181.05	5.00	0.00
				6674512.83	1819897.65	5.00	0.00
				6674494.70	1819899.19	5.00	0.00
AREASOURCE	CAR070	5.00	a	6674537.42	1820098.98	5.00	0.00
				6674554.63	1820099.59	5.00	0.00
				6674556.48	1819898.57	5.00	0.00
				6674538.96	1819898.57	5.00	0.00
AREASOURCE	CAR071	5.00	a	6675070.09	1820098.06	5.00	0.00
				6675087.00	1820097.75	5.00	0.00
				6675090.38	1819871.22	5.00	0.00
				6675073.78	1819870.91	5.00	0.00
AREASOURCE	CAR072	5.00	a	6675017.53	1820097.14	5.00	0.00
				6675034.13	1820097.14	5.00	0.00
				6675036.59	1819895.81	5.00	0.00
				6675018.46	1819897.04	5.00	0.00
AREASOURCE	CAR073	5.00	a	6676816.05	1819828.42	5.00	0.00
				6676951.49	1819830.76	5.00	0.00
				6676951.96	1819811.61	5.00	0.00
				6676817.45	1819810.67	5.00	0.00
AREASOURCE	CAR074	5.00	a	6676816.52	1819784.52	5.00	0.00
				6676935.14	1819785.92	5.00	0.00
				6676936.54	1819768.17	5.00	0.00
				6676817.92	1819766.31	5.00	0.00
AREASOURCE	CAR075	5.00	a	6676974.37	1819706.53	5.00	0.00
				6676993.52	1819706.06	5.00	0.00
				6676994.46	1819443.59	5.00	0.00
				6676976.71	1819443.13	5.00	0.00
AREASOURCE	CAR076	5.00	a	6676929.54	1819706.53	5.00	0.00
				6676947.75	1819707.46	5.00	0.00
				6676950.09	1819435.19	5.00	0.00
				6676934.21	1819433.32	5.00	0.00
AREASOURCE	CAR077	5.00	a	6676977.64	1819363.26	5.00	0.00
				6676995.86	1819362.33	5.00	0.00
				6676997.26	1819233.43	5.00	0.00
				6676979.04	1819233.90	5.00	0.00
AREASOURCE	CAR078	5.00	a	6676934.68	1819374.94	5.00	0.00
				6676951.02	1819374.47	5.00	0.00
				6676952.42	1819280.60	5.00	0.00
				6676936.08	1819280.60	5.00	0.00
AREASOURCE	CAR079	5.00	a	6676577.40	1819218.49	5.00	0.00
				6676965.03	1819220.82	5.00	0.00
				6676965.03	1819204.48	5.00	0.00
				6676578.34	1819200.27	5.00	0.00
AREASOURCE	CAR080	5.00	a	6676567.60	1819262.39	5.00	0.00
				6676876.30	1819265.66	5.00	0.00
				6676876.30	1819247.44	5.00	0.00
				6676568.06	1819243.71	5.00	0.00
AREASOURCE	CAR081	5.00	a	6676190.71	1819256.78	5.00	0.00
				6676508.28	1819260.99	5.00	0.00
				6676506.88	1819242.77	5.00	0.00
				6676190.24	1819239.50	5.00	0.00

Name	ID	Height		Coordinates			
		Begin	End	x	y	z	Ground
		(ft)	(ft)	(ft)	(ft)	(ft)	(ft)
AREASOURCE	CAR082	5.00	a	6676110.85	1819213.35	5.00	0.00
				6676497.54	1819216.62	5.00	0.00
				6676498.01	1819198.41	5.00	0.00
				6676109.91	1819194.67	5.00	0.00
AREASOURCE	CAR083	5.00	a	6676107.58	1819633.67	5.00	0.00
				6676126.72	1819634.14	5.00	0.00
				6676126.72	1819503.84	5.00	0.00
				6676110.38	1819504.77	5.00	0.00
AREASOURCE	CAR084	5.00	a	6676108.98	1819470.68	5.00	0.00
				6676126.26	1819469.28	5.00	0.00
				6676127.66	1819273.60	5.00	0.00
				6676110.85	1819273.13	5.00	0.00
AREASOURCE	CAR085	5.00	a	6676059.47	1819818.15	5.00	0.00
				6676231.80	1819820.48	5.00	0.00
				6676231.34	1819804.60	5.00	0.00
				6676059.47	1819800.40	5.00	0.00
AREASOURCE	CAR086	5.00	a	6676077.69	1819774.25	5.00	0.00
				6676233.21	1819776.11	5.00	0.00
				6676231.80	1819758.37	5.00	0.00
				6676079.09	1819758.37	5.00	0.00
AREASOURCE	CAR087	5.00	a	6675823.63	1819817.68	5.00	0.00
				6676003.90	1819818.15	5.00	0.00
				6676003.43	1819801.80	5.00	0.00
				6675823.16	1819799.00	5.00	0.00
AREASOURCE	CAR088	5.00	a	6675823.63	1819772.38	5.00	0.00
				6675986.15	1819773.78	5.00	0.00
				6675986.15	1819756.50	5.00	0.00
				6675825.49	1819755.10	5.00	0.00
AREASOURCE	CAR089	5.00	a	6675948.32	1819630.40	5.00	0.00
				6675966.54	1819629.94	5.00	0.00
				6675968.87	1819503.84	5.00	0.00
				6675949.72	1819503.84	5.00	0.00
AREASOURCE	CAR090	5.00	a	6675949.26	1819468.35	5.00	0.00
				6675967.47	1819467.88	5.00	0.00
				6675968.40	1819275.46	5.00	0.00
				6675952.52	1819277.80	5.00	0.00
AREASOURCE	CAR091	5.00	a	6675282.34	1819247.91	5.00	0.00
				6675895.08	1819254.45	5.00	0.00
				6675896.48	1819239.04	5.00	0.00
				6675283.75	1819230.63	5.00	0.00
AREASOURCE	CAR092	5.00	a	6675293.09	1819186.26	5.00	0.00
				6675290.75	1819204.94	5.00	0.00
				6675977.28	1819212.42	5.00	0.00
				6675978.68	1819193.27	5.00	0.00
AREASOURCE	CAR093	5.00	a	6674618.24	1819241.37	5.00	0.00
				6675231.44	1819247.44	5.00	0.00
				6675231.44	1819229.23	5.00	0.00
				6674618.24	1819223.62	5.00	0.00
AREASOURCE	CAR094	5.00	a	6674536.97	1819197.94	5.00	0.00
				6675221.16	1819203.08	5.00	0.00
				6675221.63	1819185.33	5.00	0.00
				6674537.44	1819179.26	5.00	0.00
AREASOURCE	CAR095	5.00	a	6674541.64	1819681.78	5.00	0.00
				6674558.46	1819680.84	5.00	0.00
				6674560.79	1819408.57	5.00	0.00
				6674543.98	1819407.63	5.00	0.00
AREASOURCE	CAR096	5.00	a	6674497.28	1819681.78	5.00	0.00
				6674515.02	1819680.84	5.00	0.00
				6674518.76	1819416.04	5.00	0.00
				6674499.61	1819416.97	5.00	0.00
AREASOURCE	CAR097	5.00	a	6674544.45	1819348.32	5.00	0.00
				6674562.66	1819348.32	5.00	0.00
				6674563.13	1819253.98	5.00	0.00
				6674546.32	1819254.92	5.00	0.00
AREASOURCE	CAR098	5.00	a	6674501.01	1819336.64	5.00	0.00
				6674518.76	1819335.24	5.00	0.00
				6674521.56	1819208.68	5.00	0.00
				6674502.41	1819209.15	5.00	0.00
AREASOURCE	CAR099	5.00	a	6674538.84	1819804.60	5.00	0.00
				6674674.28	1819806.00	5.00	0.00
				6674675.21	1819787.79	5.00	0.00
				6674537.91	1819786.86	5.00	0.00
AREASOURCE	CAR100	5.00	a	6674548.18	1819761.17	5.00	0.00
				6674674.75	1819761.17	5.00	0.00
				6674673.81	1819742.49	5.00	0.00
				6674548.65	1819742.49	5.00	0.00
AREASOURCE	CAR101	5.00	a	6674146.87	1819799.63	5.00	0.00

