

APPENDIX O: NOISE IMPACT ANALYSIS

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Palomino Business Park

NOISE IMPACT ANALYSIS

CITY OF NORCO

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AUGUST 11, 2019

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LIST OF ABBREVIATED TERMS

(1)	Reference
ADT	Average Daily Traffic
ANSI	American National Standards Institute
Calveno	California Vehicle Noise
CEQA	California Environmental Quality Act
CNEL	Community Noise Equivalent Level
dba	A-weighted decibels
EPA	Environmental Protection Agency
FHWA	Federal Highway Administration
FTA	Federal Transit Administration
Hz	Hertz
INCE	Institute of Noise Control Engineering
L _{eq}	Equivalent continuous (average) sound level
L _{max}	Maximum level measured over the time interval
L _{min}	Minimum level measured over the time interval
mph	Miles per hour
OPR	Office of Planning and Research
PPV	Peak particle velocity
Project	Palomino Business Park
REMEL	Reference Energy Mean Emission Level
RMS	Root-mean-square
sf	Square feet
VdB	Vibration Decibels

EXECUTIVE SUMMARY

Urban Crossroads, Inc. has prepared this noise study to determine the potential noise impacts and the necessary noise mitigation measures, if any, for the proposed Palomino Business Park development ("Project"). The Project site is located on either side of Mountain Avenue between Second Street and First Street in the City of Norco. The Project is proposed to consist of the development of 602,130 square feet (sf) of warehousing, 1,426,460 sf of industrial park, 6,520 sf of retail, 6,520 sf of fast-food restaurant without drive-through window, 4,275 sf of fast-food restaurant with drive-through window, and a 12-vehicle fueling position gas station with a 4,095 sf convenience market, for a total development of 2,050,000 sf. The Project is anticipated to be constructed in a single phase by the year 2022. At the time this noise analysis was prepared, the future tenants of the proposed Project were unknown, and therefore, this noise study includes a conservative analysis of the proposed Project uses. This study has been prepared to satisfy applicable City of Norco standards and thresholds of significance based on guidance provided by Appendix G of the California Environmental Quality Act (CEQA) Guidelines. (1)

OFF-SITE TRAFFIC NOISE ANALYSIS

Traffic generated by the operation of the Project will influence the traffic noise levels in surrounding off-site areas. To quantify the off-site traffic noise increases on the surrounding off-site areas, the changes in traffic noise levels on 31 study-area roadway segments were calculated based on the change in the average daily traffic (ADT) volumes. The traffic noise levels provided in this analysis are based on the traffic forecasts found in the *Palomino Business Park Traffic Impact Analysis* prepared by Urban Crossroads, Inc. (2) To assess the off-site noise level impacts associated with the proposed Project, noise contour boundaries were developed for Existing (2018), Opening Year Cumulative 2022, and Horizon Year 2040 conditions.

The analysis shows that the unmitigated Project-related traffic noise level increases under all with Project traffic scenarios are considered *less than significant* impacts at land uses adjacent to the study area roadway segments.

OPERATIONAL NOISE ANALYSIS

Using reference noise levels to represent the expected noise sources from the Palomino Business Park site, this analysis estimates the Project-related stationary-source noise levels at nearby sensitive receiver locations. The typical activities associated with the proposed Palomino Business Park are anticipated to include idling trucks, delivery truck activities, backup alarms, refrigerated containers or reefers, as well as loading and unloading of dry goods, roof-top air conditioning units, and parking lot vehicle movements.

OPERATIONAL NOISE LEVEL COMPLIANCE

The operational noise analysis shows that the Project-related stationary-source noise levels at receiver location R4 will exceed the City of Norco nighttime exterior noise level standards, and therefore, operational noise mitigation measures are required. With the recommended 10-foot

high noise barriers shown on Exhibit ES-A, the Project operational noise levels will be reduced to satisfy the City of Norco exterior noise level standards at the nearby sensitive receiver locations, and therefore, impacts related to Project operational noise levels will be *less than significant* with mitigation.

OPERATIONAL NOISE MITIGATION MEASURES

If receiver location R4 represents owned and/or occupied noise-sensitive uses at the time of Project operation, the following noise mitigation measures are required:

- Minimum 10-foot high noise barriers are required at the truck loading dock areas as shown on Exhibit ES-A.
 - Each barrier shall provide a weight of at least 4 pounds per square foot of face area with no decorative cutouts or line-of-sight openings between shielded areas and the roadways, or a minimum transmission loss of 20 dBA. (3) The barriers shall consist of a solid face from top to bottom. Unnecessary openings or decorative cutouts shall not be made. All gaps (except for weep holes) should be filled with grout or caulking. The noise barriers shall be constructed using the following materials:
 - Masonry block;
 - Earthen berm;
 - Or any combination of construction materials capable of the minimum weight of 4 pounds per square foot or a minimum transmission loss of 20 dBA.

OPERATIONAL NOISE LEVEL INCREASES

This analysis demonstrates that the mitigated Project operational noise levels will not contribute a long-term operational noise level impact to the existing ambient noise environment at any of the sensitive receiver locations. Therefore, the operational noise level impacts associated with the proposed 24-hour seven days per week Project activities, such as the idling trucks, delivery truck activities, backup alarms, refrigerated containers or reefers, as well as loading and unloading of dry goods, roof-top air conditioning units, and parking lot vehicle movements, are considered *less than significant*.

OPERATIONAL VIBRATION ANALYSIS

The operation of the Project site will include heavy trucks moving on site to and from the loading dock areas. Truck vibration levels are dependent on vehicle characteristics, load, speed, and pavement conditions. Typical vibration levels for the Palomino Business Park heavy truck activity at normal traffic speeds will approach 0.004 in/sec PPV at 25 feet based on the FTA *Transit Noise Impact and Vibration Assessment*. (4) Trucks transiting on site will be travelling at very low speeds so it is expected that delivery truck vibration impacts at nearby homes will satisfy the 0.04 in/sec PPV vibration Caltrans perception threshold, and therefore, will be *less than significant*.

CONSTRUCTION NOISE ANALYSIS

Construction-related noise impacts are expected to create temporary and intermittent high-level noise conditions at receivers surrounding the Project site. Using sample reference noise levels to represent the planned construction activities of the Palomino Business Park site, this analysis estimates the Project-related construction noise levels at nearby sensitive receiver locations. Since the City of Norco General Plan and Municipal Codes do not identify specific construction noise level thresholds, a threshold is identified based on the National Institute for Occupational Safety and Health (NIOSH) limits for construction noise. The Project-related short-term construction noise levels are expected to range from 57.8 to 79.6 dBA L_{eq} and will satisfy the 85 dBA L_{eq} threshold identified by the National Institute for Occupational Safety and Health (NIOSH) at all receiver locations. Therefore, based on the results of this analysis, all nearby sensitive receiver locations will experience *less than significant* impacts due to Project construction noise levels.

CONSTRUCTION VIBRATION ANALYSIS

Construction activity can result in varying degrees of ground vibration, depending on the equipment and methods used, distance to the affected structures and soil type. It is expected that ground-borne vibration from Project construction activities would cause only intermittent, localized intrusion. This analysis shows the highest construction vibration levels are expected to approach 0.03 in/sec PPV, which is below the Caltrans *distinctly perceptible* vibration threshold of 0.04 in/sec PPV at all receiver locations. Therefore, the Project-related vibration impacts are considered *less than significant* during the construction activities at the Project site.

Further, the Project-related construction vibration levels do not represent levels capable of causing building damage to nearby residential homes. The FTA identifies construction vibration levels capable of building damage ranging from 0.12 to 0.5 in/sec PPV. (4) The peak Project-construction vibration levels approaching 0.03 in/sec PPV will remain below the FTA vibration levels for building damage at the residential homes near the Project site. Moreover, the impacts at the site of the closest sensitive receivers are unlikely to be sustained during the entire construction period, but will occur rather only during the times that heavy construction equipment is operating adjacent to the Project site perimeter.

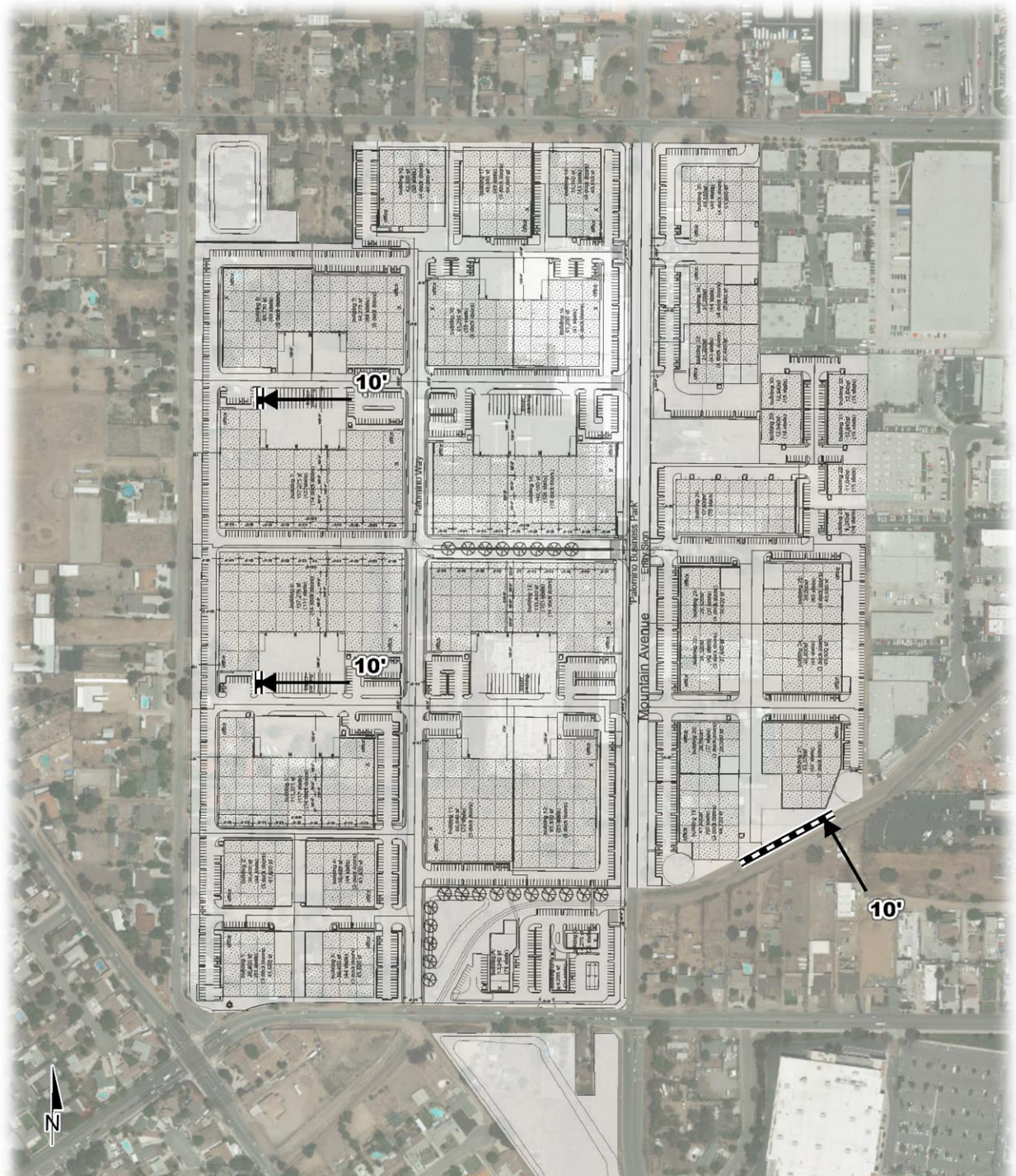
SUMMARY OF SIGNIFICANCE FINDINGS

The results of this Palomino Business Park Noise Impact Analysis are summarized below based on the significance criteria in Section 4 of this report. Table ES-1 shows the findings of significance for each potential noise and/or vibration impact before and after any required mitigation measures.

TABLE ES-1: SUMMARY OF SIGNIFICANCE FINDINGS

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

EXHIBIT ES-A: OPERATIONAL NOISE MITIGATION MEASURES



LEGEND:

10' Required noise barrier height (in feet) — Operational noise barrier mitigation

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1 INTRODUCTION

This noise analysis has been completed to determine the noise impacts associated with the development of the proposed Palomino Business Park (“Project”). This noise study briefly describes the proposed Project, provides information regarding noise fundamentals, describes the local regulatory setting, provides the study methods and procedures for traffic noise analysis, and evaluates the future exterior noise environment. In addition, this study includes an analysis of the potential Project-related long-term operational and short-term construction noise and vibration impacts.

1.1 SITE LOCATION

The proposed Palomino Business Park site is located on either side of Mountain Avenue between Second Street and First Street in the City of Norco, as shown on Exhibit 1-A.

1.2 PROJECT STUDY AREA

The Project site is currently developed with 36 single-family residential structures and a chicken egg warehouse and distribution facility for Hidden Villa Ranch. Residential structures are located along First Street, Second Street, and Pacific Avenue, some of which are occupied, and some are vacant. Several of the on-site residential parcels contain chickens, horses, goats, ponies, and dog raising activities; however, none are commercial operations. The site also includes several dilapidated former farm buildings, stables, chicken sheds, and concrete pads from previous uses. Additionally, a large portion of the site consists of undeveloped vacant land, a portion of which includes remnants of building foundations.

The surrounding land uses are described below.

- North: Second Street followed by single-family residential uses. General Plan Land Use designation of Residential Agricultural (RA) and Zoned Agricultural – Low Density 10 acres (A-1-10).
- West: Pacific Avenue and single-family residential uses. General Plan Land Use designation of Residential Agricultural (RA) and Zoned Agricultural – Low Density 10 acres (A-1-10).
- South: First Street and single-family residential. General Plan Land Use designation of Residential Agricultural (RA) and Zoned Agricultural – Low Density 10 acres (A-1-10); and Gateway Specific Plan designation of Residential (R).
- East: A portion of Mountain Avenue, single-family residential, and industrial development. Gateway Specific Plan designation of Industrial (I) with a Housing Development Overlay (HDO).

1.3 PROJECT DESCRIPTION

The Project is proposed to consist of the development of 602,130 square feet (sf) of warehousing, 1,426,460 sf of industrial park, 6,520 sf of retail, 6,520 sf of fast-food restaurant without drive-through window, 4,275 sf of fast-food restaurant with drive-through window, and a 12-vehicle fueling position gas station with a 4,095 sf convenience market, for a total development of 2,050,000 sf, as shown on Exhibit 1-B. The Project is anticipated to be constructed in a single phase by the year 2022.

At the time this noise analysis was prepared, the future tenants of the proposed Project were unknown. The on-site Project-related noise sources are expected to include: idling trucks, delivery truck activities, backup alarms, refrigerated containers or reefers, as well as loading and unloading of dry goods, roof-top air conditioning units, and parking lot vehicle movements. This noise analysis is intended to describe noise level impacts associated with the expected typical, 24-hour seven days per week operational activities at the Project site.

Per the *Palomino Business Park Traffic Impact Analysis* prepared by Urban Crossroads, Inc. the Project is expected to generate a total of approximately 7,922 trip-ends per day (actual vehicles) and includes 1,040 truck trip-ends per day. (2) This noise study relies on the actual Project trips (as opposed to the passenger car equivalents) to accurately account for the effect of individual truck trips on the study area roadway network.

EXHIBIT 1-A: LOCATION MAP

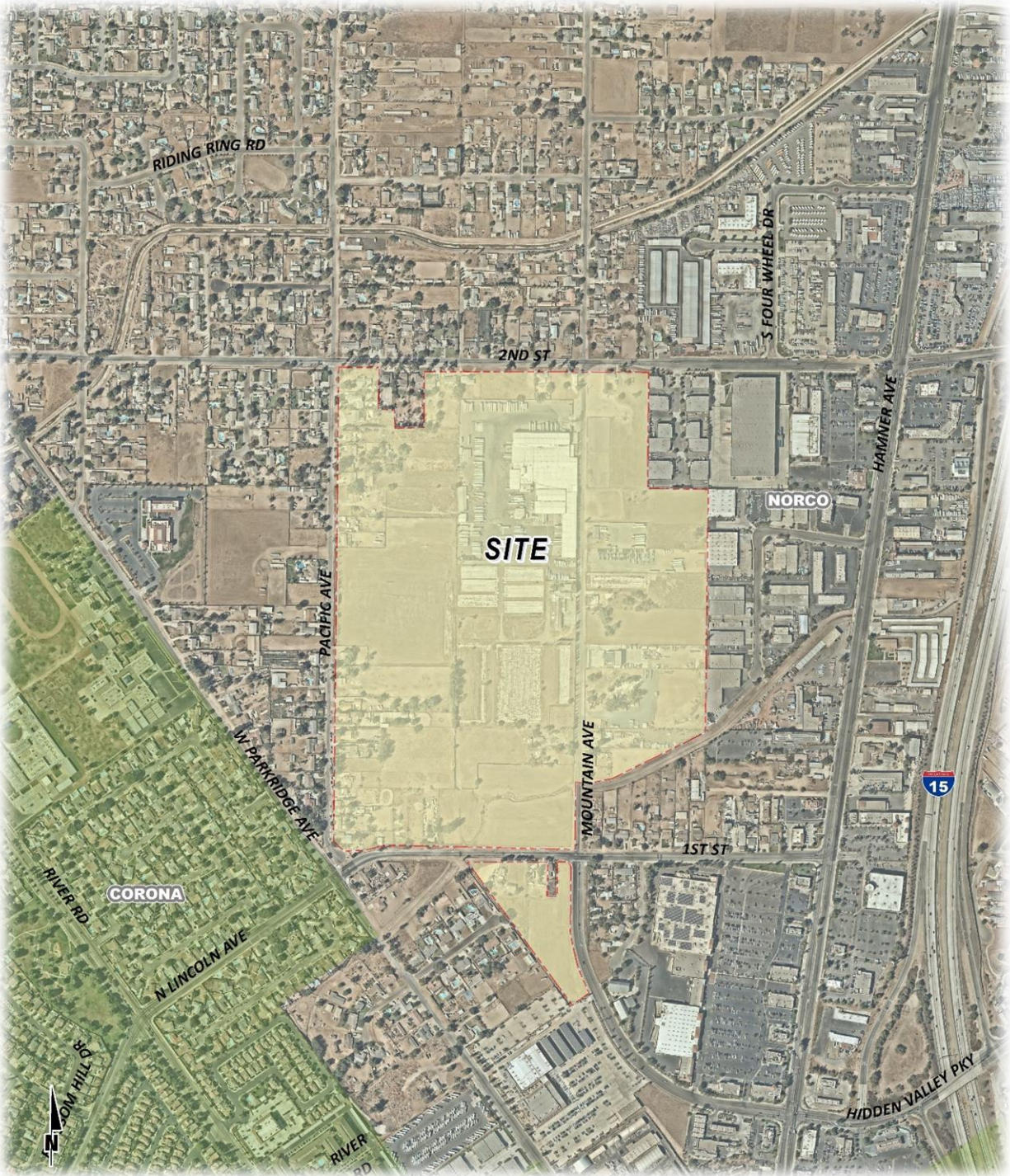
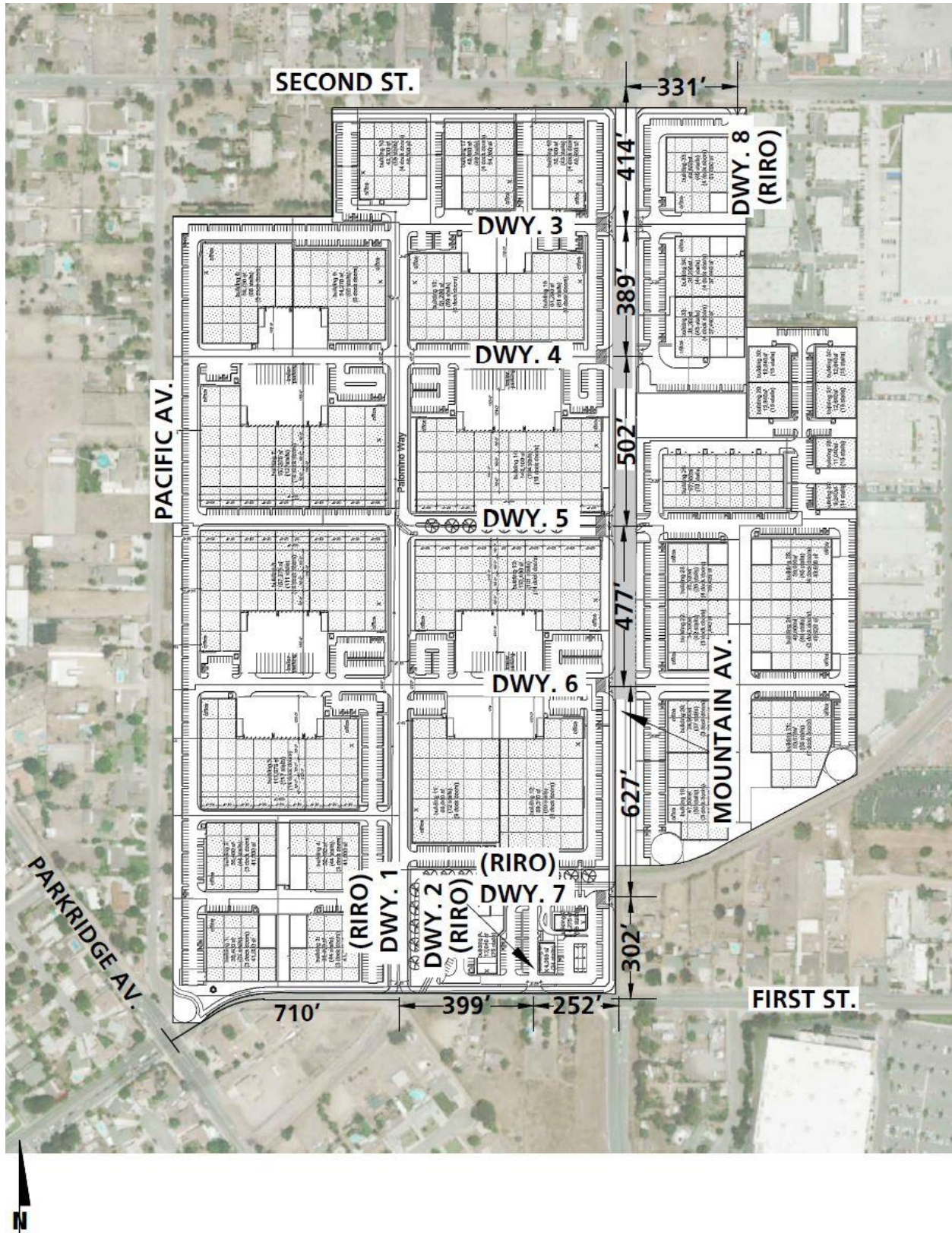


EXHIBIT 1-B: SITE PLAN



2 FUNDAMENTALS

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

EXHIBIT 2-A: TYPICAL NOISE LEVELS

COMMON OUTDOOR ACTIVITIES	COMMON INDOOR ACTIVITIES	A - WEIGHTED SOUND LEVEL dBA	SUBJECTIVE LOUDNESS	EFFECTS OF NOISE
THRESHOLD OF PAIN		140	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. (5) The most common sounds vary between 40 dBA (very quiet) to 100 dBA (very loud). Normal conversation at three feet is roughly at 60 dBA, while loud jet engine noises equate to 110 dBA

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

2.2 NOISE DESCRIPTORS

Environmental noise descriptors are generally based on averages, rather than instantaneous, noise levels. The most commonly used figure is the equivalent level (L_{eq}). Equivalent sound levels are not measured directly but are calculated from sound pressure levels typically measured in A-weighted decibels (dBA). The equivalent sound level (L_{eq}) represents a steady state sound level containing the same total energy as a time varying signal over a given sample period and is commonly used to describe the “average” noise levels within the environment.

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

2.3 SOUND PROPAGATION

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

2.3.1 GEOMETRIC SPREADING

Sound from a localized source (i.e., a stationary point source) propagates uniformly outward in a spherical pattern. The sound level attenuates (or decreases) at a rate of 6 dB for each doubling of distance from a point source. Highways consist of several localized noise sources on a defined path and hence can be treated as a line source, which approximates the effect of several point sources. Noise from a line source propagates outward in a cylindrical pattern, often referred to as cylindrical spreading. Sound levels attenuate at a rate of 3 dB for each doubling of distance from a line source. (5)

2.3.2 GROUND ABSORPTION

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

sufficiently accurate for distances of less than 200 ft. For acoustically hard sites (i.e., sites with a reflective surface between the source and the receptor, such as a parking lot or body of water), no excess ground attenuation is assumed. For acoustically absorptive or soft sites (i.e., those sites with an absorptive ground surface between the source and the receptor such as soft dirt, grass, or scattered bushes and trees), an excess ground attenuation value of 1.5 dB per doubling of distance is normally assumed. When added to the cylindrical spreading, the excess ground attenuation results in an overall drop-off rate of 4.5 dB per doubling of distance from a line source. (7)

2.3.3 ATMOSPHERIC EFFECTS

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

2.3.4 SHIELDING

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

2.4 NOISE CONTROL

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

2.5 NOISE BARRIER ATTENUATION

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

2.6 LAND USE COMPATIBILITY WITH NOISE

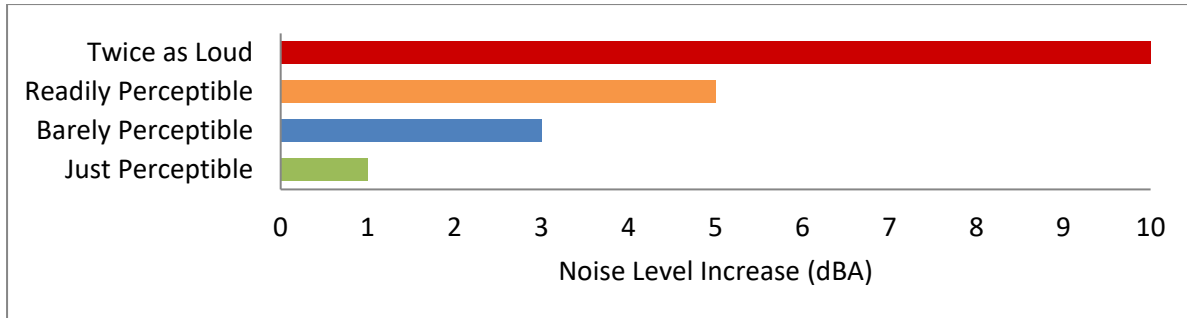
Some land uses are more tolerant of noise than others. For example, schools, hospitals, churches, and residences are more sensitive to noise intrusion than are commercial or industrial developments and related activities. As ambient noise levels affect the perceived amenity or livability of a development, so too can the mismanagement of noise impacts impair the economic health and growth potential of a community by reducing the area's desirability as a place to live, shop and work. For this reason, land use compatibility with the noise environment is an important consideration in the planning and design process. The FHWA encourages State and Local government to regulate land development in such a way that noise-sensitive land uses are either prohibited from being located adjacent to a highway, or that the developments are planned, designed, and constructed in such a way that noise impacts are minimized. (8)

2.7 COMMUNITY RESPONSE TO NOISE

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

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

Approximately ten percent of the population has a very low tolerance for noise and will object to any noise not of their making. Consequently, even in the quietest environment, some complaints will occur. Another twenty-five percent of the population will not complain even in very severe noise environments. Thus, a variety of reactions can be expected from people exposed to any given noise environment. (9) Surveys have shown that about ten percent of the people exposed to traffic noise of 60 dBA will report being highly annoyed with the noise, and each increase of one dBA is associated with approximately two percent more people being highly annoyed. When traffic noise exceeds 60 dBA or aircraft noise exceeds 55 dBA, people may begin to complain. (9) Despite this variability in behavior on an individual level, the population can be expected to exhibit the following responses to changes in noise levels as shown on Exhibit 2-B. An increase or decrease of 1 dBA cannot be perceived except in carefully controlled laboratory experiments, a change of 3 dBA are considered *barely perceptible*, and changes of 5 dBA are considered *readily perceptible*. (7)

EXHIBIT 2-B: NOISE LEVEL INCREASE PERCEPTION

2.8 EXPOSURE TO HIGH NOISE LEVELS

The Occupational Safety and Health Administration (OSHA) sets legal limits on noise exposure in the workplace. The permissible exposure limit (PEL) for a worker over an eight-hour day is 90 dBA. The OSHA standard uses a 5 dBA exchange rate. This means that when the noise level is increased by 5 dBA, the amount of time a person can be exposed to a certain noise level to receive the same dose is cut in half. The National Institute for Occupational Safety and Health (NIOSH) has recommended that all worker exposures to noise should be controlled below a level equivalent to 85 dBA for eight hours to minimize occupational noise induced hearing loss. NIOSH also recommends a 3 dBA exchange rate so that every increase by 3 dBA doubles the amount of the noise and halves the recommended amount of exposure time. (10)

OSHA has implemented requirements to protect all workers in general industry (e.g. the manufacturing and the service sectors) for employers to implement a Hearing Conservation Program where workers are exposed to a time weighted average noise level of 85 dBA or higher over an eight-hour work shift. Hearing Conservation Programs require employers to measure noise levels, provide free annual hearing exams and free hearing protection, provide training, and conduct evaluations of the adequacy of the hearing protectors in use unless changes to tools, equipment and schedules are made so that they are less noisy and worker exposure to noise is less than the 85 dBA. This noise study does not evaluate the noise exposure of workers within a Project or construction site based on CEQA requirements, and instead, evaluates Project-related operational and construction noise levels at the nearby sensitive receiver locations in the Project study area.

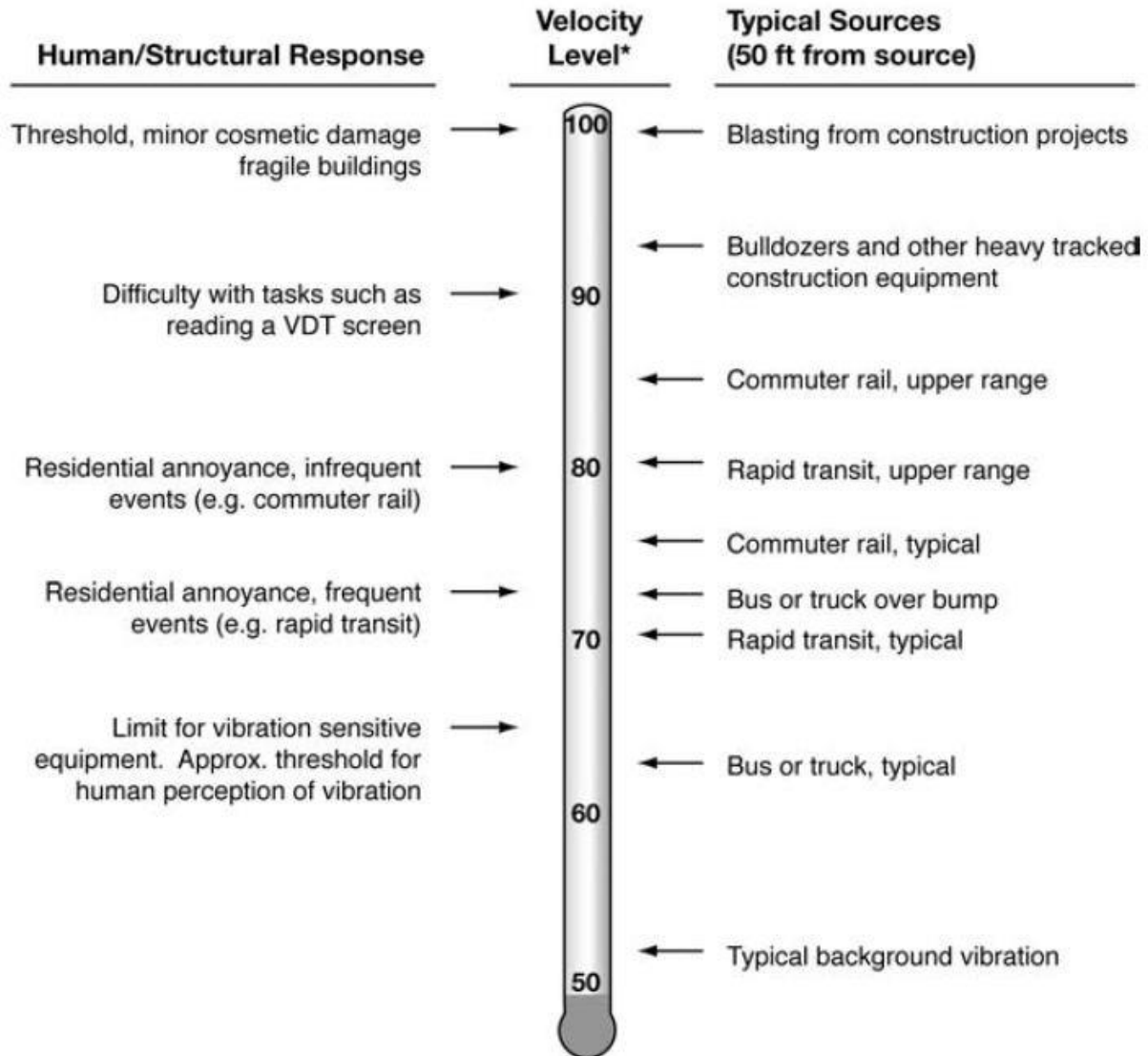
2.9 VIBRATION

Per the Federal Transit Administration (FTA) *Transit Noise Impact and Vibration Assessment* (4), vibration is the periodic oscillation of a medium or object. The rumbling sound caused by the vibration of room surfaces is called structure-borne noise. Sources of ground-borne vibrations include natural phenomena (e.g., earthquakes, volcanic eruptions, sea waves, landslides) or human-made causes (e.g., explosions, machinery, traffic, trains, construction equipment). Vibration sources may be continuous, such as factory machinery, or transient, such as explosions. As is the case with airborne sound, ground-borne vibrations may be described by amplitude and frequency.

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

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

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



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

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

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3 REGULATORY SETTING

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

3.1 STATE OF CALIFORNIA NOISE REQUIREMENTS

The State of California regulates freeway noise, sets standards for sound transmission, provides occupational noise control criteria, identifies noise standards, and provides guidance for local land use compatibility. State law requires that each county and city adopt a General Plan that includes a Noise Element which is to be prepared per guidelines adopted by the Governor's Office of Planning and Research (OPR). (11) The purpose of the Noise Element is to *limit the exposure of the community to excessive noise levels*.

3.2 STATE OF CALIFORNIA GREEN BUILDING STANDARDS CODE

The 2016 State of California's Green Building Standards Code contains mandatory measures for non-residential building construction in Section 5.507 on Environmental Comfort. (12) These noise standards are applied to new construction in California for controlling interior noise levels resulting from exterior noise sources. The regulations specify that acoustical studies must be prepared when non-residential structures are developed in areas where the exterior noise levels exceed 65 dBA CNEL, such as within a noise contour of an airport, freeway, railroad, and other areas where noise contours are not readily available. If the development falls within an airport or freeway 65 dBA CNEL noise contour, the combined sound transmission class (STC) rating of the wall and roof-ceiling assemblies must be at least 50. For those developments in areas where noise contours are not readily available and the noise level exceeds 65 dBA L_{eq} for any hour of operation, a wall and roof-ceiling combined STC rating of 45, and exterior windows with a minimum STC rating of 40 are required (Section 5.507.4.1).

3.3 CITY OF NORCO GENERAL PLAN NOISE ELEMENT

The City of Norco has adopted a Noise Element of the General Plan to control and abate environmental noise, and to protect the citizens of the City of Norco from excessive exposure to noise. (13) The Noise Element specifies the maximum allowable unmitigated exterior noise levels for new developments impacted by transportation noise sources such as arterial roads, freeways, airports, and railroads. For the purpose of this analysis, stationary/area-source (operational) noise generated by the proposed Project uses are evaluated based on the standards described below from the City of Norco Municipal Code.

LAND USE COMPATIBILITY

The *Land Use Compatibility* (Table 3.8) matrix in the City of Norco General Plan Noise Element, shown on Exhibit 3-A, provides guidelines to evaluate the land use compatibility of transportation related noise. (13) The *Land Use Compatibility* matrix describes categories of compatibility and not specific noise standards. According to these categories of transportation-related noise compatibility, the Palomino Business Park office, business, commercial, and industrial land uses are considered *normally acceptable* with unmitigated exterior noise levels below 70 dBA CNEL and *conditionally acceptable* with noise levels approaching 75 dBA CNEL. Nearby sensitive residential land uses are considered *normally acceptable* with noise levels below 60 dBA CNEL, and *conditionally acceptable* with noise levels below 70 dBA CNEL. For *conditionally acceptable* land use, *new construction or development should be undertaken only after a detailed analysis of noise reduction requirements is made and needed noise insulation features are included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning, will normally suffice.*

3.4 CONSTRUCTION NOISE STANDARDS

Neither the City of Norco General Plan nor Municipal Code establish numeric maximum acceptable construction source noise levels at potentially affected receivers, which would allow for a quantified determination of what CEQA constitutes a *substantial temporary or periodic noise increase*.

To evaluate whether the Project will generate potentially significant construction noise levels at off-site sensitive receiver locations, a construction-related noise level threshold is adopted from the *Criteria for Recommended Standard: Occupational Noise Exposure* prepared by the National Institute for Occupational Safety and Health (NIOSH). (14) A division of the U.S. Department of Health and Human Services, NIOSH identifies a noise level threshold based on the duration of exposure to the source. The construction related noise level threshold starts at 85 dBA for more than eight hours per day, and for every 3 dBA increase, the exposure time is cut in half. This results in noise level thresholds of 88 dBA for more than four hours per day, 92 dBA for more than one hour per day, 96 dBA for more than 30 minutes per day, and up to 100 dBA for more than 15 minutes per day. (14) For the purposes of this analysis, the lowest, more conservative construction noise level threshold of 85 dBA L_{eq} is used as an acceptable threshold for construction noise at the nearby sensitive receiver locations. Since this construction-related noise level threshold represents the energy average of the noise source over a given time, they are expressed as L_{eq} noise levels. Therefore, the noise level threshold of 85 dBA L_{eq} over a period of eight hours or more is used to evaluate the potential Project-related construction noise level impacts at the nearby sensitive receiver locations.

EXHIBIT 3-A: CITY OF NORCO LAND USE COMPATIBILITY MATRIX

LAND USE CATEGORIES	COMMUNITY NOISE EXPOSURE dB(A) CNEL					
	55	60	65	70	75	80
RESIDENTIAL – LOW DENSITY, SINGLE FAMILY, DUPLEX, MOBILE HOMES						
RESIDENTIAL – MULTIPLE FAMILY						
TRANSIENT LODGING – MOTELS, HOTELS						
SCHOOLS, LIBRARIES, CHURCHES, HOSPITALS, NURSING HOMES						
AUDITORIUMS, CONCERT HALLS, AMPHITHEATERS						
SPORTS ARENAS, OUTDOOR SPECTATOR SPORTS						
PLAYGROUNDS, NEIGHBORHOOD PARKS						
GOLF COURSES, RIDING STABLES, WATER RECREATION, CEMETARIES						
OFFICE BUILDINGS, BUSINESS, COMMERCIAL, PROFESSIONAL OFFICES						
INDUSTRIAL, MANUFACTURING, UTILITIES, AGRICULTURE						
<div><div></div><div>NORMALLY ACCEPTABLE</div></div> <div>Specified land use is satisfactory, based upon assumption that buildings are of normal conventional construction, without special noise insulation.</div>	<div><div></div><div>CONDITIONALLY ACCEPTABLE</div></div> <div>New construction should only proceed after a detailed analysis of noise reduction requirements is made and needed insulation included in the design. Conventional construction may suffice with closed windows and a fresh air supply system.</div>	<div><div></div><div>NORMALLY UNACCEPTABLE</div></div> <div>New construction should be discouraged. If construction proceeds, a detailed analysis of noise reduction requirements must be completed with needed insulation included in the design.</div>	<div><div></div><div>CLEARLY UNACCEPTABLE</div></div> <div>New development should not occur. Construction costs to make the indoor environment acceptable would be prohibitive and the outdoor environment would not be useable.</div>			

Source: City of Norco General Plan Noise Element, Table 3.8.

3.5 VIBRATION STANDARDS

The City of Norco General Plan and Municipal Code do not identify specific vibration level standards. Therefore, applicable vibration standards identified by the California Department of Transportation (“Caltrans”) *Transportation and Construction Vibration Guidance Manual* are used in this noise study. (15) According to the Caltrans vibration manual, large bulldozers, and loaded trucks used during construction activities can produce vibration which can potentially cause annoyance at sensitive land uses within the Project study area, or damage to adjacent structures. Therefore, the Caltrans *distinctly perceptible* vibration threshold in terms of human annoyance of 0.04 in/sec peak-particle velocity (PPV) is used in this noise study to determine potential impacts at nearby sensitive receiver locations.