Name	ID	Height		Coordinates			
		Begin	End	x	y	z	Ground
		(ft)	(ft)	(ft)	(ft)	(ft)	(ft)
				6674283.96	1819801.10	5.00	0.00
				6674282.49	1819784.94	5.00	0.00
				6674146.38	1819782.00	5.00	0.00
AREASOURCE	CAR102	5.00	a	6674148.34	1819755.57	5.00	0.00
				6674274.66	1819757.04	5.00	0.00
				6674273.68	1819739.41	5.00	0.00
				6674147.85	1819738.92	5.00	0.00
AREASOURCE	CAR103	5.00	a	6674314.31	1819669.40	5.00	0.00
				6674330.47	1819668.42	5.00	0.00
				6674333.90	1819415.30	5.00	0.00
				6674315.29	1819414.33	5.00	0.00
AREASOURCE	CAR104	5.00	a	6674269.76	1819668.91	5.00	0.00
				6674285.92	1819668.91	5.00	0.00
				6674290.32	1819396.21	5.00	0.00
				6674271.72	1819396.21	5.00	0.00
AREASOURCE	CAR105	5.00	a	6674316.76	1819334.52	5.00	0.00
				6674334.38	1819334.03	5.00	0.00
				6674335.85	1819205.27	5.00	0.00
				6674319.21	1819205.76	5.00	0.00
AREASOURCE	CAR106	5.00	a	6674271.72	1819349.21	5.00	0.00
				6674288.85	1819350.19	5.00	0.00
				6674291.30	1819247.87	5.00	0.00
				6674273.19	1819247.38	5.00	0.00
AREASOURCE	CAR107	5.00	a	6673615.67	1819230.73	5.00	0.00
				6674219.33	1819237.10	5.00	0.00
				6674219.82	1819218.98	5.00	0.00
				6673614.20	1819213.60	5.00	0.00
AREASOURCE	CAR108	5.00	a	6673625.46	1819186.18	5.00	0.00
				6674302.07	1819192.05	5.00	0.00
				6674301.58	1819175.41	5.00	0.00
				6673626.93	1819169.53	5.00	0.00
AREASOURCE	CAR109	5.00	a	6672942.00	1819222.90	5.00	0.00
				6673564.27	1819229.75	5.00	0.00
				6673563.78	1819213.11	5.00	0.00
				6672941.51	1819206.25	5.00	0.00
AREASOURCE	CAR110	5.00	a	6672860.73	1819178.83	5.00	0.00
				6673553.50	1819184.71	5.00	0.00
				6673553.99	1819167.08	5.00	0.00
				6672861.71	1819160.23	5.00	0.00
AREASOURCE	CAR111	5.00	a	6672827.93	1819785.43	5.00	0.00
				6672998.80	1819786.90	5.00	0.00
				6672999.28	1819770.74	5.00	0.00
				6672827.44	1819768.79	5.00	0.00
AREASOURCE	CAR112	5.00	a	6672836.74	1819740.88	5.00	0.00
				6672997.82	1819742.35	5.00	0.00
				6672998.80	1819726.19	5.00	0.00
				6672837.23	1819724.72	5.00	0.00
AREASOURCE	CAR113	5.00	a	6672864.16	1819596.94	5.00	0.00
				6672880.32	1819596.94	5.00	0.00
				6672882.27	1819471.12	5.00	0.00
				6672864.65	1819470.14	5.00	0.00
AREASOURCE	CAR114	5.00	a	6672865.63	1819433.91	5.00	0.00
				6672880.81	1819433.91	5.00	0.00
				6672884.72	1819230.73	5.00	0.00
				6672865.63	1819230.24	5.00	0.00
AREASOURCE	CAR115	5.00	a	6672702.60	1819595.47	5.00	0.00
				6672722.67	1819594.98	5.00	0.00
				6672723.16	1819469.16	5.00	0.00
				6672704.55	1819469.65	5.00	0.00
AREASOURCE	CAR116	5.00	a	6672706.02	1819432.44	5.00	0.00
				6672722.67	1819433.42	5.00	0.00
				6672725.61	1819244.93	5.00	0.00
				6672707.98	1819243.95	5.00	0.00
AREASOURCE	CAR117	5.00	a	6672359.40	1819218.00	5.00	0.00
				6672647.76	1819220.45	5.00	0.00
				6672647.76	1819202.34	5.00	0.00
				6672359.40	1819200.87	5.00	0.00
AREASOURCE	CAR118	5.00	a	6672369.68	1819174.43	5.00	0.00
				6672730.01	1819177.86	5.00	0.00
				6672730.01	1819159.74	5.00	0.00
				6672370.17	1819156.31	5.00	0.00
AREASOURCE	CAR119	5.00	a	6671991.72	1819212.13	5.00	0.00
				6672306.52	1819217.51	5.00	0.00
				6672307.50	1819198.42	5.00	0.00
				6671991.23	1819194.99	5.00	0.00
AREASOURCE	CAR120	5.00	a	6671875.20	1819168.55	5.00	0.00
				6672298.20	1819172.47	5.00	0.00

Name	ID	Height		Coordinates			
		Begin	End	x	y	z	Ground
		(ft)	(ft)	(ft)	(ft)	(ft)	(ft)
				6672299.18	1819154.85	5.00	0.00
				6671875.20	1819150.93	5.00	0.00
AREASOURCE	CAR121	5.00	a	6671877.15	1819635.13	5.00	0.00
				6671896.74	1819633.66	5.00	0.00
				6671898.70	1819369.77	5.00	0.00
				6671881.56	1819369.77	5.00	0.00
AREASOURCE	CAR122	5.00	a	6671833.58	1819633.17	5.00	0.00
				6671851.70	1819633.66	5.00	0.00
				6671855.12	1819388.38	5.00	0.00
				6671837.50	1819387.89	5.00	0.00
AREASOURCE	CAR123	5.00	a	6671881.07	1819324.24	5.00	0.00
				6671900.17	1819323.75	5.00	0.00
				6671901.14	1819220.45	5.00	0.00
				6671882.05	1819221.43	5.00	0.00
AREASOURCE	CAR124	5.00	a	6671837.50	1819310.53	5.00	0.00
				6671856.10	1819308.58	5.00	0.00
				6671859.53	1819182.26	5.00	0.00
				6671839.46	1819182.75	5.00	0.00
AREASOURCE	CAR125	5.00	a	6675121.75	1820039.16	5.00	0.00
				6675139.80	1820040.32	5.00	0.00
				6675140.97	1819830.13	5.00	0.00
				6675122.92	1819830.13	5.00	0.00
AREASOURCE	CAR126	5.00	a	6675166.01	1820141.05	5.00	0.00
				6675370.95	1820100.88	5.00	0.00
				6675369.21	1820083.99	5.00	0.00
				6675162.51	1820123.00	5.00	0.00
AREASOURCE	CAR127	5.00	a	6675159.60	1820097.96	5.00	0.00
				6675274.88	1820075.84	5.00	0.00
				6675270.23	1820058.95	5.00	0.00
				6675156.11	1820080.50	5.00	0.00
AREASOURCE	CAR128	5.00	a	6675356.98	1820035.66	5.00	0.00
				6675377.36	1820036.83	5.00	0.00
				6675376.19	1819955.32	5.00	0.00
				6675359.31	1819952.99	5.00	0.00
AREASOURCE	CAR129	5.00	a	6675475.17	1820009.46	5.00	0.00
				6675494.39	1820007.14	5.00	0.00
				6675494.39	1819957.06	5.00	0.00
				6675476.34	1819957.64	5.00	0.00
AREASOURCE	CAR130	5.00	a	6675483.32	1820081.66	5.00	0.00
				6675611.42	1820072.35	5.00	0.00
				6675710.40	1820071.18	5.00	0.00
				6675898.46	1820073.51	5.00	0.00
				6675900.21	1820056.04	5.00	0.00
				6675720.88	1820054.88	5.00	0.00
				6675621.32	1820054.30	5.00	0.00
				6675538.06	1820058.95	5.00	0.00
				6675483.32	1820063.61	5.00	0.00
AREASOURCE	CAR131	5.00	a	6675897.88	1820001.89	5.00	0.00
				6675914.76	1820003.64	5.00	0.00
				6675915.93	1819959.97	5.00	0.00
				6675897.30	1819959.97	5.00	0.00
AREASOURCE	CAR132	5.00	a	6675408.80	1819912.23	5.00	0.00
				6675444.31	1819913.39	5.00	0.00
				6675444.31	1819843.53	5.00	0.00
				6675408.80	1819845.86	5.00	0.00
AREASOURCE	CAR133	5.00	a	6675447.81	1819837.12	5.00	0.00
				6675511.85	1819840.03	5.00	0.00
				6675510.69	1819821.40	5.00	0.00
				6675446.64	1819820.82	5.00	0.00
AREASOURCE	CAR134	5.00	a	6675947.95	1819918.05	5.00	0.00
				6675984.63	1819916.89	5.00	0.00
				6675984.63	1819845.86	5.00	0.00
				6675948.53	1819845.86	5.00	0.00
AREASOURCE	CAR135	5.00	a	6675884.49	1819842.94	5.00	0.00
				6675948.53	1819845.86	5.00	0.00
				6675949.70	1819826.64	5.00	0.00
				6675886.23	1819825.48	5.00	0.00
AREASOURCE	CAR136	5.00	a	6675984.63	1819845.86	5.00	0.00
				6676048.68	1819843.53	5.00	0.00
				6676049.26	1819825.48	5.00	0.00
				6675985.80	1819827.22	5.00	0.00
AREASOURCE	CAR137	5.00	a	6676014.33	1820004.81	5.00	0.00
				6676035.29	1820004.81	5.00	0.00
				6676034.12	1819959.39	5.00	0.00
				6676016.07	1819959.97	5.00	0.00
AREASOURCE	CAR138	5.00	a	6676016.65	1820074.67	5.00	0.00
				6676447.51	1820078.75	5.00	0.00