4 SIGNIFICANCE CRITERIA

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

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

While the City of Norco General Plan Guidelines provide direction on noise compatibility and establish noise standards by land use type that are sufficient to assess the significance of noise impacts, they do not define the levels at which increases are considered substantial for use under Guideline A. CEQA Appendix G Guideline C applies to nearby public and private airports, if any, and the Project's land use compatibility.

CEQA GUIDELINES NOT FURTHER ANALYZED

The Project site is located within two miles of Corona Municipal Airport. However, based on the *Riverside County Airport Land Use Compatibility Plan Policy Document*, Map CO-3, Noise Compatibility Contours, the Project site is located outside of the 55 dBA CNEL contour boundaries of Corona Municipal Airport. (16) Table 2B of the *Riverside County Airport Land Use Compatibility Plan Policy Document* indicates that the Project land uses are considered *clearly compatible* outside of the 55 dBA CNEL noise level contour boundaries. As such, the Project site would not be exposed to excessive noise levels from airport operations, and therefore, impacts are considered *less than significant*, and no further noise analysis is conducted in relation to Guideline C.

4.1 NOISE-SENSITIVE RECEIVERS

Noise level increases resulting from the Project are evaluated based on the Appendix G CEQA Guidelines described above at the closest sensitive receiver locations. Under CEQA, consideration must be given to the magnitude of the increase, the existing ambient noise levels, and the location of noise-sensitive receivers to determine if a noise increase represents a significant adverse environmental impact. This approach recognizes *that there is no single noise increase that renders the noise impact significant*. (17)

Unfortunately, there is no completely satisfactory way to measure the subjective effects of noise or of the corresponding human reactions of annoyance and dissatisfaction. This is primarily because of the wide variation in individual thresholds of annoyance and differing individual experiences with noise. Thus, an important way of determining a person's subjective reaction to

a new noise is the comparison of it to the existing environment to which one has adapted—the so-called *ambient* environment.

In general, the more a new noise exceeds the previously existing ambient noise level, the less acceptable the new noise will typically be judged. The Federal Interagency Committee on Noise (FICON) (18) developed guidance to be used for the assessment of Project-generated increases in noise levels that consider the ambient noise level. The FICON recommendations are based on studies that relate aircraft noise levels to the percentage of persons highly annoyed by aircraft noise. Although the FICON recommendations were specifically developed to assess aircraft noise impacts, these recommendations are often used in environmental noise impact assessments involving the use of cumulative noise exposure metrics, such as the average-daily noise level (CNEL) and equivalent continuous noise level (L_{eq}).

As previously stated, the approach used in this noise study recognizes *that there is no single noise increase that renders the noise impact significant*, based on a 2008 California Court of Appeal ruling on Gray v. County of Madera. (17) 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, FICON identifies a *readily perceptible* 5 dBA or greater Project-related noise level increase is considered a significant impact when the noise criteria for a given land use is exceeded. 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. Table 4-1 below provides a summary of the potential noise impact significance criteria, based on guidance from FICON.

TABLE 4-1: SIGNIFICANCE OF NOISE IMPACTS AT NOISE-SENSITIVE RECEIVERS

Without Project Noise Level	Potential Significant Impact
< 60 dBA	5 dBA or more
60 - 65 dBA	3 dBA or more
> 65 dBA	1.5 dBA or more

Federal Interagency Committee on Noise (FICON), 1992.

4.2 NON-NOISE-SENSITIVE RECEIVERS

The City of Norco General Plan Noise Element is used to establish the satisfactory noise levels of significance for non-noise-sensitive land uses in the Project study area. As previously shown on Exhibit 3-A, the *normally acceptable* exterior noise levels for non-noise-sensitive land uses is 70 dBA CNEL. Noise levels greater than 70 dBA CNEL are considered *conditionally acceptable* per the General Plan Noise Element. (13)

To determine if Project-related traffic noise level increases are significant at off-site non-noise-sensitive land uses, a *readily perceptible* 5 dBA and *barely perceptible* 3 dBA criteria were used. When the without Project noise levels at the non-noise-sensitive land uses are below the *normally acceptable* 70 dBA CNEL compatibility criteria, a *readily perceptible* 5 dBA or greater noise level increase is considered a significant impact. When the without Project noise levels are greater than the *normally acceptable* 70 dBA CNEL land use compatibility criteria, a *barely perceptible* 3 dBA or greater noise level increase is considered a significant impact since the noise level criteria is already exceeded. The noise level increases used to determine significant impacts for non-noise-sensitive land uses is generally consistent with the FICON noise level increase thresholds for noise-sensitive land uses but instead rely on the City of Norco General Plan Noise Element, *normally acceptable* 70 dBA CNEL exterior noise level criteria.

4.3 SIGNIFICANCE CRITERIA SUMMARY

Noise impacts shall be considered significant if any of the following occur as a direct result of the proposed development. Table 4-2 shows the significance criteria summary matrix.

OFF-SITE TRAFFIC NOISE

- When the noise levels at existing and future noise-sensitive land uses (e.g. residential, etc.):
 - are less than 60 dBA CNEL and the Project creates a *readily perceptible* 5 dBA CNEL or greater Project-related noise level increase; or
 - range from 60 to 65 dBA CNEL and the Project creates a *barely perceptible* 3 dBA CNEL or greater Project-related noise level increase; or
 - already exceed 65 dBA CNEL, and the Project creates a community noise level impact of greater than 1.5 dBA CNEL (FICON, 1992).
- When the noise levels at existing and future non-noise-sensitive land uses (e.g., office, commercial, industrial):
 - are less than the City of Norco General Plan Noise Element *normally acceptable* 70 dBA CNEL and the Project creates a *readily perceptible* 5 dBA CNEL or greater Project related noise level increase; or
 - are greater than the City of Norco General Plan Noise Element *normally acceptable* 70 dBA CNEL and the Project creates a *barely perceptible* 3 dBA CNEL or greater Project noise level increase.

OPERATIONAL NOISE & VIBRATION

- If Project-related operational (stationary-source) noise levels exceed the exterior 55 dBA L_{eq} daytime and/or 45 dBA L_{eq} nighttime noise level standards at nearby sensitive receiver locations (City of Norco Chapter 9.07 Noise Regulations). The City's Municipal Code does not include any adjustments to the noise standards to account for existing ambient noise levels. As such, Project-only noise levels are evaluated for compliance with the Municipal Code standards.
- If the existing ambient noise levels at the nearby noise-sensitive receivers near the Project site:
 - are less than 60 dBA L_{eq} and the Project creates a *readily perceptible* 5 dBA L_{eq} or greater Project-related noise level increase; or
 - range from 60 to 65 dBA L_{eq} and the Project creates a *barely perceptible* 3 dBA L_{eq} or greater Project-related noise level increase; or
 - already exceed 65 dBA L_{eq} and the Project creates a community noise level impact of greater than 1.5 dBA L_{eq} (FICON, 1992).
- If long-term Project generated operational vibration levels exceed the vibration threshold of 0.04 in/sec PPV at sensitive receiver locations (Caltrans Transportation and Construction Vibration Guidance Manual).

CONSTRUCTION NOISE & VIBRATION

- If Project-related construction activities create noise levels which exceed the 85 dBA L_{eq} acceptable noise level threshold at the nearby sensitive receiver locations (NIOSH, Criteria for Recommended Standard: Occupational Noise Exposure).
- If short-term Project-generated construction vibration levels exceed the vibration threshold of 0.04 in/sec PPV at sensitive receiver locations (Caltrans Transportation and Construction Vibration Guidance Manual).

TABLE 4-2: SIGNIFICANCE CRITERIA SUMMARY

Analysis	Land Use	Condition(s)	Significance Criteria	
			Daytime	Nighttime
Off-Site Traffic Noise	Noise-Sensitive ¹	if ambient is < 60 dBA CNEL	≥ 5 dBA CNEL Project increase	
		if ambient is 60 - 65 dBA CNEL	≥ 3 dBA CNEL Project increase	
		if ambient is > 65 dBA CNEL	≥ 1.5 dBA CNEL Project increase	
	Non-Noise-Sensitive ²	if ambient is < 70 dBA CNEL	≥ 5 dBA CNEL Project increase	
		if ambient is > 70 dBA CNEL	≥ 3 dBA CNEL Project increase	
Operational Noise & Vibration	Noise-Sensitive	Exterior Noise Level Standards ³	55 dBA L _{eq}	45 dBA L _{eq}
		if ambient is < 60 dBA L _{eq} ¹	≥ 5 dBA L _{eq} Project increase	
		if ambient is 60 - 65 dBA L _{eq} ¹	≥ 3 dBA L _{eq} Project increase	
		if ambient is > 65 dBA L _{eq} ¹	≥ 1.5 dBA L _{eq} Project increase	
		Vibration Level Threshold ⁴	0.04 in/sec PPV	
Construction Noise & Vibration	Noise-Sensitive	Noise Level Threshold ⁵	85 dBA L _{eq}	
		Vibration Level Threshold ⁴	0.04 in/sec PPV	

¹ Source: FICON, 1992.² Source: City of Norco General Plan Noise Element, Table 3.8.³ Source: City of Norco Municipal Code, Chapter 9.07 Noise Regulations (Appendix 3.1).⁴ Source: Caltrans Transportation and Construction Vibration Guidance Manual.⁵ Acceptable threshold for construction noise based on the Criteria for Recommended Standard: Occupational Noise Exposure prepared by the National Institute for Occupational Safety and Health.

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

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5 EXISTING NOISE LEVEL MEASUREMENTS

To assess the existing noise level environment, 24-hour noise level measurements were taken at eight locations in the Project study area. The receiver locations were selected to describe and document the existing noise environment within the Project study area. Exhibit 5-A provides the boundaries of the Project study area and the noise level measurement locations. To fully describe the existing noise conditions, noise level measurements were collected by Urban Crossroads, Inc. on Tuesday, November 13th, 2018. Appendix 5.1 includes study area photos.

5.1 MEASUREMENT PROCEDURE AND CRITERIA

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

5.2 NOISE MEASUREMENT LOCATIONS

The long-term noise level measurements were positioned as close to the nearest sensitive receiver locations as possible to assess the existing ambient hourly noise levels surrounding the Project site. Both Caltrans and the FTA recognize that it is not reasonable to collect noise level measurements that can fully represent every part of a private yard, patio, deck, or balcony normally used for human activity when estimating impacts for new development Projects. This is demonstrated in the Caltrans general site location guidelines which indicate that, *sites must be free of noise contamination by sources other than sources of interest. Avoid sites located near sources such as barking dogs, lawnmowers, pool pumps, and air conditioners unless it is the express intent of the analyst to measure these sources.* (5) Further, FTA guidance states, *that it is not necessary nor recommended that existing noise exposure be determined by measuring at every noise-sensitive location in the Project area. Rather, the recommended approach is to characterize the noise environment for clusters of sites based on measurements or estimates at representative locations in the community.* (4)

Based on recommendations of Caltrans and the FTA, it is not necessary to collect measurements at each individual building or residence, because each receiver measurement represents a group of buildings that share acoustical equivalence. (4) In other words, the area represented by the receiver shares similar shielding, terrain, and geometric relationship to the reference noise source. Receivers represent a location of noise sensitive areas and are used to estimate the future noise level impacts. Collecting reference ambient noise level measurements at the nearby sensitive receiver locations allows for a comparison of the before and after Project noise levels

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

5.3 NOISE MEASUREMENT RESULTS

The noise measurements presented below focus on the average or equivalent sound levels (L_{eq}). The equivalent sound level (L_{eq}) represents a steady state sound level containing the same total energy as a time varying signal over a given sample period. Table 5-1 identifies the hourly daytime (7:00 a.m. to 10:00 p.m.) and nighttime (10:00 p.m. to 7:00 a.m.) noise levels at each noise level measurement location. Appendix 5.2 provides a summary of the existing hourly ambient noise levels described below:

- Location L1 represents the noise levels north of the Project site on Second Street, near existing residential homes. The noise level measurements collected show an overall 24-hour exterior noise level of 72.3 dBA CNEL. The energy (logarithmic) average daytime noise level was calculated at 68.2 dBA L_{eq} with an average nighttime noise level of 65.2 dBA L_{eq} .
- Location L2 represents the noise levels north of the Project site near existing residential homes on Second Street. The noise level measurements collected show an overall 24-hour exterior noise level of 65.2 dBA CNEL. The energy (logarithmic) average daytime noise level was calculated at 60.9 dBA L_{eq} with an average nighttime noise level of 58.0 dBA L_{eq} .
- Location L3 represents the noise levels on Mountain Avenue near existing industrial uses within the Project site boundaries. The 24-hour CNEL indicates that the overall exterior noise level is 71.5 dBA CNEL. The energy (logarithmic) average daytime noise level was calculated at 67.6 dBA L_{eq} with an average nighttime noise level of 64.3 dBA L_{eq} .
- Location L4 represents the noise levels on Mountain Avenue near existing industrial uses southeast of the Project site. The noise level measurements collected show an overall 24-hour exterior noise level of 70.4 dBA CNEL. The energy (logarithmic) average daytime noise level was calculated at 66.4 dBA L_{eq} with an average nighttime noise level of 63.2 dBA L_{eq} .
- Location L5 represents the noise levels on Mountain Avenue near existing residential uses north of First Street. The 24-hour CNEL indicates that the overall exterior noise level is 66.3 dBA CNEL. The energy (logarithmic) average daytime noise level was calculated at 61.8 dBA L_{eq} with an average nighttime noise level of 59.2 dBA L_{eq} .
- Location L6 represents the noise levels at the southern Project site boundary on First Street near existing residential and industrial uses. The noise level measurements collected show an overall 24-hour exterior noise level of 69.8 dBA CNEL. The energy (logarithmic) average daytime noise level was calculated at 65.7 dBA L_{eq} with an average nighttime noise level of 62.5 dBA L_{eq} .
- Location L7 represents the noise levels west of the Project site on Pacific Avenue near existing residential homes. The noise level measurements collected show an overall 24-hour exterior noise level of 60.8 dBA CNEL. The energy (logarithmic) average daytime noise level was calculated at 56.0 dBA L_{eq} with an average nighttime noise level of 53.8 dBA L_{eq} .

- Location L8 represents the noise levels west of the Project site on Pacific Avenue near existing residential homes. The noise level measurements collected show an overall 24-hour exterior noise level of 57.5 dBA CNEL. The energy (logarithmic) average daytime noise level was calculated at 54.4 dBA L_{eq} with an average nighttime noise level of 49.8 dBA L_{eq} .

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

The background ambient noise levels in the Project study area are dominated by the transportation-related noise associated with I-15 and study area roadways, in addition to background existing industrial land use activities. This includes the auto and heavy truck activities on study area roadway segments near the noise level measurement locations. The 24-hour existing noise level measurement results are shown on Table 5-1.

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

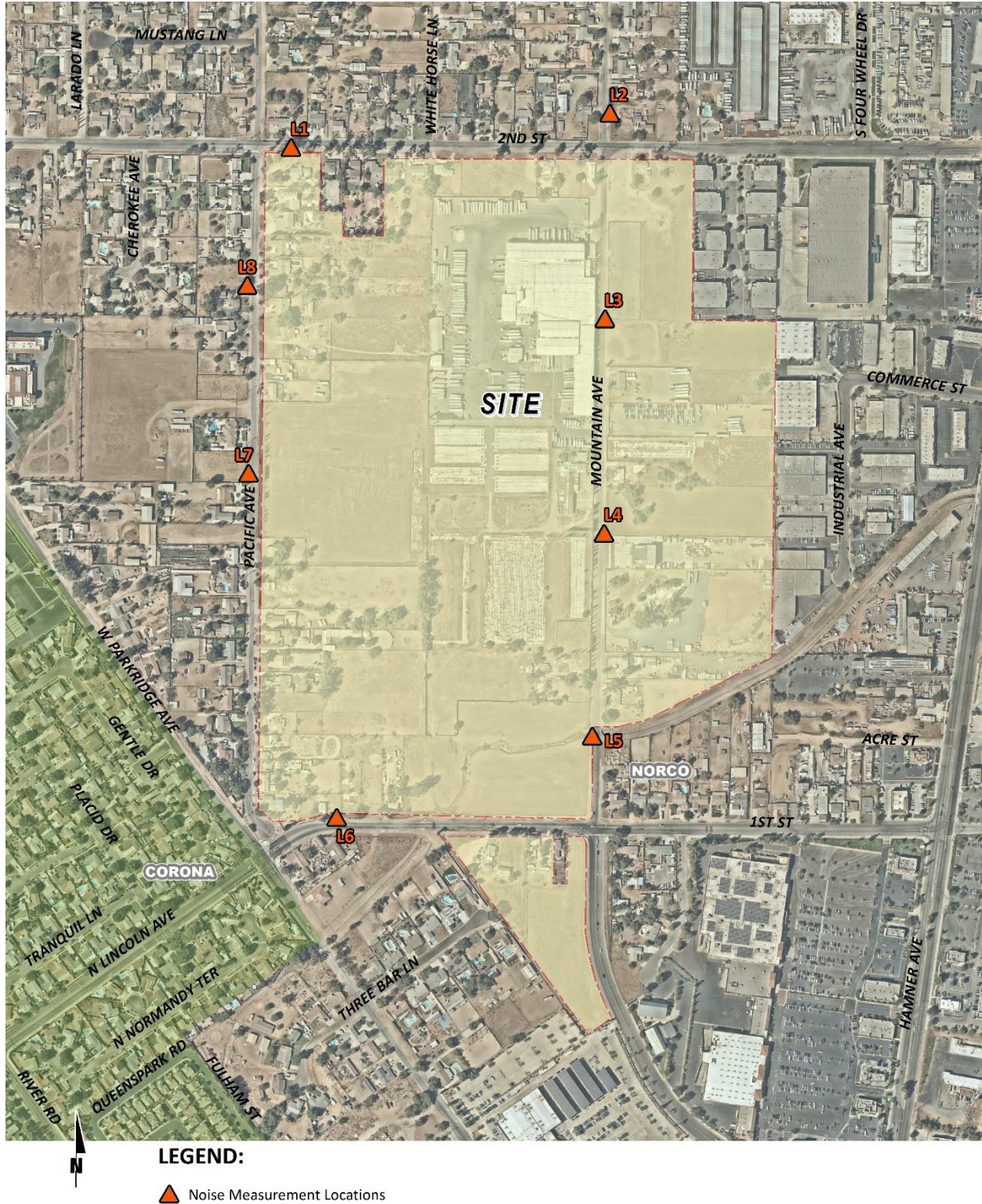
Location ¹	Distance to Project Boundary (Feet)	Description	Energy Average Noise Level (dBA L _{eq}) ²		CNEL
			Daytime	Nighttime	
L1	20'	Located north of the Project site on Second Street, near existing residential homes.	68.2	65.2	72.3
L2	190'	Located north of the Project site near existing residential homes on Second Street.	60.9	58.0	65.2
L3	0'	Located on Mountain Avenue near existing industrial uses within the Project site boundaries.	67.6	64.3	71.5
L4	0'	Located on Mountain Avenue near existing industrial uses southeast of the Project site.	66.4	63.2	70.4
L5	0'	Located on Mountain Avenue near existing residential uses north of First Street.	61.8	59.2	66.3
L6	0'	Located at the southern Project site boundary on First Street near existing residential and industrial uses.	65.7	62.5	69.8
L7	70'	Located west of the Project site on Pacific Avenue near existing residential homes.	56.0	53.8	60.8
L8	75'	Located west of the Project site on Pacific Avenue near existing residential homes.	54.4	49.8	57.5

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.

EXHIBIT 5-A: NOISE MEASUREMENT LOCATIONS



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6 METHODS AND PROCEDURES

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

6.1 FHWA TRAFFIC NOISE PREDICTION MODEL

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

6.2 OFF-SITE TRAFFIC NOISE PREDICTION MODEL INPUTS

Table 6-1 presents the roadway parameters used to assess the Project's off-site transportation noise impacts. Table 6-1 identifies the 31 study area roadway segments, the distance from the centerline to adjacent land use based on the functional roadway classifications per the City of Norco General Plan Circulation Element, and the posted vehicle speeds. Where posted vehicle speeds are unavailable, the 40 mph speed identified in the County of Riverside Office of Industrial Hygiene Noise Study Guidelines is used. (23) The ADT volumes used in this study are presented on Table 6-2 and were obtained from the *Palomino Business Park Traffic Impact Analysis*, for the following traffic scenarios: Existing (2018), Opening Year Cumulative 2022, and Horizon Year 2040. (2)

TABLE 6-1: OFF-SITE ROADWAY PARAMETERS

ID	Roadway	Segment	Adjacent Planned (Existing if Different) Land Use ¹	Distance from Centerline to Nearest Adjacent Land Use (Feet) ²	Vehicle Speed (mph) ³
1	River Rd.	s/o Corydon St.	Residential	50'	45
2	River Rd.	s/o Lincoln Av.	Residential	30'	45
3	Parkridge Av.	n/o Second St.	Residential	30'	25
4	Parkridge Av.	s/o Second St.	Residential	44'	40
5	Parkridge Av.	s/o Lincoln Av.	Residential	44'	40
6	Pacific Av.	s/o Second St.	Residential/SP:Residential	30'	25
7	Mountain Av.	n/o Hamner Av.	SP:Commercial/Vacant	44'	40
8	Hamner Av.	s/o Third St.	SP:Commercial	55'	40
9	Hamner Av.	s/o Second St.	Commercial	55'	40
10	Hamner Av.	s/o First St.	SP:Commercial	55'	40
11	Hamner Av.	s/o Hidden Valley Pkwy.	SP:Commercial	55'	40
12	E. Parkridge Av.	s/o Hidden Valley Pkwy.	Residential	44'	45
13	Lincoln Av.	s/o River Rd.	Residential	44'	40
14	Lincoln Av.	s/o Rincon St.	Light/General Industrial	44'	40
15	Lincoln Av.	s/o Railroad St.	Light Industrial (Residential)	44'	40
16	Lincoln Av.	s/o Pomona Rd.	Commercial	44'	40
17	Second St.	w/o Parkridge Av.	Residential	30'	35
18	Second St.	e/o Parkridge Av.	Residential	30'	35
19	Second St.	w/o Pacific Av.	Residential	30'	35
20	Second St.	e/o Pacific Av.	Residential/SP:Residential	30'	35
21	Second St.	w/o Mountain Av.	Residential/SP:Industrial	30'	35
22	Second St.	e/o Mountain Av.	Residential/SP:Industrial	44'	35
23	Second St.	e/o Dwy. 8	SP:Industrial	44'	35
24	Second St.	w/o Hamner Av.	SP:Industrial/Commercial	44'	35
25	First St.	w/o Parkridge Av.	Residential	30'	35
26	First St.	e/o Parkridge Av.	SP:Residential/Industrial	44'	35
27	First St.	e/o Dwy. 1	Residential/SP:Industrial	44'	35
28	First St.	e/o Mountain Av.	SP:Res./Commercial	44'	35
29	First St.	w/o Hamner Av.	SP:Commercial (Residential)	44'	35
30	Hidden Valley Pkwy.	w/o E. Parkridge Av.	Residential	50'	45
31	Hidden Valley Pkwy.	e/o E. Parkridge Av.	Residential	50'	45

¹ Sources: City of Norco General Plan Land Use Map and the City of Corona General Plan Land Use Map.

² Distance to adjacent land use is based upon the right-of-way distances for each functional roadway classification provided in the General Plan Circulation Element.

³ Source: Palomino Business Park Traffic Impact Analysis, Urban Crossroads, Inc.

"SP" = Specific Plan

TABLE 6-2: AVERAGE DAILY TRAFFIC VOLUMES

ID	Roadway	Segment	Average Daily Traffic Volumes ¹					
			Existing 2018		Opening Year 2022		Horizon Year 2040	
			Without Project	With Project	Without Project	With Project	Without Project	With Project
1	River Rd.	s/o Corydon St.	24,406	24,819	28,511	28,924	34,803	35,216
2	River Rd.	s/o Lincoln Av.	13,235	13,441	14,544	14,750	19,023	19,229
3	Parkridge Av.	n/o Second St.	2,296	2,502	2,561	2,767	3,153	3,359
4	Parkridge Av.	s/o Second St.	3,068	3,274	4,931	5,137	9,222	9,428
5	Parkridge Av.	s/o Lincoln Av.	5,059	5,265	6,784	6,990	10,918	11,124
6	Pacific Av.	s/o Second St.	386	386	560	560	659	659
7	Mountain Av.	n/o Hamner Av.	8,345	11,136	11,135	13,926	13,286	16,077
8	Hamner Av.	s/o Third St.	34,293	34,706	39,247	39,660	48,087	48,500
9	Hamner Av.	s/o Second St.	29,539	29,591	33,674	33,726	41,289	41,341
10	Hamner Av.	s/o First St.	22,937	23,145	26,577	26,785	32,490	32,698
11	Hamner Av.	s/o Hidden Valley Pkwy.	29,221	29,686	33,848	34,313	41,542	42,007
12	E. Parkridge Av.	s/o Hidden Valley Pkwy.	7,784	7,990	8,676	8,882	13,108	13,314
13	Lincoln Av.	s/o River Rd.	20,087	21,119	23,440	24,472	28,619	29,651
14	Lincoln Av.	s/o Rincon St.	19,004	20,036	23,697	24,729	28,597	29,629
15	Lincoln Av.	s/o Railroad St.	21,585	22,411	26,204	27,030	31,768	32,594
16	Lincoln Av.	s/o Pomona Rd.	24,057	24,883	31,267	32,093	38,360	39,186
17	Second St.	w/o Parkridge Av.	9,969	10,520	15,898	16,449	18,468	19,019
18	Second St.	e/o Parkridge Av.	8,712	9,675	13,016	13,979	15,262	16,225
19	Second St.	w/o Pacific Av.	9,776	10,946	14,166	15,336	16,686	17,856
20	Second St.	e/o Pacific Av.	10,473	11,643	14,778	15,948	17,478	18,648
21	Second St.	w/o Mountain Av.	11,456	12,626	15,842	17,012	18,795	19,965
22	Second St.	e/o Mountain Av.	12,190	14,206	16,293	18,309	19,436	21,452
23	Second St.	e/o Dwy. 8	12,190	14,550	16,293	18,653	19,436	21,796
24	Second St.	w/o Hamner Av.	17,237	19,597	18,657	21,017	23,101	25,461
25	First St.	w/o Parkridge Av.	16,397	17,636	19,879	21,118	24,106	25,345
26	First St.	e/o Parkridge Av.	15,837	17,282	19,551	20,996	23,634	25,079
27	First St.	e/o Dwy. 1	15,837	16,525	19,552	20,240	23,635	24,323
28	First St.	e/o Mountain Av.	8,581	8,737	9,618	9,774	11,830	11,986
29	First St.	w/o Hamner Av.	9,185	9,341	10,270	10,426	12,637	12,793
30	Hidden Valley Pkwy.	w/o E. Parkridge Av.	20,852	21,403	23,901	24,452	29,276	29,827
31	Hidden Valley Pkwy.	e/o E. Parkridge Av.	22,594	22,800	25,287	25,493	31,112	31,318

¹ Source: Palomino Business Park Traffic Impact Analysis, Urban Crossroads, Inc.

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

Table 6-3 provides the time of day (daytime, evening, and nighttime) vehicle splits. The daily Project truck trip-ends were assigned to the individual off-site study area roadway segments based on the Project truck trip distribution percentages documented in the *Traffic Impact Analysis*. Using the Project truck trips in combination with the Project trip distribution, Urban Crossroads, Inc. calculated the number of additional Project truck trips and vehicle mix percentages for each of the study area roadway segments. Table 6-4 shows the traffic flow by vehicle type (vehicle mix) used for all without Project traffic scenarios, and Tables 6-5 to 6-7 show the vehicle mixes used for the with Project traffic scenarios.

TABLE 6-3: TIME OF DAY VEHICLE SPLITS

Vehicle Type	Time of Day Splits			Total of Time of Day Splits
	Daytime	Evening	Nighttime	
Autos	76.34%	11.03%	12.63%	100.00%
Medium Trucks	73.27%	9.16%	17.57%	100.00%
Heavy Trucks	84.36%	3.17%	12.48%	100.00%

Based on an existing vehicle count taken on River Road between Second Street and Corydon Street (Palomino Business Park Traffic Impact Analysis, Urban Crossroads, Inc.). Vehicle mix percentage values rounded to the nearest one-hundredth.

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

TABLE 6-4: WITHOUT PROJECT CONDITIONS VEHICLE MIX

Classification	Total % Traffic Flow			Total
	Autos	Medium Trucks	Heavy Trucks	
All Segments	91.88%	5.79%	2.33%	100.00%

Based on an existing vehicle count taken on River Road between Second Street and Corydon Street (Palomino Business Park Traffic Impact Analysis, Urban Crossroads, Inc.). Vehicle mix percentage values rounded to the nearest one-hundredth.

TABLE 6-5: EXISTING WITH PROJECT CONDITIONS VEHICLE MIX

ID	Roadway	Segment	With Project ¹			Total ²
			Autos	Medium Trucks	Heavy Trucks	
1	River Rd.	s/o Corydon St.	92.01%	5.69%	2.30%	100.00%
2	River Rd.	s/o Lincoln Av.	92.00%	5.70%	2.30%	100.00%
3	Parkridge Av.	n/o Second St.	92.55%	5.31%	2.14%	100.00%
4	Parkridge Av.	s/o Second St.	92.39%	5.42%	2.19%	100.00%
5	Parkridge Av.	s/o Lincoln Av.	92.19%	5.56%	2.24%	100.00%
6	Pacific Av.	s/o Second St.	91.88%	5.79%	2.33%	100.00%
7	Mountain Av.	n/o Hamner Av.	89.24%	5.45%	5.31%	100.00%
8	Hamner Av.	s/o Third St.	91.97%	5.72%	2.31%	100.00%
9	Hamner Av.	s/o Second St.	91.71%	5.82%	2.47%	100.00%
10	Hamner Av.	s/o First St.	91.05%	5.95%	3.00%	100.00%
11	Hamner Av.	s/o Hidden Valley Pkwy.	91.83%	5.74%	2.43%	100.00%
12	E. Parkridge Av.	s/o Hidden Valley Pkwy.	92.09%	5.64%	2.27%	100.00%
13	Lincoln Av.	s/o River Rd.	92.27%	5.51%	2.22%	100.00%
14	Lincoln Av.	s/o Rincon St.	92.29%	5.49%	2.21%	100.00%
15	Lincoln Av.	s/o Railroad St.	92.18%	5.58%	2.25%	100.00%
16	Lincoln Av.	s/o Pomona Rd.	92.15%	5.60%	2.26%	100.00%
17	Second St.	w/o Parkridge Av.	92.30%	5.49%	2.21%	100.00%
18	Second St.	e/o Parkridge Av.	92.68%	5.21%	2.10%	100.00%
19	Second St.	w/o Pacific Av.	92.74%	5.17%	2.08%	100.00%
20	Second St.	e/o Pacific Av.	92.69%	5.21%	2.10%	100.00%
21	Second St.	w/o Mountain Av.	92.63%	5.25%	2.12%	100.00%
22	Second St.	e/o Mountain Av.	90.47%	5.58%	3.95%	100.00%
23	Second St.	e/o Dwy. 8	90.69%	5.45%	3.86%	100.00%
24	Second St.	w/o Hamner Av.	91.00%	5.54%	3.47%	100.00%
25	First St.	w/o Parkridge Av.	92.45%	5.38%	2.17%	100.00%
26	First St.	e/o Parkridge Av.	92.56%	5.31%	2.14%	100.00%
27	First St.	e/o Dwy. 1	92.21%	5.55%	2.24%	100.00%
28	First St.	e/o Mountain Av.	90.24%	6.11%	3.65%	100.00%
29	First St.	w/o Hamner Av.	90.34%	6.09%	3.57%	100.00%
30	Hidden Valley Pkwy.	w/o E. Parkridge Av.	92.08%	5.64%	2.27%	100.00%
31	Hidden Valley Pkwy.	e/o E. Parkridge Av.	91.95%	5.74%	2.31%	100.00%

¹ Source: Palomino Business Park Traffic Impact Analysis, Urban Crossroads, Inc.² Total of vehicle mix percentage values rounded to the nearest one-hundredth.

TABLE 6-6: OPENING YEAR WITH PROJECT CONDITIONS VEHICLE MIX

ID	Roadway	Segment	With Project ¹			Total ²
			Autos	Medium Trucks	Heavy Trucks	
1	River Rd.	s/o Corydon St.	91.99%	5.71%	2.30%	100.00%
2	River Rd.	s/o Lincoln Av.	91.99%	5.71%	2.30%	100.00%
3	Parkridge Av.	n/o Second St.	92.48%	5.36%	2.16%	100.00%
4	Parkridge Av.	s/o Second St.	92.20%	5.56%	2.24%	100.00%
5	Parkridge Av.	s/o Lincoln Av.	92.12%	5.62%	2.27%	100.00%
6	Pacific Av.	s/o Second St.	91.88%	5.79%	2.33%	100.00%
7	Mountain Av.	n/o Hamner Av.	89.77%	5.52%	4.71%	100.00%
8	Hamner Av.	s/o Third St.	91.96%	5.73%	2.31%	100.00%
9	Hamner Av.	s/o Second St.	91.73%	5.82%	2.45%	100.00%
10	Hamner Av.	s/o First St.	91.16%	5.93%	2.91%	100.00%
11	Hamner Av.	s/o Hidden Valley Pkwy.	91.83%	5.75%	2.42%	100.00%
12	E. Parkridge Av.	s/o Hidden Valley Pkwy.	92.06%	5.66%	2.28%	100.00%
13	Lincoln Av.	s/o River Rd.	92.22%	5.55%	2.24%	100.00%
14	Lincoln Av.	s/o Rincon St.	92.22%	5.55%	2.24%	100.00%
15	Lincoln Av.	s/o Railroad St.	92.12%	5.61%	2.26%	100.00%
16	Lincoln Av.	s/o Pomona Rd.	92.09%	5.64%	2.27%	100.00%
17	Second St.	w/o Parkridge Av.	92.15%	5.60%	2.26%	100.00%
18	Second St.	e/o Parkridge Av.	92.44%	5.39%	2.17%	100.00%
19	Second St.	w/o Pacific Av.	92.50%	5.35%	2.16%	100.00%
20	Second St.	e/o Pacific Av.	92.47%	5.37%	2.16%	100.00%
21	Second St.	w/o Mountain Av.	92.43%	5.39%	2.17%	100.00%
22	Second St.	e/o Mountain Av.	90.78%	5.63%	3.59%	100.00%
23	Second St.	e/o Dwy. 8	90.95%	5.52%	3.52%	100.00%
24	Second St.	w/o Hamner Av.	91.06%	5.55%	3.39%	100.00%
25	First St.	w/o Parkridge Av.	92.35%	5.45%	2.20%	100.00%
26	First St.	e/o Parkridge Av.	92.44%	5.39%	2.17%	100.00%
27	First St.	e/o Dwy. 1	92.15%	5.59%	2.25%	100.00%
28	First St.	e/o Mountain Av.	90.41%	6.08%	3.51%	100.00%
29	First St.	w/o Hamner Av.	90.50%	6.06%	3.44%	100.00%
30	Hidden Valley Pkwy.	w/o E. Parkridge Av.	92.06%	5.66%	2.28%	100.00%
31	Hidden Valley Pkwy.	e/o E. Parkridge Av.	91.94%	5.74%	2.32%	100.00%

¹ Source: Palomino Business Park Traffic Impact Analysis, Urban Crossroads, Inc.² Total of vehicle mix percentage values rounded to the nearest one-hundredth.

TABLE 6-7: HORIZON YEAR WITH PROJECT CONDITIONS VEHICLE MIX

ID	Roadway	Segment	With Project ¹			Total ²
			Autos	Medium Trucks	Heavy Trucks	
1	River Rd.	s/o Corydon St.	91.97%	5.72%	2.31%	100.00%
2	River Rd.	s/o Lincoln Av.	91.96%	5.73%	2.31%	100.00%
3	Parkridge Av.	n/o Second St.	92.38%	5.43%	2.19%	100.00%
4	Parkridge Av.	s/o Second St.	92.05%	5.66%	2.28%	100.00%
5	Parkridge Av.	s/o Lincoln Av.	92.03%	5.68%	2.29%	100.00%
6	Pacific Av.	s/o Second St.	91.88%	5.79%	2.33%	100.00%
7	Mountain Av.	n/o Hamner Av.	90.05%	5.56%	4.39%	100.00%
8	Hamner Av.	s/o Third St.	91.95%	5.74%	2.31%	100.00%
9	Hamner Av.	s/o Second St.	91.76%	5.81%	2.43%	100.00%
10	Hamner Av.	s/o First St.	91.29%	5.91%	2.80%	100.00%
11	Hamner Av.	s/o Hidden Valley Pkwy.	91.84%	5.75%	2.40%	100.00%
12	E. Parkridge Av.	s/o Hidden Valley Pkwy.	92.00%	5.70%	2.30%	100.00%
13	Lincoln Av.	s/o River Rd.	92.16%	5.59%	2.25%	100.00%
14	Lincoln Av.	s/o Rincon St.	92.16%	5.59%	2.25%	100.00%
15	Lincoln Av.	s/o Railroad St.	92.08%	5.64%	2.27%	100.00%
16	Lincoln Av.	s/o Pomona Rd.	92.05%	5.67%	2.28%	100.00%
17	Second St.	w/o Parkridge Av.	92.11%	5.62%	2.27%	100.00%
18	Second St.	e/o Parkridge Av.	92.36%	5.45%	2.20%	100.00%
19	Second St.	w/o Pacific Av.	92.41%	5.41%	2.18%	100.00%
20	Second St.	e/o Pacific Av.	92.39%	5.43%	2.19%	100.00%
21	Second St.	w/o Mountain Av.	92.35%	5.45%	2.20%	100.00%
22	Second St.	e/o Mountain Av.	90.94%	5.65%	3.41%	100.00%
23	Second St.	e/o Dwy. 8	91.09%	5.56%	3.35%	100.00%
24	Second St.	w/o Hamner Av.	91.20%	5.60%	3.21%	100.00%
25	First St.	w/o Parkridge Av.	92.27%	5.51%	2.22%	100.00%
26	First St.	e/o Parkridge Av.	92.34%	5.46%	2.20%	100.00%
27	First St.	e/o Dwy. 1	92.11%	5.63%	2.27%	100.00%
28	First St.	e/o Mountain Av.	90.68%	6.02%	3.30%	100.00%
29	First St.	w/o Hamner Av.	90.76%	6.01%	3.24%	100.00%
30	Hidden Valley Pkwy.	w/o E. Parkridge Av.	92.03%	5.68%	2.29%	100.00%
31	Hidden Valley Pkwy.	e/o E. Parkridge Av.	91.93%	5.75%	2.32%	100.00%

¹ Source: Palomino Business Park Traffic Impact Analysis, Urban Crossroads, Inc.² Total of vehicle mix percentage values rounded to the nearest one-hundredth.

6.3 VIBRATION ASSESSMENT

This analysis focuses on the potential ground-borne vibration associated with vehicular traffic and construction activities. Ground-borne vibration levels from automobile traffic are generally overshadowed by vibration generated by heavy trucks that roll over the same uneven roadway surfaces. However, due to the rapid drop-off rate of ground-borne vibration and the short duration of the associated events, vehicular traffic-induced ground-borne vibration is rarely perceptible beyond the roadway right-of-way, and rarely results in vibration levels that cause damage to buildings in the vicinity.

However, while vehicular traffic is rarely perceptible, construction has the potential to result in varying degrees of temporary ground vibration, depending on the specific construction activities and equipment used. Ground vibration levels associated with various types of construction equipment are summarized on Table 6-8. Based on the representative vibration levels presented for various construction equipment types, it is possible to estimate the human response (annoyance) using the following vibration assessment methods defined by the FTA. To describe the human response (annoyance) associated with vibration impacts the FTA provides the following equation: $PPV_{\text{equip}} = PPV_{\text{ref}} \times (25/D)^{1.5}$

TABLE 6-8: 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

Source: Federal Transit Administration, Transit Noise and Vibration Impact Assessment, September 2018.

7 OFF-SITE TRANSPORTATION NOISE IMPACTS

To assess the off-site transportation CNEL noise level impacts associated with the proposed Project, noise contours were developed based on the *Palomino Business Park Traffic Impact Analysis*. (2) Noise contour boundaries represent the equal levels of noise exposure and are measured in CNEL from the center of the roadway. Noise contours were developed for the following traffic scenarios:

- Existing (2018) Without / With Project:
 - This scenario refers to the Existing present-day noise conditions, without and with the proposed Project.
- Opening Year Cumulative 2022 Without / With Project:
 - This scenario below refers to the background noise conditions at future Year 2022 without and with the proposed Project plus ambient growth, and includes all cumulative Projects identified in the *Traffic Impact Analysis*.
- Horizon Year 2040 Without / With Project:
 - This scenario below refers to the background noise conditions at future Year 2040 without and with the proposed Project plus ambient growth, and includes all cumulative Projects identified in the *Traffic Impact Analysis*.