Name	ID	Height		Coordinates			
		Begin	End	x	y	z	Ground
		(ft)	(ft)	(ft)	(ft)	(ft)	(ft)
				6676448.68	1820061.87	5.00	0.00
				6676015.49	1820056.04	5.00	0.00
AREASOURCE	CAR139	5.00	a	6676488.85	1819921.55	5.00	0.00
				6676522.04	1819923.29	5.00	0.00
				6676526.11	1819851.10	5.00	0.00
				6676487.10	1819851.68	5.00	0.00
AREASOURCE	CAR140	5.00	a	6676425.39	1819847.02	5.00	0.00
				6676487.10	1819851.68	5.00	0.00
				6676487.10	1819830.72	5.00	0.00
				6676424.22	1819830.72	5.00	0.00
AREASOURCE	CAR141	5.00	a	6676526.11	1819851.10	5.00	0.00
				6676588.41	1819849.93	5.00	0.00
				6676587.25	1819832.46	5.00	0.00
				6676525.53	1819831.30	5.00	0.00
AREASOURCE	CAR142	5.00	a	6676436.45	1820007.14	5.00	0.00
				6676453.33	1820005.97	5.00	0.00
				6676454.50	1819965.21	5.00	0.00
				6676437.03	1819965.80	5.00	0.00
AREASOURCE	CAR143	5.00	a	6676553.48	1820011.79	5.00	0.00
				6676573.27	1820012.38	5.00	0.00
				6676574.44	1819966.96	5.00	0.00
				6676554.64	1819966.96	5.00	0.00
AREASOURCE	CAR144	5.00	a	6676558.14	1820080.50	5.00	0.00
				6676964.54	1820085.74	5.00	0.00
				6676965.70	1820066.52	5.00	0.00
				6676560.47	1820061.87	5.00	0.00
AREASOURCE	CAR145	5.00	a	6676986.66	1820065.36	5.00	0.00
				6676987.25	1819974.53	5.00	0.00
				6676971.53	1819973.37	5.00	0.00
				6676969.08	1820063.72	5.00	0.00
AREASOURCE	CAR146	5.00	a	6676971.51	1819900.88	5.00	0.00
				6676988.18	1819901.57	5.00	0.00
				6676989.57	1819845.32	5.00	0.00
				6676971.17	1819846.36	5.00	0.00
AREASOURCE	CAR147	5.00	a	6676927.76	1819918.24	5.00	0.00
				6676945.13	1819918.59	5.00	0.00
				6676945.82	1819846.36	5.00	0.00
				6676928.46	1819846.02	5.00	0.00
AREASOURCE	CAR148	5.00	a	6676926.38	1820000.88	5.00	0.00
				6676944.08	1820000.18	5.00	0.00
				6676944.43	1819974.14	5.00	0.00
				6676927.76	1819974.14	5.00	0.00
AREASOURCE	CAR149	5.00	a	6672585.52	1819784.41	5.00	0.00
				6672748.54	1819789.43	5.00	0.00
				6672748.65	1819766.00	5.00	0.00
				6672587.01	1819766.00	5.00	0.00
AREASOURCE	CAR150	5.00	a	6672586.51	1819738.65	5.00	0.00
				6672739.20	1819741.14	5.00	0.00
				6672739.70	1819722.24	5.00	0.00
				6672587.51	1819720.25	5.00	0.00
AREASOURCE	CAR151	5.00	a	6672227.41	1819978.38	5.00	0.00
				6672244.32	1819977.39	5.00	0.00
				6672245.31	1819924.67	5.00	0.00
				6672227.91	1819924.67	5.00	0.00
AREASOURCE	CAR152	5.00	a	6672229.40	1819882.39	5.00	0.00
				6672245.81	1819881.40	5.00	0.00
				6672246.81	1819809.28	5.00	0.00
				6672229.89	1819809.28	5.00	0.00
AREASOURCE	CAR153	5.00	a	6672281.12	1819969.93	5.00	0.00
				6672297.04	1819970.42	5.00	0.00
				6672298.53	1819924.17	5.00	0.00
				6672281.12	1819924.17	5.00	0.00
AREASOURCE	CAR154	5.00	a	6671923.51	1820002.26	5.00	0.00
				6672120.47	1820005.24	5.00	0.00
				6672119.48	1819968.44	5.00	0.00
				6671924.01	1819969.43	5.00	0.00
AREASOURCE	CAR155	5.00	a	6671932.47	1819836.63	5.00	0.00
				6672126.94	1819836.13	5.00	0.00
				6672129.43	1819803.81	5.00	0.00
				6671932.47	1819804.30	5.00	0.00
AREASOURCE	COLD01	8.00	a	6676042.71	1819925.88	8.00	0.00
				6676104.82	1819927.09	8.00	0.00
				6676105.43	1819866.93	8.00	0.00
				6676043.95	1819867.55	8.00	0.00
AREASOURCE	COLD02	8.00	a	6675288.09	1819905.05	8.00	0.00
				6675349.09	1819905.03	8.00	0.00
				6675350.19	1819834.62	8.00	0.00

Name	ID	Height		Coordinates			
		Begin	End	x	y	z	Ground
		(ft)	(ft)	(ft)	(ft)	(ft)	(ft)
				6675289.29	1819834.98	8.00	0.00
AREASOURCE	COLD03	8.00	a	6675506.14	1819922.36	8.00	0.00
				6675566.34	1819921.63	8.00	0.00
				6675567.24	1819863.03	8.00	0.00
				6675505.77	1819861.90	8.00	0.00
AREASOURCE	COLD04	8.00	a	6675826.73	1819925.32	8.00	0.00
				6675889.19	1819926.05	8.00	0.00
				6675889.56	1819865.96	8.00	0.00
				6675826.42	1819864.85	8.00	0.00
AREASOURCE	COLD05	8.00	a	6676364.95	1819927.94	8.00	0.00
				6676429.15	1819929.35	8.00	0.00
				6676429.85	1819871.71	8.00	0.00
				6676366.37	1819872.33	8.00	0.00
AREASOURCE	COLD06	8.00	a	6676582.63	1819937.34	8.00	0.00
				6676644.09	1819938.04	8.00	0.00
				6676645.15	1819863.71	8.00	0.00
				6676582.63	1819863.38	8.00	0.00
AREASOURCE	COLD07	8.00	a	6672016.76	1819648.77	8.00	0.00
				6672578.47	1819656.29	8.00	0.00
				6672576.79	1819596.11	8.00	0.00
				6672017.60	1819589.42	8.00	0.00
AREASOURCE	COLD08	8.00	a	6673018.97	1819660.47	8.00	0.00
				6674136.52	1819673.01	8.00	0.00
				6674139.87	1819612.82	8.00	0.00
				6673018.13	1819601.12	8.00	0.00
AREASOURCE	COLD09	8.00	a	6674692.38	1819679.69	8.00	0.00
				6675813.28	1819691.40	8.00	0.00
				6675809.65	1819631.17	8.00	0.00
				6674693.21	1819617.84	8.00	0.00
AREASOURCE	COLD10	8.00	a	6676242.91	1819694.74	8.00	0.00
				6676805.45	1819699.75	8.00	0.00
				6676806.29	1819640.41	8.00	0.00
				6676247.93	1819633.72	8.00	0.00
AREASOURCE	COLD11	8.00	a	6674705.53	1819950.80	8.00	0.00
				6674867.52	1819952.76	8.00	0.00
				6674867.23	1819888.43	8.00	0.00
				6674705.86	1819888.43	8.00	0.00
AREASOURCE	COLD12	8.00	a	6673957.77	1819948.10	8.00	0.00
				6674119.27	1819948.75	8.00	0.00
				6674120.50	1819883.37	8.00	0.00
				6673957.78	1819883.07	8.00	0.00
AREASOURCE	COLD13	8.00	a	6673425.70	1819933.42	8.00	0.00
				6673481.74	1819934.98	8.00	0.00
				6673483.53	1819853.31	8.00	0.00
				6673425.70	1819853.59	8.00	0.00
AREASOURCE	COLD14	8.00	a	6673202.02	1819899.34	8.00	0.00
				6673265.13	1819899.95	8.00	0.00
				6673266.36	1819843.15	8.00	0.00
				6673202.02	1819842.85	8.00	0.00
AREASOURCE	COLD15	8.00	a	6672881.35	1819896.27	8.00	0.00
				6672943.24	1819897.17	8.00	0.00
				6672944.06	1819840.07	8.00	0.00
				6672881.66	1819839.78	8.00	0.00
AREASOURCE	COLD16	8.00	a	6672663.23	1819894.08	8.00	0.00
				6672726.31	1819894.43	8.00	0.00
				6672726.31	1819835.78	8.00	0.00
				6672664.08	1819835.43	8.00	0.00
AREASOURCE	COLD17	8.00	a	6672304.15	1819891.05	8.00	0.00
				6672366.48	1819889.55	8.00	0.00
				6672367.29	1819834.59	8.00	0.00
				6672305.68	1819834.25	8.00	0.00
AREASOURCE	COLD18	8.00	a	6671442.00	1819885.15	8.00	0.00
				6671442.91	1819818.69	8.00	0.00
				6671385.61	1819817.42	8.00	0.00
				6671385.61	1819884.63	8.00	0.00
AREASOURCE	COLD19	8.00	a	6671051.33	1819901.20	8.00	0.00
				6671108.17	1819901.20	8.00	0.00
				6671110.27	1819827.17	8.00	0.00
				6671051.03	1819826.66	8.00	0.00
AREASOURCE	COLD20	8.00	a	6670831.50	1819902.03	8.00	0.00
				6670890.85	1819904.54	8.00	0.00
				6670889.87	1819788.43	8.00	0.00
				6670831.50	1819787.93	8.00	0.00
AREASOURCE	COLD21	8.00	a	6670728.69	1819637.06	8.00	0.00
				6671515.24	1819645.42	8.00	0.00
				6671515.24	1819584.40	8.00	0.00
				6670729.52	1819576.88	8.00	0.00

Name	ID	Height		Coordinates			
		Begin	End	x	y	z	Ground
		(ft)	(ft)	(ft)	(ft)	(ft)	(ft)
AREASOURCE	DRY01	8.00	a	6672070.05	1819775.64	8.00	0.00
				6672538.58	1819781.03	8.00	0.00
				6672539.07	1819727.66	8.00	0.00
				6672071.03	1819722.27	8.00	0.00
AREASOURCE	DRY02	8.00	a	6673048.24	1819787.39	8.00	0.00
				6674080.78	1819797.67	8.00	0.00
				6674080.78	1819744.80	8.00	0.00
				6673049.22	1819735.00	8.00	0.00
AREASOURCE	DRY03	8.00	a	6674722.85	1819805.54	8.00	0.00
				6675754.51	1819815.34	8.00	0.00
				6675754.97	1819763.50	8.00	0.00
				6674722.85	1819750.89	8.00	0.00
AREASOURCE	DRY04	8.00	a	6676273.37	1819821.88	8.00	0.00
				6676753.47	1819826.55	8.00	0.00
				6676753.94	1819773.31	8.00	0.00
				6676274.30	1819768.17	8.00	0.00
AREASOURCE	DRY05	8.00	a	6670782.32	1819762.28	8.00	0.00
				6671478.50	1819770.09	8.00	0.00
				6671479.37	1819716.27	8.00	0.00
				6670782.32	1819709.33	8.00	0.00

Building(s)

Name	Sel.	M.	ID	RB	Residents	Absorption	Height	Coordinates				
							Begin (ft)	x	y	z	Ground (ft)	
BUILDING			BUILDING00001	x	0		45.00	a	6670596.62	1819969.74	45.00	0.00
									6670892.52	1819974.76	45.00	0.00
									6670890.85	1819904.54	45.00	0.00
									6670831.50	1819902.03	45.00	0.00
									6670831.50	1819780.00	45.00	0.00
									6670599.13	1819778.33	45.00	0.00
BUILDING			BUILDING00002	x	0		45.00	a	6671046.32	1819972.25	45.00	0.00
									6671300.42	1819975.59	45.00	0.00
									6671302.09	1819785.01	45.00	0.00
									6671111.52	1819783.34	45.00	0.00
									6671108.17	1819901.20	45.00	0.00
									6671051.33	1819901.20	45.00	0.00
BUILDING			BUILDING00003	x	0		45.00	a	6671382.34	1819977.26	45.00	0.00
									6671571.24	1819980.61	45.00	0.00
									6671570.41	1819972.25	45.00	0.00
									6671645.64	1819973.92	45.00	0.00
									6671652.32	1819789.19	45.00	0.00
									6671443.36	1819785.85	45.00	0.00
									6671441.68	1819907.89	45.00	0.00
									6671380.67	1819907.89	45.00	0.00
BUILDING			BUILDING00004	x	0		45.00	a	6670602.47	1819635.39	45.00	0.00
									6670728.69	1819637.06	45.00	0.00
									6670729.52	1819576.88	45.00	0.00
									6671515.24	1819584.40	45.00	0.00
									6671515.24	1819645.42	45.00	0.00
									6671638.11	1819645.42	45.00	0.00
									6671643.13	1819224.15	45.00	0.00
									6670607.49	1819212.44	45.00	0.00
BUILDING			BUILDING00005	x	0		45.00	a	6672304.30	1819985.62	45.00	0.00
									6672726.41	1819988.96	45.00	0.00
									6672723.91	1819919.59	45.00	0.00
									6672662.89	1819917.92	45.00	0.00
									6672664.56	1819801.73	45.00	0.00
									6672367.83	1819797.55	45.00	0.00
									6672366.16	1819912.06	45.00	0.00
									6672305.14	1819914.57	45.00	0.00
BUILDING			BUILDING00006	x	0		45.00	a	6672881.05	1819993.98	45.00	0.00
									6673264.71	1819997.32	45.00	0.00
									6673263.88	1819924.60	45.00	0.00
									6673202.02	1819923.77	45.00	0.00
									6673202.02	1819806.75	45.00	0.00
									6672944.58	1819804.24	45.00	0.00
									6672942.90	1819920.42	45.00	0.00
									6672882.72	1819920.42	45.00	0.00
BUILDING			BUILDING00007	x	0		45.00	a	6673422.69	1820025.74	45.00	0.00
									6673609.09	1820025.74	45.00	0.00
									6673606.58	1820047.48	45.00	0.00
									6673696.02	1820046.64	45.00	0.00
									6673701.87	1819811.76	45.00	0.00
									6673484.55	1819806.75	45.00	0.00
									6673481.20	1819959.71	45.00	0.00