7.1 TRAFFIC NOISE CONTOURS

Noise contours were used to assess the Project's incremental traffic-related noise impacts at land uses adjacent to roadways conveying Project traffic. The noise contours represent the distance to noise levels of a constant value and are measured from the center of the roadway for the 70, 65, and 60 dBA noise levels. The noise contours do not consider the effect of any existing noise barriers or topography that may attenuate ambient noise levels. In addition, because the noise contours reflect modeling of vehicular noise on area roadways, they appropriately do not reflect noise contributions from the surrounding stationary noise sources within the Project study area. Tables 7-1 through 7-6 present a summary of the exterior traffic noise levels, without barrier attenuation, for the study area roadway segments analyzed from the without Project to the with Project conditions in each of the following timeframes: Existing, Opening Year Cumulative 2022, and Horizon Year 2040. Appendix 7.1 includes a summary of the traffic noise level contours for each of the traffic scenarios.

TABLE 7-1: EXISTING WITHOUT PROJECT CONDITIONS NOISE CONTOURS

ID	Road	Segment	Adjacent Planned (Existing) Land Use ¹	CNEL at Nearest Adjacent Land Use (dBA) ²	Distance to Contour from Centerline (Feet)		
					70 dBA CNEL	65 dBA CNEL	60 dBA CNEL
1	River Rd.	s/o Corydon St.	Residential	74.3	96	208	448
2	River Rd.	s/o Lincoln Av.	Residential	74.0	55	119	257
3	Parkridge Av.	n/o Second St.	Residential	60.9	RW	RW	34
4	Parkridge Av.	s/o Second St.	Residential	64.5	RW	RW	88
5	Parkridge Av.	s/o Lincoln Av.	Residential	66.7	RW	57	123
6	Pacific Av.	s/o Second St.	Residential/SP:Residential	53.2	RW	RW	RW
7	Mountain Av.	n/o Hamner Av.	SP:Commercial/Vacant	68.9	RW	80	172
8	Hamner Av.	s/o Third St.	SP:Commercial	74.9	116	250	538
9	Hamner Av.	s/o Second St.	Commercial	74.2	105	226	487
10	Hamner Av.	s/o First St.	SP:Commercial	73.1	89	191	412
11	Hamner Av.	s/o Hidden Valley Pkwy.	SP:Commercial	74.2	104	225	484
12	E. Parkridge Av.	s/o Hidden Valley Pkwy.	Residential	69.7	RW	91	195
13	Lincoln Av.	s/o River Rd.	Residential	72.7	67	143	309
14	Lincoln Av.	s/o Rincon St.	Light/General Industrial	72.5	64	138	298
15	Lincoln Av.	s/o Railroad St.	Light Industrial (Residential)	73.0	70	150	324
16	Lincoln Av.	s/o Pomona Rd.	Commercial	73.5	75	162	348
17	Second St.	w/o Parkridge Av.	Residential	70.4	32	68	147
18	Second St.	e/o Parkridge Av.	Residential	69.8	RW	62	134
19	Second St.	w/o Pacific Av.	Residential	70.3	31	67	145
20	Second St.	e/o Pacific Av.	Residential/SP:Residential	70.6	33	71	152
21	Second St.	w/o Mountain Av.	Residential/SP:Industrial	71.0	35	75	161
22	Second St.	e/o Mountain Av.	Residential/SP:Industrial	69.3	RW	85	182
23	Second St.	e/o Dwy. 8	SP:Industrial	69.3	RW	85	182
24	Second St.	w/o Hamner Av.	SP:Industrial/Commercial	70.8	49	107	230
25	First St.	w/o Parkridge Av.	Residential	72.5	44	95	205
26	First St.	e/o Parkridge Av.	SP:Residential/Industrial	70.4	47	101	217
27	First St.	e/o Dwy. 1	Residential/SP:Industrial	70.4	47	101	217
28	First St.	e/o Mountain Av.	SP:Res./Commercial	67.7	RW	67	144
29	First St.	w/o Hamner Av.	SP:Commercial (Residential)	68.0	RW	70	151
30	Hidden Valley Pkwy.	w/o E. Parkridge Av.	Residential	73.6	87	187	403
31	Hidden Valley Pkwy.	e/o E. Parkridge Av.	Residential	73.9	92	197	425

¹ Sources: City of Norco General Plan Land Use Map and the City of Corona General Plan Land Use Map.

² The CNEL is calculated at the boundary of the right-of-way of each roadway and the property line of the nearest 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 CONDITIONS NOISE CONTOURS

ID	Road	Segment	Adjacent Planned (Existing) Land Use ¹	CNEL at Nearest Adjacent Land Use (dBA) ²	Distance to Contour from Centerline (Feet)		
					70 dBA CNEL	65 dBA CNEL	60 dBA CNEL
1	River Rd.	s/o Corydon St.	Residential	74.3	97	209	450
2	River Rd.	s/o Lincoln Av.	Residential	74.0	56	120	258
3	Parkridge Av.	n/o Second St.	Residential	61.0	RW	RW	35
4	Parkridge Av.	s/o Second St.	Residential	64.6	RW	RW	90
5	Parkridge Av.	s/o Lincoln Av.	Residential	66.8	RW	58	124
6	Pacific Av.	s/o Second St.	Residential/SP:Residential	53.2	RW	RW	RW
7	Mountain Av.	n/o Hamner Av.	SP:Commercial/Vacant	71.6	57	122	262
8	Hamner Av.	s/o Third St.	SP:Commercial	74.9	116	251	540
9	Hamner Av.	s/o Second St.	Commercial	74.3	107	230	494
10	Hamner Av.	s/o First St.	SP:Commercial	73.6	95	205	442
11	Hamner Av.	s/o Hidden Valley Pkwy.	SP:Commercial	74.3	106	229	493
12	E. Parkridge Av.	s/o Hidden Valley Pkwy.	Residential	69.8	RW	91	197
13	Lincoln Av.	s/o River Rd.	Residential	72.8	67	145	313
14	Lincoln Av.	s/o Rincon St.	Light/General Industrial	72.5	65	140	301
15	Lincoln Av.	s/o Railroad St.	Light Industrial (Residential)	73.1	70	152	327
16	Lincoln Av.	s/o Pomona Rd.	Commercial	73.5	76	163	351
17	Second St.	w/o Parkridge Av.	Residential	70.4	32	69	149
18	Second St.	e/o Parkridge Av.	Residential	69.9	30	64	138
19	Second St.	w/o Pacific Av.	Residential	70.4	32	69	149
20	Second St.	e/o Pacific Av.	Residential/SP:Residential	70.7	34	72	156
21	Second St.	w/o Mountain Av.	Residential/SP:Industrial	71.1	36	77	165
22	Second St.	e/o Mountain Av.	Residential/SP:Industrial	70.9	50	109	234
23	Second St.	e/o Dwy. 8	SP:Industrial	70.9	51	109	235
24	Second St.	w/o Hamner Av.	SP:Industrial/Commercial	72.0	60	129	277
25	First St.	w/o Parkridge Av.	Residential	72.6	45	97	208
26	First St.	e/o Parkridge Av.	SP:Residential/Industrial	70.5	48	103	221
27	First St.	e/o Dwy. 1	Residential/SP:Industrial	70.5	47	102	219
28	First St.	e/o Mountain Av.	SP:Res./Commercial	68.7	RW	78	167
29	First St.	w/o Hamner Av.	SP:Commercial (Residential)	68.9	RW	81	174
30	Hidden Valley Pkwy.	w/o E. Parkridge Av.	Residential	73.6	87	188	406
31	Hidden Valley Pkwy.	e/o E. Parkridge Av.	Residential	74.0	92	198	426

¹ Sources: City of Norco General Plan Land Use Map and the City of Corona General Plan Land Use Map.

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

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

TABLE 7-3: OPENING YEAR WITHOUT PROJECT CONDITIONS NOISE CONTOURS

ID	Road	Segment	Adjacent Planned (Existing) Land Use ¹	CNEL at Nearest Adjacent Land Use (dBA) ²	Distance to Contour from Centerline (Feet)		
					70 dBA CNEL	65 dBA CNEL	60 dBA CNEL
1	River Rd.	s/o Corydon St.	Residential	75.0	107	230	496
2	River Rd.	s/o Lincoln Av.	Residential	74.4	59	127	273
3	Parkridge Av.	n/o Second St.	Residential	61.4	RW	RW	37
4	Parkridge Av.	s/o Second St.	Residential	66.6	RW	56	121
5	Parkridge Av.	s/o Lincoln Av.	Residential	68.0	RW	70	150
6	Pacific Av.	s/o Second St.	Residential/SP:Residential	54.8	RW	RW	RW
7	Mountain Av.	n/o Hamner Av.	SP:Commercial/Vacant	70.1	45	97	208
8	Hamner Av.	s/o Third St.	SP:Commercial	75.4	127	273	589
9	Hamner Av.	s/o Second St.	Commercial	74.8	115	247	532
10	Hamner Av.	s/o First St.	SP:Commercial	73.8	98	211	454
11	Hamner Av.	s/o Hidden Valley Pkwy.	SP:Commercial	74.8	115	248	534
12	E. Parkridge Av.	s/o Hidden Valley Pkwy.	Residential	70.2	45	98	210
13	Lincoln Av.	s/o River Rd.	Residential	73.4	74	159	342
14	Lincoln Av.	s/o Rincon St.	Light/General Industrial	73.4	74	160	345
15	Lincoln Av.	s/o Railroad St.	Light Industrial (Residential)	73.8	79	171	369
16	Lincoln Av.	s/o Pomona Rd.	Commercial	74.6	89	193	415
17	Second St.	w/o Parkridge Av.	Residential	72.4	43	93	201
18	Second St.	e/o Parkridge Av.	Residential	71.5	38	81	176
19	Second St.	w/o Pacific Av.	Residential	71.9	40	86	186
20	Second St.	e/o Pacific Av.	Residential/SP:Residential	72.1	41	89	191
21	Second St.	w/o Mountain Av.	Residential/SP:Industrial	72.4	43	93	200
22	Second St.	e/o Mountain Av.	Residential/SP:Industrial	70.5	48	103	221
23	Second St.	e/o Dwy. 8	SP:Industrial	70.5	48	103	221
24	Second St.	w/o Hamner Av.	SP:Industrial/Commercial	71.1	52	112	242
25	First St.	w/o Parkridge Av.	Residential	73.3	50	108	233
26	First St.	e/o Parkridge Av.	SP:Residential/Industrial	71.3	54	116	250
27	First St.	e/o Dwy. 1	Residential/SP:Industrial	71.3	54	116	250
28	First St.	e/o Mountain Av.	SP:Res./Commercial	68.2	RW	72	156
29	First St.	w/o Hamner Av.	SP:Commercial (Residential)	68.5	RW	75	163
30	Hidden Valley Pkwy.	w/o E. Parkridge Av.	Residential	74.2	95	205	441
31	Hidden Valley Pkwy.	e/o E. Parkridge Av.	Residential	74.4	99	213	458

¹ Sources: City of Norco General Plan Land Use Map and the City of Corona General Plan Land Use Map.

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

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

TABLE 7-4: OPENING YEAR WITH PROJECT CONDITIONS NOISE CONTOURS

ID	Road	Segment	Adjacent Planned (Existing) Land Use ¹	CNEL at Nearest Adjacent Land Use (dBA) ²	Distance to Contour from Centerline (Feet)		
					70 dBA CNEL	65 dBA CNEL	60 dBA CNEL
1	River Rd.	s/o Corydon St.	Residential	75.0	107	231	498
2	River Rd.	s/o Lincoln Av.	Residential	74.4	59	127	274
3	Parkridge Av.	n/o Second St.	Residential	61.5	RW	RW	38
4	Parkridge Av.	s/o Second St.	Residential	66.7	RW	57	122
5	Parkridge Av.	s/o Lincoln Av.	Residential	68.0	RW	70	151
6	Pacific Av.	s/o Second St.	Residential/SP:Residential	54.8	RW	RW	RW
7	Mountain Av.	n/o Hamner Av.	SP:Commercial/Vacant	72.3	63	136	293
8	Hamner Av.	s/o Third St.	SP:Commercial	75.5	127	274	590
9	Hamner Av.	s/o Second St.	Commercial	74.9	116	250	539
10	Hamner Av.	s/o First St.	SP:Commercial	74.2	104	224	484
11	Hamner Av.	s/o Hidden Valley Pkwy.	SP:Commercial	74.9	117	252	542
12	E. Parkridge Av.	s/o Hidden Valley Pkwy.	Residential	70.2	46	98	211
13	Lincoln Av.	s/o River Rd.	Residential	73.4	75	161	346
14	Lincoln Av.	s/o Rincon St.	Light/General Industrial	73.5	75	162	348
15	Lincoln Av.	s/o Railroad St.	Light Industrial (Residential)	73.9	80	172	371
16	Lincoln Av.	s/o Pomona Rd.	Commercial	74.7	90	194	417
17	Second St.	w/o Parkridge Av.	Residential	72.4	44	94	202
18	Second St.	e/o Parkridge Av.	Residential	71.6	38	83	178
19	Second St.	w/o Pacific Av.	Residential	72.0	41	88	189
20	Second St.	e/o Pacific Av.	Residential/SP:Residential	72.2	42	90	194
21	Second St.	w/o Mountain Av.	Residential/SP:Industrial	72.5	44	94	203
22	Second St.	e/o Mountain Av.	Residential/SP:Industrial	71.8	58	125	269
23	Second St.	e/o Dwy. 8	SP:Industrial	71.8	58	125	270
24	Second St.	w/o Hamner Av.	SP:Industrial/Commercial	72.3	62	134	289
25	First St.	w/o Parkridge Av.	Residential	73.4	51	110	236
26	First St.	e/o Parkridge Av.	SP:Residential/Industrial	71.4	55	118	254
27	First St.	e/o Dwy. 1	Residential/SP:Industrial	71.4	54	117	252
28	First St.	e/o Mountain Av.	SP:Res./Commercial	69.1	RW	83	178
29	First St.	w/o Hamner Av.	SP:Commercial (Residential)	69.3	RW	86	185
30	Hidden Valley Pkwy.	w/o E. Parkridge Av.	Residential	74.2	96	206	444
31	Hidden Valley Pkwy.	e/o E. Parkridge Av.	Residential	74.4	99	213	459

¹ Sources: City of Norco General Plan Land Use Map and the City of Corona General Plan Land Use Map.

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

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

TABLE 7-5: HORIZON YEAR WITHOUT PROJECT CONDITIONS NOISE CONTOURS

ID	Road	Segment	Adjacent Planned (Existing) Land Use ¹	CNEL at Nearest Adjacent Land Use (dBA) ²	Distance to Contour from Centerline (Feet)		
					70 dBA CNEL	65 dBA CNEL	60 dBA CNEL
1	River Rd.	s/o Corydon St.	Residential	75.8	122	263	567
2	River Rd.	s/o Lincoln Av.	Residential	75.6	70	152	327
3	Parkridge Av.	n/o Second St.	Residential	62.3	RW	RW	43
4	Parkridge Av.	s/o Second St.	Residential	69.3	RW	85	184
5	Parkridge Av.	s/o Lincoln Av.	Residential	70.0	44	95	206
6	Pacific Av.	s/o Second St.	Residential/SP:Residential	55.5	RW	RW	RW
7	Mountain Av.	n/o Hamner Av.	SP:Commercial/Vacant	70.9	51	109	234
8	Hamner Av.	s/o Third St.	SP:Commercial	76.3	145	313	674
9	Hamner Av.	s/o Second St.	Commercial	75.7	131	283	609
10	Hamner Av.	s/o First St.	SP:Commercial	74.6	112	241	519
11	Hamner Av.	s/o Hidden Valley Pkwy.	SP:Commercial	75.7	132	284	612
12	E. Parkridge Av.	s/o Hidden Valley Pkwy.	Residential	72.0	60	128	277
13	Lincoln Av.	s/o River Rd.	Residential	74.2	84	181	391
14	Lincoln Av.	s/o Rincon St.	Light/General Industrial	74.2	84	181	391
15	Lincoln Av.	s/o Railroad St.	Light Industrial (Residential)	74.7	90	195	419
16	Lincoln Av.	s/o Pomona Rd.	Commercial	75.5	102	221	475
17	Second St.	w/o Parkridge Av.	Residential	73.0	48	103	222
18	Second St.	e/o Parkridge Av.	Residential	72.2	42	91	195
19	Second St.	w/o Pacific Av.	Residential	72.6	45	96	207
20	Second St.	e/o Pacific Av.	Residential/SP:Residential	72.8	46	99	214
21	Second St.	w/o Mountain Av.	Residential/SP:Industrial	73.1	48	104	224
22	Second St.	e/o Mountain Av.	Residential/SP:Industrial	71.3	54	115	249
23	Second St.	e/o Dwy. 8	SP:Industrial	71.3	54	115	249
24	Second St.	w/o Hamner Av.	SP:Industrial/Commercial	72.0	60	130	279
25	First St.	w/o Parkridge Av.	Residential	74.2	57	123	265
26	First St.	e/o Parkridge Av.	SP:Residential/Industrial	72.1	61	132	283
27	First St.	e/o Dwy. 1	Residential/SP:Industrial	72.1	61	132	283
28	First St.	e/o Mountain Av.	SP:Res./Commercial	69.1	RW	83	179
29	First St.	w/o Hamner Av.	SP:Commercial (Residential)	69.4	RW	87	187
30	Hidden Valley Pkwy.	w/o E. Parkridge Av.	Residential	75.1	109	235	505
31	Hidden Valley Pkwy.	e/o E. Parkridge Av.	Residential	75.3	113	244	526

¹ Sources: City of Norco General Plan Land Use Map and the City of Corona General Plan Land Use Map.

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

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

TABLE 7-6: HORIZON YEAR WITH PROJECT CONDITIONS NOISE CONTOURS

ID	Road	Segment	Adjacent Planned (Existing) Land Use ¹	CNEL at Nearest Adjacent Land Use (dBA) ²	Distance to Contour from Centerline (Feet)		
					70 dBA CNEL	65 dBA CNEL	60 dBA CNEL
1	River Rd.	s/o Corydon St.	Residential	75.8	123	264	569
2	River Rd.	s/o Lincoln Av.	Residential	75.6	71	152	328
3	Parkridge Av.	n/o Second St.	Residential	62.4	RW	RW	43
4	Parkridge Av.	s/o Second St.	Residential	69.3	RW	86	185
5	Parkridge Av.	s/o Lincoln Av.	Residential	70.1	45	96	207
6	Pacific Av.	s/o Second St.	Residential/SP:Residential	55.5	RW	RW	RW
7	Mountain Av.	n/o Hamner Av.	SP:Commercial/Vacant	72.8	68	146	315
8	Hamner Av.	s/o Third St.	SP:Commercial	76.3	146	314	676
9	Hamner Av.	s/o Second St.	Commercial	75.7	133	286	616
10	Hamner Av.	s/o First St.	SP:Commercial	75.0	118	254	547
11	Hamner Av.	s/o Hidden Valley Pkwy.	SP:Commercial	75.8	133	288	620
12	E. Parkridge Av.	s/o Hidden Valley Pkwy.	Residential	72.0	60	129	278
13	Lincoln Av.	s/o River Rd.	Residential	74.3	85	183	394
14	Lincoln Av.	s/o Rincon St.	Light/General Industrial	74.3	85	183	394
15	Lincoln Av.	s/o Railroad St.	Light Industrial (Residential)	74.7	91	196	422
16	Lincoln Av.	s/o Pomona Rd.	Commercial	75.5	103	222	478
17	Second St.	w/o Parkridge Av.	Residential	73.1	48	104	223
18	Second St.	e/o Parkridge Av.	Residential	72.3	43	92	198
19	Second St.	w/o Pacific Av.	Residential	72.7	45	98	210
20	Second St.	e/o Pacific Av.	Residential/SP:Residential	72.9	47	101	217
21	Second St.	w/o Mountain Av.	Residential/SP:Industrial	73.2	49	106	227
22	Second St.	e/o Mountain Av.	Residential/SP:Industrial	72.4	63	136	294
23	Second St.	e/o Dwy. 8	SP:Industrial	72.4	64	137	295
24	Second St.	w/o Hamner Av.	SP:Industrial/Commercial	73.0	70	150	323
25	First St.	w/o Parkridge Av.	Residential	74.3	58	124	268
26	First St.	e/o Parkridge Av.	SP:Residential/Industrial	72.2	62	133	287
27	First St.	e/o Dwy. 1	Residential/SP:Industrial	72.2	61	132	285
28	First St.	e/o Mountain Av.	SP:Res./Commercial	69.9	RW	93	200
29	First St.	w/o Hamner Av.	SP:Commercial (Residential)	70.1	45	96	207
30	Hidden Valley Pkwy.	w/o E. Parkridge Av.	Residential	75.1	109	236	508
31	Hidden Valley Pkwy.	e/o E. Parkridge Av.	Residential	75.3	114	245	527

¹ Sources: City of Norco General Plan Land Use Map and the City of Corona General Plan Land Use Map.

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

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

7.2 EXISTING CONDITIONS PROJECT TRAFFIC NOISE LEVEL CONTRIBUTIONS

An analysis of existing traffic noise levels plus traffic noise generated by the proposed Project has been included in this report for consistency with the Project Traffic Impact Analysis report. However, the analysis of existing traffic noise levels plus traffic noise generated by the proposed Project scenario will not actually occur since the Project would not be fully constructed and operational until Year 2022 cumulative conditions. Therefore, no impact significance determinations are made based on existing plus Project conditions.

Table 7-1 shows the Existing without Project conditions CNEL noise levels. The Existing without Project exterior noise levels are expected to range from 53.0 to 74.8 dBA CNEL, without accounting for any noise attenuation features such as noise barriers or topography. Table 7-2 shows the Existing with Project conditions will range from 53.0 to 74.8 dBA CNEL. Table 7-7 shows that the Project off-site traffic noise level increases will range from 0.0 to 2.6 dBA CNEL.

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

ID	Road	Segment	CNEL at Adjacent Land Use (dBA) ¹			Noise-Sensitive Land Use?
			No Project	With Project	Project Addition	
1	River Rd.	s/o Corydon St.	74.3	74.3	0.0	Yes
2	River Rd.	s/o Lincoln Av.	74.0	74.0	0.0	Yes
3	Parkridge Av.	n/o Second St.	60.9	61.0	0.1	Yes
4	Parkridge Av.	s/o Second St.	64.5	64.6	0.1	Yes
5	Parkridge Av.	s/o Lincoln Av.	66.7	66.8	0.1	Yes
6	Pacific Av.	s/o Second St.	53.2	53.2	0.0	Yes
7	Mountain Av.	n/o Hamner Av.	68.9	71.6	2.8	No
8	Hamner Av.	s/o Third St.	74.9	74.9	0.0	No
9	Hamner Av.	s/o Second St.	74.2	74.3	0.1	No
10	Hamner Av.	s/o First St.	73.1	73.6	0.5	No
11	Hamner Av.	s/o Hidden Valley Pkwy.	74.2	74.3	0.1	No
12	E. Parkridge Av.	s/o Hidden Valley Pkwy.	69.7	69.8	0.0	Yes
13	Lincoln Av.	s/o River Rd.	72.7	72.8	0.1	Yes
14	Lincoln Av.	s/o Rincon St.	72.5	72.5	0.1	No
15	Lincoln Av.	s/o Railroad St.	73.0	73.1	0.1	Yes
16	Lincoln Av.	s/o Pomona Rd.	73.5	73.5	0.1	No
17	Second St.	w/o Parkridge Av.	70.4	70.4	0.1	Yes
18	Second St.	e/o Parkridge Av.	69.8	69.9	0.2	Yes
19	Second St.	w/o Pacific Av.	70.3	70.4	0.2	Yes
20	Second St.	e/o Pacific Av.	70.6	70.7	0.2	Yes
21	Second St.	w/o Mountain Av.	71.0	71.1	0.1	Yes
22	Second St.	e/o Mountain Av.	69.3	70.9	1.6	Yes
23	Second St.	e/o Dwy. 8	69.3	70.9	1.7	No
24	Second St.	w/o Hamner Av.	70.8	72.0	1.2	No
25	First St.	w/o Parkridge Av.	72.5	72.6	0.1	Yes
26	First St.	e/o Parkridge Av.	70.4	70.5	0.1	Yes
27	First St.	e/o Dwy. 1	70.4	70.5	0.1	Yes
28	First St.	e/o Mountain Av.	67.7	68.7	1.0	Yes
29	First St.	w/o Hamner Av.	68.0	68.9	0.9	Yes
30	Hidden Valley Pkwy.	w/o E. Parkridge Av.	73.6	73.6	0.0	Yes
31	Hidden Valley Pkwy.	e/o E. Parkridge Av.	73.9	74.0	0.0	Yes

¹ The CNEL is calculated at the boundary of the right-of-way of each roadway and the property line of the nearest adjacent land use. Values rounded to the nearest one-tenth.

7.3 OPENING YEAR 2022 PROJECT TRAFFIC NOISE LEVEL CONTRIBUTIONS

Table 7-3 presents the Opening Year 2022 without Project conditions CNEL noise levels. The Opening Year without Project exterior noise levels are expected to range from 54.7 to 75.4 dBA CNEL, without accounting for any noise attenuation features such as noise barriers or topography.

Table 7-4 shows the Opening Year with Project conditions will range from 54.7 to 75.4 dBA CNEL. Table 7-8 shows that the Project off-site traffic noise level increases will range from 0.0 to 2.0 dBA CNEL. Based on the significance criteria for off-site traffic noise presented in Table 4-2, 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 7-8: UNMITIGATED OPENING YEAR WITH PROJECT TRAFFIC NOISE IMPACTS

ID	Road	Segment	CNEL at Adjacent Land Use (dBA) ¹			Noise-Sensitive Land Use?	Threshold Exceeded? ²
			No Project	With Project	Project Addition		
1	River Rd.	s/o Corydon St.	75.0	75.0	0.0	Yes	No
2	River Rd.	s/o Lincoln Av.	74.4	74.4	0.0	Yes	No
3	Parkridge Av.	n/o Second St.	61.4	61.5	0.1	Yes	No
4	Parkridge Av.	s/o Second St.	66.6	66.7	0.1	Yes	No
5	Parkridge Av.	s/o Lincoln Av.	68.0	68.0	0.0	Yes	No
6	Pacific Av.	s/o Second St.	54.8	54.8	0.0	Yes	No
7	Mountain Av.	n/o Hamner Av.	70.1	72.3	2.2	No	No
8	Hamner Av.	s/o Third St.	75.4	75.5	0.0	No	No
9	Hamner Av.	s/o Second St.	74.8	74.9	0.1	No	No
10	Hamner Av.	s/o First St.	73.8	74.2	0.4	No	No
11	Hamner Av.	s/o Hidden Valley Pkwy.	74.8	74.9	0.1	No	No
12	E. Parkridge Av.	s/o Hidden Valley Pkwy.	70.2	70.2	0.0	Yes	No
13	Lincoln Av.	s/o River Rd.	73.4	73.4	0.1	Yes	No
14	Lincoln Av.	s/o Rincon St.	73.4	73.5	0.1	No	No
15	Lincoln Av.	s/o Railroad St.	73.8	73.9	0.0	Yes	No
16	Lincoln Av.	s/o Pomona Rd.	74.6	74.7	0.0	No	No
17	Second St.	w/o Parkridge Av.	72.4	72.4	0.0	Yes	No
18	Second St.	e/o Parkridge Av.	71.5	71.6	0.1	Yes	No
19	Second St.	w/o Pacific Av.	71.9	72.0	0.1	Yes	No
20	Second St.	e/o Pacific Av.	72.1	72.2	0.1	Yes	No
21	Second St.	w/o Mountain Av.	72.4	72.5	0.1	Yes	No
22	Second St.	e/o Mountain Av.	70.5	71.8	1.3	Yes	No
23	Second St.	e/o Dwy. 8	70.5	71.8	1.3	No	No
24	Second St.	w/o Hamner Av.	71.1	72.3	1.2	No	No
25	First St.	w/o Parkridge Av.	73.3	73.4	0.1	Yes	No
26	First St.	e/o Parkridge Av.	71.3	71.4	0.1	Yes	No
27	First St.	e/o Dwy. 1	71.3	71.4	0.1	Yes	No
28	First St.	e/o Mountain Av.	68.2	69.1	0.9	Yes	No
29	First St.	w/o Hamner Av.	68.5	69.3	0.8	Yes	No
30	Hidden Valley Pkwy.	w/o E. Parkridge Av.	74.2	74.2	0.0	Yes	No
31	Hidden Valley Pkwy.	e/o E. Parkridge Av.	74.4	74.4	0.0	Yes	No

¹ The CNEL is calculated at the boundary of the right-of-way of each roadway and the property line of the nearest adjacent land use. Values rounded to the nearest one-tenth.

² Significance Criteria (Section 4).

7.4 HORIZON YEAR 2040 PROJECT TRAFFIC NOISE LEVEL CONTRIBUTIONS

Table 7-5 presents the Horizon Year 2040 without Project conditions CNEL noise levels. The Horizon Year without Project exterior noise levels are expected to range from 55.4 to 76.3 dBA CNEL, without accounting for any noise attenuation features such as noise barriers or topography.

Table 7-6 shows the Horizon Year with Project conditions will range from 55.4 to 76.3 dBA CNEL. Table 7-9 shows that the Project off-site traffic noise level increases will range from 0.0 to 1.8 dBA CNEL. Based on the significance criteria for off-site traffic noise presented in Table 4-2, 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 7-9: UNMITIGATED HORIZON YEAR WITH PROJECT TRAFFIC NOISE IMPACTS

ID	Road	Segment	CNEL at Adjacent Land Use (dBA) ¹			Noise-Sensitive Land Use?	Threshold Exceeded? ²
			No Project	With Project	Project Addition		
1	River Rd.	s/o Corydon St.	75.8	75.8	0.0	Yes	No
2	River Rd.	s/o Lincoln Av.	75.6	75.6	0.0	Yes	No
3	Parkridge Av.	n/o Second St.	62.3	62.4	0.1	Yes	No
4	Parkridge Av.	s/o Second St.	69.3	69.3	0.0	Yes	No
5	Parkridge Av.	s/o Lincoln Av.	70.0	70.1	0.0	Yes	No
6	Pacific Av.	s/o Second St.	55.5	55.5	0.0	Yes	No
7	Mountain Av.	n/o Hamner Av.	70.9	72.8	1.9	No	No
8	Hamner Av.	s/o Third St.	76.3	76.3	0.0	No	No
9	Hamner Av.	s/o Second St.	75.7	75.7	0.1	No	No
10	Hamner Av.	s/o First St.	74.6	75.0	0.3	No	No
11	Hamner Av.	s/o Hidden Valley Pkwy.	75.7	75.8	0.1	No	No
12	E. Parkridge Av.	s/o Hidden Valley Pkwy.	72.0	72.0	0.0	Yes	No
13	Lincoln Av.	s/o River Rd.	74.2	74.3	0.1	Yes	No
14	Lincoln Av.	s/o Rincon St.	74.2	74.3	0.1	No	No
15	Lincoln Av.	s/o Railroad St.	74.7	74.7	0.0	Yes	No
16	Lincoln Av.	s/o Pomona Rd.	75.5	75.5	0.0	No	No
17	Second St.	w/o Parkridge Av.	73.0	73.1	0.0	Yes	No
18	Second St.	e/o Parkridge Av.	72.2	72.3	0.1	Yes	No
19	Second St.	w/o Pacific Av.	72.6	72.7	0.1	Yes	No
20	Second St.	e/o Pacific Av.	72.8	72.9	0.1	Yes	No
21	Second St.	w/o Mountain Av.	73.1	73.2	0.1	Yes	No
22	Second St.	e/o Mountain Av.	71.3	72.4	1.1	Yes	No
23	Second St.	e/o Dwy. 8	71.3	72.4	1.1	No	No
24	Second St.	w/o Hamner Av.	72.0	73.0	1.0	No	No
25	First St.	w/o Parkridge Av.	74.2	74.3	0.1	Yes	No
26	First St.	e/o Parkridge Av.	72.1	72.2	0.1	Yes	No
27	First St.	e/o Dwy. 1	72.1	72.2	0.0	Yes	No
28	First St.	e/o Mountain Av.	69.1	69.9	0.7	Yes	No
29	First St.	w/o Hamner Av.	69.4	70.1	0.7	Yes	No
30	Hidden Valley Pkwy.	w/o E. Parkridge Av.	75.1	75.1	0.0	Yes	No
31	Hidden Valley Pkwy.	e/o E. Parkridge Av.	75.3	75.3	0.0	Yes	No

¹ The CNEL is calculated at the boundary of the right-of-way of each roadway and the property line of the nearest adjacent land use. Values rounded to the nearest one-tenth.

² Significance Criteria (Section 4).

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8 SENSITIVE RECEIVER LOCATIONS

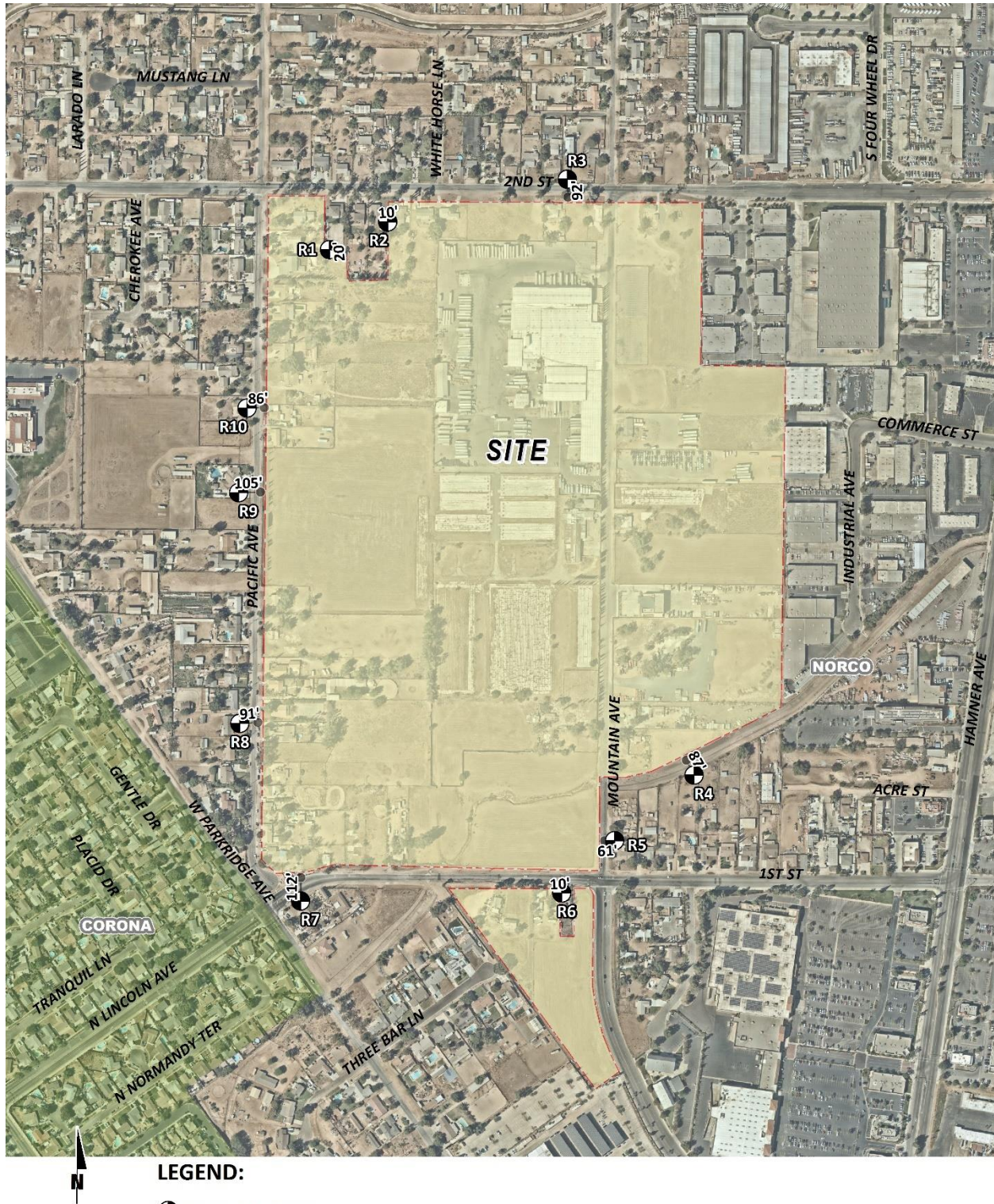
To assess the potential for long-term operational and short-term construction noise impacts, the following sensitive receiver locations, as shown on Exhibit 8-A, were identified as representative locations for analysis. Sensitive receivers are generally defined as locations where people reside or where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

Sensitive receiver locations in the Project study area include residential uses, as described below. 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.

- R1: Located approximately 20 feet north of the Project site, R1 represents existing residential homes and outdoor living areas (e.g., backyards) east of Pacific Avenue and south of Second Street. A 24-hour noise measurement was taken near this location, L1, to describe the existing ambient noise environment.
- R2: Location R2 represents the existing residential home located west of the Project site at roughly 10 feet, on the south side of Second Street. A 24-hour noise measurement was taken near this location, L1, to describe the existing ambient noise environment.
- R3: Location R3 represents existing residential homes on the north side of Second Street at approximately 92 feet north of the Project site. A 24-hour noise measurement near this location, L2, is used to describe the existing ambient noise environment.
- R4: Location R4 represents the existing residential home located roughly 87 feet southeast of the Project site, on the east side of Mountain Avenue. A 24-hour noise measurement near this location, L5, is used to describe the existing ambient noise environment.
- R5: Located approximately 61 feet east of the Project site, R5 represents existing residential homes on the east side of Mountain Avenue. A 24-hour noise measurement was taken near this location, L5, to describe the existing ambient noise environment.
- R6: Location R6 represents the existing residential homes located east of the Project site at roughly 10 feet on the south side of First Street. A 24-hour noise measurement was taken near this location, L6, to describe the existing ambient noise environment.
- R7: Location R7 represents the existing residential homes located south of the Project site at roughly 112 feet on the south side of First Street. A 24-hour noise measurement was taken near this location, L6, to describe the existing ambient noise environment.

- R8: Located approximately 91 feet west of the Project site, R8 represents existing residential homes on the west side of Pacific Avenue. A 24-hour noise measurement was taken near this location, L6, to describe the existing ambient noise environment.
- R9: Location R9 represents the existing residential homes located west of the Project site at roughly 105 feet on the west of Pacific Avenue. A 24-hour noise measurement was taken near this location, L7, to describe the existing ambient noise environment.
- R10: Location R10 represents the existing residential homes located west of the Project site at roughly 86 feet on the west side of Pacific Avenue. A 24-hour noise measurement was taken near this location, L8, to describe the existing ambient noise environment.

EXHIBIT 8-A: SENSITIVE RECEIVER LOCATIONS



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9 OPERATIONAL NOISE IMPACTS

This section analyzes the potential stationary-source operational noise impacts at the nearby receiver locations, identified in Section 8, resulting from operation of the proposed Palomino Business Park Project. Exhibit 9-A identifies the representative receiver locations and noise source locations used to assess the operational noise levels.

9.1 OPERATIONAL NOISE SOURCES

At the time this noise analysis was prepared, the future tenants of the proposed Project were unknown. The on-site Project-related noise sources are expected to include: idling trucks, delivery truck activities, backup alarms, refrigerated containers or reefers, as well as loading and unloading of dry goods, roof-top air conditioning units, and parking lot vehicle movements. This noise analysis is intended to describe noise level impacts associated with the expected typical operational activities at the Project site.

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 the idling trucks, delivery truck activities, backup alarms, refrigerated containers or reefers, as well as loading and unloading of dry goods, roof-top air conditioning units, and parking lot vehicle movements all operating simultaneously. These noise level impacts will likely vary throughout the day.

9.2.1 ROOF-TOP AIR CONDITIONING UNITS

To assess the impacts created by the roof-top air conditioning units at the Project buildings, reference noise levels measurements were taken over a four-day total duration at the Santee Walmart on July 27th, 2015. Located at 170 Town Center Parkway in the City of Santee, the noise level measurements describe multiple mechanical roof-top air conditioning units on the roof of an existing Walmart store. The reference noise level represents a Lennox SCA120 series 10-ton model packaged air conditioning unit. Using the uniform reference distance of 50 feet, the reference noise level is 57.2 dBA L_{eq} . The operating conditions of the reference noise level measurement reflect peak summer cooling requirements with measured temperatures approaching 96 degrees Fahrenheit (°F) with average daytime temperatures of 82°F. The roof-top air condition units were observed to operate the most during the daytime hours for a total of 39 minutes per hour. The noise attenuation provided by a parapet wall is not reflected in this reference noise level measurement.

9.2.2 TRUCK IDLING, DELIVERIES, BACKUP ALARMS, UNLOADING/LOADING, AND DOCKING

Short-term reference noise level measurements were collected on Wednesday, January 7th, 2015, by Urban Crossroads, Inc. at the Motivational Fulfillment & Logistics Services distribution facility located at 6810 Bickmore Avenue in the City of Chino. The noise level measurements represent the typical weekday dry goods logistics warehouse operation in a single building, of roughly 285,000 square feet, with a loading dock area on the western side of the building façade. Up to ten trucks were observed in the loading dock area including a combination of tractor trailer semi-trucks, two-axle delivery trucks, and background forklift operations.