Name	Sel.	M.	ID	RB	Residents	Absorption	Height	Coordinates			
							Begin	x	y	z	Ground
							(ft)	(ft)	(ft)	(ft)	(ft)
BUILDING			BUILDING00008	x	0		45.00 a	6673423.53	1819958.04	45.00	0.00
								6673818.89	1820118.52	45.00	0.00
								6674253.55	1820123.54	45.00	0.00
								6674256.89	1819887.82	45.00	0.00
								6674143.21	1819886.15	45.00	0.00
								6674143.21	1819948.84	45.00	0.00
								6673933.41	1819948.01	45.00	0.00
								6673934.24	1819884.48	45.00	0.00
								6673821.40	1819885.32	45.00	0.00
BUILDING			BUILDING00009	x	0		45.00 a	6674563.65	1820129.39	45.00	0.00
								6675010.84	1820134.41	45.00	0.00
								6675012.51	1819893.68	45.00	0.00
								6674890.48	1819892.84	45.00	0.00
								6674888.81	1819953.02	45.00	0.00
								6674682.35	1819950.51	45.00	0.00
								6674684.02	1819890.33	45.00	0.00
								6674561.98	1819889.50	45.00	0.00
BUILDING			BUILDING00010	x	0		45.00 a	6676805.45	1819699.75	45.00	0.00
								6676919.97	1819703.10	45.00	0.00
								6676925.82	1819281.82	45.00	0.00
								6676135.09	1819270.95	45.00	0.00
								6676130.91	1819693.07	45.00	0.00
								6676242.91	1819694.74	45.00	0.00
								6676247.93	1819633.72	45.00	0.00
								6676806.29	1819640.41	45.00	0.00
BUILDING			BUILDING00011	x	0		45.00 a	6675813.28	1819691.40	45.00	0.00
								6675934.48	1819690.56	45.00	0.00
								6675938.66	1819269.28	45.00	0.00
								6674577.03	1819255.91	45.00	0.00
								6674572.85	1819678.02	45.00	0.00
								6674692.38	1819679.69	45.00	0.00
								6674693.21	1819617.84	45.00	0.00
								6675813.28	1819631.21	45.00	0.00
BUILDING			BUILDING00012	x	0		45.00 a	6673018.97	1819660.47	45.00	0.00
								6673018.13	1819601.12	45.00	0.00
								6674139.87	1819612.82	45.00	0.00
								6674136.52	1819673.01	45.00	0.00
								6674256.89	1819673.01	45.00	0.00
								6674261.90	1819249.22	45.00	0.00
								6672901.11	1819235.85	45.00	0.00
								6672895.26	1819659.63	45.00	0.00
BUILDING			BUILDING00013	x	0		45.00 a	6672685.46	1819656.29	45.00	0.00
								6672690.47	1819231.67	45.00	0.00
								6671912.28	1819224.15	45.00	0.00
								6671905.59	1819649.60	45.00	0.00
								6672016.76	1819648.77	45.00	0.00
								6672017.60	1819589.42	45.00	0.00
								6672576.79	1819596.11	45.00	0.00
								6672578.47	1819656.29	45.00	0.00
BUILDING			BUILDING00014	x	0		45.00 a	6675152.61	1820048.47	45.00	0.00
								6675347.66	1820051.39	45.00	0.00
								6675347.66	1819929.70	45.00	0.00
								6675287.69	1819928.53	45.00	0.00
								6675289.44	1819826.06	45.00	0.00
								6675153.20	1819825.48	45.00	0.00
BUILDING			BUILDING00015	x	0		45.00 a	6675503.70	1820015.87	45.00	0.00
								6675811.71	1820022.86	45.00	0.00
								6675812.87	1820012.38	45.00	0.00
								6675886.82	1820015.29	45.00	0.00
								6675886.82	1819949.49	45.00	0.00
								6675826.85	1819948.91	45.00	0.00
								6675826.26	1819832.46	45.00	0.00
								6675567.75	1819829.55	45.00	0.00
								6675566.00	1819943.67	45.00	0.00
								6675504.87	1819944.84	45.00	0.00
BUILDING			BUILDING00016	x	0		45.00 a	6676045.18	1820018.78	45.00	0.00
								6676426.55	1820026.93	45.00	0.00
								6676428.30	1819957.06	45.00	0.00
								6676364.25	1819955.32	45.00	0.00
								6676367.16	1819841.20	45.00	0.00
								6676105.74	1819836.54	45.00	0.00
								6676104.57	1819951.82	45.00	0.00
								6676044.02	1819951.82	45.00	0.00
BUILDING			BUILDING00017	x	0		45.00 a	6676582.59	1820029.84	45.00	0.00
								6676902.82	1820032.75	45.00	0.00
								6676906.31	1819844.69	45.00	0.00
								6676645.47	1819841.20	45.00	0.00

Name	Sel.	M.	ID	RB	Residents	Absorption	Height	Coordinates			
							Begin	x	y	z	Ground
							(ft)	(ft)	(ft)	(ft)	(ft)
								6676643.73	1819964.05	45.00	0.00
								6676584.92	1819962.30	45.00	0.00

APPENDIX 10.1:

CONSTRUCTION NOISE CALCULATIONS

This page intentionally left blank

16285 - Eucalyptus Business Park

CadnaA Noise Prediction Model: 16285-03_Construction.cna

Date: 15.12.25

Analyst: B. Lawson

Calculation Configuration

Configuration	
Parameter	Value
General	
Max. Error (dB)	0.00
Max. Search Radius (ft)	10000.00
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 Rcvr - 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	61.0	-49.8	57.9	69.8	62.9	0.0				5.00	a 6671620.52	1821541.89	5.00
R2		R2	66.1	-44.6	63.1	65.0	57.6	0.0				5.00	a 6671825.66	1820963.26	5.00
R3		R3	60.8	-50.0	57.7	69.4	60.8	0.0				5.00	a 6674471.64	1821547.39	5.00
R4		R4	60.3	-50.4	57.3	69.9	60.0	0.0				5.00	a 6676256.71	1821576.56	5.00
R5		R5	65.0	-45.8	62.0	65.0	51.4	0.0				5.00	a 6677114.67	1820347.49	5.00
R6		R6	64.9	-45.9	61.9	65.0	52.5	0.0				5.00	a 6672005.04	1818965.64	5.00
R7		R7	63.6	-47.2	60.6	65.0	52.5	0.0				5.00	a 6670745.94	1818953.47	5.00
R8		R8	63.8	-47.0	60.8	65.0	47.7	0.0				5.00	a 6670404.49	1819194.36	5.00

Area Source(s)

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)	
SITEBOUNDARY		CONSTRUCTION	129.2	18.4	18.4	69.1	-41.7	-41.7	PWL-Pt	118.4					8 a

Name	ID	Height		Coordinates			
		Begin	End	x	y	z	Ground
		(ft)	(ft)	(ft)	(ft)	(ft)	(ft)
SITEBOUNDARY	CONSTRUCTION	8.00	a	6670479.54	1820865.48	8.00	0.00
				6670866.45	1820870.44	8.00	0.00
				6673473.09	1820882.84	8.00	0.00
				6673507.36	1820884.11	8.00	0.00
				6673541.63	1820883.02	8.00	0.00
				6673575.74	1820879.60	8.00	0.00
				6673609.54	1820873.85	8.00	0.00

Name	ID	Height		Coordinates			
		Begin	End	x	y	z	Ground
		(ft)	(ft)	(ft)	(ft)	(ft)	(ft)
				6673642.87	1820865.80	8.00	0.00
				6673675.57	1820855.48	8.00	0.00
				6673707.48	1820842.96	8.00	0.00
				6673738.47	1820828.28	8.00	0.00
				6673776.76	1820812.11	8.00	0.00
				6673814.33	1820794.32	8.00	0.00
				6673851.11	1820774.94	8.00	0.00
				6673887.02	1820754.00	8.00	0.00
				6673922.00	1820731.55	8.00	0.00
				6673958.13	1820713.47	8.00	0.00
				6673995.24	1820697.48	8.00	0.00
				6674033.18	1820683.61	8.00	0.00
				6674071.86	1820671.93	8.00	0.00
				6674111.14	1820662.45	8.00	0.00
				6674150.89	1820655.23	8.00	0.00
				6674190.99	1820650.27	8.00	0.00
				6674231.30	1820647.60	8.00	0.00
				6674271.70	1820647.23	8.00	0.00
				6675335.69	1820649.71	8.00	0.00
				6675367.29	1820649.65	8.00	0.00
				6675398.80	1820652.03	8.00	0.00
				6675430.03	1820656.82	8.00	0.00
				6675460.80	1820664.00	8.00	0.00
				6675490.93	1820673.52	8.00	0.00
				6675520.24	1820685.34	8.00	0.00
				6675548.55	1820699.37	8.00	0.00
				6675575.70	1820715.53	8.00	0.00
				6675601.52	1820733.74	8.00	0.00
				6675625.87	1820753.87	8.00	0.00
				6675642.76	1820774.76	8.00	0.00
				6675661.29	1820794.20	8.00	0.00
				6675681.33	1820812.08	8.00	0.00
				6675702.76	1820828.28	8.00	0.00
				6675718.16	1820847.34	8.00	0.00
				6675735.29	1820864.87	8.00	0.00
				6675753.98	1820880.72	8.00	0.00
				6675774.08	1820894.74	8.00	0.00
				6675795.40	1820906.82	8.00	0.00
				6675817.77	1820916.85	8.00	0.00
				6675840.97	1820924.73	8.00	0.00
				6675864.82	1820930.40	8.00	0.00
				6675889.09	1820933.81	8.00	0.00
				6675913.57	1820934.93	8.00	0.00
				6676997.40	1820942.37	8.00	0.00
				6677005.17	1820461.52	8.00	0.00
				6677015.31	1819226.50	8.00	0.00
				6676978.85	1819183.54	8.00	0.00
				6673793.04	1819149.97	8.00	0.00
				6671203.67	1819122.68	8.00	0.00
				6670553.07	1819115.83	8.00	0.00
				6670509.44	1819156.63	8.00	0.00
				6670497.69	1820396.24	8.00	0.00

APPENDIX 10.2:

NIGHTTIME CONCRETE POUR NOISE CALCULATIONS

This page intentionally left blank

16285 - Eucalyptus Business Park

CadnaA Noise Prediction Model: 16285-03_Pour.cna

Date: 15.12.25

Analyst: B. Lawson

Calculation Configuration

Configuration	
Parameter	Value
General	
Max. Error (dB)	0.00
Max. Search Radius (ft)	10000.00
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 Rcvr - 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	42.9	-67.7	39.8	69.8	62.9	0.0				5.00	a 6671620.52	1821541.89	5.00
R2		R2	48.0	-62.7	45.0	65.0	57.6	0.0				5.00	a 6671825.66	1820963.26	5.00
R3		R3	42.7	-67.9	39.6	69.4	60.8	0.0				5.00	a 6674471.64	1821547.39	5.00
R4		R4	42.2	-68.3	39.2	69.9	60.0	0.0				5.00	a 6676256.71	1821576.56	5.00
R5		R5	46.9	-63.8	43.9	65.0	51.4	0.0				5.00	a 6677114.67	1820347.49	5.00
R6		R6	46.8	-63.9	43.8	65.0	52.5	0.0				5.00	a 6672005.04	1818965.64	5.00
R7		R7	45.5	-65.2	42.5	65.0	52.5	0.0				5.00	a 6670745.94	1818953.47	5.00
R8		R8	45.7	-64.9	42.7	65.0	47.7	0.0				5.00	a 6670404.49	1819194.36	5.00

Area Source(s)

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)	
SITEBOUNDARY		POUR	111.1	0.3	0.3	51.0	-59.8	-59.8	PWL-Pt	100.3					8 a

Name	ID	Height		Coordinates			
		Begin	End	x	y	z	Ground
		(ft)	(ft)	(ft)	(ft)	(ft)	(ft)
SITEBOUNDARY	POUR	8.00	a	6670479.54	1820865.48	8.00	0.00
				6670866.45	1820870.44	8.00	0.00
				6673473.09	1820882.84	8.00	0.00
				6673507.36	1820884.11	8.00	0.00
				6673541.63	1820883.02	8.00	0.00
				6673575.74	1820879.60	8.00	0.00
				6673609.54	1820873.85	8.00	0.00