The unloading/docking activity noise level measurement was taken over a fifteen-minute period and represents multiple noise sources taken from the center of loading dock activities generating a reference noise level of 62.8 dBA L_{eq} at a uniform reference distance of 50 feet. At this measurement location, the noise sources associated with employees unloading a docked truck container included the squeaking of the truck's shocks when weight was removed from the truck, employees playing music over a radio, as well as a forklift horn and backup alarm. In addition, during the noise level measurement a truck entered the loading dock area and proceeded to reverse and dock in a nearby loading bay, adding truck engine and air brakes noise.

9.2.3 TRUCK IDLING, BACKUP ALARMS, UNLOADING/LOADING, REFRIGERATED CONTAINERS OR REEFERS

On Wednesday, January 7th, 2015, Urban Crossroads, Inc. collected short-term operational noise level measurements at the Nature's Best distribution facility located at 16081 Fern Avenue in the City of Chino. Operations at the Nature's Best distribution facility measurements represent the typical weekday logistics warehouse activities with both dry goods and cold storage from a single building, of approximately 397,000 square feet, with loading dock areas located on both sides of the building. To describe the loading dock activities, a reference noise level measurement was collected to represent the truck idling/reefer activity.

During the fourteen-minute truck idling/reefer activity reference noise level measurement, approximately 20 delivery trucks were docked, idling, or parked in the northern loading dock area. The truck idling/reefer activity 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 truck idling/reefer activity 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.

9.2.4 PARKING LOT VEHICLE MOVEMENTS (WAREHOUSE/INDUSTRIAL USE)

To determine the noise levels associated with warehouse and industrial use parking lot vehicle movements, Urban Crossroads collected reference noise level measurements over a 24-hour period on May 17, 2017 at the parking lot for the Panasonic Avionics Corporation in the City of Lake Forest. The peak hour of activity measured over the 24-hour noise level measurement period occurred between 12:00 p.m. to 1:00 p.m., or the typical lunch hour for employees working in the area. The measured reference noise level at 50 feet from parking lot vehicle movements was measured at 41.7 dBA L_{eq} . The parking lot noise levels are mainly due to cars pulling in and out of spaces during peak lunch hour activity and employees talking. Noise associated with parking lot vehicle movements is expected to operate for the entire hour (60 minutes).

9.2.5 PARKING LOT VEHICLE MOVEMENTS (COMMERCIAL USE)

To determine the noise levels associated with commercial parking lot vehicle movements, Urban Crossroads collected reference noise level measurements at the Laguna Niguel Walmart located at 27470 Alicia Parkway on May 30, 2012. The 15-minute noise level measurement indicates that the parking lot vehicle movements generates noise levels of 45.1 dBA L_{eq} at a normalized distance of 50 feet. The parking lot noise levels are mainly due to cars pulling in and out of spaces, car alarms sounding, and customers moving shopping carts. Noise associated with parking lot vehicle movements is expected during the typical daytime, and nighttime conditions for the entire hour (60 minutes).

9.2.6 DRIVE-THROUGH SPEAKERPHONE

To describe the potential noise level impacts associated with drive-thru speakerphones and vehicle activities, a reference noise level measurement was collected on Friday, December 19th, 2014 at a Panera Bread restaurant located at 423 South Associated Road in the City of Brea. The reference noise levels collected at the Panera Bread restaurant are expected to reflect potential drive-thru speakerphone noise level activities at the Project site, since the reference measurement includes both drive-thru speakerphone and vehicle activity noise. The noise sources included in the reference noise level measurement consist of voices of the Panera Bread employees over the speakerphone, customers' voices ordering food, car engines idling, car radios playing music, and cars queuing in the drive-thru lane. At 50 feet from the speakerphone, a reference noise level of 51.5 dBA L_{eq} was measured. This reference noise level measurement overstates the actual average noise levels since it represents the average of 28 speakerphone menu board ordering events observed over a two-hour period. In other words, the Panera Bread speakerphone menu board reference noise level describes continuous drive-thru operations and does not include any periods of inactivity.

9.2.7 GAS STATION ACTIVITY

To describe the potential noise level impacts created by the gas station of the proposed Project uses, a reference noise level measurement was collected on Tuesday, April 26th, 2016 at an ARCO gas station located at 6501 Quail Hill Parkway in the City of Irvine. The reference noise level measurement includes six cars fueling at once, car doors closing, engines starting, fuel pump TV sounds, and background car pass-by events within a three-minute period. At a uniform reference noise level distance of 50 feet, the reference noise level is 48.2 dBA L_{eq} .

TABLE 9-1: REFERENCE NOISE LEVEL MEASUREMENTS

Project Land Use	Noise Source	Duration (hh:mm:ss)	Dist. From Source (Feet)	Noise Source Height (Feet)	Hourly Activity (Mins) ¹	Noise Level (dBA L_{eq})	
						@ Ref. Distance	@ 50 Feet
All	Roof-Top Air Conditioning Units ²	96:00:00	5'	5'	39	77.2	57.2
Warehousing/ Industrial	Truck Unloading/Docking Activity ³	00:15:00	30'	8'	60	67.2	62.8
	Truck Idle/Reefer Activity ⁴	00:15:00	30'	8'	60	70.1	65.7
	Parking Lot Vehicle Movements ⁵	01:00:00	10'	5'	60	52.2	38.2
Commercial	Parking Lot Vehicle Movements ⁶	00:15:00	5'	5'	60	60.1	40.1
	Drive-Through Speakerphone ⁷	02:00:00	15'	3'	60	62.0	51.5
	Gas Station Activity ⁸	00:03:00	5'	5'	60	68.2	48.2

¹ Anticipated duration (minutes within the hour) of noise activity during typical hourly conditions expected at the Project site based on the reference noise level measurement activity.

² As measured by Urban Crossroads, Inc. on 7/27/2015 at the Santee Walmart located at 170 Town Center Parkway.

³ Reference noise level measurements were collected from the existing operations of the Motivational Fulfillment & Logistics Services distribution facility located at 6810 Bickmore Avenue in the City of Chino on Wednesday, January 7, 2015.

⁴ Reference noise level measurements were collected from the existing operations of the Nature's Best Distribution Facility located at 16081 Fern Avenue in the City of Chino on 1/7/2015.

⁵ As measured by Urban Crossroads, Inc. on 5/17/2017 at the Panasonic Avionics Corporation parking lot in the City of Lake Forest at typical lunch hour (12:00 p.m. to 1:00 p.m.).

⁶ As measured by Urban Crossroads, Inc. on 5/30/2012 by Urban Crossroads, Inc. at the Laguna Niguel Walmart at 27470 Alicia Parkway.

⁷ As measured by Urban Crossroads, Inc. on 12/19/2014 at a Panera Bread drive-thru in the City of Brea.

⁸ As measured by Urban Crossroads, Inc. on 4/26/2016 at an ARCO gas station at 6501 Quail Hill Parkway in the City of Irvine.

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9.3 PROJECT OPERATIONAL NOISE LEVELS

Using the reference noise levels to represent the proposed Project operations that include idling trucks, delivery truck activities, backup alarms, refrigerated containers or reefers, as well as loading and unloading of dry goods, roof-top air conditioning units, and parking lot vehicle movements, 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. The operational noise level calculations, shown on Table 9-2, 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. Hard site conditions are used for point source noise levels that attenuate (or decrease) at a rate of 6 dBA for each doubling of distance. The basic noise attenuation equation shown below is used to calculate the distance attenuation based on a reference noise level (SPL_1):

$$SPL_2 = SPL_1 - 20\log(D_2/D_1)$$

Where SPL_2 is the resulting noise level after attenuation, SPL_1 is the source noise level, D_2 is the distance to the reference sound pressure level (SPL_1), and D_1 is the distance to the receiver location. Line sources are modeled assuming soft site conditions, which equates to 4.5 dBA per doubling of distance. This is less than that assumed for point sources within the Project site of 6 dBA and likely overstates the noise levels generated by line sources. Table 9-2 shows the individual operational noise levels of each noise source at each of the nearby sensitive receiver locations. As indicated on Table 9-2, the unmitigated Project-only operational noise levels will range from 29.1 to 49.7 dBA L_{eq} at the sensitive receiver locations.

TABLE 9-2: UNMITIGATED PROJECT-ONLY OPERATIONAL NOISE LEVELS

Receiver Location ¹	Unmitigated Noise Levels by Noise Source (dBA L _{eq}) ²							Combined Operational Noise Levels (dBA L _{eq})
	Air Conditioning Unit (Roof-Top)	Truck Unloading/Docking Activity	Truck Idle/Reefer Activity	Parking Lot Vehicle Movements (Industrial)	Parking Lot Vehicle Movements (Commercial)	Drive-Through Speakerphone	Gas Station Activity	
R1	34.9	_ ³	29.9	28.2	_ ³	_ ³	_ ³	36.7
R2	39.0	_ ³	27.7	41.3	_ ³	_ ³	_ ³	43.4
R3	27.8	_ ³	_ ³	23.1	_ ³	_ ³	_ ³	29.1
R4	36.3	49.4	_ ³	23.8	21.2	17.5	28.4	49.7
R5	34.0	_ ³	_ ³	22.8	31.9	23.9	41.3	42.5
R6	34.8	41.5	_ ³	18.4	29.9	27.8	40.5	44.8
R7	30.1	_ ³	_ ³	26.1	17.4	25.3	21.9	33.0
R8	32.7	_ ³	30.0	28.9	_ ³	_ ³	_ ³	35.6
R9	28.7	_ ³	_ ³	28.3	_ ³	_ ³	_ ³	31.5
R10	35.0	_ ³	_ ³	30.8	_ ³	_ ³	_ ³	36.4

¹ See Exhibit 9-A for the receiver and noise source locations.

² Reference noise sources as shown on Table 9-1. Individual noise source calculations are provided in Appendix 9.1.

³ Receiver does not have a direct line-of-sight to the noise source and/or is located at too great a distance for the noise source to substantively increase the combined Project operational noise level.

Table 9-3 shows the operational noise levels associated with Palomino Business Park Project will satisfy the 55 dBA Leq daytime City of Norco exterior noise level standards. However, the unmitigated exterior noise levels at receiver location R4 will exceed the 45 dBA Leq nighttime exterior noise standard. Therefore, the unmitigated Project-related operational noise level impacts are considered *potentially significant* impacts, and mitigation is required.

TABLE 9-3: UNMITIGATED OPERATIONAL NOISE LEVEL COMPLIANCE

Receiver Location ¹	Noise Level at Receiver Locations (dBA L _{eq}) ²	Threshold Exceeded? ³	
		Daytime (55 dBA L _{eq})	Nighttime (45 dBA L _{eq})
R1	36.7	No	No
R2	43.4	No	No
R3	29.1	No	No
R4	49.7	No	Yes
R5	42.5	No	No
R6	44.8	No	No
R7	33.0	No	No
R8	35.6	No	No
R9	31.5	No	No
R10	36.4	No	No

¹ See Exhibit 9-A for the receiver and noise source locations.

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

³ Do the estimated Project operational noise levels meet the operational noise level standards?

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

Project operational noise mitigation in the form of 10-foot high noise barriers as outlined in the Executive Summary and shown on Exhibit 9-A, are identified to reduce the *potentially significant* impacts at receiver location R4.

Table 9-4 shows the mitigated daytime operational noise levels of each noise source at each of the nearby sensitive receiver locations. As indicated on Table 9-4, the mitigated daytime Project-only operational noise levels will range from 29.1 to 44.8 dBA L_{eq} at the sensitive receiver locations. Table 9-5 shows the mitigated daytime operational noise levels associated with Palomino Business Park Project will satisfy the City of Norco daytime exterior noise level standards at all receiver locations. Therefore, the mitigated Project-related operational noise level impacts are considered *less than significant* impacts with mitigation.

Table 9-6 shows the mitigated nighttime operational noise levels of each noise source at each of the nearby sensitive receiver locations. As indicated on Table 9-6, the mitigated nighttime Project-only operational noise levels will range from 29.1 to 44.8 dBA L_{eq} at the sensitive receiver locations. Table 9-7 shows the mitigated nighttime operational noise levels associated with Palomino Business Park Project will satisfy the City of Norco nighttime exterior noise level standards at all receiver locations. Therefore, the mitigated Project-related operational noise level impacts are considered *less than significant* impacts with mitigation.

TABLE 9-4: MITIGATED DAYTIME PROJECT-ONLY OPERATIONAL NOISE LEVELS

Receiver Location ¹	Daytime Mitigated Noise Levels by Noise Source (dBA L _{eq}) ²							Combined Operational Noise Levels (dBA L _{eq})
	Air Conditioning Unit (Roof-Top)	Truck Unloading/Docking Activity	Truck Idle/Reefer Activity	Parking Lot Vehicle Movements (Industrial)	Parking Lot Vehicle Movements (Commercial)	Drive-Through Speakerphone	Gas Station Activity	
R1	34.9	_ ³	29.9	28.2	_ ³	_ ³	_ ³	36.7
R2	39.0	_ ³	27.7	41.3	_ ³	_ ³	_ ³	43.4
R3	27.8	_ ³	_ ³	23.1	_ ³	_ ³	_ ³	29.1
R4	36.3	43.3	_ ³	23.8	21.2	17.5	28.4	44.3
R5	34.0	_ ³	_ ³	22.8	31.9	23.9	41.3	42.5
R6	34.8	41.5	_ ³	18.4	29.9	27.8	40.5	44.8
R7	30.1	_ ³	_ ³	26.1	17.4	25.3	21.9	33.0
R8	32.7	_ ³	30.0	28.9	_ ³	_ ³	_ ³	35.6
R9	28.7	_ ³	_ ³	28.3	_ ³	_ ³	_ ³	31.5
R10	35.0	_ ³	_ ³	30.8	_ ³	_ ³	_ ³	36.4

¹ See Exhibit 9-A for the receiver and noise source locations.

² Reference noise sources as shown on Table 9-1. Individual noise source calculations are provided in Appendix 9.1.

³ Receiver does not have a direct line-of-sight to the noise source and/or is located at too great a distance for the noise source to substantively increase the combined Project operational noise level.

TABLE 9-5: MITIGATED DAYTIME OPERATIONAL NOISE LEVEL COMPLIANCE

Receiver Location ¹	Mitigated Noise Level at Receiver Locations (dBA L _{eq}) ²	Threshold Exceeded? ³
		Daytime (55 dBA L _{eq})
R1	36.7	No
R2	43.4	No
R3	29.1	No
R4	44.3	No
R5	42.5	No
R6	44.8	No
R7	33.0	No
R8	35.6	No
R9	31.5	No
R10	36.4	No

¹ See Exhibit 9-A for the receiver and noise source locations.

² Mitigated Project operational noise levels as shown on Table 9-4.

³ Do the estimated Project operational noise levels meet the operational noise level standards?

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

TABLE 9-6: MITIGATED NIGHTTIME PROJECT-ONLY OPERATIONAL NOISE LEVELS

Receiver Location ¹	Nighttime Mitigated Noise Levels by Noise Source (dBA L _{eq}) ²							Combined Operational Noise Levels (dBA L _{eq})
	Air Conditioning Unit (Roof-Top)	Truck Unloading/Docking Activity	Truck Idle/Reefer Activity	Parking Lot Vehicle Movements (Industrial)	Parking Lot Vehicle Movements (Commercial)	Drive-Through Speakerphone	Gas Station Activity	
R1	34.9	_ ³	29.9	28.2	_ ³	_ ³	_ ³	36.7
R2	39.0	_ ³	27.7	41.3	_ ³	_ ³	_ ³	43.4
R3	27.8	_ ³	_ ³	23.1	_ ³	_ ³	_ ³	29.1
R4	36.3	43.3	_ ³	23.8	21.2	17.5	28.4	44.3
R5	34.0	_ ³	_ ³	22.8	31.9	23.9	41.3	42.5
R6	34.8	41.5	_ ³	18.4	29.9	27.8	40.5	44.8
R7	30.1	_ ³	_ ³	26.1	17.4	25.3	21.9	33.0
R8	32.7	_ ³	30.0	28.9	_ ³	_ ³	_ ³	35.6
R9	28.7	_ ³	_ ³	28.3	_ ³	_ ³	_ ³	31.5
R10	35.0	_ ³	_ ³	30.8	_ ³	_ ³	_ ³	36.4

¹ See Exhibit 9-A for the receiver and noise source locations.

² Reference noise sources as shown on Table 9-1. Individual noise source calculations are provided in Appendix 9.1.

³ Receiver does not have a direct line-of-sight to the noise source and/or is located at too great a distance for the noise source to substantively increase the combined Project operational noise level.

TABLE 9-7: MITIGATED NIGHTTIME OPERATIONAL NOISE LEVEL COMPLIANCE

Receiver Location ¹	Mitigated Noise Level at Receiver Locations (dBA L _{eq}) ²	Threshold Exceeded? ³
		Nighttime (45 dBA L _{eq})
R1	36.7	No
R2	43.4	No
R3	29.1	No
R4	44.3	No
R5	42.5	No
R6	44.8	No
R7	33.0	No
R8	35.6	No
R9	31.5	No
R10	36.4	No

¹ See Exhibit 9-A for the receiver and noise source locations.

² Mitigated Project operational noise levels as shown on Table 9-6.

³ Do the estimated Project operational noise levels meet the operational noise level standards?

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

9.4 PROJECT OPERATIONAL NOISE LEVEL CONTRIBUTIONS

To describe the Project operational noise level contributions, the Project operational noise levels are combined with the existing ambient noise levels measurements for the nearby receiver locations potentially impacted by Project operational noise sources. Since the units used to measure noise, decibels (dB), are logarithmic units, the Project-operational and existing ambient noise levels cannot be combined using standard arithmetic equations. (5) Instead, they must be logarithmically added using the following base equation:

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

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 describe the Project noise level contributions 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 below. As indicated on Tables 9-8 and 9-9, the Project will generate an unmitigated daytime operational noise level increase of up to 0.3 dBA L_{eq} and a nighttime operational noise level increase of up to 0.5 dBA L_{eq} at the nearby receiver locations. The Project-related daytime and nighttime operational noise level contributions will satisfy the operational noise level increase significance criteria presented in Table 4-2, and therefore, the Project-related noise level contributions at the sensitive receiver locations will be *less than significant*.

TABLE 9-8: UNMITIGATED PROJECT DAYTIME NOISE LEVEL CONTRIBUTIONS

Receiver Location ¹	Total Unmitigated Project Operational Noise Level ²	Measurement Location ³	Reference Ambient Noise Levels ⁴	Combined Project and Ambient ⁵	Project Increase ⁶	Threshold ⁷	Threshold Exceeded? ⁷
R1	36.7	L1	68.2	68.2	0.0	1.5	No
R2	43.4	L1	68.2	68.2	0.0	1.5	No
R3	29.1	L2	60.9	60.9	0.0	3.0	No
R4	49.7	L5	61.8	62.1	0.3	3.0	No
R5	42.5	L5	61.8	61.9	0.1	3.0	No
R6	44.8	L6	65.7	65.7	0.0	1.5	No
R7	33.0	L6	65.7	65.7	0.0	1.5	No
R8	35.6	L6	65.7	65.7	0.0	1.5	No
R9	31.5	L7	56.0	56.0	0.0	5.0	No
R10	36.4	L8	54.4	54.5	0.1	5.0	No

¹ See Exhibit 9-A for the sensitive receiver locations.

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

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 activities.

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

⁷ Significance Criteria as defined in Section 4.

TABLE 9-9: UNMITIGATED PROJECT NIGHTTIME NOISE LEVEL CONTRIBUTIONS

Receiver Location ¹	Total Unmitigated Project Operational Noise Level ²	Measurement Location ³	Reference Ambient Noise Levels ⁴	Combined Project and Ambient ⁵	Project Increase ⁶	Threshold ⁷	Threshold Exceeded? ⁷
R1	36.7	L1	65.2	65.2	0.0	1.5	No
R2	43.4	L1	65.2	65.2	0.0	1.5	No
R3	29.1	L2	58.0	58.0	0.0	5.0	No
R4	49.7	L5	59.2	59.7	0.5	5.0	No
R5	42.5	L5	59.2	59.3	0.1	5.0	No
R6	44.8	L6	62.5	62.6	0.1	3.0	No
R7	33.0	L6	62.5	62.5	0.0	3.0	No
R8	35.6	L6	62.5	62.5	0.0	3.0	No
R9	31.5	L7	53.8	53.8	0.0	5.0	No
R10	36.4	L8	49.8	50.0	0.2	5.0	No

¹ See Exhibit 9-A for the sensitive receiver locations.

² Total Project 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 Criteria as defined in Section 4.

9.5 OPERATIONAL VIBRATION IMPACTS

To assess the potential vibration impacts from truck haul trips associated with operational activities the Caltrans vibration perception threshold of 0.04 in/sec PPV is used. Truck vibration levels are dependent on vehicle characteristics, load, speed, and pavement conditions. Typical vibration levels for the Palomino Business Park heavy truck activity at normal traffic speeds will approach 0.004 in/sec PPV at 25 feet based on the FTA *Transit Noise Impact and Vibration Assessment*. (4) Trucks transiting on site will be travelling at very low speeds so it is expected that delivery truck vibration impacts at nearby homes will satisfy the 0.04 in/sec PPV threshold, and therefore, will be *less than significant*.

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 construction noise source locations in relation to the nearby sensitive receiver locations previously described in Section 8.

10.1 CONSTRUCTION NOISE LEVELS

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

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

This construction noise analysis was prepared using reference noise level measurements taken by Urban Crossroads, Inc. to describe the typical construction activity noise levels for each stage of Project construction. The construction reference noise level measurements represent a list of typical construction activity noise levels. Noise levels generated by heavy construction equipment can range from approximately 68 dBA to more than 80 dBA when measured at 50 feet. However, these noise levels diminish with distance from the construction site at a rate of 6 dBA per doubling of distance. For example, a noise level of 80 dBA measured at 50 feet from the noise source to the receiver would be reduced to 74 dBA at 100 feet from the source to the receiver, and would be further reduced to 68 dBA at 200 feet from the source to the receiver. The construction stages used in this analysis are consistent with the *Palomino Business Park Air Quality Impact Analysis* prepared by Urban Crossroads, Inc. (24)

10.2 CONSTRUCTION REFERENCE NOISE LEVELS

To describe the Project construction noise levels, measurements were collected for similar activities at several construction sites. Table 10-1 provides a summary of the construction reference noise level measurements. Since the reference noise levels were collected at varying distances of 30 feet and 50 feet, all construction noise level measurements presented on Table 10-1 have been adjusted for consistency to describe a uniform reference distance of 50 feet.

EXHIBIT 10-A: CONSTRUCTION NOISE SOURCE AND RECEIVER LOCATIONS

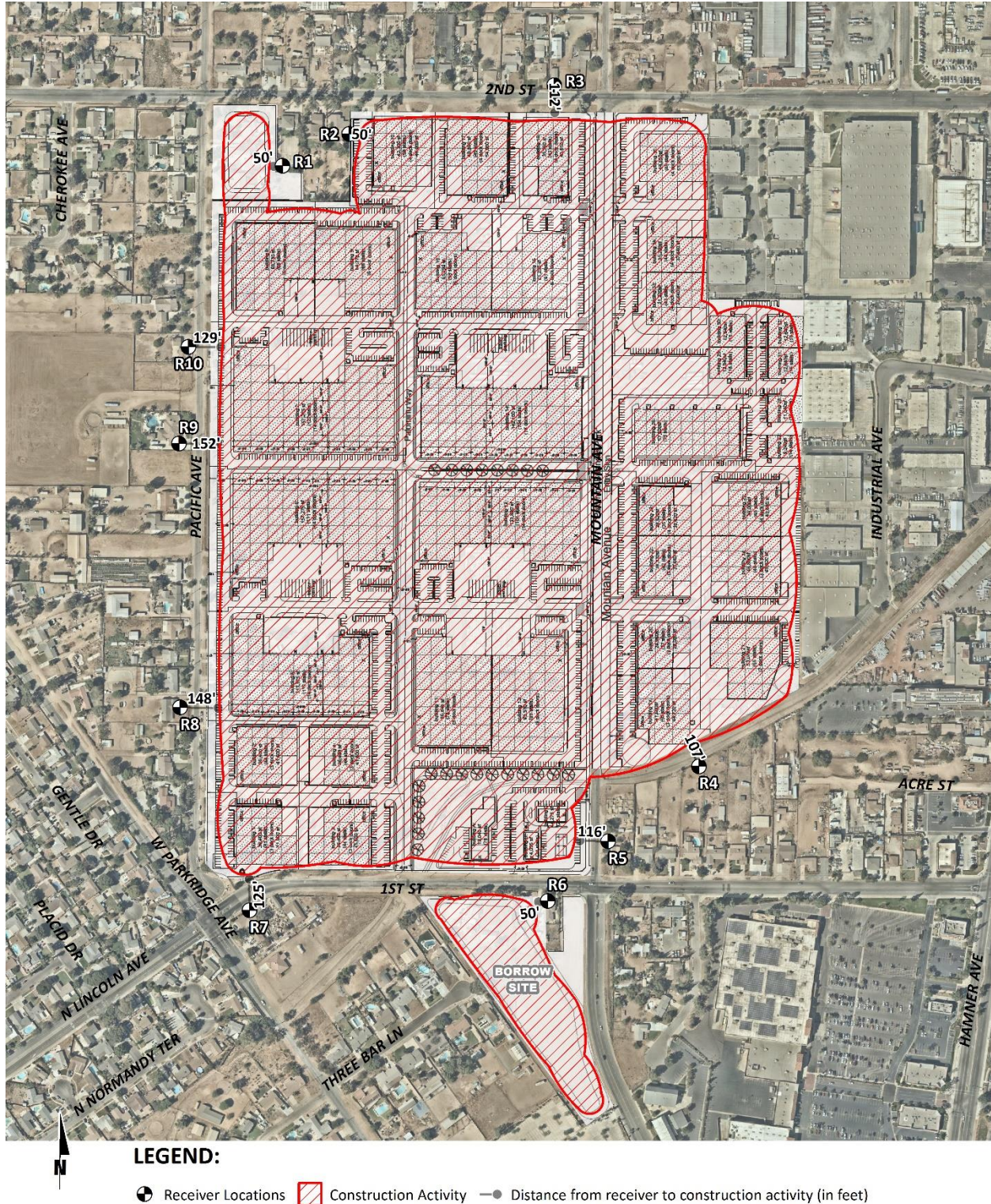


TABLE 10-1: CONSTRUCTION REFERENCE NOISE LEVELS

ID	Noise Source	Duration (h:mm:ss)	Reference Distance From Source (Feet)	Reference Noise Levels @ Reference Distance (dBA L _{eq})	Reference Noise Levels @ 50 Feet (dBA L _{eq}) ⁷
1	Truck Pass-Bys & Dozer Activity ¹	0:01:15	30'	63.6	59.2
2	Dozer Activity ¹	0:01:00	30'	68.6	64.2
3	Construction Vehicle Maintenance Activities ²	0:01:00	30'	71.9	67.5
4	Foundation Trenching ²	0:01:01	30'	72.6	68.2
5	Rough Grading Activities ²	0:05:00	30'	77.9	73.5
6	Framing ³	0:02:00	30'	66.7	62.3
7	Dozer Pass-By ⁴	0:00:32	30'	84.0	79.6
8	Concrete Mixer Truck Movements ⁵	0:01:00	50'	71.2	71.2
9	Concrete Paver Activities ⁵	0:01:00	30'	70.0	65.6
10	Concrete Mixer Pour & Paving Activities ⁵	0:01:00	30'	70.3	65.9
11	Concrete Mixer Backup Alarms & Air Brakes ⁵	0:00:20	50'	71.6	71.6
12	Concrete Mixer Pour Activities ⁵	1:00:00	50'	67.7	67.7
13	Forklift, Jackhammer, & Metal Truck Bed Loading ⁶	0:02:06	50'	67.9	67.9

¹ As measured by Urban Crossroads, Inc. on 10/14/15 at a business park construction site located at the northwest corner of Barranca Parkway and Alton Parkway in the City of Irvine.

² As measured by Urban Crossroads, Inc. on 10/20/15 at a construction site located in Rancho Mission Viejo.

³ As measured by Urban Crossroads, Inc. on 10/20/15 at a residential construction site located in Rancho Mission Viejo.

⁴ As measured by Urban Crossroads, Inc. on 10/30/15 during grading operations within an industrial construction site located in the City of Ontario.

⁵ Reference noise level measurements were collected from a nighttime concrete pour at an industrial construction site, located at 27334 San Bernardino Avenue in the City of Redlands, between 1:00 a.m. to 2:00 a.m. on 7/1/15.

⁶ As measured by Urban Crossroads, Inc. on 9/9/16 during demolition activities at 41 Corporate Park in Irvine.

⁷ Reference noise levels are calculated at 50 feet using a drop off rate of 6 dBA per doubling of distance (point source).

10.3 CONSTRUCTION NOISE ANALYSIS

Using the reference construction equipment noise levels, calculations of the Project construction noise level impacts at the nearby sensitive receiver locations were completed. Tables 10-2 to 10-7 present the short-term construction noise levels for each stage of construction. Table 10-8 provides a summary of the construction noise levels by stage at the nearby noise-sensitive receiver locations. Based on the stages of construction, the noise impacts associated with the proposed Project are expected to create temporarily high noise levels at the nearby receiver locations. To assess the worst-case construction noise levels, this analysis shows the highest noise impacts when the equipment with the highest reference noise level is operating at the closest point from the edge of construction activity to each receiver location. The noise analysis for each stage of construction represents multiple pieces of construction equipment operating simultaneously and continuously, and only the highest reference noise sources for each stage are used in the analysis. This is also representative of actual construction activities since all equipment will not operate from a single point.

TABLE 10-2: DEMOLITION EQUIPMENT NOISE LEVELS

Reference Construction Activity ¹				Reference Noise Level @ 50 Feet (dBA L _{eq})
Truck Pass-Bys & Dozer Activity				59.2
Dozer Activity				64.2
Forklift, Jackhammer, & Metal Truck Bed Activities				67.9
Highest Reference Noise Level at 50 Feet (dBA L _{eq}):				67.9
Receiver Location	Distance to Primary Construction Activity (Feet) ²	Distance Attenuation (dBA L _{eq}) ³	Estimated Noise Barrier Attenuation (dBA L _{eq}) ⁴	Construction Noise Level (dBA L _{eq})
R1	50'	0.0	0.0	67.9
R2	50'	0.0	0.0	67.9
R3	112'	-7.0	0.0	60.9
R4	107'	-6.6	0.0	61.3
R5	116'	-7.3	0.0	60.6
R6	50'	0.0	0.0	67.9
R7	125'	-8.0	0.0	59.9
R8	148'	-9.4	0.0	58.5
R9	152'	-9.7	0.0	58.2
R10	129'	-8.2	0.0	59.7

¹ Reference construction noise level measurements taken by Urban Crossroads, Inc.

² Distance from the nearest point of construction activity to the nearest receiver.

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

⁴ Estimated barrier attenuation from existing barriers/berms in the Project study area.

TABLE 10-3: SITE PREPARATION EQUIPMENT NOISE LEVELS

Reference Construction Activity ¹				Reference Noise Level @ 50 Feet (dBA L _{eq})
Truck Pass-Bys & Dozer Activity				59.2
Dozer Activity				64.2
Dozer Pass-By				79.6
Highest Reference Noise Level at 50 Feet (dBA L _{eq}):				79.6
Receiver Location	Distance to Primary Construction Activity (Feet) ²	Distance Attenuation (dBA L _{eq}) ³	Estimated Noise Barrier Attenuation (dBA L _{eq}) ⁴	Construction Noise Level (dBA L _{eq})
R1	50'	0.0	0.0	79.6
R2	50'	0.0	0.0	79.6
R3	112'	-7.0	0.0	72.6
R4	107'	-6.6	0.0	73.0
R5	116'	-7.3	0.0	72.3
R6	50'	0.0	0.0	79.6
R7	125'	-8.0	0.0	71.6
R8	148'	-9.4	0.0	70.1
R9	152'	-9.7	0.0	69.9
R10	129'	-8.2	0.0	71.3

¹ Reference construction noise level measurements taken by Urban Crossroads, Inc.

² Distance from the nearest point of construction activity to the nearest receiver.

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

⁴ Estimated barrier attenuation from existing barriers/berms in the Project study area.

TABLE 10-4: GRADING EQUIPMENT NOISE LEVELS

Reference Construction Activity ¹				Reference Noise Level @ 50 Feet (dBA L _{eq})
Truck Pass-Bys & Dozer Activity				59.2
Dozer Activity				64.2
Rough Grading Activities				73.5
Highest Reference Noise Level at 50 Feet (dBA L _{eq}):				73.5
Receiver Location	Distance to Primary Construction Activity (Feet) ²	Distance Attenuation (dBA L _{eq}) ³	Estimated Noise Barrier Attenuation (dBA L _{eq}) ⁴	Construction Noise Level (dBA L _{eq})
R1	50'	0.0	0.0	73.5
R2	50'	0.0	0.0	73.5
R3	112'	-7.0	0.0	66.5
R4	107'	-6.6	0.0	66.9
R5	116'	-7.3	0.0	66.2
R6	50'	0.0	0.0	73.5
R7	125'	-8.0	0.0	65.5
R8	148'	-9.4	0.0	64.0
R9	152'	-9.7	0.0	63.8
R10	129'	-8.2	0.0	65.2

¹ Reference construction noise level measurements taken by Urban Crossroads, Inc.

² Distance from the nearest point of construction activity to the nearest receiver.

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

⁴ Estimated barrier attenuation from existing barriers/berms in the Project study area.

TABLE 10-5: BUILDING CONSTRUCTION EQUIPMENT NOISE LEVELS

Reference Construction Activity ¹				Reference Noise Level @ 50 Feet (dBA L _{eq})
Construction Vehicle Maintenance Activities				67.5
Foundation Trenching				68.2
Framing				62.3
Highest Reference Noise Level at 50 Feet (dBA L _{eq}):				68.2
Receiver Location	Distance to Primary Construction Activity (Feet) ²	Distance Attenuation (dBA L _{eq}) ³	Estimated Noise Barrier Attenuation (dBA L _{eq}) ⁴	Construction Noise Level (dBA L _{eq})
R1	50'	0.0	0.0	68.2
R2	50'	0.0	0.0	68.2
R3	112'	-7.0	0.0	61.2
R4	107'	-6.6	0.0	61.6
R5	116'	-7.3	0.0	60.9
R6	50'	0.0	0.0	68.2
R7	125'	-8.0	0.0	60.2
R8	148'	-9.4	0.0	58.7
R9	152'	-9.7	0.0	58.5
R10	129'	-8.2	0.0	59.9

¹ Reference construction noise level measurements taken by Urban Crossroads, Inc.

² Distance from the nearest point of construction activity to the nearest receiver.

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

⁴ Estimated barrier attenuation from existing barriers/berms in the Project study area.

TABLE 10-6: ARCHITECTURAL COATING EQUIPMENT NOISE LEVELS

Reference Construction Activity ¹				Reference Noise Level @ 50 Feet (dBA L _{eq})
Construction Vehicle Maintenance Activities				67.5
Framing				62.3
Highest Reference Noise Level at 50 Feet (dBA L _{eq}):				67.5
Receiver Location	Distance to Primary Construction Activity (Feet) ²	Distance Attenuation (dBA L _{eq}) ³	Estimated Noise Barrier Attenuation (dBA L _{eq}) ⁴	Construction Noise Level (dBA L _{eq})
R1	50'	0.0	0.0	67.5
R2	50'	0.0	0.0	67.5
R3	112'	-7.0	0.0	60.5
R4	107'	-6.6	0.0	60.9
R5	116'	-7.3	0.0	60.2
R6	50'	0.0	0.0	67.5
R7	125'	-8.0	0.0	59.5
R8	148'	-9.4	0.0	58.0
R9	152'	-9.7	0.0	57.8
R10	129'	-8.2	0.0	59.2

¹ Reference construction noise level measurements taken by Urban Crossroads, Inc.

² Distance from the nearest point of construction activity to the nearest receiver.

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

⁴ Estimated barrier attenuation from existing barriers/berms in the Project study area.

TABLE 10-7: PAVING EQUIPMENT NOISE LEVELS

Reference Construction Activity ¹				Reference Noise Level @ 50 Feet (dBA L _{eq})
Concrete Mixer Truck Movements				71.2
Concrete Paver Activities				65.6
Concrete Mixer Pour & Paving Activities				65.9
Concrete Mixer Backup Alarms & Air Brakes				71.6
Concrete Mixer Pour Activities				67.7
Highest Reference Noise Level at 50 Feet (dBA L _{eq}):				71.6
Receiver Location	Distance to Primary Construction Activity (Feet) ²	Distance Attenuation (dBA L _{eq}) ³	Estimated Noise Barrier Attenuation (dBA L _{eq}) ⁴	Construction Noise Level (dBA L _{eq})
R1	50'	0.0	0.0	71.6
R2	50'	0.0	0.0	71.6
R3	112'	-7.0	0.0	64.6
R4	107'	-6.6	0.0	65.0
R5	116'	-7.3	0.0	64.3
R6	50'	0.0	0.0	71.6
R7	125'	-8.0	0.0	63.6
R8	148'	-9.4	0.0	62.2
R9	152'	-9.7	0.0	61.9
R10	129'	-8.2	0.0	63.4

¹ Reference construction noise level measurements taken by Urban Crossroads, Inc.

² Distance from the nearest point of construction activity to the nearest receiver.

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

⁴ Estimated barrier attenuation from existing barriers/berms in the Project study area.

10.4 CONSTRUCTION NOISE THRESHOLDS OF SIGNIFICANCE

The construction noise analysis shows that the highest construction noise levels will occur when construction activities take place at the closest point from primary Project construction activity to each of the nearby receiver locations. As shown on Table 10-8, the unmitigated construction noise levels are expected to range from 57.8 to 79.6 dBA L_{eq} at the nearby receiver locations.

TABLE 10-8: UNMITIGATED CONSTRUCTION EQUIPMENT NOISE LEVEL SUMMARY (dBA L_{eq})

Receiver Location ¹	Construction Noise Level (dBA L _{eq})						Highest Activity Noise Levels ²
	Demolition	Site Preparation	Grading	Building Construction	Architectural Coating	Paving	
R1	67.9	79.6	73.5	68.2	67.5	71.6	79.6
R2	67.9	79.6	73.5	68.2	67.5	71.6	79.6
R3	60.9	72.6	66.5	61.2	60.5	64.6	72.6
R4	61.3	73.0	66.9	61.6	60.9	65.0	73.0
R5	60.6	72.3	66.2	60.9	60.2	64.3	72.3
R6	67.9	79.6	73.5	68.2	67.5	71.6	79.6
R7	59.9	71.6	65.5	60.2	59.5	63.6	71.6
R8	58.5	70.1	64.0	58.7	58.0	62.2	70.1
R9	58.2	69.9	63.8	58.5	57.8	61.9	69.9
R10	59.7	71.3	65.2	59.9	59.2	63.4	71.3

¹ Noise receiver locations are shown on Exhibit 10-A.

² Estimated construction noise levels during peak operating conditions.

To evaluate whether the Project will generate potentially significant short-term noise levels at off-site sensitive receiver locations a construction-related the NIOSH noise level threshold of 85 dBA L_{eq} is used as acceptable thresholds for construction noise at the nearby sensitive receiver locations. Table 10-9 shows the highest construction noise levels at the potentially impacted receiver locations are expected to approach 79.6 dBA L_{eq} and will satisfy the NIOSH 85 dBA L_{eq} significance threshold during temporary Project construction activities. The noise impact due to unmitigated Project construction noise levels is, therefore, considered a *less than significant* impact at all nearby sensitive receiver locations.

TABLE 10-9: CONSTRUCTION EQUIPMENT NOISE LEVEL COMPLIANCE (DBA L_{eq})

Receiver Location ¹	Construction Noise Levels (dBA L _{eq})		
	Highest Construction Noise Levels ²	Threshold ³	Threshold Exceeded? ⁴
R1	79.6	85	No
R2	79.6	85	No
R3	72.6	85	No
R4	73.0	85	No
R5	72.3	85	No
R6	79.6	85	No
R7	71.6	85	No
R8	70.1	85	No
R9	69.9	85	No
R10	71.3	85	No

¹ Noise receiver locations are shown on Exhibit 10-A.

² Estimated construction noise levels during peak operating conditions, as shown on Table 10-8.

³ Construction noise thresholds as shown on Table 4-2.

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

10.5 CONSTRUCTION VIBRATION IMPACTS

Construction activity can result in varying degrees of ground vibration, depending on the equipment and methods used, distance to the affected structures and soil type. It is expected that ground-borne vibration from Project construction activities would cause only intermittent, localized intrusion. The proposed Project's construction activities most likely to cause vibration impacts are:

- **Heavy Construction Equipment:** Although all heavy mobile construction equipment has the potential of causing at least some perceptible vibration while operating close to buildings, the vibration is usually short-term and is not of sufficient magnitude to cause building damage.
- **Trucks:** Trucks hauling building materials to construction sites can be sources of vibration intrusion if the haul routes pass through residential neighborhoods on streets with bumps or potholes. Repairing the bumps and potholes generally eliminates the problem.

Ground-borne vibration levels resulting from construction activities occurring within the Project site were estimated by data published by the Federal Transit Administration. Construction activities that would have the potential to generate low levels of ground-borne vibration within the Project site include grading. Using the vibration source level of construction equipment provided on Table 6-8 and the construction vibration assessment methodology published by the FTA, it is possible to estimate the Project vibration impacts. Table 10-10 presents the expected Project related vibration levels at the nearby receiver locations.

At distances ranging from 50 to 152 feet from Project construction activities, construction vibration velocity levels are expected to approach 0.03 in/sec PPV and will remain below the

Caltrans threshold of 0.04 in/sec PPV at all receiver locations, as shown on Table 10-10. Therefore, the Project-related vibration impacts are considered *less than significant* during the construction activities at the Project site.

Further, the Project-related construction vibration levels do not represent levels capable of causing building damage to nearby residential homes. The FTA identifies construction vibration levels capable of building damage ranging from 0.12 to 0.5 in/sec PPV. (4) The peak Project-construction vibration levels shown on Table 10-10, approaching 0.03 in/sec PPV, are below the FTA vibration levels for building damage at the residential homes near the Project site. Moreover, the impacts at the site of the closest sensitive receivers are unlikely to be sustained during the entire construction period, but will occur rather only during the times that heavy construction equipment is operating adjacent to the Project site perimeter.

TABLE 10-10: PROJECT CONSTRUCTION VIBRATION LEVELS

Receiver ¹	Distance to Primary Const. Activity (Feet)	Receiver PPV Levels (in/sec) ²					Threshold (in/sec PPV)	Threshold Exceeded? ³
		Small Bulldozer	Jack-hammer	Loaded Trucks	Large Bulldozer	Peak Vibration		
R1	50'	0.001	0.012	0.027	0.031	0.031	0.04	No
R2	50'	0.001	0.012	0.027	0.031	0.031	0.04	No
R3	112'	0.000	0.004	0.008	0.009	0.009	0.04	No
R4	107'	0.000	0.004	0.009	0.010	0.010	0.04	No
R5	116'	0.000	0.004	0.008	0.009	0.009	0.04	No
R6	50'	0.001	0.012	0.027	0.031	0.031	0.04	No
R7	125'	0.000	0.003	0.007	0.008	0.008	0.04	No
R8	148'	0.000	0.002	0.005	0.006	0.006	0.04	No
R9	152'	0.000	0.002	0.005	0.006	0.006	0.04	No
R10	129'	0.000	0.003	0.006	0.008	0.008	0.04	No

¹ Receiver locations are shown on Exhibit 10-A.

² Based on the Vibration Source Levels of Construction Equipment included on Table 6-8.

³ Does the vibration level exceed the maximum acceptable vibration threshold?

10.6 SOIL IMPORT/EXPORT ACTIVITIES

The Project is anticipated to include soil import and export within the Project site boundaries as a part of Project construction. Activities are anticipated to be primarily located as indicated on Exhibit 10-A, within the Project site boundaries, with additional off-site haul truck movements transporting soil to and from areas of the Project site, such as from the southern basin to the northern portion of the Project site. However, these off-site activities are anticipated to be less intensive than the highest reference noise level measurements used to model primary Project construction activities at closer distances to nearby sensitive receiver locations, and as such, would result in equal or lesser noise and vibration impacts. Therefore, impacts related to soil import/export activities will be *less than significant*.

11 REFERENCES

1. **State of California.** *California Environmental Quality Act, Appendix G.* 2018.
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5. **California Department of Transportation Environmental Program.** *Technical Noise Supplement - A Technical Supplement to the Traffic Noise Analysis Protocol.* Sacramento, CA : s.n., September 2013.
6. **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.
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9. **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.
10. **Occupational Safety and Health Administration.** *Standard 29 CRF, Part 1910.*
11. **Office of Planning and Research.** *State of California General Plan Guidelines.* October 2017.
12. **State of California.** *2016 California Green Building Standards Code.* January 2017.
13. **City of Norco.** *General Plan Noise Element.* March 2003.
14. **National Institute for Occupational Safety and Health.** *Criteria for Recommended Standard: Occupational Noise Exposure.* June 1998.
15. **California Department of Transportation.** *Transportation and Construction Vibration Guidance Manual.* September 2013.
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19. **American National Standards Institute (ANSI).** *Specification for Sound Level Meters ANSI S1.4-2014/IEC 61672-1:2013.*
20. **U.S. Department of Transportation, Federal Highway Administration.** *FHWA Highway Traffic Noise Prediction Model.* December 1978. FHWA-RD-77-108.

21. **California Department of Transportation Environmental Program, Office of Environmental Engineering.** *Use of California Vehicle Noise Reference Energy Mean Emission Levels (Calven REMELs) in FHWA Highway Traffic Noise Prediction.* September 1995. TAN 95-03.
22. **California Department of Transportation.** *Traffic Noise Attenuation as a Function of Ground and Vegetation Final Report.* June 1995. FHWA/CA/TL-95/23.
23. **County of Riverside, Office of Industrial Hygiene.** *Requirements for Determining and Mitigating Traffic Noise Impacts to Residential Structures.* April 2015.
24. **Urban Crossroads, Inc.** *Palomino Business Park Air Quality Impact Analysis.* July 2019.

12 CERTIFICATION

The contents of this noise study report represent an accurate depiction of the noise environment and impacts associated with the proposed Palomino 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) 336-5979.

Bill Lawson, P.E., INCE
Principal
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Costa Mesa, CA 92626
(949) 336-5979
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EDUCATION

Master of Science in Civil and Environmental Engineering
California Polytechnic State University, San Luis Obispo • December, 1993

Bachelor of Science in City and Regional Planning
California Polytechnic State University, San Luis Obispo • June, 1992

PROFESSIONAL REGISTRATIONS

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

PROFESSIONAL AFFILIATIONS

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

PROFESSIONAL CERTIFICATIONS

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

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APPENDIX 3.1:

CITY OF NORCO MUNICIPAL CODE

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Chapter 9.07 NOISE REGULATIONS

Sections:

- 9.07.010 Purpose, intent and findings.**
- 9.07.020 Exemptions.**
- 9.07.030 Definitions.**
- 9.07.040 General sound level standards.**
- 9.07.050 Sound level measurement methodology.**
- 9.07.060 Special sound sources standards.**
- 9.07.070 Violations and penalties.**
- 9.07.080 Duty to cooperate.**

* Prior ordinance history: Ord. 590.

9.07.010 Purpose, intent and findings.

The City Council finds, determines and declares that this chapter has been amended based upon the following facts and purposes:

(1) At certain levels, sound becomes noise and may jeopardize the health, safety or general welfare of Norco City residents and degrade their quality of life. The City Council of Norco hereby declares that noise shall be regulated in the manner described herein. This code is intended to establish City of Norco standards regulating noise. This code is not intended to establish thresholds of significance for the purpose of any analysis required by the California Environmental Quality Act and no such thresholds are hereby established. (Ord. 979 Sec. 1, 2014)

9.07.020 Exemptions.

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

- A. Facilities owned or operated by or for a governmental agency;
- B. Capital improvement projects of a governmental agency;
- C. The maintenance or repair of public properties;
- D. Public safety personnel in the course of executing their official duties, including, but not limited to, sworn peace officers, emergency personnel and public utility personnel. This exemption includes, without limitation, sound emanating from all equipment used by such personnel, whether stationary or mobile;
- E. Public or private schools and school-sponsored activities;
- F. Agricultural operations provided such operations are carried out in a manner consistent with accepted industry standards. This exemption includes, without limitation, sound emanating from all equipment used

during such operations, whether stationary or mobile;

G. City Sanctioned Events. The provisions of this title shall not apply to those reasonable sounds emanating from occasional public and private outdoor or indoor gatherings that require a City permit, public dances, shows, bands, sporting and entertainment events conducted and in compliance with such permit;

H. City and other public agency sponsored events;

I. Private construction projects involving no more than one unit located within one-quarter of a mile from an inhabited dwelling; provided, that:

1. Construction does not occur between the hours of 7:00 p.m. and 7:00 a.m., Monday through Friday and 7:00 p.m. and 8:00 a.m., on Saturday and Sunday, unless specified by permit;

J. Property maintenance, including, but not limited to, the operation of lawnmowers, leaf blowers, etc., provided such maintenance occurs between the hours of 8:00 a.m. and 7:00 p.m.;

K. Motor vehicles, other than off-highway vehicles. This exemption does not include sound emanating from motor vehicle sound systems;

L. Heating, exhaust, and air conditioning equipment;

M. Safety, warning and alarm devices, including, but not limited to, house and car alarms, and other warning devices that are designed to protect the public health, safety, and welfare;

N. The discharge of firearms consistent with all state laws;

O. Sounds produced by any domestic animals and livestock, specifically including dogs and roosters;

P. Construction-related single events or continuous events subject to a permit issued by the City of Norco. (Ord. 979 Sec. 1, 2014)

9.07.030 Definitions.

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

A. "Audio equipment" means a television, stereo, radio, tape player, compact disc player, MP3 player, iPod or other similar device.

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

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

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

- D. "Land use permit" means a discretionary permit issued by the City of Norco pursuant to Title [18](#).
- E. "Motor vehicle" means a vehicle that is self-propelled.
- F. "Motor vehicle sound system" means a stereo, radio, tape player, compact disc player, MP3 player, iPod or other similar device.
- G. "Noise" means any loud, discordant or disagreeable sound.
- H. "Occupied property" means property upon which is located a residence, business or industrial or manufacturing use.
- I. "Off-highway vehicle" means a motor vehicle designed to travel over any terrain.
- J. "Public property" means property owned by a governmental agency or held open to the public, including, but not limited to, parks, streets, sidewalks, and alleys.
- K. "Public or private school" means an institution conducting academic instruction at the preschool, elementary school, junior high school, high school, or college level.
- L. "Sensitive receptor" means a land use that is identified as sensitive to noise in the noise element of the Riverside County general plan, as applicable to the City of Norco, or the Norco Municipal Code, including, but not limited to, residences, schools, hospitals, churches, rest homes, cemeteries or public libraries.
- M. "Sound amplifying equipment" means a loudspeaker, microphone, megaphone or other similar device.
- N. "Sound level meter" means an instrument meeting the standards of the American National Standards Institute for Type 1 or Type 2 sound level meters or an instrument that provides equivalent data. (Ord. 979 Sec. 1, 2014)

9.07.040 General sound level standards.

No person shall create any sound, or allow the creation of any sound, on any property that causes the exterior sound level on any other occupied property to exceed the sound level standards set forth in Table 1 or that violates the special sound source standards set forth in Section [9.07.060](#).

Table 1
Sound Level Standards (dB L
max)

Land Use	Land Use Designation Name	Density	Maximum Decibel Level	
			7 am—10 pm	10 pm—7 am
Community Development	Estate Density Residential	2 ac	55	45
	Very Low Density Residential	1 ac	55	45
	Low Density Residential	1/2 ac	55	45
	Medium Density Residential	2—5	55	45
93				

Land Use	Land Use Designation Name	Density	Maximum Decibel Level	
			7 am—10 pm	10 pm—7 am
	Medium High Density Residential	5—8	55	45
	High Density Residential	8—14	55	45
	Very High Density Residential	14—20	55	45
	Highest Density Residential	20+	55	45
	Retail Commercial		65	55
	Office Commercial		65	55
	Tourist Commercial		65	55
	Community Center		65	55
	Light Industrial		75	55
	Heavy Industrial		75	75
	Business Park		65	45
	Public Facility		65	45
	Specific Plan—Residential		65	45
	Specific Plan—Commercial		55	55
	Specific Plan—Light Industrial		65	55
	Specific Plan—Heavy Industrial		75	55
Rural Community	Estate Density Residential	2 ac	55	45
	Very Low Density Residential	1 ac	55	45
	Low Density Residential	1/2 ac	55	45
Rural	Rural Residential	5 ac	45	45
	Rural Mountainous	10 ac	45	45
	Rural Desert	10 ac	45	45
Agriculture	Agriculture	10 ac	45	45
Open Space	Conservation		45	45
	Conservation Habitat		45	45
	Recreation		45	45
	Rural	20 ac	45	45

(Ord. 979 Sec. 1, 2014)

9.07.050 Sound level measurement methodology.

If the sound standard being applied is measured in decibels, then sound level measurements pursuant to this section shall be required to establish a violation of this chapter. If the sound standard being applied is not measured in decibels, then sound level measurements are not required to establish a violation of this chapter. Sound level measurements may be made anywhere within the boundaries of an occupied property. The actual location of a sound level measurement shall be at the discretion of the enforcement officials identified in Section [9.07.080](#). Sound level measurements shall be made with a sound level meter. Immediately before a measurement is made, the sound level meter shall be calibrated utilizing an acoustical calibrator meeting the standards of the American National Standards Institute. Following a

sound level measurement, the calibration of the sound level meter shall be reverified. Sound level meters and calibration equipment shall be certified annually. (Ord. 979 Sec. 1, 2014)

9.07.060 Special sound sources standards.

The general sound level standards set forth in Section [9.07.040](#) apply to sound emanating from all sources, including the following special sound sources, and the person creating, or allowing the creation of, the sound is subject to the requirements of that section. The following special sound sources are also subject to the following additional standards, the failure to comply with which constitutes separate violations of this chapter:

A. Motor Vehicles.

1. Off-Highway Vehicles.

a. No person shall operate an off-highway vehicle unless it is equipped with a USDA-qualified spark arrester and a constantly operating and properly maintained muffler. A muffler is not considered constantly operating and properly maintained if it is equipped with a cutout, bypass or similar device.

b. No person shall operate an off-highway vehicle unless the noise emitted by the vehicle is not more than 96 dBA if the vehicle was manufactured on or after January 1, 1986, or is not more than 101 dBA if the vehicle was manufactured before January 1, 1986. For purposes of this subsection, emitted noise shall be measured a distance of 20 inches from the vehicle tailpipe using test procedures established by the Society of Automotive Engineers under Standard J-1287.

2. Sound Systems. No person shall operate a motor vehicle sound system, whether affixed to the vehicle or not, between the hours of 10:00 p.m. and 8:00 a.m., such that the sound system is audible to the human ear inside any inhabited dwelling. No person shall operate a motor vehicle sound system, whether affixed to the vehicle or not, at any other time such that the sound system is audible to the human ear at a distance greater than 100 feet from the vehicle. Sound level measurements may be used, but are not required to establish a violation of this subsection.

B. Power Tools and Equipment. No person shall operate any power tools or equipment between the hours of 10:00 p.m. and 8:00 a.m. such that the power tools or equipment are audible to the human ear inside an inhabited dwelling other than a dwelling in which the power tools or equipment may be located. No person shall operate any power tools or equipment at any other time such that the power tools or equipment are audible to the human ear at a distance greater than 100 feet from the power tools or equipment. Sound level measurements may be used, but are not required to establish a violation of this subsection.

C. Audio Equipment. No person shall operate any audio equipment, whether portable or not, between the hours of 10:00 p.m. and 8:00 a.m. such that the equipment is audible to the human ear inside an inhabited dwelling other than a dwelling in which the equipment may be located. No person shall operate any audio equipment, whether portable or not, at any other time such that the equipment is audible to the human ear at a distance greater than 100 feet from the equipment. Sound level measurements may be used, but are not required to establish a violation of this subsection.

D. Sound Amplifying Equipment and Live Music. No person shall install, use or operate sound amplifying equipment, or perform, or allow to be performed, live music unless such activities comply with the

following requirements. To the extent that these requirements conflict with any conditions of approval attached to an underlying land use permit, these requirements shall control:

1. Sound amplifying equipment or live music is prohibited between the hours of 10:00 p.m. and 8:00 a.m.
2. Sound emanating from sound amplifying equipment or live music at any other time shall not be audible to the human ear at a distance greater than 100 feet from the equipment or music.

Sound level measurements may be used, but are not required to establish a violation of this subsection. (Ord. 979 Sec. 1, 2014)

9.07.070 Violations and penalties.

A. Violation of the provisions of this chapter may be enforced pursuant to the enforcement provisions set forth in Title [1](#), including Chapter [1.04](#), General Penalties; Chapter [20.40](#), Enforcement and Penalties; Chapter [3.34](#), Civil Penalties; or Chapter [18.48](#), Enforcement, Legal Procedures and Penalties.

B. The fine schedule for a violation of this chapter enforced pursuant to Chapter [1.04](#), General Penalties, shall be in the amount of:

1. Two hundred dollars for the first violation;
2. Four hundred dollars for a second violation occurring within three years of the first violation; or
3. Six hundred dollars for a third violation occurring within three years of the first violation.

C. The fines set forth in subsection (B) of this section may be modified by a resolution of the City Council establishing an administrative citation schedule not to exceed \$1,000 per violation and which may include increased fines for repeat violations and penalties.

D. The City Manager or his designee may reduce the fines set forth in subsection (B) or (C) of this section in the event he or she finds that the violation is not likely to reoccur, the violator cooperated with enforcement officials in attempting to enforce the provisions of this chapter and resolve the issues giving rise to the violation, the actions of the violator giving rise to the violation were not malicious and were not taken in deliberate disregard of the provisions of this chapter, and the ends of justice would not be served by imposing the full fine. (Ord. 979 Sec. 1, 2014)

9.07.080 Duty to cooperate.

No person shall refuse to cooperate with, or obstruct, the enforcement officials identified in Section [9.07.080](#) when they are engaged in the process of enforcing the provisions of this chapter. This duty to cooperate may require a person to extinguish a sound source so that it can be determined whether sound emanating from the source violates the provisions of this chapter. (Ord. 979 Sec. 1, 2014)

[Mobile Version](#)

APPENDIX 5.1:

STUDY AREA PHOTOS

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JN:11795 Study Area Photos



L1 East
33, 54' 33.860000", 117, 34' 15.490000"



L1 North
33, 54' 33.860000", 117, 34' 15.490000"



L1 South
33, 54' 33.860000", 117, 34' 15.490000"



L1 West
33, 54' 33.860000", 117, 34' 15.490000"



L2 East
33, 54' 35.450000", 117, 34' 0.350000"



L2 North
33, 54' 35.420000", 117, 34' 0.410000"

JN:11795 Study Area Photos



L2 South
33, 54' 35.370000", 117, 34' 0.440000"



L2 West
33, 54' 35.420000", 117, 34' 0.410000"



L3 East
33, 54' 27.270000", 117, 34' 0.550000"



L3 Northeast
33, 54' 27.280000", 117, 34' 0.520000"



L3 South
33, 54' 27.270000", 117, 34' 0.550000"



L3 West
33, 54' 27.280000", 117, 34' 0.520000"

JN:11795 Study Area Photos



L4 East
33, 54' 18.790000", 117, 34' 0.930000"



L4 North
33, 54' 18.830000", 117, 34' 0.460000"



L4 South
33, 54' 18.820000", 117, 34' 0.460000"



L4 West
33, 54' 18.870000", 117, 34' 0.460000"



L5 East
33, 54' 10.830000", 117, 34' 0.900000"



L5 North
33, 54' 10.770000", 117, 34' 0.900000"

JN:11795 Study Area Photos



L5 South
33, 54' 10.830000", 117, 34' 0.900000"



L5 West
33, 54' 10.830000", 117, 34' 0.900000"



L6 East
33, 54' 7.420000", 117, 34' 14.500000"



L6 North
33, 54' 7.410000", 117, 34' 14.500000"



L6 South
33, 54' 7.430000", 117, 34' 14.530000"



L6 West
33, 54' 7.390000", 117, 34' 14.500000"

JN:11795 Study Area Photos



L7 East
33, 54' 21.800000", 117, 34' 17.330000"



L7 North
33, 54' 21.830000", 117, 34' 17.350000"



L7 South
33, 54' 21.850000", 117, 34' 17.380000"



L7 West
33, 54' 21.830000", 117, 34' 17.410000"



L8 East
33, 54' 29.270000", 117, 34' 17.350000"



L8 North
33, 54' 29.270000", 117, 34' 17.380000"

JN:11795 Study Area Photos



L8 South

33, 54' 29.260000", 117, 34' 17.300000"



L8 West

33, 54' 29.240000", 117, 34' 17.300000"

APPENDIX 5.2:

NOISE LEVEL MEASUREMENT WORKSHEETS

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24-Hour Noise Level Measurement Summary

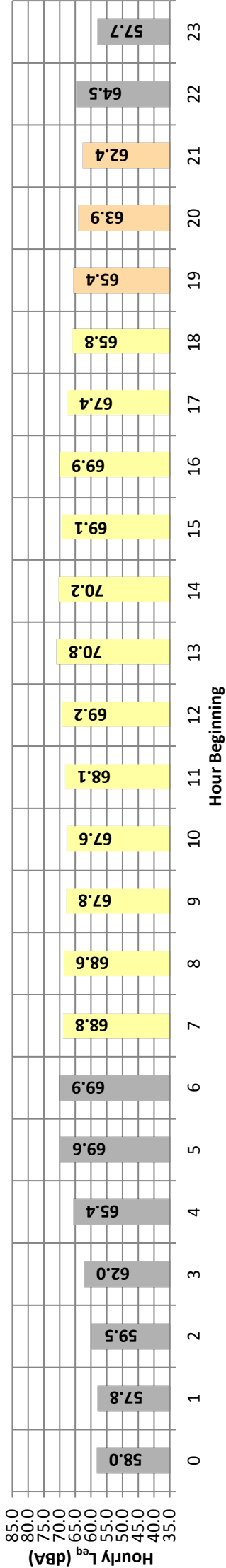
Date: Tuesday, November 13, 2018
Project: Palomino Business Park

Location: L1 - Located north of the Project site on Second Street, near existing residential homes.

Meter: Piccolo I

JN: 11795
Analyst: R. Saber

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	58.0	80.8	48.6	68.0	65.0	60.0	59.0	56.0	55.0	52.0	51.0	50.0	58.0	10.0	68.0
	1	57.8	79.7	50.4	68.0	65.0	59.0	58.0	56.0	55.0	52.0	52.0	51.0	57.8	10.0	67.8
	2	59.5	85.8	50.2	70.0	68.0	63.0	59.0	55.0	54.0	52.0	52.0	51.0	59.5	10.0	69.5
	3	62.0	84.1	51.0	73.0	71.0	68.0	65.0	58.0	55.0	53.0	52.0	51.0	62.0	10.0	72.0
	4	65.4	87.5	52.9	76.0	73.0	70.0	69.0	63.0	58.0	55.0	55.0	54.0	65.4	10.0	75.4
	5	69.6	97.4	54.9	78.0	75.0	72.0	71.0	67.0	62.0	57.0	56.0	55.0	69.6	10.0	79.6
	6	69.9	93.5	54.3	78.0	76.0	73.0	72.0	70.0	67.0	59.0	57.0	56.0	69.9	10.0	79.9
Day	7	68.8	87.2	52.1	78.0	76.0	73.0	72.0	69.0	65.0	56.0	55.0	54.0	68.8	0.0	68.8
	8	68.6	88.8	52.3	78.0	75.0	72.0	71.0	68.0	64.0	56.0	55.0	53.0	68.6	0.0	68.6
	9	67.8	91.5	51.0	76.0	74.0	72.0	71.0	67.0	63.0	55.0	53.0	52.0	67.8	0.0	67.8
	10	67.6	89.6	49.3	78.0	74.0	72.0	70.0	67.0	63.0	55.0	53.0	51.0	67.6	0.0	67.6
	11	68.1	92.9	49.0	78.0	75.0	72.0	71.0	67.0	63.0	55.0	53.0	51.0	68.1	0.0	68.1
	12	69.2	95.1	50.5	78.0	76.0	72.0	71.0	68.0	64.0	55.0	53.0	52.0	69.2	0.0	69.2
	13	70.8	91.3	53.2	80.0	77.0	74.0	72.0	70.0	67.0	61.0	59.0	56.0	70.8	0.0	70.8
	14	70.2	90.4	53.2	79.0	77.0	74.0	72.0	70.0	67.0	60.0	58.0	55.0	70.2	0.0	70.2
	15	69.1	89.7	50.2	78.0	76.0	73.0	72.0	69.0	66.0	57.0	55.0	53.0	69.1	0.0	69.1
	16	69.9	96.5	51.0	78.0	75.0	73.0	71.0	68.0	65.0	57.0	55.0	53.0	69.9	0.0	69.9
	17	67.4	89.6	49.8	75.0	74.0	72.0	71.0	67.0	63.0	55.0	53.0	51.0	67.4	0.0	67.4
	18	65.8	86.7	49.5	75.0	73.0	70.0	69.0	65.0	59.0	53.0	52.0	51.0	65.8	0.0	65.8
Evening	19	65.4	91.5	52.6	74.0	71.0	69.0	68.0	64.0	59.0	55.0	54.0	53.0	65.4	5.0	70.4
	20	63.9	83.5	53.0	73.0	71.0	69.0	68.0	63.0	58.0	55.0	54.0	54.0	63.9	5.0	68.9
	21	62.4	81.0	51.0	72.0	71.0	68.0	67.0	60.0	56.0	53.0	53.0	52.0	62.4	5.0	67.4
Night	22	64.5	92.6	46.9	71.0	69.0	66.0	63.0	56.0	54.0	51.0	50.0	48.0	64.5	10.0	74.5
	23	57.7	77.8	46.7	69.0	67.0	62.0	59.0	55.0	53.0	51.0	50.0	48.0	57.7	10.0	67.7
Timeframe	Hour	L _{eq}	L _{max}	L _{min}	L1%	L2%	L5%	L8%	L25%	L50%	L90%	L95%	L99%	L _{eq} (dBA)		
Day	Min	65.8	86.7	49.0	75.0	73.0	70.0	69.0	65.0	59.0	53.0	52.0	51.0	24-Hour		
	Max	70.8	96.5	53.2	80.0	77.0	74.0	72.0	70.0	67.0	61.0	59.0	56.0	Nighttime		
Energy Average		68.8	Average:		77.6	75.2	72.4	71.1	67.9	64.1	56.3	54.5	52.7	67.3	68.2	65.2
Evening	Min	62.4	81.0	51.0	72.0	71.0	68.0	67.0	60.0	56.0	53.0	53.0	52.0	24-Hour CNEL (dBA)		
	Max	65.4	91.5	53.0	74.0	71.0	69.0	68.0	64.0	59.0	55.0	54.0	54.0			
Energy Average		64.1	Average:		73.0	71.0	68.7	67.7	62.3	57.7	54.3	53.7	53.0			
Night	Min	57.7	77.8	46.7	68.0	65.0	59.0	58.0	55.0	53.0	51.0	50.0	48.0			
	Max	69.9	97.4	54.9	78.0	76.0	73.0	72.0	70.0	67.0	59.0	57.0	56.0			
Energy Average		65.2	Average:		72.3	69.9	65.9	63.9	59.6	57.0	53.6	52.8	51.6	72.3		



24-Hour Noise Level Measurement Summary

Date: Tuesday, November 13, 2018
Project: Palomino Business Park

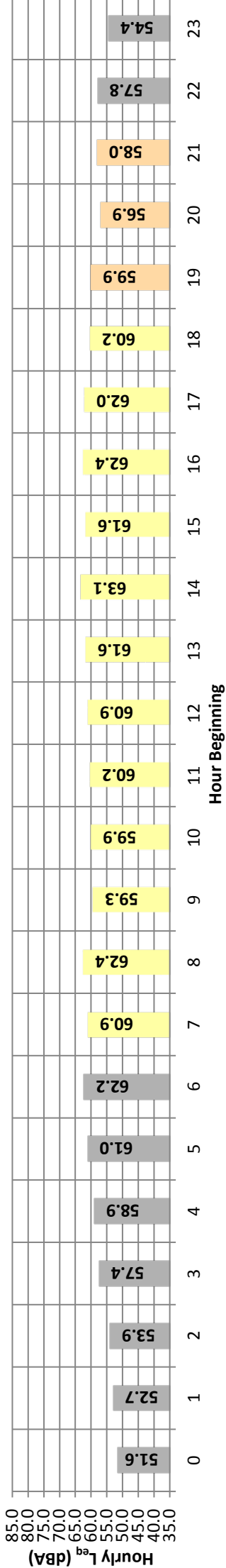
Location: L2 - Located north of the Project site near existing residential homes on Second Street.

Meter: Piccolo I

JN: 11795

Analyst: R. Saber

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	51.6	71.4	44.9	58.0	57.0	54.0	53.0	51.0	50.0	47.0	47.0	46.0	51.6	10.0	61.6
	1	52.7	71.2	46.4	63.0	59.0	55.0	54.0	51.0	50.0	48.0	47.0	47.0	52.7	10.0	62.7
	2	53.9	72.5	46.4	64.0	61.0	57.0	56.0	53.0	51.0	48.0	48.0	47.0	53.9	10.0	63.9
	3	57.4	74.9	48.5	66.0	64.0	62.0	61.0	56.0	54.0	51.0	51.0	50.0	57.4	10.0	67.4
	4	58.9	77.1	51.8	69.0	66.0	62.0	60.0	57.0	56.0	53.0	53.0	52.0	58.9	10.0	68.9
	5	61.0	78.1	51.7	70.0	68.0	66.0	64.0	59.0	58.0	55.0	55.0	54.0	61.0	10.0	71.0
	6	62.2	76.4	53.1	72.0	70.0	67.0	66.0	61.0	58.0	56.0	56.0	55.0	62.2	10.0	72.2
Day	7	60.9	80.8	51.5	71.0	69.0	65.0	64.0	59.0	57.0	54.0	54.0	53.0	60.9	0.0	60.9
	8	62.4	91.2	49.7	71.0	68.0	65.0	64.0	58.0	55.0	53.0	52.0	51.0	62.4	0.0	62.4
	9	59.3	75.7	49.6	70.0	67.0	64.0	62.0	58.0	55.0	52.0	51.0	50.0	59.3	0.0	59.3
	10	59.9	78.7	49.1	69.0	68.0	66.0	64.0	58.0	55.0	52.0	52.0	51.0	59.9	0.0	59.9
	11	60.2	78.8	49.2	70.0	68.0	65.0	63.0	58.0	55.0	52.0	51.0	50.0	60.2	0.0	60.2
	12	60.9	79.0	47.3	72.0	69.0	66.0	64.0	59.0	56.0	52.0	52.0	50.0	60.9	0.0	60.9
	13	61.6	83.5	50.3	71.0	69.0	66.0	65.0	59.0	57.0	54.0	54.0	52.0	61.6	0.0	61.6
	14	63.1	80.0	52.3	74.0	72.0	68.0	66.0	62.0	58.0	54.0	54.0	53.0	63.1	0.0	63.1
	15	61.6	85.7	51.1	70.0	69.0	66.0	65.0	60.0	57.0	53.0	54.0	53.0	61.6	0.0	61.6
	16	62.4	82.8	49.5	73.0	71.0	67.0	65.0	60.0	57.0	54.0	54.0	51.0	62.4	0.0	62.4
	17	62.0	85.5	50.5	72.0	69.0	66.0	64.0	58.0	56.0	53.0	53.0	51.0	62.0	0.0	62.0
	18	60.2	79.7	48.6	71.0	69.0	65.0	63.0	57.0	54.0	51.0	51.0	50.0	60.2	0.0	60.2
Evening	19	59.9	82.2	49.6	71.0	68.0	64.0	61.0	56.0	55.0	52.0	51.0	50.0	59.9	5.0	64.9
	20	56.9	76.0	48.1	66.0	64.0	61.0	59.0	55.0	54.0	51.0	51.0	49.0	56.9	5.0	61.9
Night	21	58.0	81.7	48.1	68.0	65.0	60.0	58.0	54.0	52.0	50.0	49.0	49.0	58.0	5.0	63.0
	22	57.8	82.7	45.6	70.0	66.0	59.0	56.0	53.0	51.0	48.0	48.0	47.0	57.8	10.0	67.8
	23	54.4	81.7	44.5	61.0	59.0	56.0	55.0	52.0	50.0	47.0	46.0	45.0	54.4	10.0	64.4
Timeframe	Hour	L _{eq}	L _{max}	L _{min}	L1%	L2%	L5%	L8%	L25%	L50%	L90%	L95%	L99%	L _{eq} (dBA)		
Day	Min	59.3	75.7	47.3	69.0	67.0	64.0	62.0	57.0	54.0	51.0	51.0	50.0	24-Hour	Daytime	Nighttime
	Max	63.1	91.2	52.3	74.0	72.0	68.0	66.0	62.0	58.0	54.0	54.0	53.0			
Energy Average		61.4	Average:		71.2	69.0	65.8	64.1	58.8	56.0	52.9	52.3	51.2	60.0	60.9	58.0
Evening	Min	56.9	76.0	48.1	66.0	64.0	60.0	58.0	54.0	52.0	50.0	49.0	49.0	24-Hour CNEL (dBA)		
	Max	59.9	82.2	49.6	71.0	68.0	64.0	61.0	56.0	55.0	52.0	51.0	50.0			
Energy Average		58.4	Average:		68.3	65.7	61.7	59.3	55.0	53.7	51.0	50.3	49.3			
Night	Min	51.6	71.2	44.5	58.0	57.0	54.0	53.0	51.0	50.0	47.0	46.0	45.0			
	Max	62.2	82.7	53.1	72.0	70.0	67.0	66.0	61.0	58.0	56.0	55.0	54.0			
Energy Average		58.0	Average:		65.9	63.3	59.8	58.3	54.8	53.1	50.3	50.0	49.1			
65.2																



24-Hour Noise Level Measurement Summary

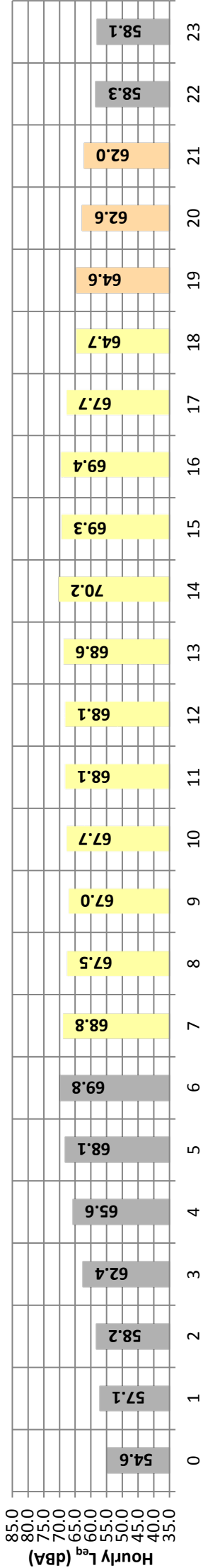
Date: Tuesday, November 13, 2018
Project: Palomino Business Park

Location: L3 - Located on Mountain Avenue near existing industrial uses within the Project site boundaries.

Meter: Piccolo I

JN: 11795
Analyst: R. Saber

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	54.6	81.0	46.7	58.0	57.0	56.0	55.0	53.0	52.0	50.0	49.0	48.0	54.6	10.0	64.6
	1	57.1	80.8	48.2	66.0	60.0	57.0	56.0	54.0	53.0	50.0	50.0	49.0	57.1	10.0	67.1
	2	58.2	83.0	49.5	68.0	62.0	58.0	57.0	55.0	54.0	51.0	51.0	50.0	58.2	10.0	68.2
	3	62.4	83.1	52.0	74.0	72.0	65.0	62.0	58.0	57.0	54.0	54.0	53.0	62.4	10.0	72.4
	4	65.6	83.7	54.2	77.0	76.0	72.0	68.0	60.0	59.0	57.0	56.0	55.0	65.6	10.0	75.6
	5	68.1	84.4	56.0	79.0	78.0	75.0	73.0	64.0	60.0	58.0	57.0	57.0	68.1	10.0	78.1
	6	69.8	86.1	55.7	81.0	79.0	77.0	75.0	66.0	60.0	57.0	57.0	56.0	69.8	10.0	79.8
Day	7	68.8	89.7	54.3	80.0	78.0	76.0	74.0	64.0	59.0	56.0	55.0	55.0	68.8	0.0	68.8
	8	67.5	85.3	52.8	79.0	77.0	74.0	72.0	63.0	58.0	55.0	54.0	54.0	67.5	0.0	67.5
	9	67.0	87.5	53.4	79.0	77.0	73.0	71.0	61.0	57.0	55.0	54.0	54.0	67.0	0.0	67.0
	10	67.7	90.8	52.9	79.0	77.0	74.0	72.0	63.0	57.0	54.0	54.0	53.0	67.7	0.0	67.7
	11	68.1	90.7	52.4	79.0	77.0	75.0	73.0	63.0	57.0	54.0	54.0	53.0	68.1	0.0	68.1
	12	68.1	84.2	54.3	79.0	77.0	75.0	73.0	64.0	58.0	56.0	55.0	55.0	68.1	0.0	68.1
	13	68.6	84.4	52.5	79.0	78.0	75.0	74.0	66.0	59.0	55.0	55.0	54.0	68.6	0.0	68.6
	14	70.2	86.1	53.1	80.0	79.0	77.0	75.0	69.0	61.0	56.0	55.0	54.0	70.2	0.0	70.2
	15	69.3	85.6	53.0	80.0	78.0	76.0	74.0	67.0	59.0	55.0	55.0	54.0	69.3	0.0	69.3
	16	69.4	84.3	54.3	79.0	78.0	76.0	75.0	68.0	61.0	56.0	55.0	55.0	69.4	0.0	69.4
	17	67.7	84.2	53.8	78.0	77.0	75.0	73.0	65.0	59.0	55.0	55.0	54.0	67.7	0.0	67.7
	18	64.7	84.8	53.1	76.0	74.0	71.0	68.0	60.0	57.0	55.0	54.0	54.0	64.7	0.0	64.7
Evening	19	64.6	85.9	54.4	77.0	75.0	70.0	66.0	59.0	57.0	56.0	55.0	55.0	64.6	5.0	69.6
	20	62.6	83.3	54.3	75.0	72.0	66.0	62.0	58.0	57.0	56.0	55.0	55.0	62.6	5.0	67.6
	21	62.0	82.5	54.2	74.0	72.0	65.0	61.0	58.0	56.0	55.0	55.0	55.0	62.0	5.0	67.0
Night	22	58.3	77.7	53.0	67.0	63.0	60.0	59.0	57.0	56.0	54.0	54.0	54.0	58.3	10.0	68.3
	23	58.1	82.0	52.5	67.0	62.0	59.0	58.0	56.0	55.0	54.0	53.0	53.0	58.1	10.0	68.1
Timeframe	Hour	L _{eq}	L _{max}	L _{min}	L1%	L2%	L5%	L8%	L25%	L50%	L90%	L95%	L99%	L _{eq} (dBA)		
Day	Min	64.7	84.2	52.4	76.0	74.0	71.0	68.0	60.0	57.0	54.0	54.0	53.0	24-Hour		
	Max	70.2	90.8	54.3	80.0	79.0	77.0	75.0	69.0	61.0	56.0	55.0	55.0	Daytime		
Energy Average		68.3	Average:		78.9	77.3	74.8	72.8	64.4	58.5	55.2	54.6	54.1	Nighttime		
Evening	Min	62.0	82.5	54.2	74.0	72.0	65.0	61.0	58.0	56.0	55.0	55.0	55.0	24-Hour CNEL (dBA)		
	Max	64.6	85.9	54.4	77.0	75.0	70.0	66.0	59.0	57.0	56.0	55.0	55.0	66.7	67.6	64.3
Energy Average		63.2	Average:		75.3	73.0	67.0	63.0	58.3	56.7	55.7	55.0	55.0			
Night	Min	54.6	77.7	46.7	58.0	57.0	56.0	55.0	53.0	52.0	50.0	49.0	48.0	71.5		
	Max	69.8	86.1	56.0	81.0	79.0	77.0	75.0	66.0	60.0	58.0	57.0	57.0			
Energy Average		64.3	Average:		70.8	67.7	64.3	62.6	58.1	56.2	53.9	53.4	52.8			



24-Hour Noise Level Measurement Summary

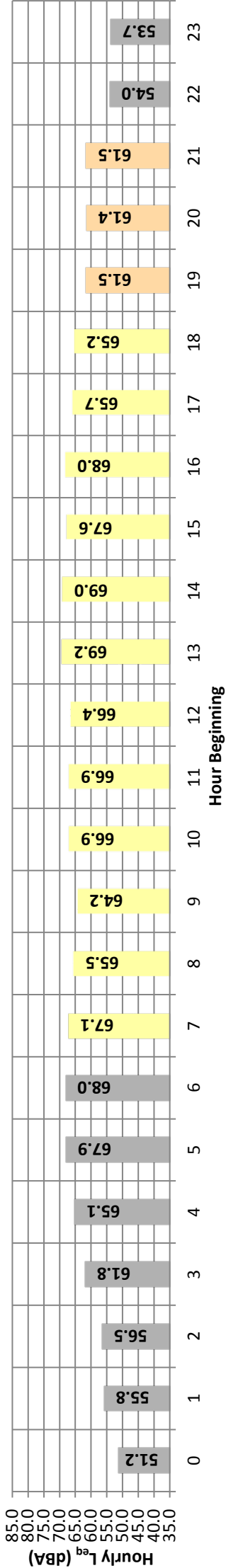
Date: Tuesday, November 13, 2018
Project: Palomino Business Park

Location: L4 - Located on Mountain Avenue near existing industrial
uses southeast of the Project site.