Name	ID	Height		Coordinates			
		Begin	End	x	y	z	Ground
		(ft)	(ft)	(ft)	(ft)	(ft)	(ft)
				6673642.87	1820865.80	8.00	0.00
				6673675.57	1820855.48	8.00	0.00
				6673707.48	1820842.96	8.00	0.00
				6673738.47	1820828.28	8.00	0.00
				6673776.76	1820812.11	8.00	0.00
				6673814.33	1820794.32	8.00	0.00
				6673851.11	1820774.94	8.00	0.00
				6673887.02	1820754.00	8.00	0.00
				6673922.00	1820731.55	8.00	0.00
				6673958.13	1820713.47	8.00	0.00
				6673995.24	1820697.48	8.00	0.00
				6674033.18	1820683.61	8.00	0.00
				6674071.86	1820671.93	8.00	0.00
				6674111.14	1820662.45	8.00	0.00
				6674150.89	1820655.23	8.00	0.00
				6674190.99	1820650.27	8.00	0.00
				6674231.30	1820647.60	8.00	0.00
				6674271.70	1820647.23	8.00	0.00
				6675335.69	1820649.71	8.00	0.00
				6675367.29	1820649.65	8.00	0.00
				6675398.80	1820652.03	8.00	0.00
				6675430.03	1820656.82	8.00	0.00
				6675460.80	1820664.00	8.00	0.00
				6675490.93	1820673.52	8.00	0.00
				6675520.24	1820685.34	8.00	0.00
				6675548.55	1820699.37	8.00	0.00
				6675575.70	1820715.53	8.00	0.00
				6675601.52	1820733.74	8.00	0.00
				6675625.87	1820753.87	8.00	0.00
				6675642.76	1820774.76	8.00	0.00
				6675661.29	1820794.20	8.00	0.00
				6675681.33	1820812.08	8.00	0.00
				6675702.76	1820828.28	8.00	0.00
				6675718.16	1820847.34	8.00	0.00
				6675735.29	1820864.87	8.00	0.00
				6675753.98	1820880.72	8.00	0.00
				6675774.08	1820894.74	8.00	0.00
				6675795.40	1820906.82	8.00	0.00
				6675817.77	1820916.85	8.00	0.00
				6675840.97	1820924.73	8.00	0.00
				6675864.82	1820930.40	8.00	0.00
				6675889.09	1820933.81	8.00	0.00
				6675913.57	1820934.93	8.00	0.00
				6676997.40	1820942.37	8.00	0.00
				6677005.17	1820461.52	8.00	0.00
				6677015.31	1819226.50	8.00	0.00
				6676978.85	1819183.54	8.00	0.00
				6673793.04	1819149.97	8.00	0.00
				6671203.67	1819122.68	8.00	0.00
				6670553.07	1819115.83	8.00	0.00
				6670509.44	1819156.63	8.00	0.00
				6670497.69	1820396.24	8.00	0.00

APPENDIX 10.3:

OFF-SITE CONSTRUCTION NOISE CALCULATIONS

This page intentionally left blank

16285 - Eucalyptus Business Park

CadnaA Noise Prediction Model: 16285-03_OffSite.cna

Date: 21.12.25

Analyst: B. Lawson

Calculation Configuration

Configuration	
Parameter	Value
General	
Max. Error (dB)	0.00
Max. Search Radius (ft)	10000.00
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 Rcvr - 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)
		R_25	68.4	-42.4	65.4	0.0	0.0	0.0		x	Total	5.00	a 6672842.15	1820904.19	5.00
		R_50	67.3	-43.5	64.3	0.0	0.0	0.0		x	Total	5.00	a 6672868.99	1820930.19	5.00
		R_100	66.1	-44.7	63.1	0.0	0.0	0.0		x	Total	5.00	a 6672900.86	1820978.41	5.00
		R_200	64.6	-46.2	61.6	0.0	0.0	0.0		x	Total	5.00	a 6672940.70	1821079.48	5.00

Area Source(s)

Name	M.	ID	Result. PWL			Result. PWL"			Lw / Li		norm.	Operating Time			Height
			Day	Evening	Night	Day	Evening	Night	Type	Value		Day	Special	Night	(ft)
			(dBA)	(dBA)	(dBA)	(dBA)	(dBA)	(dBA)			dB(A)	(min)	(min)	(min)	
SITEBOUNDARY		CONSTRUCTION	129.2	18.4	18.4	69.1	-41.7	-41.7	PWL-Pt	118.4					8 a

Name	ID	Height		Coordinates			
		Begin	End	x	y	z	Ground
		(ft)	(ft)	(ft)	(ft)	(ft)	(ft)
SITEBOUNDARY	CONSTRUCTION	8.00	a	6670479.54	1820865.48	8.00	0.00
				6670866.45	1820870.44	8.00	0.00
				6673473.09	1820882.84	8.00	0.00
				6673507.36	1820884.11	8.00	0.00
				6673541.63	1820883.02	8.00	0.00
				6673575.74	1820879.60	8.00	0.00
				6673609.54	1820873.85	8.00	0.00
				6673642.87	1820865.80	8.00	0.00
				6673675.57	1820855.48	8.00	0.00
				6673707.48	1820842.96	8.00	0.00
				6673738.47	1820828.28	8.00	0.00

Name	ID	Height		Coordinates			
		Begin	End	x	y	z	Ground
		(ft)	(ft)	(ft)	(ft)	(ft)	(ft)
				6673776.76	1820812.11	8.00	0.00
				6673814.33	1820794.32	8.00	0.00
				6673851.11	1820774.94	8.00	0.00
				6673887.02	1820754.00	8.00	0.00
				6673922.00	1820731.55	8.00	0.00
				6673958.13	1820713.47	8.00	0.00
				6673995.24	1820697.48	8.00	0.00
				6674033.18	1820683.61	8.00	0.00
				6674071.86	1820671.93	8.00	0.00
				6674111.14	1820662.45	8.00	0.00
				6674150.89	1820655.23	8.00	0.00
				6674190.99	1820650.27	8.00	0.00
				6674231.30	1820647.60	8.00	0.00
				6674271.70	1820647.23	8.00	0.00
				6675335.69	1820649.71	8.00	0.00
				6675367.29	1820649.65	8.00	0.00
				6675398.80	1820652.03	8.00	0.00
				6675430.03	1820656.82	8.00	0.00
				6675460.80	1820664.00	8.00	0.00
				6675490.93	1820673.52	8.00	0.00
				6675520.24	1820685.34	8.00	0.00
				6675548.55	1820699.37	8.00	0.00
				6675575.70	1820715.53	8.00	0.00
				6675601.52	1820733.74	8.00	0.00
				6675625.87	1820753.87	8.00	0.00
				6675642.76	1820774.76	8.00	0.00
				6675661.29	1820794.20	8.00	0.00
				6675681.33	1820812.08	8.00	0.00
				6675702.76	1820828.28	8.00	0.00
				6675718.16	1820847.34	8.00	0.00
				6675735.29	1820864.87	8.00	0.00
				6675753.98	1820880.72	8.00	0.00
				6675774.08	1820894.74	8.00	0.00
				6675795.40	1820906.82	8.00	0.00
				6675817.77	1820916.85	8.00	0.00
				6675840.97	1820924.73	8.00	0.00
				6675864.82	1820930.40	8.00	0.00
				6675889.09	1820933.81	8.00	0.00
				6675913.57	1820934.93	8.00	0.00
				6676997.40	1820942.37	8.00	0.00
				6677005.17	1820461.52	8.00	0.00
				6677015.31	1819226.50	8.00	0.00
				6676978.85	1819183.54	8.00	0.00
				6673793.04	1819149.97	8.00	0.00
				6671203.67	1819122.68	8.00	0.00
				6670553.07	1819115.83	8.00	0.00
				6670509.44	1819156.63	8.00	0.00
				6670497.69	1820396.24	8.00	0.00