Meter: Piccolo I

JN: 11795
Analyst: R. Saber

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	51.2	76.3	44.2	54.0	52.0	51.0	51.0	50.0	49.0	47.0	46.0	45.0	51.2	10.0	61.2
	1	55.8	82.2	45.8	67.0	58.0	52.0	52.0	51.0	49.0	48.0	47.0	46.0	55.8	10.0	65.8
	2	56.5	77.6	46.6	68.0	63.0	55.0	55.0	53.0	51.0	49.0	49.0	48.0	56.5	10.0	66.5
	3	61.8	84.8	50.2	75.0	72.0	60.0	60.0	55.0	54.0	52.0	51.0	51.0	61.8	10.0	71.8
	4	65.1	84.4	51.1	78.0	76.0	67.0	67.0	58.0	55.0	53.0	52.0	52.0	65.1	10.0	75.1
	5	67.9	85.9	52.9	80.0	78.0	72.0	72.0	61.0	56.0	54.0	54.0	53.0	67.9	10.0	77.9
	6	68.0	85.9	51.9	80.0	78.0	72.0	72.0	64.0	57.0	54.0	53.0	53.0	68.0	10.0	78.0
Day	7	67.1	85.0	49.4	79.0	77.0	71.0	71.0	62.0	55.0	53.0	52.0	50.0	67.1	0.0	67.1
	8	65.5	86.6	48.6	77.0	75.0	70.0	70.0	60.0	53.0	50.0	50.0	49.0	65.5	0.0	65.5
	9	64.2	81.7	48.0	76.0	74.0	68.0	68.0	58.0	53.0	51.0	50.0	49.0	64.2	0.0	64.2
	10	66.9	82.8	48.3	78.0	77.0	72.0	72.0	63.0	55.0	50.0	50.0	49.0	66.9	0.0	66.9
	11	66.9	84.4	48.4	78.0	77.0	71.0	71.0	63.0	54.0	50.0	50.0	49.0	66.9	0.0	66.9
	12	66.4	85.5	47.1	77.0	76.0	71.0	71.0	64.0	55.0	50.0	50.0	48.0	66.4	0.0	66.4
	13	69.2	87.5	49.9	80.0	78.0	73.0	73.0	68.0	62.0	53.0	52.0	50.0	69.2	0.0	69.2
	14	69.0	84.1	49.6	79.0	78.0	74.0	74.0	67.0	60.0	53.0	52.0	51.0	69.0	0.0	69.0
	15	67.6	85.5	49.6	79.0	77.0	72.0	72.0	65.0	56.0	51.0	51.0	50.0	67.6	0.0	67.6
	16	68.0	91.9	50.4	78.0	77.0	72.0	72.0	66.0	57.0	52.0	51.0	51.0	68.0	0.0	68.0
	17	65.7	87.7	50.2	76.0	75.0	70.0	70.0	63.0	56.0	52.0	52.0	51.0	65.7	0.0	65.7
	18	65.2	93.1	50.4	76.0	74.0	69.0	69.0	58.0	54.0	52.0	52.0	51.0	65.2	0.0	65.2
Evening	19	61.5	81.1	49.8	74.0	71.0	63.0	63.0	56.0	54.0	52.0	52.0	51.0	61.5	5.0	66.5
	20	61.4	84.7	49.3	75.0	71.0	60.0	60.0	54.0	52.0	51.0	50.0	50.0	61.4	5.0	66.4
	21	61.5	86.4	48.5	73.0	69.0	58.0	58.0	53.0	52.0	50.0	50.0	49.0	61.5	5.0	66.5
Night	22	54.0	76.9	46.0	64.0	57.0	53.0	53.0	51.0	50.0	49.0	48.0	47.0	54.0	10.0	64.0
	23	53.7	74.3	46.4	63.0	57.0	54.0	54.0	52.0	51.0	49.0	48.0	47.0	53.7	10.0	63.7
Timeframe	Hour	L _{eq}	L _{max}	L _{min}	L1%	L2%	L5%	L8%	L25%	L50%	L90%	L95%	L99%	L _{eq} (dBA)		
Day	Min	64.2	81.7	47.1	76.0	74.0	70.0	68.0	58.0	53.0	50.0	50.0	48.0	24-Hour		
	Max	69.2	93.1	50.4	80.0	78.0	76.0	74.0	68.0	62.0	53.0	52.0	51.0	Daytime		
Energy Average		67.0	Average:		77.8	76.3	73.3	71.1	63.1	55.8	51.4	51.0	49.8	65.4	66.4	63.2
Evening	Min	61.4	81.1	48.5	73.0	69.0	62.0	58.0	53.0	52.0	50.0	50.0	49.0	24-Hour CNEL (dBA)		
	Max	61.5	86.4	49.8	75.0	71.0	67.0	63.0	56.0	54.0	52.0	52.0	51.0			
Energy Average		61.5	Average:		74.0	70.3	64.7	60.3	54.3	52.7	51.0	50.7	50.0			
Night	Min	51.2	74.3	44.2	54.0	52.0	51.0	51.0	50.0	49.0	47.0	46.0	45.0			
	Max	68.0	85.9	52.9	80.0	78.0	75.0	72.0	64.0	57.0	54.0	54.0	53.0			
Energy Average		63.2	Average:		69.9	65.7	61.6	59.6	55.0	52.4	50.6	49.8	49.1	70.4		



24-Hour Noise Level Measurement Summary

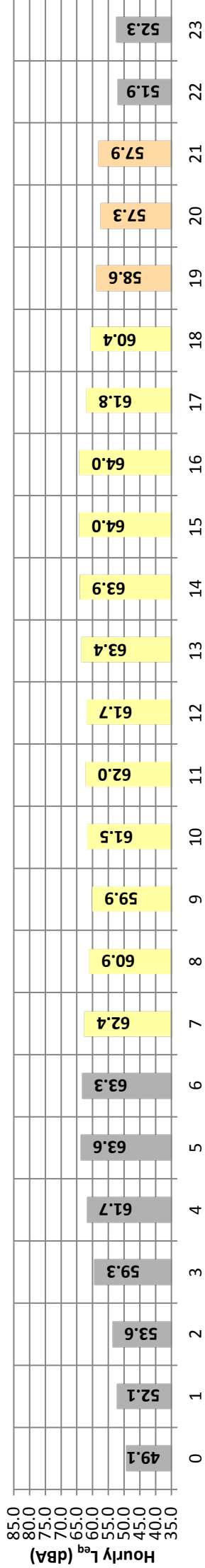
Date: Tuesday, November 13, 2018
Project: Palomino Business Park

Location: L5 - Located on Mountain Avenue near existing residential
uses north of First Street.

Meter: Piccolo I

JN: 11795
Analyst: R. Saber

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	49.1	71.3	41.4	54.0	53.0	51.0	50.0	48.0	47.0	44.0	44.0	43.0	49.1	10.0	59.1
	1	52.1	75.7	42.1	63.0	55.0	53.0	52.0	49.0	47.0	44.0	44.0	43.0	52.1	10.0	62.1
	2	53.6	74.8	44.7	63.0	58.0	55.0	54.0	52.0	50.0	48.0	47.0	46.0	53.6	10.0	63.6
	3	59.3	83.2	48.3	71.0	69.0	62.0	58.0	54.0	53.0	50.0	50.0	49.0	59.3	10.0	69.3
	4	61.7	81.4	49.3	74.0	72.0	68.0	65.0	56.0	55.0	52.0	52.0	51.0	61.7	10.0	71.7
	5	63.6	80.3	52.2	74.0	73.0	70.0	68.0	60.0	56.0	54.0	53.0	53.0	63.6	10.0	73.6
	6	63.3	79.8	51.6	74.0	72.0	70.0	68.0	61.0	56.0	53.0	53.0	52.0	63.3	10.0	73.3
Day	7	62.4	79.2	48.1	73.0	72.0	69.0	67.0	59.0	54.0	51.0	50.0	49.0	62.4	0.0	62.4
	8	60.9	77.7	47.2	72.0	70.0	68.0	66.0	58.0	52.0	49.0	48.0	48.0	60.9	0.0	60.9
	9	59.9	81.8	46.8	71.0	69.0	66.0	64.0	55.0	51.0	48.0	48.0	47.0	59.9	0.0	59.9
	10	61.5	79.8	45.5	72.0	70.0	68.0	66.0	58.0	52.0	48.0	48.0	47.0	61.5	0.0	61.5
	11	62.0	84.6	45.5	72.0	71.0	68.0	67.0	59.0	52.0	48.0	47.0	46.0	62.0	0.0	62.0
	12	61.7	78.1	43.4	72.0	71.0	68.0	67.0	59.0	52.0	48.0	48.0	46.0	61.7	0.0	61.7
	13	63.4	84.0	48.6	73.0	72.0	69.0	68.0	62.0	56.0	51.0	50.0	49.0	63.4	0.0	63.4
	14	63.9	79.2	48.7	73.0	72.0	70.0	69.0	63.0	56.0	51.0	50.0	49.0	63.9	0.0	63.9
	15	64.0	84.9	46.4	74.0	72.0	70.0	68.1	62.0	54.0	50.0	49.0	47.0	64.0	0.0	64.0
	16	64.0	82.5	47.4	73.0	72.0	70.0	69.0	63.0	55.0	51.0	50.0	49.0	64.0	0.0	64.0
	17	61.8	78.1	48.9	72.0	70.0	68.0	67.0	59.0	54.0	51.0	50.0	49.0	61.8	0.0	61.8
	18	60.4	79.5	48.7	72.0	70.0	66.0	64.0	56.0	53.0	51.0	50.0	49.0	60.4	0.0	60.4
Evening	19	58.6	80.2	47.5	70.0	68.0	64.0	60.0	55.0	53.0	51.0	50.0	49.0	58.6	5.0	63.6
	20	57.3	79.9	46.2	70.0	67.0	62.0	58.0	52.0	50.0	48.0	48.0	47.0	57.3	5.0	62.3
	21	57.9	82.4	45.8	69.0	66.0	62.0	58.0	52.0	50.0	47.0	47.0	46.0	57.9	5.0	62.9
Night	22	51.9	72.3	43.8	63.0	57.0	54.0	53.0	50.0	48.0	46.0	45.0	44.0	51.9	10.0	61.9
	23	52.3	76.3	42.6	62.0	57.0	54.0	53.0	51.0	49.0	46.0	45.0	44.0	52.3	10.0	62.3
Timeframe	Hour	L_{eq}	L_{max}	L_{min}	L1%	L2%	L5%	L8%	L25%	L50%	L90%	L95%	L99%	L_{eq} (dBA)		
Day	Min	59.9	77.7	43.4	71.0	69.0	66.0	64.0	55.0	51.0	48.0	47.0	46.0	24-Hour		
	Max	64.0	84.9	48.9	74.0	72.0	70.0	69.0	63.0	56.0	51.0	50.0	49.0	Daytime		
Energy Average		62.4	Average:		72.4	70.9	68.3	66.8	59.4	53.4	49.8	49.0	47.9	61.0	61.8	59.2
Evening	Min	57.3	79.9	45.8	69.0	66.0	62.0	58.0	52.0	50.0	47.0	47.0	46.0	Nighttime		
	Max	58.6	82.4	47.5	70.0	68.0	64.0	60.0	55.0	53.0	51.0	50.0	49.0	24-Hour CNEL (dBA)		
Energy Average		58.0	Average:		69.7	67.0	62.7	58.7	53.0	51.0	48.7	48.3	47.3	66.3		
Night	Min	49.1	71.3	41.4	54.0	53.0	51.0	50.0	48.0	47.0	44.0	44.0	43.0			
	Max	63.6	83.2	52.2	74.0	73.0	70.0	68.0	61.0	56.0	54.0	53.0	53.0			
Energy Average		59.2	Average:		66.4	62.9	59.7	57.9	53.4	51.2	48.6	48.1	47.2			

24-Hour Noise Level Measurement Summary

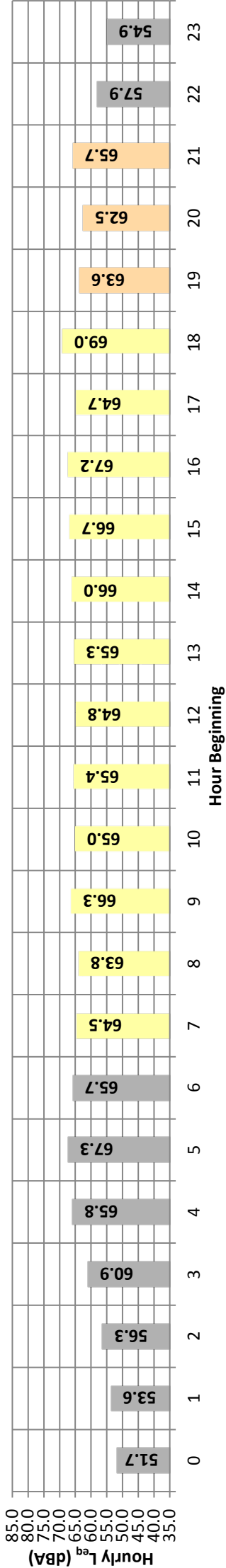
Date: Tuesday, November 13, 2018
Project: Palomino Business Park

Location: L6 - Located at the southern Project site boundary on First Street near existing residential and industrial uses.

Meter: Piccolo I

JN: 11795
Analyst: R. Saber

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	51.7	69.8	43.4	63.0	60.0	56.0	54.0	49.0	47.0	45.0	44.0	43.0	51.7	10.0	61.7
	1	53.6	74.7	42.8	65.0	63.0	58.0	56.0	50.0	47.0	45.0	45.0	43.0	53.6	10.0	63.6
	2	56.3	77.9	44.6	67.0	65.0	62.0	59.0	52.0	49.0	47.0	46.0	45.0	56.3	10.0	66.3
	3	60.9	79.2	47.7	69.0	68.0	66.0	65.0	61.0	54.0	50.0	49.0	48.0	60.9	10.0	70.9
	4	65.8	87.8	49.0	75.0	72.0	70.0	69.0	66.0	62.0	54.0	52.0	50.0	65.8	10.0	75.8
	5	67.3	86.0	52.5	77.0	74.0	71.0	70.0	66.0	64.0	58.0	56.0	54.0	67.3	10.0	77.3
	6	65.7	84.0	52.6	74.0	72.0	69.0	68.0	66.0	63.0	58.0	56.0	54.0	65.7	10.0	75.7
Day	7	64.5	82.9	51.9	73.0	71.0	68.0	68.0	65.0	62.0	56.0	55.0	53.0	64.5	0.0	64.5
	8	63.8	77.3	50.6	72.0	70.0	68.0	67.0	64.0	61.0	54.0	53.0	51.0	63.8	0.0	63.8
	9	66.3	91.2	48.0	74.0	71.0	68.0	66.0	63.0	60.0	53.0	52.0	50.0	66.3	0.0	66.3
	10	65.0	90.8	49.0	72.0	71.0	69.0	67.0	64.0	61.0	55.0	53.0	51.0	65.0	0.0	65.0
	11	65.4	87.3	49.8	75.0	72.0	69.0	67.0	64.0	62.0	55.0	54.0	51.0	65.4	0.0	65.4
	12	64.8	87.1	48.6	73.0	71.0	68.0	67.0	64.0	61.0	55.0	53.0	50.0	64.8	0.0	64.8
	13	65.3	88.6	51.5	74.0	72.0	69.0	67.0	64.0	62.0	56.0	54.0	53.0	65.3	0.0	65.3
	14	66.0	86.6	50.1	76.0	73.0	70.0	68.0	65.0	62.0	56.0	54.0	51.0	66.0	0.0	66.0
	15	66.7	88.2	50.5	77.0	73.0	70.0	68.0	65.0	63.0	56.0	54.0	52.0	66.7	0.0	66.7
	16	67.2	94.8	51.9	76.0	73.0	69.0	68.0	65.0	63.0	57.0	55.0	53.0	67.2	0.0	67.2
	17	64.7	84.4	50.2	72.0	71.0	68.0	67.0	64.0	62.0	56.0	54.0	52.0	64.7	0.0	64.7
	18	69.0	97.2	49.4	77.0	72.0	68.0	67.0	63.0	60.0	54.0	53.0	51.0	69.0	0.0	69.0
Evening	19	63.6	87.4	48.9	73.0	70.0	67.0	66.0	62.0	59.0	53.0	52.0	50.0	63.6	5.0	68.6
	20	62.5	86.5	48.3	71.0	69.0	66.0	65.0	61.0	57.0	51.0	50.0	49.0	62.5	5.0	67.5
	21	65.7	90.9	46.1	75.0	70.0	66.0	64.0	59.0	54.0	49.0	48.0	47.0	65.7	5.0	70.7
Night	22	57.9	77.2	45.2	68.0	66.0	64.0	62.0	56.0	51.0	48.0	47.0	46.0	57.9	10.0	67.9
	23	54.9	76.5	44.0	65.0	64.0	60.0	58.0	51.0	48.0	46.0	45.0	45.0	54.9	10.0	64.9
Timeframe	Hour	L_{eq}	L_{max}	L_{min}	L1%	L2%	L5%	L8%	L25%	L50%	L90%	L95%	L99%	L_{eq} (dBA)		
Day	Min	63.8	77.3	48.0	72.0	70.0	68.0	66.0	63.0	60.0	53.0	52.0	50.0	24-Hour		
	Max	69.0	97.2	51.9	77.0	73.0	70.0	68.0	65.0	63.0	57.0	55.0	53.0	Nighttime		
Energy Average		66.0	Average:		74.3	71.7	68.7	67.3	64.2	61.6	55.3	53.7	51.5	64.7	65.7	62.5
Evening	Min	62.5	86.5	46.1	71.0	69.0	66.0	64.0	59.0	54.0	49.0	48.0	47.0	24-Hour CNEL (dBA)		
	Max	65.7	90.9	48.9	75.0	70.0	67.0	66.0	62.0	59.0	53.0	52.0	50.0			
Energy Average		64.1	Average:		73.0	69.7	66.3	65.0	60.7	56.7	51.0	50.0	48.7			
Night	Min	51.7	69.8	42.8	63.0	60.0	56.0	54.0	49.0	47.0	45.0	44.0	43.0			
	Max	67.3	87.8	52.6	77.0	74.0	71.0	70.0	66.0	64.0	58.0	56.0	54.0			
Energy Average		62.5	Average:		69.2	67.1	64.0	62.3	57.4	53.9	50.1	48.9	47.6	69.8		

24-Hour Noise Level Measurement Summary

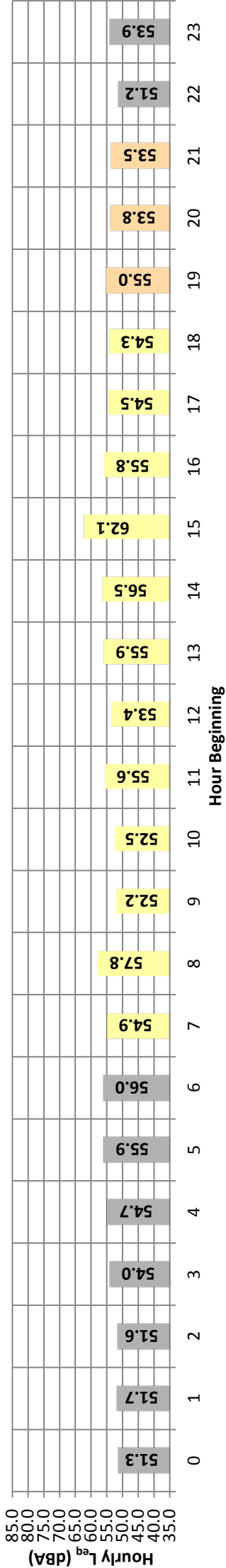
Date: Tuesday, November 13, 2018
Project: Palomino Business Park

Location: L8 - Located west of the Project site on Pacific Avenue near existing residential homes.

Meter: Piccolo I

JN: 11795
Analyst: R. Saber

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	51.3	78.0	45.6	54.0	53.0	52.0	52.0	50.0	49.0	48.0	47.0	46.0	51.3	10.0	61.3
	1	51.7	68.9	46.5	55.0	55.0	54.0	53.0	52.0	51.0	49.0	48.0	48.0	51.7	10.0	61.7
	2	51.6	58.5	47.1	55.0	55.0	54.0	53.0	52.0	51.0	49.0	48.0	48.0	51.6	10.0	61.6
	3	54.0	78.2	49.3	59.0	56.0	55.0	54.0	53.0	52.0	51.0	50.0	50.0	54.0	10.0	64.0
	4	54.7	72.8	49.1	64.0	59.0	56.0	55.0	53.0	52.0	51.0	51.0	50.0	54.7	10.0	64.7
	5	55.9	72.3	51.4	64.0	61.0	57.0	56.0	55.0	54.0	53.0	52.0	52.0	55.9	10.0	65.9
	6	56.0	74.9	50.7	65.0	62.0	57.0	56.0	55.0	54.0	52.0	52.0	51.0	56.0	10.0	66.0
Day	7	54.9	75.6	47.7	64.0	60.0	56.0	55.0	53.0	52.0	50.0	49.0	49.0	54.9	0.0	54.9
	8	57.8	82.5	46.3	68.0	64.0	57.0	53.0	50.0	49.0	47.0	47.0	47.0	57.8	0.0	57.8
	9	52.2	75.5	45.9	61.0	57.0	53.0	51.0	50.0	49.0	47.0	47.0	46.0	52.2	0.0	52.2
	10	52.5	72.8	44.7	63.0	58.0	54.0	53.0	50.0	49.0	47.0	47.0	46.0	52.5	0.0	52.5
	11	55.6	79.2	44.3	68.0	65.0	57.0	53.0	50.0	48.0	46.0	45.0	45.0	55.6	0.0	55.6
	12	53.4	73.2	44.5	66.0	61.0	55.0	53.0	51.0	49.0	46.0	45.0	45.0	53.4	0.0	53.4
	13	55.9	74.0	44.9	66.0	63.0	60.0	58.0	55.0	52.0	49.0	48.0	46.0	55.9	0.0	55.9
	14	56.5	78.1	46.8	68.0	65.0	60.0	57.0	53.0	52.0	49.0	49.0	48.0	56.5	0.0	56.5
	15	62.1	80.6	47.9	76.0	71.0	67.0	64.0	57.0	53.0	50.0	49.0	48.0	62.1	0.0	62.1
	16	55.8	77.2	48.4	67.0	64.0	58.0	56.0	53.0	51.0	50.0	50.0	49.0	55.8	0.0	55.8
	17	54.5	73.7	47.7	65.0	60.0	56.0	55.0	53.0	52.0	50.0	49.0	49.0	54.5	0.0	54.5
	18	54.3	73.9	48.5	63.0	59.0	56.0	55.0	53.0	52.0	50.0	50.0	49.0	54.3	0.0	54.3
Evening	19	55.0	77.4	49.3	63.0	59.0	56.0	55.0	54.0	53.0	51.0	51.0	50.0	55.0	5.0	60.0
	20	53.8	75.0	47.9	61.0	57.0	55.0	54.0	53.0	52.0	50.0	49.0	49.0	53.8	5.0	58.8
	21	53.5	76.0	47.6	61.0	58.0	55.0	54.0	52.0	51.0	49.0	49.0	48.0	53.5	5.0	58.5
Night	22	51.2	72.7	45.5	55.0	54.0	53.0	52.0	51.0	50.0	48.0	47.0	46.0	51.2	10.0	61.2
	23	53.9	83.3	46.8	57.0	55.0	54.0	53.0	51.0	50.0	48.0	48.0	47.0	53.9	10.0	63.9
Timeframe	Hour	L_{eq}	L_{max}	L_{min}	L1%	L2%	L5%	L8%	L25%	L50%	L90%	L95%	L99%	L_{eq} (dBA)		
Day	Min	52.2	72.8	44.3	61.0	57.0	53.0	51.0	50.0	48.0	46.0	45.0	45.0	24-Hour		
	Max	62.1	82.5	48.5	76.0	71.0	67.0	64.0	57.0	53.0	50.0	50.0	49.0	Daytime		
Energy Average		56.4	Average:		66.3	62.3	57.4	55.3	52.3	50.7	48.4	47.9	47.3	55.3	56.0	53.8
Evening	Min	53.5	75.0	47.6	61.0	57.0	55.0	54.0	52.0	51.0	49.0	49.0	48.0	24-Hour CNEL (dBA)		
	Max	55.0	77.4	49.3	63.0	59.0	56.0	55.0	54.0	53.0	51.0	51.0	50.0			
Energy Average		54.1	Average:		61.7	58.0	55.3	54.3	53.0	52.0	50.0	49.7	49.0			
Night	Min	51.2	58.5	45.5	54.0	53.0	52.0	52.0	50.0	49.0	48.0	47.0	46.0			
	Max	56.0	83.3	51.4	65.0	62.0	57.0	56.0	55.0	54.0	53.0	52.0	52.0			
Energy Average		53.8	Average:		58.7	56.7	54.7	53.8	52.4	51.4	49.9	49.2	48.7	60.8		



24-Hour Noise Level Measurement Summary

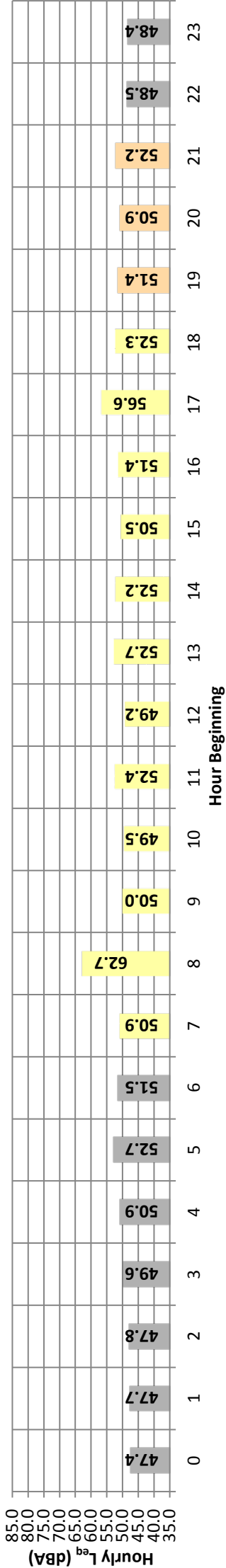
Date: Tuesday, November 13, 2018
Project: Palomino Business Park

Location: L8 - Located west of the Project site on Pacific Avenue near existing residential homes.

Meter: Piccolo I

JN: 11795
Analyst: R. Saber

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	47.4	70.6	42.9	51.0	50.0	49.0	49.0	47.0	46.0	44.0	44.0	43.0	47.4	10.0	57.4
	1	47.7	61.9	43.2	52.0	51.0	49.0	49.0	48.0	47.0	45.0	45.0	44.0	47.7	10.0	57.7
	2	47.8	58.4	43.8	52.0	51.0	50.0	49.0	48.0	47.0	46.0	45.0	44.0	47.8	10.0	57.8
	3	49.6	65.2	45.9	55.0	53.0	51.0	50.0	49.0	48.0	47.0	47.0	46.0	49.6	10.0	59.6
	4	50.9	66.3	46.6	59.0	56.0	53.0	52.0	50.0	49.0	48.0	48.0	47.0	50.9	10.0	60.9
	5	52.7	69.9	47.7	62.0	59.0	55.0	53.0	51.0	50.0	49.0	49.0	48.0	52.7	10.0	62.7
	6	51.5	66.2	46.5	60.0	58.0	54.0	53.0	51.0	49.0	48.0	48.0	47.0	51.5	10.0	61.5
Day	7	50.9	69.2	44.8	61.0	57.0	53.0	52.0	50.0	49.0	46.0	46.0	45.0	50.9	0.0	50.9
	8	62.7	95.6	44.0	70.0	66.0	61.0	58.0	50.0	48.0	45.0	45.0	44.0	62.7	0.0	62.7
	9	50.0	67.4	43.3	58.0	56.0	53.0	52.0	50.0	48.0	46.0	46.0	44.0	50.0	0.0	50.0
	10	49.5	66.3	42.9	58.0	56.0	53.0	52.0	49.0	47.0	44.0	44.0	43.0	49.5	0.0	49.5
	11	52.4	72.1	41.9	61.0	59.0	56.0	55.0	53.0	48.0	44.0	43.0	42.0	52.4	0.0	52.4
	12	49.2	65.9	41.9	58.0	56.0	53.0	52.0	49.0	47.0	44.0	43.0	42.0	49.2	0.0	49.2
	13	52.7	70.2	44.2	61.0	60.0	57.0	56.0	52.0	50.0	47.0	46.0	45.0	52.7	0.0	52.7
	14	52.2	70.6	43.9	61.0	59.0	56.0	55.0	52.0	49.0	46.0	46.0	45.0	52.2	0.0	52.2
	15	50.5	67.7	42.7	61.0	59.0	55.0	53.0	49.0	47.0	45.0	45.0	43.0	50.5	0.0	50.5
	16	51.4	72.7	44.3	61.0	59.0	55.0	53.0	49.0	48.0	46.0	46.0	45.0	51.4	0.0	51.4
	17	56.6	70.7	46.1	64.0	63.0	61.0	60.0	57.0	54.0	49.0	48.0	47.0	56.6	0.0	56.6
	18	52.3	68.3	44.1	62.0	61.0	57.0	55.0	51.0	49.0	46.0	46.0	45.0	52.3	0.0	52.3
Evening	19	51.4	70.2	45.1	61.0	59.0	54.0	52.0	50.0	49.0	47.0	47.0	46.0	51.4	5.0	56.4
	20	50.9	70.0	45.3	61.0	59.0	54.0	52.0	49.0	48.0	46.0	46.0	46.0	50.9	5.0	55.9
	21	52.2	76.2	43.9	63.0	61.0	57.0	54.0	49.0	47.0	46.0	45.0	44.0	52.2	5.0	57.2
Night	22	48.5	68.0	42.4	59.0	56.0	51.0	49.0	47.0	46.0	44.0	44.0	43.0	48.5	10.0	58.5
	23	48.4	73.6	41.8	56.0	52.0	49.0	48.0	47.0	46.0	44.0	43.0	42.0	48.4	10.0	58.4
Timeframe	Hour	L _{eq}	L _{max}	L _{min}	L1%	L2%	L5%	L8%	L25%	L50%	L90%	L95%	L99%	L _{eq} (dBA)		
Day	Min	49.2	65.9	41.9	58.0	56.0	53.0	52.0	49.0	47.0	44.0	43.0	42.0	24-Hour Daytime		
	Max	62.7	95.6	46.1	70.0	66.0	61.0	60.0	57.0	54.0	49.0	48.0	47.0	Nighttime		
Energy Average		54.8	Average:		61.3	59.3	55.8	54.4	50.9	48.7	45.7	45.3	44.2	53.1	54.4	49.8
Evening	Min	50.9	70.0	43.9	61.0	59.0	54.0	52.0	49.0	47.0	46.0	45.0	44.0	24-Hour CNEL (dBA)		
	Max	52.2	76.2	45.3	63.0	61.0	57.0	54.0	50.0	49.0	47.0	47.0	46.0			
Energy Average		51.5	Average:		61.7	59.7	55.0	52.7	49.3	48.0	46.3	46.0	45.3			
Night	Min	47.4	58.4	41.8	51.0	50.0	49.0	48.0	47.0	46.0	44.0	43.0	42.0			
	Max	52.7	73.6	47.7	62.0	59.0	55.0	53.0	51.0	50.0	49.0	49.0	48.0			
Energy Average		49.8	Average:		56.2	54.0	51.2	50.2	48.7	47.6	46.1	45.9	44.9	57.5		



APPENDIX 7.1:

OFF-SITE TRAFFIC NOISE CONTOURS

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: Existing Without Project Road Name: River Rd. Road Segment: s/o Corydon St.					Project Name: Palomino Job Number: 11795				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 24,406 vehicles					Autos: 15				
Peak Hour Percentage: 10%					Medium Trucks (2 Axles): 15				
Peak Hour Volume: 2,441 vehicles					Heavy Trucks (3+ Axles): 15				
Vehicle Speed: 45 mph					Vehicle Mix				
Near/Far Lane Distance: 52 feet					VehicleType	Day	Evening	Night	Daily
Site Data					Autos: 76.3% 11.0% 12.6% 91.88%				
Barrier Height: 0.0 feet					Medium Trucks: 73.3% 9.2% 17.6% 5.79%				
Barrier Type (0-Wall, 1-Berm): 0.0					Heavy Trucks: 84.4% 3.2% 12.5% 2.33%				
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: 43.000				
Road Grade: 0.0%					Medium Trucks: 42.794				
Left View: -90.0 degrees					Heavy Trucks: 42.814				
Right View: 90.0 degrees									
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	68.46	1.67	0.88	-1.20	-4.65	0.000	0.000		
Medium Trucks:	79.45	-10.34	0.91	-1.20	-4.87	0.000	0.000		
Heavy Trucks:	84.25	-14.28	0.91	-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:	69.8	67.8	65.5	61.3	69.3	69.8			
Medium Trucks:	68.8	66.7	63.7	61.7	69.1	69.5			
Heavy Trucks:	69.7	68.1	59.9	61.1	69.1	69.3			
Vehicle Noise:	74.2	72.4	68.3	66.1	74.0	74.3			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				92	198	427	920		
CNEL:				96	208	448	964		

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: Existing Without Project Road Name: River Rd. Road Segment: s/o Lincoln Av.					Project Name: Palomino Job Number: 11795				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 13,235 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 1,324 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 10 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: 30.0 feet Centerline Dist. to Observer: 30.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					VehicleType	Day	Evening	Night	Daily
					Autos: 76.3% 11.0% 12.6% 91.88%				
					Medium Trucks: 73.3% 9.2% 17.6% 5.79%				
					Heavy Trucks: 84.4% 3.2% 12.5% 2.33%				
					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: 30.000 Medium Trucks: 29.704 Heavy Trucks: 29.733				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	68.46	-0.99	3.22	-1.20	-4.49	0.000	0.000		
Medium Trucks:	79.45	-12.99	3.29	-1.20	-4.86	0.000	0.000		
Heavy Trucks:	84.25	-16.94	3.28	-1.20	-5.77	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	69.5	67.5	65.2	61.0	69.0	69.5			
Medium Trucks:	68.5	66.4	63.4	61.4	68.9	69.2			
Heavy Trucks:	69.4	67.9	59.6	60.8	68.9	69.0			
Vehicle Noise:	73.9	72.1	68.0	65.9	73.7	74.0			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				53	114	245	528		
CNEL:				55	119	257	553		

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL										
Scenario: Existing Without Project Road Name: Parkridge Av. Road Segment: n/o Second St.					Project Name: Palomino Job Number: 11795					
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS					
Highway Data					Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt):		2,296 vehicles			Autos: 15					
Peak Hour Percentage:		10%			Medium Trucks (2 Axles): 15					
Peak Hour Volume:		230 vehicles			Heavy Trucks (3+ Axles): 15					
Vehicle Speed:		25 mph			Vehicle Mix					
Near/Far Lane Distance:		10 feet			VehicleType		Day	Evening	Night	Daily
Site Data					Autos: 76.3% 11.0% 12.6% 91.88%					
Barrier Height:		0.0 feet			Medium Trucks: 73.3% 9.2% 17.6% 5.79%					
Barrier Type (0-Wall, 1-Berm):		0.0			Heavy Trucks: 84.4% 3.2% 12.5% 2.33%					
Centerline Dist. to Barrier:		30.0 feet			Noise Source Elevations (in feet)					
Centerline Dist. to Observer:		30.0 feet			Autos:		0.000			
Barrier Distance to Observer:		0.0 feet			Medium Trucks:		2.297			
Observer Height (Above Pad):		5.0 feet			Heavy Trucks:		8.004 Grade Adjustment: 0.0			
Pad Elevation:		0.0 feet			Lane Equivalent Distance (in feet)					
Road Elevation:		0.0 feet			Autos: 30.000					
Road Grade:		0.0%			Medium Trucks: 29.704					
Left View:		-90.0 degrees			Heavy Trucks: 29.733					
Right View:		90.0 degrees								
FHWA Noise Model Calculations										
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten			
Autos:	58.73	-6.04	3.22	-1.20	-4.49	0.000	0.000			
Medium Trucks:	70.80	-18.05	3.29	-1.20	-4.86	0.000	0.000			
Heavy Trucks:	77.97	-21.99	3.28	-1.20	-5.77	0.000	0.000			
Unmitigated Noise Levels (without Topo and barrier attenuation)										
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL				
Autos:	54.7	52.8	50.4	46.2	54.2	54.7				
Medium Trucks:	54.8	52.7	49.7	47.7	55.2	55.5				
Heavy Trucks:	58.1	56.5	48.3	49.5	57.5	57.7				
Vehicle Noise:	60.9	59.2	54.3	52.8	60.6	60.9				
Centerline Distance to Noise Contour (in feet)										
				70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:				7	15	33	71			
CNEL:				7	16	34	74			

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL										
Scenario: Existing Without Project Road Name: Parkridge Av. Road Segment: s/o Second St.					Project Name: Palomino Job Number: 11795					
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS					
Highway Data					Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt):		3,068 vehicles			Autos: 15					
Peak Hour Percentage:		10%			Medium Trucks (2 Axles): 15					
Peak Hour Volume:		307 vehicles			Heavy Trucks (3+ Axles): 15					
Vehicle Speed:		40 mph			Vehicle Mix					
Near/Far Lane Distance:		36 feet			VehicleType		Day	Evening	Night	Daily
Site Data					Autos: 76.3% 11.0% 12.6% 91.88%					
Barrier Height:		0.0 feet			Medium Trucks: 73.3% 9.2% 17.6% 5.79%					
Barrier Type (0-Wall, 1-Berm):		0.0			Heavy Trucks: 84.4% 3.2% 12.5% 2.33%					
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: 40.460					
Road Grade:		0.0%			Medium Trucks: 40.241					
Left View:		-90.0 degrees			Heavy Trucks: 40.262					
Right View:		90.0 degrees								
FHWA Noise Model Calculations										
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten			
Autos:	66.51	-6.83	1.28	-1.20	-4.61	0.000	0.000			
Medium Trucks:	77.72	-18.83	1.31	-1.20	-4.87	0.000	0.000			
Heavy Trucks:	82.99	-22.78	1.31	-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:	59.8	57.8	55.4	51.2	59.3	59.7				
Medium Trucks:	59.0	56.9	53.8	51.9	59.3	59.6				
Heavy Trucks:	60.3	58.8	50.6	51.7	59.8	59.9				
Vehicle Noise:	64.5	62.7	58.5	56.4	64.2	64.5				
Centerline Distance to Noise Contour (in feet)										
				70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:				18	39	84	182			
CNEL:				19	41	88	190			

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL							
Scenario: Existing Without Project Road Name: Parkridge Av. Road Segment: s/o Lincoln Av.				Project Name: Palomino Job Number: 11795			
SITE SPECIFIC INPUT DATA				NOISE MODEL INPUTS			
Highway Data				Site Conditions (Hard = 10, Soft = 15)			
Average Daily Traffic (Adt):		5,059 vehicles		Autos:		15	
Peak Hour Percentage:		10%		Medium Trucks (2 Axles):		15	
Peak Hour Volume:		506 vehicles		Heavy Trucks (3+ Axles):		15	
Vehicle Speed:		40 mph					
Near/Far Lane Distance:		36 feet					
Site Data				Vehicle Mix			
Barrier Height:		0.0 feet		Autos:		76.3% 11.0% 12.6% 91.88%	
Barrier Type (0-Wall, 1-Berm):		0.0		Medium Trucks:		73.3% 9.2% 17.6% 5.79%	
Centerline Dist. to Barrier:		44.0 feet		Heavy Trucks:		84.4% 3.2% 12.5% 2.33%	
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				Noise Source Elevations (in feet)			
Autos:		66.51		0.000		0.000	
Medium Trucks:		77.72		0.000		0.000	
Heavy Trucks:		82.99		0.000		0.000	
Unmitigated Noise Levels (without Topo and barrier attenuation)				Grade Adjustment: 0.0			
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	61.9	60.0	57.6	53.4	61.4	61.9	
Medium Trucks:	61.2	59.0	56.0	54.1	61.5	61.8	
Heavy Trucks:	62.5	61.0	52.7	53.9	62.0	62.1	
Vehicle Noise:	66.7	64.8	60.6	58.6	66.4	66.7	
Centerline Distance to Noise Contour (in feet)							
			70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:			25	55	118	253	
CNEL:			27	57	123	265	

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: Existing Without Project Road Name: Pacific Av. Road Segment: s/o Second St.					Project Name: Palomino Job Number: 11795				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 386 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 39 vehicles Vehicle Speed: 25 mph Near/Far Lane Distance: 10 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: 30.0 feet Centerline Dist. to Observer: 30.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					VehicleType	Day	Evening	Night	Daily
					Autos: 76.3% 11.0% 12.6% 91.88%				
					Medium Trucks: 73.3% 9.2% 17.6% 5.79%				
					Heavy Trucks: 84.4% 3.2% 12.5% 2.33%				
					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: 30.000 Medium Trucks: 29.704 Heavy Trucks: 29.733				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos: 58.73 -13.79 3.22 -1.20 -4.49 0.000 0.000									
Medium Trucks: 70.80 -25.79 3.29 -1.20 -4.86 0.000 0.000									
Heavy Trucks: 77.97 -29.74 3.28 -1.20 -5.77 0.000 0.000									
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos: 47.0 45.0 42.6 38.4 46.5 46.9									
Medium Trucks: 47.1 45.0 41.9 40.0 47.4 47.7									
Heavy Trucks: 50.3 48.8 40.6 41.7 49.8 49.9									
Vehicle Noise: 53.2 51.4 46.6 45.0 52.9 53.2									
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				2	5	10	22		
CNEL:				2	5	10	23		

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL										
Scenario: Existing Without Project Road Name: Mountain Av. Road Segment: n/o Hamner Av.					Project Name: Palomino Job Number: 11795					
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS					
Highway Data					Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt):		8,345 vehicles			Autos:		15			
Peak Hour Percentage:		10%			Medium Trucks (2 Axles):		15			
Peak Hour Volume:		835 vehicles			Heavy Trucks (3+ Axles):		15			
Vehicle Speed:		40 mph			Vehicle Mix					
Near/Far Lane Distance:		36 feet			VehicleType		Day	Evening	Night	Daily
Site Data					Autos:		76.3%	11.0%	12.6%	91.88%
Barrier Height:		0.0 feet			Medium Trucks:		73.3%	9.2%	17.6%	5.79%
Barrier Type (0-Wall, 1-Berm):		0.0			Heavy Trucks:		84.4%	3.2%	12.5%	2.33%
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:		40.460			
Road Grade:		0.0%			Medium Trucks:		40.241			
Left View:		-90.0 degrees			Heavy Trucks:		40.262			
Right View:		90.0 degrees								
FHWA Noise Model Calculations										
VehicleType	REMED	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Attenu	Berm Attenu			
Autos:		66.51	-2.48	1.28	-1.20	-4.61	0.000	0.000		
Medium Trucks:		77.72	-14.48	1.31	-1.20	-4.87	0.000	0.000		
Heavy Trucks:		82.99	-18.43	1.31	-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	62.1	59.8	55.6	63.6	64.1			
Medium Trucks:		63.3	61.2	58.2	56.2	63.7	64.0			
Heavy Trucks:		64.7	63.1	54.9	56.1	64.1	64.3			
Vehicle Noise:		68.8	67.0	62.8	60.8	68.6	68.9			
Centerline Distance to Noise Contour (in feet)										
				70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:				35	76	164	354			
CNEL:				37	80	172	370			

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL								
Scenario: Existing Without Project Road Name: Hammer Av. Road Segment: s/o Third St.				Project Name: Palomino Job Number: 11795				
SITE SPECIFIC INPUT DATA				NOISE MODEL INPUTS				
Highway Data				Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 34,293 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 3,429 vehicles Vehicle Speed: 40 mph Near/Far Lane Distance: 73 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: 55.0 feet Centerline Dist. to Observer: 55.0 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: 76.3% 11.0% 12.6% 91.88%				
				Medium Trucks: 73.3% 9.2% 17.6% 5.79%				
				Heavy Trucks: 84.4% 3.2% 12.5% 2.33%				
				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: 41.446 Medium Trucks: 41.232 Heavy Trucks: 41.253				
FHWA Noise Model Calculations								
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten	
Autos: 66.51 3.66 1.12 -1.20 -4.67 0.000 0.000								
Medium Trucks: 77.72 -8.35 1.15 -1.20 -4.87 0.000 0.000								
Heavy Trucks: 82.99 -12.29 1.15 -1.20 -5.38 0.000 0.000								
Unmitigated Noise Levels (without Topo and barrier attenuation)								
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL		
Autos: 70.1 68.1 65.7 61.6 69.6 70.0								
Medium Trucks: 69.3 67.2 64.2 62.2 69.6 70.0								
Heavy Trucks: 70.7 69.1 60.9 62.1 70.1 70.3								
Vehicle Noise: 74.8 73.0 68.8 66.7 74.6 74.9								
Centerline Distance to Noise Contour (in feet)								
			70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:			111	239	514	1,107		
CNEL:			116	250	538	1,160		

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: Existing Without Project Road Name: Hamner Av. Road Segment: s/o Second St.					Project Name: Palomino Job Number: 11795				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 29,539 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 2,954 vehicles Vehicle Speed: 40 mph Near/Far Lane Distance: 73 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: 55.0 feet Centerline Dist. to Observer: 55.0 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: 76.3% 11.0% 12.6% 91.88% Medium Trucks: 73.3% 9.2% 17.6% 5.79% Heavy Trucks: 84.4% 3.2% 12.5% 2.33%				
FHWA Noise Model Calculations					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.004 Grade Adjustment: 0.0				
FHWA Noise Model Calculations					Lane Equivalent Distance (in feet)				
					Autos: 41.446 Medium Trucks: 41.232 Heavy Trucks: 41.253				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	66.51	3.01	1.12	-1.20	-4.67	0.000	0.000		
Medium Trucks:	77.72	-9.00	1.15	-1.20	-4.87	0.000	0.000		
Heavy Trucks:	82.99	-12.94	1.15	-1.20	-5.38	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	69.4	67.5	65.1	60.9	68.9	69.4			
Medium Trucks:	68.7	66.5	63.5	61.6	69.0	69.3			
Heavy Trucks:	70.0	68.5	60.2	61.4	69.5	69.6			
Vehicle Noise:	74.2	72.3	68.2	66.1	73.9	74.2			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				100	216	465	1,002		
CNEL:				105	226	487	1,050		

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: Existing Without Project Road Name: Hamner Av. Road Segment: s/o First St.					Project Name: Palomino Job Number: 11795				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 22,937 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 2,294 vehicles Vehicle Speed: 40 mph Near/Far Lane Distance: 73 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: 55.0 feet Centerline Dist. to Observer: 55.0 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: 76.3% 11.0% 12.6% 91.88%				
					Medium Trucks: 73.3% 9.2% 17.6% 5.79%				
					Heavy Trucks: 84.4% 3.2% 12.5% 2.33%				
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: 41.446 Medium Trucks: 41.232 Heavy Trucks: 41.253				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	66.51	1.91	1.12	-1.20	-4.67	0.000	0.000		
Medium Trucks:	77.72	-10.09	1.15	-1.20	-4.87	0.000	0.000		
Heavy Trucks:	82.99	-14.04	1.15	-1.20	-5.38	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	68.3	66.4	64.0	59.8	67.8	68.3			
Medium Trucks:	67.6	65.4	62.4	60.5	67.9	68.2			
Heavy Trucks:	68.9	67.4	59.1	60.3	68.4	68.5			
Vehicle Noise:	73.1	71.2	67.1	65.0	72.8	73.1			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				85	182	393	847		
CNEL:				89	191	412	887		

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: Existing Without Project Road Name: Hammer Av. Road Segment: s/o Hidden Valley Pkwy.					Project Name: Palomino Job Number: 11795				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 29,221 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 2,922 vehicles Vehicle Speed: 40 mph Near/Far Lane Distance: 73 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
					Vehicle Type	Day	Evening	Night	Daily
					Autos: 76.3% 11.0% 12.6% 91.88% Medium Trucks: 73.3% 9.2% 17.6% 5.79% Heavy Trucks: 84.4% 3.2% 12.5% 2.33%				
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 55.0 feet Centerline Dist. to Observer: 55.0 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: 41.446 Medium Trucks: 41.232 Heavy Trucks: 41.253				
FHWA Noise Model Calculations									
Vehicle Type	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	66.51	2.96	1.12	-1.20	-4.67	0.000	0.000		
Medium Trucks:	77.72	-9.04	1.15	-1.20	-4.87	0.000	0.000		
Heavy Trucks:	82.99	-12.99	1.15	-1.20	-5.38	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	67.4	65.0	60.9	68.9	69.3			
Medium Trucks:	68.6	66.5	63.5	61.5	68.9	69.3			
Heavy Trucks:	70.0	68.4	60.2	61.4	69.4	69.6			
Vehicle Noise:	74.1	72.3	68.1	66.0	73.9	74.2			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				100	214	462	995		
CNEL:				104	225	484	1,042		

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: Existing Without Project Road Name: E. Parkridge Av. Road Segment: s/o Hidden Valley Pkwy.					Project Name: Palomino Job Number: 11795				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 7,784 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 778 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 36 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: 76.3% 11.0% 12.6% 91.88%				
					Medium Trucks: 73.3% 9.2% 17.6% 5.79%				
					Heavy Trucks: 84.4% 3.2% 12.5% 2.33%				
					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: 40.460 Medium Trucks: 40.241 Heavy Trucks: 40.262				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	68.46	-3.29	1.28	-1.20	-4.61	0.000	0.000		
Medium Trucks:	79.45	-15.30	1.31	-1.20	-4.87	0.000	0.000		
Heavy Trucks:	84.25	-19.24	1.31	-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:	65.2	63.3	60.9	56.7	64.7	65.2			
Medium Trucks:	64.3	62.1	59.1	57.2	64.6	64.9			
Heavy Trucks:	65.1	63.6	55.3	56.5	64.6	64.7			
Vehicle Noise:	69.7	67.8	63.8	61.6	69.4	69.7			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				40	87	186	402		
CNEL:				42	91	195	421		

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL								
Scenario: Existing Without Project Road Name: Lincoln Av. Road Segment: s/o River Rd.				Project Name: Palomino Job Number: 11795				
SITE SPECIFIC INPUT DATA				NOISE MODEL INPUTS				
Highway Data				Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 20,087 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 2,009 vehicles Vehicle Speed: 40 mph Near/Far Lane Distance: 36 feet				Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data				Vehicle Mix				
				Vehicle Type	Day	Evening	Night	Daily
				Autos: 76.3% 11.0% 12.6% 91.88%				
				Medium Trucks: 73.3% 9.2% 17.6% 5.79%				
				Heavy Trucks: 84.4% 3.2% 12.5% 2.33%				
				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: 40.460				
				Medium Trucks: 40.241				
				Heavy Trucks: 40.262				
FHWA Noise Model Calculations								
Vehicle Type	REMED	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten	
Autos:	66.51	1.34	1.28	-1.20	-4.61	0.000	0.000	
Medium Trucks:	77.72	-10.67	1.31	-1.20	-4.87	0.000	0.000	
Heavy Trucks:	82.99	-14.62	1.31	-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:	67.9	66.0	63.6	59.4	67.4	67.9		
Medium Trucks:	67.2	65.0	62.0	60.1	67.5	67.8		
Heavy Trucks:	68.5	67.0	58.7	59.9	68.0	68.1		
Vehicle Noise:	72.7	70.8	66.6	64.6	72.4	72.7		
Centerline Distance to Noise Contour (in feet)								
			70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:			64	137	295	635		
CNEL:			67	143	309	665		

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: Existing Without Project Road Name: Lincoln Av. Road Segment: s/o Rincon St.					Project Name: Palomino Job Number: 11795				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 19,004 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 1,900 vehicles Vehicle Speed: 40 mph Near/Far Lane Distance: 36 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: 76.3% 11.0% 12.6% 91.88%				
					Medium Trucks: 73.3% 9.2% 17.6% 5.79%				
					Heavy Trucks: 84.4% 3.2% 12.5% 2.33%				
					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: 40.460 Medium Trucks: 40.241 Heavy Trucks: 40.262				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos: 66.51 1.09 1.28 -1.20 -4.61 0.000 0.000									
Medium Trucks: 77.72 -10.91 1.31 -1.20 -4.87 0.000 0.000									
Heavy Trucks: 82.99 -14.86 1.31 -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: 67.7 65.7 63.3 59.2 67.2 67.6									
Medium Trucks: 66.9 64.8 61.8 59.8 67.2 67.6									
Heavy Trucks: 68.2 66.7 58.5 59.7 67.7 67.9									
Vehicle Noise: 72.4 70.6 66.4 64.3 72.2 72.5									
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				61	132	284	612		
CNEL:				64	138	298	641		

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL										
Scenario: Existing Without Project Road Name: Lincoln Av. Road Segment: s/o Railroad St.					Project Name: Palomino Job Number: 11795					
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS					
Highway Data					Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt): 21,585 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 2,159 vehicles Vehicle Speed: 40 mph Near/Far Lane Distance: 36 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15					
Site Data					Vehicle Mix					
					VehicleType		Day	Evening	Night	Daily
					Autos: 76.3% 11.0% 12.6% 91.88%					
					Medium Trucks: 73.3% 9.2% 17.6% 5.79% Heavy Trucks: 84.4% 3.2% 12.5% 2.33%					
					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: 40.460 Medium Trucks: 40.241 Heavy Trucks: 40.262					
FHWA Noise Model Calculations										
VehicleType	REMED	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Attenu	Berm Attenu			
Autos: 66.51 1.65 1.28 -1.20 -4.61 0.000 0.000										
Medium Trucks: 77.72 -10.36 1.31 -1.20 -4.87 0.000 0.000										
Heavy Trucks: 82.99 -14.30 1.31 -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: 68.2 66.3 63.9 59.7 67.7 68.2										
Medium Trucks: 67.5 65.3 62.3 60.4 67.8 68.1										
Heavy Trucks: 68.8 67.3 59.0 60.2 68.3 68.4										
Vehicle Noise: 73.0 71.1 66.9 64.9 72.7 73.0										
Centerline Distance to Noise Contour (in feet)										
				70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:				67	144	309	666			
CNEL:				70	150	324	698			

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: Existing Without Project Road Name: Lincoln Av. Road Segment: s/o Pomona Rd.					Project Name: Palomino Job Number: 11795				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 24,057 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 2,406 vehicles Vehicle Speed: 40 mph Near/Far Lane Distance: 36 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: 76.3% 11.0% 12.6% 91.88%				
					Medium Trucks: 73.3% 9.2% 17.6% 5.79%				
					Heavy Trucks: 84.4% 3.2% 12.5% 2.33%				
					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: 40.460 Medium Trucks: 40.241 Heavy Trucks: 40.262				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos: 66.51 2.12 1.28 -1.20 -4.61 0.000 0.000									
Medium Trucks: 77.72 -9.89 1.31 -1.20 -4.87 0.000 0.000									
Heavy Trucks: 82.99 -13.83 1.31 -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: 68.7 66.7 64.4 60.2 68.2 68.7									
Medium Trucks: 67.9 65.8 62.8 60.8 68.3 68.6									
Heavy Trucks: 69.3 67.7 59.5 60.7 68.7 68.9									
Vehicle Noise: 73.4 71.6 67.4 65.4 73.2 73.5									
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				72	154	333	716		
CNEL:				75	162	348	750		

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: Existing Without Project Road Name: Second St. Road Segment: w/o Parkridge Av.					Project Name: Palomino Job Number: 11795				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 9,969 vehicles					Autos: 15				
Peak Hour Percentage: 10%					Medium Trucks (2 Axles): 15				
Peak Hour Volume: 997 vehicles					Heavy Trucks (3+ Axles): 15				
Vehicle Speed: 35 mph					Vehicle Mix				
Near/Far Lane Distance: 10 feet					VehicleType	Day	Evening	Night	Daily
Site Data					Autos: 76.3% 11.0% 12.6% 91.88%				
Barrier Height: 0.0 feet					Medium Trucks: 73.3% 9.2% 17.6% 5.79%				
Barrier Type (0-Wall, 1-Berm): 0.0					Heavy Trucks: 84.4% 3.2% 12.5% 2.33%				
Centerline Dist. to Barrier: 30.0 feet					Noise Source Elevations (in feet)				
Centerline Dist. to Observer: 30.0 feet					Autos: 0.000				
Barrier Distance to Observer: 0.0 feet					Medium Trucks: 2.297				
Observer Height (Above Pad): 5.0 feet					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: 30.000				
Left View: -90.0 degrees					Medium Trucks: 29.704				
Right View: 90.0 degrees					Heavy Trucks: 29.733				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	64.30	-1.13	3.22	-1.20	-4.49	0.000	0.000		
Medium Trucks:	75.75	-13.13	3.29	-1.20	-4.86	0.000	0.000		
Heavy Trucks:	81.57	-17.08	3.28	-1.20	-5.77	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	65.2	63.2	60.9	56.7	64.7	65.2			
Medium Trucks:	64.7	62.6	59.6	57.6	65.0	65.3			
Heavy Trucks:	66.6	65.0	56.8	58.0	66.0	66.2			
Vehicle Noise:	70.3	68.5	64.1	62.2	70.1	70.4			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				30	65	141	303		
CNEL:				32	68	147	317		

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: Existing Without Project Road Name: Second St. Road Segment: e/o Parkridge Av.					Project Name: Palomino Job Number: 11795				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 8,712 vehicles					Autos: 15				
Peak Hour Percentage: 10%					Medium Trucks (2 Axles): 15				
Peak Hour Volume: 871 vehicles					Heavy Trucks (3+ Axles): 15				
Vehicle Speed: 35 mph					Vehicle Mix				
Near/Far Lane Distance: 10 feet					VehicleType	Day	Evening	Night	Daily
Site Data					Autos: 76.3% 11.0% 12.6% 91.88%				
Barrier Height: 0.0 feet					Medium Trucks: 73.3% 9.2% 17.6% 5.79%				
Barrier Type (0-Wall, 1-Berm): 0.0					Heavy Trucks: 84.4% 3.2% 12.5% 2.33%				
Centerline Dist. to Barrier: 30.0 feet					Noise Source Elevations (in feet)				
Centerline Dist. to Observer: 30.0 feet					Autos: 0.000				
Barrier Distance to Observer: 0.0 feet					Medium Trucks: 2.297				
Observer Height (Above Pad): 5.0 feet					Heavy Trucks: 8.004 Grade Adjustment: 0.0				
Pad Elevation: 0.0 feet					Lane Equivalent Distance (in feet)				
Road Elevation: 0.0 feet					Autos: 30.000				
Road Grade: 0.0%					Medium Trucks: 29.704				
Left View: -90.0 degrees					Heavy Trucks: 29.733				
Right View: 90.0 degrees									
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	64.30	-1.71	3.22	-1.20	-4.49	0.000	0.000		
Medium Trucks:	75.75	-13.72	3.29	-1.20	-4.86	0.000	0.000		
Heavy Trucks:	81.57	-17.66	3.28	-1.20	-5.77	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	64.6	62.6	60.3	56.1	64.1	64.6			
Medium Trucks:	64.1	62.0	59.0	57.0	64.4	64.8			
Heavy Trucks:	66.0	64.5	56.2	57.4	65.5	65.6			
Vehicle Noise:	69.8	67.9	63.6	61.6	69.5	69.8			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				28	60	128	277		
CNEL:				29	62	134	289		

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: Existing Without Project Road Name: Second St. Road Segment: w/o Pacific Av.					Project Name: Palomino Job Number: 11795				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt):		9,776 vehicles			Autos: 15				
Peak Hour Percentage:		10%			Medium Trucks (2 Axles): 15				
Peak Hour Volume:		978 vehicles			Heavy Trucks (3+ Axles): 15				
Vehicle Speed:		35 mph			Vehicle Mix				
Near/Far Lane Distance:		10 feet			VehicleType				
Site Data					Day				
Barrier Height: 0.0 feet					Evening				
Barrier Type (0-Wall, 1-Berm): 0.0					Night				
Centerline Dist. to Barrier: 30.0 feet					Daily				
Centerline Dist. to Observer: 30.0 feet					Autos: 76.3% 11.0% 12.6% 91.88%				
Barrier Distance to Observer: 0.0 feet					Medium Trucks: 73.3% 9.2% 17.6% 5.79%				
Observer Height (Above Pad): 5.0 feet					Heavy Trucks: 84.4% 3.2% 12.5% 2.33%				
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: 30.000				
					Medium Trucks: 29.704				
					Heavy Trucks: 29.733				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	64.30	-1.21	3.22	-1.20	-4.49	0.000	0.000		
Medium Trucks:	75.75	-13.22	3.29	-1.20	-4.86	0.000	0.000		
Heavy Trucks:	81.57	-17.16	3.28	-1.20	-5.77	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	65.1	63.1	60.8	56.6	64.6	65.1			
Medium Trucks:	64.6	62.5	59.5	57.5	64.9	65.3			
Heavy Trucks:	66.5	65.0	56.7	57.9	66.0	66.1			
Vehicle Noise:	70.3	68.4	64.1	62.1	70.0	70.3			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				30	64	139	299		
CNEL:				31	67	145	313		

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: Existing Without Project Road Name: Second St. Road Segment: e/o Pacific Av.					Project Name: Palomino Job Number: 11795				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 10,473 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 1,047 vehicles Vehicle Speed: 35 mph Near/Far Lane Distance: 10 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: 30.0 feet Centerline Dist. to Observer: 30.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					VehicleType	Day	Evening	Night	Daily
					Autos: 76.3% 11.0% 12.6% 91.88%				
					Medium Trucks: 73.3% 9.2% 17.6% 5.79%				
					Heavy Trucks: 84.4% 3.2% 12.5% 2.33%				
					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: 30.000 Medium Trucks: 29.704 Heavy Trucks: 29.733				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	64.30	-0.91	3.22	-1.20	-4.49	0.000	0.000		0.000
Medium Trucks:	75.75	-12.92	3.29	-1.20	-4.86	0.000	0.000		0.000
Heavy Trucks:	81.57	-16.86	3.28	-1.20	-5.77	0.000	0.000		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	63.4	61.1	56.9	64.9	65.4			65.4
Medium Trucks:	64.9	62.8	59.8	57.8	65.2	65.6			65.6
Heavy Trucks:	66.8	65.3	57.0	58.2	66.3	66.4			66.4
Vehicle Noise:	70.6	68.7	64.4	62.4	70.3	70.6			70.6
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				31	67	145	313		
CNEL:				33	71	152	327		

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: Existing Without Project Road Name: Second St. Road Segment: w/o Mountain Av.					Project Name: Palomino Job Number: 11795				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 11,456 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 1,146 vehicles Vehicle Speed: 35 mph Near/Far Lane Distance: 10 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
					VehicleType	Day	Evening	Night	Daily
					Autos: 76.3% 11.0% 12.6% 91.88%				
					Medium Trucks: 73.3% 9.2% 17.6% 5.79%				
					Heavy Trucks: 84.4% 3.2% 12.5% 2.33%				
					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: 30.000				
					Medium Trucks: 29.704				
					Heavy Trucks: 29.733				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos: 64.30 -0.52 3.22 -1.20 -4.49 0.000 0.000									
Medium Trucks: 75.75 -12.53 3.29 -1.20 -4.86 0.000 0.000									
Heavy Trucks: 81.57 -16.47 3.28 -1.20 -5.77 0.000 0.000									
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos: 65.8 63.8 61.5 57.3 65.3 65.8									
Medium Trucks: 65.3 63.2 60.2 58.2 65.6 65.9									
Heavy Trucks: 67.2 65.6 57.4 58.6 66.6 66.8									
Vehicle Noise: 70.9 69.1 64.8 62.8 70.7 71.0									
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				33	72	154	332		
CNEL:				35	75	161	347		

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: Existing Without Project Road Name: Second St. Road Segment: e/o Mountain Av.					Project Name: Palomino Job Number: 11795				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 12,190 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 1,219 vehicles Vehicle Speed: 35 mph Near/Far Lane Distance: 36 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: 76.3% 11.0% 12.6% 91.88%				
					Medium Trucks: 73.3% 9.2% 17.6% 5.79%				
					Heavy Trucks: 84.4% 3.2% 12.5% 2.33%				
					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: 40.460				
					Medium Trucks: 40.241				
					Heavy Trucks: 40.262				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos: 64.30 -0.25 1.28 -1.20 -4.61 0.000 0.000									
Medium Trucks: 75.75 -12.26 1.31 -1.20 -4.87 0.000 0.000									
Heavy Trucks: 81.57 -16.21 1.31 -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 59.8 55.6 63.6 64.1									
Medium Trucks: 63.6 61.5 58.4 56.5 63.9 64.2									
Heavy Trucks: 65.5 63.9 55.7 56.9 64.9 65.1									
Vehicle Noise: 69.2 67.4 63.1 61.1 69.0 69.3									
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				38	81	174	375		
CNEL:				39	85	182	393		

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: Existing Without Project Road Name: Second St. Road Segment: e/o Dwy. 8					Project Name: Palomino Job Number: 11795				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 12,190 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 1,219 vehicles Vehicle Speed: 35 mph Near/Far Lane Distance: 36 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: 76.3% 11.0% 12.6% 91.88%				
					Medium Trucks: 73.3% 9.2% 17.6% 5.79%				
					Heavy Trucks: 84.4% 3.2% 12.5% 2.33%				
					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: 40.460				
					Medium Trucks: 40.241				
					Heavy Trucks: 40.262				
FHWA Noise Model Calculations									
VehicleType	REMED	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	64.30	-0.25	1.28	-1.20	-4.61	0.000	0.000		
Medium Trucks:	75.75	-12.26	1.31	-1.20	-4.87	0.000	0.000		
Heavy Trucks:	81.57	-16.21	1.31	-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	59.8	55.6	63.6	64.1			
Medium Trucks:	63.6	61.5	58.4	56.5	63.9	64.2			
Heavy Trucks:	65.5	63.9	55.7	56.9	64.9	65.1			
Vehicle Noise:	69.2	67.4	63.1	61.1	69.0	69.3			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				38	81	174	375		
CNEL:				39	85	182	393		

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: Existing Without Project Road Name: Second St. Road Segment: w/o Hamner Av.					Project Name: Palomino Job Number: 11795				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 17,237 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 1,724 vehicles Vehicle Speed: 35 mph Near/Far Lane Distance: 36 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: 76.3% 11.0% 12.6% 91.88%				
					Medium Trucks: 73.3% 9.2% 17.6% 5.79%				
					Heavy Trucks: 84.4% 3.2% 12.5% 2.33%				
					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: 40.460 Medium Trucks: 40.241 Heavy Trucks: 40.262				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos: 64.30 1.25 1.28 -1.20 -4.61 0.000 0.000									
Medium Trucks: 75.75 -10.75 1.31 -1.20 -4.87 0.000 0.000									
Heavy Trucks: 81.57 -14.70 1.31 -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: 65.6 63.7 61.3 57.1 65.1 65.6									
Medium Trucks: 65.1 63.0 60.0 58.0 65.4 65.7									
Heavy Trucks: 67.0 65.4 57.2 58.4 66.4 66.6									
Vehicle Noise: 70.7 68.9 64.6 62.6 70.5 70.8									
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				47	102	220	473		
CNEL:				49	107	230	495		

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: Existing Without Project Road Name: First St. Road Segment: w/o Parkridge Av.					Project Name: Palomino Job Number: 11795				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 16,397 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 1,640 vehicles Vehicle Speed: 35 mph Near/Far Lane Distance: 10 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: 30.0 feet Centerline Dist. to Observer: 30.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					Autos: 76.3% 11.0% 12.6% 91.88% Medium Trucks: 73.3% 9.2% 17.6% 5.79% Heavy Trucks: 84.4% 3.2% 12.5% 2.33%				
					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: 30.000 Medium Trucks: 29.704 Heavy Trucks: 29.733				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	64.30	1.03	3.22	-1.20	-4.49	0.000	0.000		
Medium Trucks:	75.75	-10.97	3.29	-1.20	-4.86	0.000	0.000		
Heavy Trucks:	81.57	-14.92	3.28	-1.20	-5.77	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	67.4	65.4	63.0	58.8	66.9	67.3			
Medium Trucks:	66.9	64.7	61.7	59.8	67.2	67.5			
Heavy Trucks:	68.7	67.2	59.0	60.2	68.2	68.3			
Vehicle Noise:	72.5	70.7	66.3	64.4	72.2	72.5			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				42	91	196	422		
CNEL:				44	95	205	441		

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: Existing Without Project Road Name: First St. Road Segment: e/o Parkridge Av.					Project Name: Palomino Job Number: 11795				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 15,837 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 1,584 vehicles Vehicle Speed: 35 mph Near/Far Lane Distance: 36 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: 76.3% 11.0% 12.6% 91.88%				
					Medium Trucks: 73.3% 9.2% 17.6% 5.79%				
					Heavy Trucks: 84.4% 3.2% 12.5% 2.33%				
					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: 40.460 Medium Trucks: 40.241 Heavy Trucks: 40.262				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos: 64.30 0.88 1.28 -1.20 -4.61 0.000 0.000									
Medium Trucks: 75.75 -11.12 1.31 -1.20 -4.87 0.000 0.000									
Heavy Trucks: 81.57 -15.07 1.31 -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: 65.3 63.3 60.9 56.7 64.8 65.2									
Medium Trucks: 64.7 62.6 59.6 57.6 65.1 65.4									
Heavy Trucks: 66.6 65.1 56.8 58.0 66.1 66.2									
Vehicle Noise: 70.4 68.6 64.2 62.3 70.1 70.4									
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				45	96	208	447		
CNEL:				47	101	217	467		

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: Existing Without Project Road Name: First St. Road Segment: e/o Dwy. 1					Project Name: Palomino Job Number: 11795				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 15,837 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 1,584 vehicles Vehicle Speed: 35 mph Near/Far Lane Distance: 36 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: 76.3% 11.0% 12.6% 91.88%				
					Medium Trucks: 73.3% 9.2% 17.6% 5.79%				
					Heavy Trucks: 84.4% 3.2% 12.5% 2.33%				
					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: 40.460 Medium Trucks: 40.241 Heavy Trucks: 40.262				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	64.30	0.88	1.28	-1.20	-4.61	0.000	0.000		
Medium Trucks:	75.75	-11.12	1.31	-1.20	-4.87	0.000	0.000		
Heavy Trucks:	81.57	-15.07	1.31	-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:	65.3	63.3	60.9	56.7	64.8	65.2			
Medium Trucks:	64.7	62.6	59.6	57.6	65.1	65.4			
Heavy Trucks:	66.6	65.1	56.8	58.0	66.1	66.2			
Vehicle Noise:	70.4	68.6	64.2	62.3	70.1	70.4			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				45	96	208	447		
CNEL:				47	101	217	467		

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: Existing Without Project Road Name: First St. Road Segment: e/o Mountain Av.					Project Name: Palomino Job Number: 11795				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 8,581 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 858 vehicles Vehicle Speed: 35 mph Near/Far Lane Distance: 36 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: 76.3% 11.0% 12.6% 91.88%				
					Medium Trucks: 73.3% 9.2% 17.6% 5.79%				
					Heavy Trucks: 84.4% 3.2% 12.5% 2.33%				
					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: 40.460 Medium Trucks: 40.241 Heavy Trucks: 40.262				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	64.30	-1.78	1.28	-1.20	-4.61	0.000	0.000		
Medium Trucks:	75.75	-13.78	1.31	-1.20	-4.87	0.000	0.000		
Heavy Trucks:	81.57	-17.73	1.31	-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:	62.6	60.6	58.3	54.1	62.1	62.6			
Medium Trucks:	62.1	59.9	56.9	55.0	62.4	62.7			
Heavy Trucks:	63.9	62.4	54.2	55.4	63.4	63.6			
Vehicle Noise:	67.7	65.9	61.5	59.6	67.4	67.7			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				30	64	138	297		
CNEL:				31	67	144	311		

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL										
Scenario: Existing Without Project Road Name: First St. Road Segment: w/o Hamner Av.					Project Name: Palomino Job Number: 11795					
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS					
Highway Data					Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt):		9,185 vehicles			Autos:		15			
Peak Hour Percentage:		10%			Medium Trucks (2 Axles):		15			
Peak Hour Volume:		919 vehicles			Heavy Trucks (3+ Axles):		15			
Vehicle Speed:		35 mph			Vehicle Mix					
Near/Far Lane Distance:		36 feet			VehicleType		Day	Evening	Night	Daily
Site Data					Autos:		76.3%	11.0%	12.6%	91.88%
Barrier Height:		0.0 feet			Medium Trucks:		73.3%	9.2%	17.6%	5.79%
Barrier Type (0-Wall, 1-Berm):		0.0			Heavy Trucks:		84.4%	3.2%	12.5%	2.33%
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:		40.460			
Road Grade:		0.0%			Medium Trucks:		40.241			
Left View:		-90.0 degrees			Heavy Trucks:		40.262			
Right View:		90.0 degrees								
FHWA Noise Model Calculations										
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten			
Autos:		64.30	-1.48	1.28	-1.20	-4.61	0.000	0.000		
Medium Trucks:		75.75	-13.49	1.31	-1.20	-4.87	0.000	0.000		
Heavy Trucks:		81.57	-17.43	1.31	-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:		62.9	60.9	58.5	54.4	62.4	62.9			
Medium Trucks:		62.4	60.2	57.2	55.3	62.7	63.0			
Heavy Trucks:		64.2	62.7	54.5	55.7	63.7	63.8			
Vehicle Noise:		68.0	66.2	61.8	59.9	67.7	68.0			
Centerline Distance to Noise Contour (in feet)										
				70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:				31	67	144	311			
CNEL:				33	70	151	325			

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: Existing Without Project Road Name: Hidden Valley Pkwy. Road Segment: w/o E. Parkridge Av.					Project Name: Palomino Job Number: 11795				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 20,852 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 2,085 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 52 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: 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					VehicleType	Day	Evening	Night	Daily
					Autos: 76.3% 11.0% 12.6% 91.88%				
					Medium Trucks: 73.3% 9.2% 17.6% 5.79%				
					Heavy Trucks: 84.4% 3.2% 12.5% 2.33%				
FHWA Noise Model Calculations					Noise Source Elevations (in feet)				
VehicleType					Autos: 0.000				
REME					Medium Trucks: 2.297				
Traffic Flow					Heavy Trucks: 8.004 Grade Adjustment: 0.0				
Distance					Lane Equivalent Distance (in feet)				
Finite Road					Autos: 43.000				
Fresnel					Medium Trucks: 42.794				
Barrier Atten					Heavy Trucks: 42.814				
Berm Atten									
Autos: 68.46 0.99 0.88 -1.20 -4.65 0.000 0.000									
Medium Trucks: 79.45 -11.02 0.91 -1.20 -4.87 0.000 0.000									
Heavy Trucks: 84.25 -14.97 0.91 -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:		69.1	67.2	64.8	60.6	68.6	69.1		
Medium Trucks:		68.1	66.0	63.0	61.0	68.5	68.8		
Heavy Trucks:		69.0	67.5	59.2	60.4	68.5	68.6		
Vehicle Noise:		73.5	71.7	67.7	65.5	73.3	73.6		
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				83	178	384	828		
CNEL:				87	187	403	868		

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: Existing Without Project Road Name: Hidden Valley Pkwy. Road Segment: e/o E. Parkridge Av.					Project Name: Palomino Job Number: 11795				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 22,594 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 2,259 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 52 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: 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 Type	Day	Evening	Night	Daily
					Autos: 76.3% 11.0% 12.6% 91.88%				
					Medium Trucks: 73.3% 9.2% 17.6% 5.79%				
					Heavy Trucks: 84.4% 3.2% 12.5% 2.33%				
					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: 43.000				
					Medium Trucks: 42.794				
					Heavy Trucks: 42.814				
FHWA Noise Model Calculations									
Vehicle Type	RECEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos: 68.46 1.33 0.88 -1.20 -4.65 0.000 0.000									
Medium Trucks: 79.45 -10.67 0.91 -1.20 -4.87 0.000 0.000									
Heavy Trucks: 84.25 -14.62 0.91 -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: 69.5 67.5 65.1 60.9 69.0 69.4									
Medium Trucks: 68.5 66.3 63.3 61.4 68.8 69.1									
Heavy Trucks: 69.3 67.8 59.6 60.8 68.8 68.9									
Vehicle Noise: 73.9 72.0 68.0 65.8 73.6 73.9									
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				87	188	405	873		
CNEL:				92	197	425	916		

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: Existing With Project Road Name: River Rd. Road Segment: s/o Corydon St.					Project Name: Palomino Job Number: 11795				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 24,819 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 2,482 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 52 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: 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					VehicleType	Day	Evening	Night	Daily
					Autos: 76.3% 11.0% 12.6% 92.01%				
					Medium Trucks: 73.3% 9.2% 17.6% 5.69%				
					Heavy Trucks: 84.4% 3.2% 12.5% 2.30%				
					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: 43.000 Medium Trucks: 42.794 Heavy Trucks: 42.814				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos: 68.46 1.75 0.88 -1.20 -4.65 0.000 0.000									
Medium Trucks: 79.45 -10.34 0.91 -1.20 -4.87 0.000 0.000									
Heavy Trucks: 84.25 -14.28 0.91 -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: 69.9 67.9 65.5 61.4 69.4 69.8									
Medium Trucks: 68.8 66.7 63.7 61.7 69.1 69.5									
Heavy Trucks: 69.7 68.1 59.9 61.1 69.1 69.3									
Vehicle Noise: 74.3 72.4 68.4 66.2 74.0 74.3									
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				92	199	429	923		
CNEL:				97	209	450	969		

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: Existing With Project Road Name: River Rd. Road Segment: s/o Lincoln Av.					Project Name: Palomino Job Number: 11795				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 13,441 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 1,344 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 10 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: 30.0 feet Centerline Dist. to Observer: 30.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					VehicleType	Day	Evening	Night	Daily
					Autos:	76.3%	11.0%	12.6%	92.00%
					Medium Trucks:	73.3%	9.2%	17.6%	5.70%
					Heavy Trucks:	84.4%	3.2%	12.5%	2.30%
FHWA Noise Model Calculations					Noise Source Elevations (in feet)				
					Autos:	0.000			
					Medium Trucks:	2.297			
					Heavy Trucks:	8.004	Grade Adjustment:	0.0	
FHWA Noise Model Calculations					Lane Equivalent Distance (in feet)				
					Autos:	30.000			
					Medium Trucks:	29.704			
					Heavy Trucks:	29.733			
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	69.6	67.6	65.2	61.0	69.1	69.5			
Medium Trucks:	68.5	66.4	63.4	61.4	68.9	69.2			
Heavy Trucks:	69.4	67.9	59.6	60.8	68.9	69.0			
Vehicle Noise:	74.0	72.1	68.1	65.9	73.7	74.0			
Centerline Distance to Noise Contour (in feet)									
					70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:					53	114	246	530	
CNEL:					56	120	258	555	

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: Existing With Project Road Name: Parkridge Av. Road Segment: n/o Second St.					Project Name: Palomino Job Number: 11795				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 2,502 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 250 vehicles Vehicle Speed: 25 mph Near/Far Lane Distance: 10 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: 30.0 feet Centerline Dist. to Observer: 30.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					VehicleType	Day	Evening	Night	Daily
					Autos:	76.3%	11.0%	12.6%	92.55%
					Medium Trucks:	73.3%	9.2%	17.6%	5.31%
					Heavy Trucks:	84.4%	3.2%	12.5%	2.14%
FHWA Noise Model Calculations					Noise Source Elevations (in feet)				
					Autos:	0.000			
					Medium Trucks:	2.297			
					Heavy Trucks:	8.004	Grade Adjustment:	0.0	
FHWA Noise Model Calculations					Lane Equivalent Distance (in feet)				
					Autos:	30.000			
					Medium Trucks:	29.704			
					Heavy Trucks:	29.733			
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	55.1	53.2	50.8	46.6	54.6	55.1			
Medium Trucks:	54.8	52.7	49.7	47.7	55.2	55.5			
Heavy Trucks:	58.1	56.5	48.3	49.5	57.5	57.7			
Vehicle Noise:	61.0	59.3	54.5	52.9	60.7	61.0			
Centerline Distance to Noise Contour (in feet)									
					70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:					7	16	34	72	
CNEL:					8	16	35	75	

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: Existing With Project Road Name: Parkridge Av. Road Segment: s/o Second St.					Project Name: Palomino Job Number: 11795				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 3,274 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 327 vehicles Vehicle Speed: 40 mph Near/Far Lane Distance: 36 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:	76.3%	11.0%	12.6%	92.39%
					Medium Trucks:	73.3%	9.2%	17.6%	5.42%
					Heavy Trucks:	84.4%	3.2%	12.5%	2.19%
FHWA Noise Model Calculations					Noise Source Elevations (in feet)				
					Autos:	0.000			
					Medium Trucks:	2.297			
					Heavy Trucks:	8.004	Grade Adjustment:	0.0	
FHWA Noise Model Calculations					Lane Equivalent Distance (in feet)				
					Autos:	40.460			
					Medium Trucks:	40.241			
					Heavy Trucks:	40.262			
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	60.1	58.1	55.7	51.5	59.6	60.0			
Medium Trucks:	59.0	56.9	53.8	51.9	59.3	59.6			
Heavy Trucks:	60.3	58.8	50.6	51.7	59.8	59.9			
Vehicle Noise:	64.6	62.8	58.6	56.5	64.3	64.6			
Centerline Distance to Noise Contour (in feet)									
					70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:					18	40	86	184	
CNEL:					19	42	90	193	

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: Existing With Project Road Name: Parkridge Av. Road Segment: s/o Lincoln Av.					Project Name: Palomino Job Number: 11795				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 5,265 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 527 vehicles Vehicle Speed: 40 mph Near/Far Lane Distance: 36 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:	76.3%	11.0%	12.6%	92.19%
					Medium Trucks:	73.3%	9.2%	17.6%	5.56%
					Heavy Trucks:	84.4%	3.2%	12.5%	2.24%
FHWA Noise Model Calculations					Noise Source Elevations (in feet)				
					Autos:	0.000			
					Medium Trucks:	2.297			
					Heavy Trucks:	8.004	Grade Adjustment:	0.0	
FHWA Noise Model Calculations					Lane Equivalent Distance (in feet)				
					Autos:	40.460			
					Medium Trucks:	40.241			
					Heavy Trucks:	40.262			
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	62.1	60.2	57.8	53.6	61.6	62.1			
Medium Trucks:	61.2	59.0	56.0	54.1	61.5	61.8			
Heavy Trucks:	62.5	61.0	52.7	53.9	62.0	62.1			
Vehicle Noise:	66.7	64.9	60.7	58.6	66.5	66.8			
Centerline Distance to Noise Contour (in feet)									
					70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:					26	55	119	256	
CNEL:					27	58	124	268	

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL											
Scenario: Existing With Project Road Name: Pacific Av. Road Segment: s/o Second St.					Project Name: Palomino Job Number: 11795						
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS						
Highway Data					Site Conditions (Hard = 10, Soft = 15)						
Average Daily Traffic (Adt):		386 vehicles			Autos:		15				
Peak Hour Percentage:		10%			Medium Trucks (2 Axles):		15				
Peak Hour Volume:		39 vehicles			Heavy Trucks (3+ Axles):		15				
Vehicle Speed:		25 mph			Vehicle Mix						
Near/Far Lane Distance:		10 feet									
Site Data					VehicleType						
Barrier Height:		0.0 feet			Autos:		76.3%		11.0%	12.6%	91.88%
Barrier Type (0-Wall, 1-Berm):		0.0			Medium Trucks:		73.3%		9.2%	17.6%	5.79%
Centerline Dist. to Barrier:		30.0 feet			Heavy Trucks:		84.4%		3.2%	12.5%	2.33%
Centerline Dist. to Observer:		30.0 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:		30.000		Medium Trucks: 29.704 Heavy Trucks: 29.733		
Right View:		90.0 degrees			Medium Trucks:		29.704				
					Heavy Trucks:		29.733				
FHWA Noise Model Calculations											
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten				
Autos:	58.73	-13.79	3.22	-1.20	-4.49	0.000	0.000				
Medium Trucks:	70.80	-25.79	3.29	-1.20	-4.86	0.000	0.000				
Heavy Trucks:	77.97	-29.74	3.28	-1.20	-5.77	0.000	0.000				
Unmitigated Noise Levels (without Topo and barrier attenuation)											
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL					
Autos:	47.0	45.0	42.6	38.4	46.5	46.9					
Medium Trucks:	47.1	45.0	41.9	40.0	47.4	47.7					
Heavy Trucks:	50.3	48.8	40.6	41.7	49.8	49.9					
Vehicle Noise:	53.2	51.4	46.6	45.0	52.9	53.2					
Centerline Distance to Noise Contour (in feet)											
				70 dBA	65 dBA	60 dBA	55 dBA				
Ldn:				2	5	10	22				
CNEL:				2	5	10	23				

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: Existing With Project Road Name: Mountain Av. Road Segment: n/o Hamner Av.					Project Name: Palomino Job Number: 11795				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 11,136 vehicles					Autos: 15				
Peak Hour Percentage: 10%					Medium Trucks (2 Axles): 15				
Peak Hour Volume: 1,114 vehicles					Heavy Trucks (3+ Axles): 15				
Vehicle Speed: 40 mph					Vehicle Mix				
Near/Far Lane Distance: 36 feet					VehicleType	Day	Evening	Night	Daily
Site Data					Autos: 76.3% 11.0% 12.6% 89.24%				
Barrier Height: 0.0 feet					Medium Trucks: 73.3% 9.2% 17.6% 5.45%				
Barrier Type (0-Wall, 1-Berm): 0.0					Heavy Trucks: 84.4% 3.2% 12.5% 5.31%				
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: 40.460				
Road Grade: 0.0%					Medium Trucks: 40.241				
Left View: -90.0 degrees					Heavy Trucks: 40.262				
Right View: 90.0 degrees									
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	66.51	-1.35	1.28	-1.20	-4.61	0.000	0.000		
Medium Trucks:	77.72	-13.49	1.31	-1.20	-4.87	0.000	0.000		
Heavy Trucks:	82.99	-13.61	1.31	-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:	65.2	63.3	60.9	56.7	64.7	65.2			
Medium Trucks:	64.3	62.2	59.2	57.2	64.6	65.0			
Heavy Trucks:	69.5	68.0	59.7	60.9	69.0	69.1			
Vehicle Noise:	71.7	70.0	64.8	63.5	71.4	71.6			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				54	117	253	544		
CNEL:				57	122	262	565		

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: Existing With Project Road Name: Hammer Av. Road Segment: s/o Third St.					Project Name: Palomino Job Number: 11795				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 34,706 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 3,471 vehicles Vehicle Speed: 40 mph Near/Far Lane Distance: 73 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: 55.0 feet Centerline Dist. to Observer: 55.0 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: 76.3% 11.0% 12.6% 91.97%				
					Medium Trucks: 73.3% 9.2% 17.6% 5.72%				
					Heavy Trucks: 84.4% 3.2% 12.5% 2.31%				
					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: 41.446				
					Medium Trucks: 41.232				
					Heavy Trucks: 41.253				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	66.51	3.71	1.12	-1.20	-4.67	0.000	0.000		
Medium Trucks:	77.72	-8.35	1.15	-1.20	-4.87	0.000	0.000		
Heavy Trucks:	82.99	-12.29	1.15	-1.20	-5.38	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	70.1	68.2	65.8	61.6	69.6	70.1			
Medium Trucks:	69.3	67.2	64.2	62.2	69.6	70.0			
Heavy Trucks:	70.7	69.1	60.9	62.1	70.1	70.3			
Vehicle Noise:	74.8	73.0	68.8	66.7	74.6	74.9			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			111	239	515	1,110			
CNEL:			116	251	540	1,163			

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: Existing With Project Road Name: Hamner Av. Road Segment: s/o Second St.					Project Name: Palomino Job Number: 11795				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 29,591 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 2,959 vehicles Vehicle Speed: 40 mph Near/Far Lane Distance: 73 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: 55.0 feet Centerline Dist. to Observer: 55.0 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: 76.3% 11.0% 12.6% 91.71%				
					Medium Trucks: 73.3% 9.2% 17.6% 5.82%				
					Heavy Trucks: 84.4% 3.2% 12.5% 2.47%				
					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: 41.446				
					Medium Trucks: 41.232				
					Heavy Trucks: 41.253				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	66.51	3.01	1.12	-1.20	-4.67	0.000	0.000		
Medium Trucks:	77.72	-8.96	1.15	-1.20	-4.87	0.000	0.000		
Heavy Trucks:	82.99	-12.70	1.15	-1.20	-5.38	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	69.4	67.5	65.1	60.9	68.9	69.4			
Medium Trucks:	68.7	66.6	63.6	61.6	69.0	69.3			
Heavy Trucks:	70.2	68.7	60.5	61.7	69.7	69.9			
Vehicle Noise:	74.3	72.4	68.2	66.2	74.0	74.3			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			102	219	472	1,018			
CNEL:			107	230	494	1,065			

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL											
Scenario: Existing With Project Road Name: Hammer Av. Road Segment: s/o First St.					Project Name: Palomino Job Number: 11795						
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS						
Highway Data					Site Conditions (Hard = 10, Soft = 15)						
Average Daily Traffic (Adt): 23,145 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 2,315 vehicles Vehicle Speed: 40 mph Near/Far Lane Distance: 73 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: 55.0 feet Centerline Dist. to Observer: 55.0 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: 76.3% 11.0% 12.6% 91.05% Medium Trucks: 73.3% 9.2% 17.6% 5.95% Heavy Trucks: 84.4% 3.2% 12.5% 3.00%						
					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: 41.446 Medium Trucks: 41.232 Heavy Trucks: 41.253											
FHWA Noise Model Calculations											
Vehicle Type	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten				
Autos:	66.51	1.91	1.12	-1.20	-4.67	0.000	0.000				
Medium Trucks:	77.72	-9.93	1.15	-1.20	-4.87	0.000	0.000				
Heavy Trucks:	82.99	-12.92	1.15	-1.20	-5.38	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:	68.3	66.4	64.0	59.8	67.8	68.3					
Medium Trucks:	67.7	65.6	62.6	60.6	68.1	68.4					
Heavy Trucks:	70.0	68.5	60.3	61.4	69.5	69.6					
Vehicle Noise:	73.6	71.8	67.3	65.5	73.3	73.6					
Centerline Distance to Noise Contour (in feet)											
				70 dBA	65 dBA	60 dBA	55 dBA				
Ldn:				91	197	423	912				
CNEL:				95	205	442	953				

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: Existing With Project Road Name: Hamner Av. Road Segment: s/o Hidden Valley Pkwy.					Project Name: Palomino Job Number: 11795				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 29,686 vehicles					Autos: 15				
Peak Hour Percentage: 10%					Medium Trucks (2 Axles): 15				
Peak Hour Volume: 2,969 vehicles					Heavy Trucks (3+ Axles): 15				
Vehicle Speed: 40 mph					Vehicle Mix				
Near/Far Lane Distance: 73 feet					VehicleType	Day	Evening	Night	Daily
Site Data					Autos: 76.3% 11.0% 12.6% 91.83%				
Barrier Height: 0.0 feet					Medium Trucks: 73.3% 9.2% 17.6% 5.74%				
Barrier Type (0-Wall, 1-Berm): 0.0					Heavy Trucks: 84.4% 3.2% 12.5% 2.43%				
Centerline Dist. to Barrier: 55.0 feet					Noise Source Elevations (in feet)				
Centerline Dist. to Observer: 55.0 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: 41.446				
Road Grade: 0.0%					Medium Trucks: 41.232				
Left View: -90.0 degrees					Heavy Trucks: 41.253				
Right View: 90.0 degrees									
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	66.51	3.03	1.12	-1.20	-4.67	0.000	0.000		
Medium Trucks:	77.72	-9.01	1.15	-1.20	-4.87	0.000	0.000		
Heavy Trucks:	82.99	-12.74	1.15	-1.20	-5.38	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	69.5	67.5	65.1	60.9	69.0	69.4			
Medium Trucks:	68.7	66.5	63.5	61.6	69.0	69.3			
Heavy Trucks:	70.2	68.7	60.4	61.6	69.7	69.8			
Vehicle Noise:	74.3	72.4	68.2	66.2	74.0	74.3			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				101	218	471	1,014		
CNEL:				106	229	493	1,061		

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: Existing With Project Road Name: E. Parkridge Av. Road Segment: s/o Hidden Valley Pkwy.					Project Name: Palomino Job Number: 11795				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 7,990 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 799 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 36 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: 76.3% 11.0% 12.6% 92.09% Medium Trucks: 73.3% 9.2% 17.6% 5.64% Heavy Trucks: 84.4% 3.2% 12.5% 2.27%				
					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: 40.460 Medium Trucks: 40.241 Heavy Trucks: 40.262				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	68.46	-3.17	1.28	-1.20	-4.61	0.000	0.000		
Medium Trucks:	79.45	-15.30	1.31	-1.20	-4.87	0.000	0.000		
Heavy Trucks:	84.25	-19.24	1.31	-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:	65.4	63.4	61.0	56.8	64.9			65.3	
Medium Trucks:	64.3	62.1	59.1	57.2	64.6			64.9	
Heavy Trucks:	65.1	63.6	55.3	56.5	64.6			64.7	
Vehicle Noise:	69.7	67.9	63.8	61.6	69.4			69.8	
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA		55 dBA	
Ldn:				40	87	188		404	
CNEL:				42	91	197		424	

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: Existing With Project Road Name: Lincoln Av. Road Segment: s/o River Rd.					Project Name: Palomino Job Number: 11795				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 21,119 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 2,112 vehicles Vehicle Speed: 40 mph Near/Far Lane Distance: 36 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: 76.3% 11.0% 12.6% 92.27%				
					Medium Trucks: 73.3% 9.2% 17.6% 5.51%				
					Heavy Trucks: 84.4% 3.2% 12.5% 2.22%				
					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: 40.460 Medium Trucks: 40.241 Heavy Trucks: 40.262				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	66.51	1.57	1.28	-1.20	-4.61	0.000	0.000	0.000	
Medium Trucks:	77.72	-10.67	1.31	-1.20	-4.87	0.000	0.000	0.000	
Heavy Trucks:	82.99	-14.62	1.31	-1.20	-5.50	0.000	0.000	0.000	
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	68.2	66.2	63.8	59.6	67.7	68.1			
Medium Trucks:	67.2	65.0	62.0	60.1	67.5	67.8			
Heavy Trucks:	68.5	67.0	58.7	59.9	68.0	68.1			
Vehicle Noise:	72.7	70.9	66.8	64.6	72.5	72.8			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			64	138	298	643			
CNEL:			67	145	313	674			

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: Existing With Project Road Name: Lincoln Av. Road Segment: s/o Rincon St.					Project Name: Palomino Job Number: 11795				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 20,036 vehicles					Autos: 15				
Peak Hour Percentage: 10%					Medium Trucks (2 Axles): 15				
Peak Hour Volume: 2,004 vehicles					Heavy Trucks (3+ Axles): 15				
Vehicle Speed: 40 mph					Vehicle Mix				
Near/Far Lane Distance: 36 feet					VehicleType				
					Day				
					Evening				
					Night				
					Daily				
Site Data					Autos: 76.3% 11.0% 12.6% 92.29%				
Barrier Height: 0.0 feet					Medium Trucks: 73.3% 9.2% 17.6% 5.49%				
Barrier Type (0-Wall, 1-Berm): 0.0					Heavy Trucks: 84.4% 3.2% 12.5% 2.21%				
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: 40.460				
Left View: -90.0 degrees					Medium Trucks: 40.241				
Right View: 90.0 degrees					Heavy Trucks: 40.262				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos: 66.51 1.34 1.28 -1.20 -4.61 0.000 0.000									
Medium Trucks: 77.72 -10.91 1.31 -1.20 -4.87 0.000 0.000									
Heavy Trucks: 82.99 -14.86 1.31 -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: 67.9 66.0 63.6 59.4 67.4 67.9									
Medium Trucks: 66.9 64.8 61.8 59.8 67.2 67.6									
Heavy Trucks: 68.2 66.7 58.5 59.7 67.7 67.9									
Vehicle Noise: 72.5 70.7 66.5 64.4 72.2 72.5									
Centerline Distance to Noise Contour (in feet)									
				70 dBA		65 dBA		60 dBA	
				65 dBA		60 dBA		55 dBA	
Ldn:				62		134		288	
CNEL:				65		140		301	
								620	
								650	

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: Existing With Project Road Name: Lincoln Av. Road Segment: s/o Railroad St.					Project Name: Palomino Job Number: 11795				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 22,411 vehicles					Autos: 15				
Peak Hour Percentage: 10%					Medium Trucks (2 Axles): 15				
Peak Hour Volume: 2,241 vehicles					Heavy Trucks (3+ Axles): 15				
Vehicle Speed: 40 mph					Vehicle Mix				
Near/Far Lane Distance: 36 feet					VehicleType	Day	Evening	Night	Daily
Site Data					Autos: 76.3% 11.0% 12.6% 92.18%				
Barrier Height: 0.0 feet					Medium Trucks: 73.3% 9.2% 17.6% 5.58%				
Barrier Type (0-Wall, 1-Berm): 0.0					Heavy Trucks: 84.4% 3.2% 12.5% 2.25%				
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: 40.460				
Road Grade: 0.0%					Medium Trucks: 40.241				
Left View: -90.0 degrees					Heavy Trucks: 40.262				
Right View: 90.0 degrees									
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	66.51	1.82	1.28	-1.20	-4.61	0.000	0.000		
Medium Trucks:	77.72	-10.36	1.31	-1.20	-4.87	0.000	0.000		
Heavy Trucks:	82.99	-14.30	1.31	-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:	68.4	66.4	64.1	59.9	67.9	68.4			
Medium Trucks:	67.5	65.3	62.3	60.4	67.8	68.1			
Heavy Trucks:	68.8	67.3	59.0	60.2	68.3	68.4			
Vehicle Noise:	73.0	71.2	67.0	64.9	72.8	73.1			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				67	145	312	672		
CNEL:				70	152	327	704		

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: Existing With Project Road Name: Lincoln Av. Road Segment: s/o Pomona Rd.					Project Name: Palomino Job Number: 11795				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 24,883 vehicles					Autos: 15				
Peak Hour Percentage: 10%					Medium Trucks (2 Axles): 15				
Peak Hour Volume: 2,488 vehicles					Heavy Trucks (3+ Axles): 15				
Vehicle Speed: 40 mph					Vehicle Mix				
Near/Far Lane Distance: 36 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: 76.3% 11.0% 12.6% 92.15%				
Barrier Distance to Observer: 0.0 feet					Medium Trucks: 73.3% 9.2% 17.6% 5.60%				
Observer Height (Above Pad): 5.0 feet					Heavy Trucks: 84.4% 3.2% 12.5% 2.26%				
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: 40.460				
					Medium Trucks: 40.241				
					Heavy Trucks: 40.262				
FHWA Noise Model Calculations									
VehicleType	REMED	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	66.51	2.28	1.28	-1.20	-4.61	0.000	0.000		
Medium Trucks:	77.72	-9.89	1.31	-1.20	-4.87	0.000	0.000		
Heavy Trucks:	82.99	-13.83	1.31	-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:	68.9	66.9	64.5	60.3	68.4	68.8			
Medium Trucks:	67.9	65.8	62.8	60.8	68.3	68.6			
Heavy Trucks:	69.3	67.7	59.5	60.7	68.7	68.9			
Vehicle Noise:	73.5	71.7	67.5	65.4	73.2	73.5			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			72	156	335	722			
CNEL:			76	163	351	757			

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: Existing With Project Road Name: Second St. Road Segment: w/o Parkridge Av.					Project Name: Palomino Job Number: 11795				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 10,520 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 1,052 vehicles Vehicle Speed: 35 mph Near/Far Lane Distance: 10 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: 30.0 feet Centerline Dist. to Observer: 30.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					VehicleType	Day	Evening	Night	Daily
					Autos: 76.3% 11.0% 12.6% 92.30%				
					Medium Trucks: 73.3% 9.2% 17.6% 5.49%				
					Heavy Trucks: 84.4% 3.2% 12.5% 2.21%				
					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: 30.000 Medium Trucks: 29.704 Heavy Trucks: 29.733				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos: 64.30 -0.87 3.22 -1.20 -4.49 0.000 0.000									
Medium Trucks: 75.75 -13.13 3.29 -1.20 -4.86 0.000 0.000									
Heavy Trucks: 81.57 -17.08 3.28 -1.20 -5.77 0.000 0.000									
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos: 65.5 63.5 61.1 56.9 64.9 65.4									
Medium Trucks: 64.7 62.6 59.6 57.6 65.0 65.3									
Heavy Trucks: 66.6 65.0 56.8 58.0 66.0 66.2									
Vehicle Noise: 70.4 68.6 64.3 62.3 70.1 70.4									
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				31	66	142	306		
CNEL:				32	69	149	320		

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: Existing With Project Road Name: Second St. Road Segment: e/o Parkridge Av.					Project Name: Palomino Job Number: 11795				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 9,675 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 968 vehicles Vehicle Speed: 35 mph Near/Far Lane Distance: 10 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: 30.0 feet Centerline Dist. to Observer: 30.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					VehicleType	Day	Evening	Night	Daily
					Autos:	76.3%	11.0%	12.6%	92.68%
					Medium Trucks:	73.3%	9.2%	17.6%	5.21%
					Heavy Trucks:	84.4%	3.2%	12.5%	2.10%
FHWA Noise Model Calculations					Noise Source Elevations (in feet)				
					Autos:	0.000			
					Medium Trucks:	2.297			
					Heavy Trucks:	8.004	Grade Adjustment:	0.0	
FHWA Noise Model Calculations					Lane Equivalent Distance (in feet)				
					Autos:	30.000			
					Medium Trucks:	29.704			
					Heavy Trucks:	29.733			
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	65.1	63.1	60.8	56.6	64.6	65.1			
Medium Trucks:	64.1	62.0	59.0	57.0	64.4	64.8			
Heavy Trucks:	66.0	64.5	56.2	57.4	65.5	65.6			
Vehicle Noise:	69.9	68.1	63.8	61.8	69.6	69.9			
Centerline Distance to Noise Contour (in feet)									
					70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:					28	61	131	283	
CNEL:					30	64	138	296	

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: Existing With Project Road Name: Second St. Road Segment: w/o Pacific Av.					Project Name: Palomino Job Number: 11795				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 10,946 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 1,095 vehicles Vehicle Speed: 35 mph Near/Far Lane Distance: 10 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: 30.0 feet Centerline Dist. to Observer: 30.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					VehicleType	Day	Evening	Night	Daily
					Autos:	76.3%	11.0%	12.6%	92.74%
					Medium Trucks:	73.3%	9.2%	17.6%	5.17%
					Heavy Trucks:	84.4%	3.2%	12.5%	2.08%
FHWA Noise Model Calculations					Noise Source Elevations (in feet)				
					Autos:	0.000			
					Medium Trucks:	2.297			
					Heavy Trucks:	8.004	Grade Adjustment:	0.0	
FHWA Noise Model Calculations					Lane Equivalent Distance (in feet)				
					Autos:	30.000			
					Medium Trucks:	29.704			
					Heavy Trucks:	29.733			
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	65.6	63.7	61.3	57.1	65.1	65.6			
Medium Trucks:	64.6	62.5	59.5	57.5	64.9	65.3			
Heavy Trucks:	66.5	65.0	56.7	57.9	66.0	66.1			
Vehicle Noise:	70.4	68.6	64.3	62.3	70.1	70.4			
Centerline Distance to Noise Contour (in feet)									
					70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:					31	66	142	306	
CNEL:					32	69	149	321	

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: Existing With Project Road Name: Second St. Road Segment: e/o Pacific Av.					Project Name: Palomino Job Number: 11795				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 11,643 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 1,164 vehicles Vehicle Speed: 35 mph Near/Far Lane Distance: 10 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: 30.0 feet Centerline Dist. to Observer: 30.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					VehicleType	Day	Evening	Night	Daily
					Autos:	76.3%	11.0%	12.6%	92.69%
					Medium Trucks:	73.3%	9.2%	17.6%	5.21%
					Heavy Trucks:	84.4%	3.2%	12.5%	2.10%
FHWA Noise Model Calculations					Noise Source Elevations (in feet)				
					Autos:	0.000			
					Medium Trucks:	2.297			
					Heavy Trucks:	8.004	Grade Adjustment:	0.0	
FHWA Noise Model Calculations					Lane Equivalent Distance (in feet)				
					Autos:	30.000			
					Medium Trucks:	29.704			
					Heavy Trucks:	29.733			
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	65.9	63.9	61.6	57.4	65.4	65.9			
Medium Trucks:	64.9	62.8	59.8	57.8	65.2	65.6			
Heavy Trucks:	66.8	65.3	57.0	58.2	66.3	66.4			
Vehicle Noise:	70.7	68.9	64.6	62.6	70.4	70.7			
Centerline Distance to Noise Contour (in feet)									
					70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:					32	69	149	320	
CNEL:					34	72	156	335	

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: Existing With Project Road Name: Second St. Road Segment: w/o Mountain Av.					Project Name: Palomino Job Number: 11795				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 12,626 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 1,263 vehicles Vehicle Speed: 35 mph Near/Far Lane Distance: 10 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: 30.0 feet Centerline Dist. to Observer: 30.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					VehicleType	Day	Evening	Night	Daily
					Autos:	76.3%	11.0%	12.6%	92.63%
					Medium Trucks:	73.3%	9.2%	17.6%	5.25%
					Heavy Trucks:	84.4%	3.2%	12.5%	2.12%
FHWA Noise Model Calculations					Noise Source Elevations (in feet)				
					Autos:	0.000			
					Medium Trucks:	2.297			
					Heavy Trucks:	8.004	Grade Adjustment:	0.0	
FHWA Noise Model Calculations					Lane Equivalent Distance (in feet)				
					Autos:	30.000			
					Medium Trucks:	29.704			
					Heavy Trucks:	29.733			
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	66.3	64.3	61.9	57.7	65.8	66.2			
Medium Trucks:	65.3	63.2	60.2	58.2	65.6	65.9			
Heavy Trucks:	67.2	65.6	57.4	58.6	66.6	66.8			
Vehicle Noise:	71.1	69.3	65.0	63.0	70.8	71.1			
Centerline Distance to Noise Contour (in feet)									
					70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:					34	73	158	339	
CNEL:					36	77	165	355	

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: Existing With Project Road Name: Second St. Road Segment: e/o Mountain Av.					Project Name: Palomino Job Number: 11795				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 14,206 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 1,421 vehicles Vehicle Speed: 35 mph Near/Far Lane Distance: 36 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: 76.3% 11.0% 12.6% 90.47%				
					Medium Trucks: 73.3% 9.2% 17.6% 5.58%				
					Heavy Trucks: 84.4% 3.2% 12.5% 3.95%				
					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: 40.460 Medium Trucks: 40.241 Heavy Trucks: 40.262				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos: 64.30 0.34 1.28 -1.20 -4.61 0.000 0.000									
Medium Trucks: 75.75 -11.75 1.31 -1.20 -4.87 0.000 0.000									
Heavy Trucks: 81.57 -13.25 1.31 -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: 64.7 62.8 60.4 56.2 64.2 64.7									
Medium Trucks: 64.1 62.0 59.0 57.0 64.4 64.7									
Heavy Trucks: 68.4 66.9 58.7 59.8 67.9 68.0									
Vehicle Noise: 71.0 69.2 64.2 62.7 70.6 70.9									
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				48	104	225	485		
CNEL:				50	109	234	504		

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: Existing With Project Road Name: Second St. Road Segment: e/o Dwy, 8					Project Name: Palomino Job Number: 11795				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 14,550 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 1,455 vehicles Vehicle Speed: 35 mph Near/Far Lane Distance: 36 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: 76.3% 11.0% 12.6% 90.69%				
					Medium Trucks: 73.3% 9.2% 17.6% 5.45%				
					Heavy Trucks: 84.4% 3.2% 12.5% 3.86%				
					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: 40.460 Medium Trucks: 40.241 Heavy Trucks: 40.262				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	64.30	0.46	1.28	-1.20	-4.61	0.000	0.000		
Medium Trucks:	75.75	-11.75	1.31	-1.20	-4.87	0.000	0.000		
Heavy Trucks:	81.57	-13.25	1.31	-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:	64.8	62.9	60.5	56.3	64.3	64.8			
Medium Trucks:	64.1	62.0	59.0	57.0	64.4	64.7			
Heavy Trucks:	68.4	66.9	58.7	59.8	67.9	68.0			
Vehicle Noise:	71.0	69.2	64.2	62.8	70.7	70.9			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				49	105	226	487		
CNEL:				51	109	235	506		

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL										
Scenario: Existing With Project Road Name: Second St. Road Segment: w/o Hamner Av.					Project Name: Palomino Job Number: 11795					
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS					
Highway Data					Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt): 19,597 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 1,960 vehicles Vehicle Speed: 35 mph Near/Far Lane Distance: 36 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15					
Site Data					Vehicle Mix					
					VehicleType		Day	Evening	Night	Daily
					Autos: 76.3% 11.0% 12.6% 91.00%					
					Medium Trucks: 73.3% 9.2% 17.6% 5.54%					
					Heavy Trucks: 84.4% 3.2% 12.5% 3.47%					
					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: 40.460					
					Medium Trucks: 40.241					
					Heavy Trucks: 40.262					
FHWA Noise Model Calculations										
VehicleType	REMEF	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten			
Autos: 64.30 1.77 1.28 -1.20 -4.61 0.000 0.000										
Medium Trucks: 75.75 -10.39 1.31 -1.20 -4.87 0.000 0.000										
Heavy Trucks: 81.57 -12.43 1.31 -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: 66.1 64.2 61.8 57.6 65.6 66.1										
Medium Trucks: 65.5 63.3 60.3 58.4 65.8 66.1										
Heavy Trucks: 69.2 67.7 59.5 60.7 68.7 68.9										
Vehicle Noise: 72.1 70.3 65.4 63.9 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	277	598			

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL										
Scenario: Existing With Project Road Name: First St. Road Segment: w/o Parkridge Av.					Project Name: Palomino Job Number: 11795					
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS					
Highway Data					Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt): 17,636 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 1,764 vehicles Vehicle Speed: 35 mph Near/Far Lane Distance: 10 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: 30.0 feet Centerline Dist. to Observer: 30.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					VehicleType		Day	Evening	Night	Daily
					Autos:		76.3%	11.0%	12.6%	92.45%
					Medium Trucks:		73.3%	9.2%	17.6%	5.38%
					Heavy Trucks:		84.4%	3.2%	12.5%	2.17%
					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:		30.000			
					Medium Trucks:		29.704			
					Heavy Trucks:		29.733			
FHWA Noise Model Calculations										
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten			
Autos: 64.30 1.38 3.22 -1.20 -4.49 0.000 0.000										
Medium Trucks: 75.75 -10.97 3.29 -1.20 -4.86 0.000 0.000										
Heavy Trucks: 81.57 -14.92 3.28 -1.20 -5.77 0.000 0.000										
Unmitigated Noise Levels (without Topo and barrier attenuation)										
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL				
Autos: 67.7 65.7 63.4 59.2 67.2 67.7										
Medium Trucks: 66.9 64.7 61.7 59.8 67.2 67.5										
Heavy Trucks: 68.7 67.2 59.0 60.2 68.2 68.3										
Vehicle Noise: 72.6 70.8 66.5 64.5 72.3 72.6										
Centerline Distance to Noise Contour (in feet)										
			70 dBA	65 dBA	60 dBA	55 dBA				
Ldn:			43	92	199	429				
CNEL:			45	97	208	449				

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: Existing With Project Road Name: First St. Road Segment: e/o Parkridge Av.					Project Name: Palomino Job Number: 11795				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 17,282 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 1,728 vehicles Vehicle Speed: 35 mph Near/Far Lane Distance: 36 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: 76.3% 11.0% 12.6% 92.56%				
					Medium Trucks: 73.3% 9.2% 17.6% 5.31%				
					Heavy Trucks: 84.4% 3.2% 12.5% 2.14%				
					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: 40.460				
					Medium Trucks: 40.241				
					Heavy Trucks: 40.262				
FHWA Noise Model Calculations									
Vehicle Type	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos: 64.30 1.29 1.28 -1.20 -4.61 0.000 0.000									
Medium Trucks: 75.75 -11.12 1.31 -1.20 -4.87 0.000 0.000									
Heavy Trucks: 81.57 -15.07 1.31 -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 63.7 61.3 57.1 65.2 65.6									
Medium Trucks: 64.7 62.6 59.6 57.6 65.1 65.4									
Heavy Trucks: 66.6 65.1 56.8 58.0 66.1 66.2									
Vehicle Noise: 70.5 68.7 64.4 62.4 70.2 70.5									
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				46	98	211	456		
CNEL:				48	103	221	477		

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: Existing With Project Road Name: First St. Road Segment: e/o Dwy. 1					Project Name: Palomino Job Number: 11795				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 16,525 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 1,653 vehicles Vehicle Speed: 35 mph Near/Far Lane Distance: 36 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: 76.3% 11.0% 12.6% 92.21%				
					Medium Trucks: 73.3% 9.2% 17.6% 5.55%				
					Heavy Trucks: 84.4% 3.2% 12.5% 2.24%				
					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: 40.460 Medium Trucks: 40.241 Heavy Trucks: 40.262				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos: 64.30 1.08 1.28 -1.20 -4.61 0.000 0.000									
Medium Trucks: 75.75 -11.12 1.31 -1.20 -4.87 0.000 0.000									
Heavy Trucks: 81.57 -15.07 1.31 -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: 65.5 63.5 61.1 56.9 65.0 65.4									
Medium Trucks: 64.7 62.6 59.6 57.6 65.1 65.4									
Heavy Trucks: 66.6 65.1 56.8 58.0 66.1 66.2									
Vehicle Noise: 70.4 68.6 64.3 62.3 70.2 70.5									
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				45	97	209	451		
CNEL:				47	102	219	472		

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL										
Scenario: Existing With Project Road Name: First St. Road Segment: e/o Mountain Av.					Project Name: Palomino Job Number: 11795					
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS					
Highway Data					Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt):		8,737 vehicles			Autos: 15					
Peak Hour Percentage:		10%			Medium Trucks (2 Axles): 15					
Peak Hour Volume:		874 vehicles			Heavy Trucks (3+ Axles): 15					
Vehicle Speed:		35 mph			Vehicle Mix					
Near/Far Lane Distance:		36 feet			VehicleType		Day	Evening	Night	Daily
Site Data					Autos: 76.3% 11.0% 12.6% 90.24%					
Barrier Height:		0.0 feet			Medium Trucks: 73.3% 9.2% 17.6% 6.11%					
Barrier Type (0-Wall, 1-Berm):		0.0			Heavy Trucks: 84.4% 3.2% 12.5% 3.65%					
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:		40.460			
Road Grade:		0.0%			Medium Trucks:		40.241			
Left View:		-90.0 degrees			Heavy Trucks:		40.262			
Right View:		90.0 degrees								
FHWA Noise Model Calculations										
VehicleType	REMED	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Attenu	Berm Attenu			
Autos:		64.30	-1.78	1.28	-1.20	-4.61	0.000	0.000		
Medium Trucks:		75.75	-13.47	1.31	-1.20	-4.87	0.000	0.000		
Heavy Trucks:		81.57	-15.70	1.31	-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:		62.6	60.6	58.3	54.1	62.1	62.6			
Medium Trucks:		62.4	60.2	57.2	55.3	62.7	63.0			
Heavy Trucks:		66.0	64.4	56.2	57.4	65.4	65.6			
Vehicle Noise:		68.8	67.0	62.1	60.6	68.4	68.7			
Centerline Distance to Noise Contour (in feet)										
				70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:				35	75	161	346			
CNEL:				36	78	167	361			

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: Existing With Project Road Name: First St. Road Segment: w/o Hammer Av.					Project Name: Palomino Job Number: 11795				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 9,341 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 934 vehicles Vehicle Speed: 35 mph Near/Far Lane Distance: 36 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: 76.3% 11.0% 12.6% 90.34%				
					Medium Trucks: 73.3% 9.2% 17.6% 6.09%				
					Heavy Trucks: 84.4% 3.2% 12.5% 3.57%				
					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: 40.460 Medium Trucks: 40.241 Heavy Trucks: 40.262				
FHWA Noise Model Calculations									
VehicleType	REMEF	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos: 64.30 -1.48 1.28 -1.20 -4.61 0.000 0.000									
Medium Trucks: 75.75 -13.20 1.31 -1.20 -4.87 0.000 0.000									
Heavy Trucks: 81.57 -15.52 1.31 -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: 62.9 60.9 58.5 54.4 62.4 62.9									
Medium Trucks: 62.7 60.5 57.5 55.6 63.0 63.3									
Heavy Trucks: 66.2 64.6 56.4 57.6 65.6 65.8									
Vehicle Noise: 69.0 67.2 62.3 60.8 68.7 68.9									
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				36	77	167	359		
CNEL:				37	81	174	374		

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: Existing With Project Road Name: Hidden Valley Pkwy. Road Segment: w/o E. Parkridge Av.					Project Name: Palomino Job Number: 11795				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 21,403 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 2,140 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 52 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: 76.3% 11.0% 12.6% 92.08%				
					Medium Trucks: 73.3% 9.2% 17.6% 5.64%				
					Heavy Trucks: 84.4% 3.2% 12.5% 2.27%				
					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: 43.000 Medium Trucks: 42.794 Heavy Trucks: 42.814				
FHWA Noise Model Calculations									
Vehicle Type	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos: 68.46 1.11 0.88 -1.20 -4.65 0.000 0.000									
Medium Trucks: 79.45 -11.02 0.91 -1.20 -4.87 0.000 0.000									
Heavy Trucks: 84.25 -14.97 0.91 -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: 69.2 67.3 64.9 60.7 68.7 69.2									
Medium Trucks: 68.1 66.0 63.0 61.0 68.5 68.8									
Heavy Trucks: 69.0 67.5 59.2 60.4 68.5 68.6									
Vehicle Noise: 73.6 71.7 67.7 65.5 73.3 73.6									
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				83	180	387	833		
CNEL:				87	188	406	874		

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: Existing With Project Road Name: Hidden Valley Pkwy. Road Segment: e/o E. Parkridge Av.					Project Name: Palomino Job Number: 11795				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 22,800 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 2,280 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 52 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: 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					VehicleType	Day	Evening	Night	Daily
					Autos: 76.3% 11.0% 12.6% 91.95%				
					Medium Trucks: 73.3% 9.2% 17.6% 5.74%				
					Heavy Trucks: 84.4% 3.2% 12.5% 2.31%				
					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: 43.000 Medium Trucks: 42.794 Heavy Trucks: 42.814				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos: 68.46 1.38 0.88 -1.20 -4.65 0.000 0.000									
Medium Trucks: 79.45 -10.67 0.91 -1.20 -4.87 0.000 0.000									
Heavy Trucks: 84.25 -14.62 0.91 -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: 69.5 67.6 65.2 61.0 69.0 69.5									
Medium Trucks: 68.5 66.3 63.3 61.4 68.8 69.1									
Heavy Trucks: 69.3 67.8 59.6 60.8 68.8 68.9									
Vehicle Noise: 73.9 72.1 68.0 65.8 73.6 74.0									
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				88	189	406	875		
CNEL:				92	198	426	918		

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY Without Project Road Name: River Rd. Road Segment: s/o Corydon St.					Project Name: Palomino Job Number: 11795				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 28,511 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 2,851 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 52 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: 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					VehicleType	Day	Evening	Night	Daily
					Autos: 76.3% 11.0% 12.6% 91.88%				
					Medium Trucks: 73.3% 9.2% 17.6% 5.79%				
					Heavy Trucks: 84.4% 3.2% 12.5% 2.33%				
					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: 43.000 Medium Trucks: 42.794 Heavy Trucks: 42.814				
FHWA Noise Model Calculations									
VehicleType	REMED	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	68.46	2.34	0.88	-1.20	-4.65	0.000	0.000		
Medium Trucks:	79.45	-9.66	0.91	-1.20	-4.87	0.000	0.000		
Heavy Trucks:	84.25	-13.61	0.91	-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:	70.5	68.5	66.1	62.0	70.0	70.4			
Medium Trucks:	69.5	67.4	64.3	62.4	69.8	70.1			
Heavy Trucks:	70.4	68.8	60.6	61.8	69.8	70.0			
Vehicle Noise:	74.9	73.0	69.0	66.8	74.6	75.0			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				102	220	473	1,020		
CNEL:				107	230	496	1,070		

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY Without Project Road Name: River Rd. Road Segment: s/o Lincoln Av.					Project Name: Palomino Job Number: 11795				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 14,544 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 1,454 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 10 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: 30.0 feet Centerline Dist. to Observer: 30.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					VehicleType	Day	Evening	Night	Daily
					Autos: 76.3% 11.0% 12.6% 91.88%				
					Medium Trucks: 73.3% 9.2% 17.6% 5.79%				
					Heavy Trucks: 84.4% 3.2% 12.5% 2.33%				
					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: 30.000 Medium Trucks: 29.704 Heavy Trucks: 29.733				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos: 68.46 -0.58 3.22 -1.20 -4.49 0.000 0.000									
Medium Trucks: 79.45 -12.58 3.29 -1.20 -4.86 0.000 0.000									
Heavy Trucks: 84.25 -16.53 3.28 -1.20 -5.77 0.000 0.000									
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos: 69.9 67.9 65.6 61.4 69.4 69.9									
Medium Trucks: 69.0 66.8 63.8 61.9 69.3 69.6									
Heavy Trucks: 69.8 68.3 60.0 61.2 69.3 69.4									
Vehicle Noise: 74.3 72.5 68.5 66.3 74.1 74.4									
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			56	121	261	562			
CNEL:			59	127	273	589			

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL											
Scenario: OY Without Project Road Name: Parkridge Av. Road Segment: n/o Second St.					Project Name: Palomino Job Number: 11795						
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS						
Highway Data					Site Conditions (Hard = 10, Soft = 15)						
Average Daily Traffic (Adt):		2,561 vehicles			Autos:		15				
Peak Hour Percentage:		10%			Medium Trucks (2 Axles):		15				
Peak Hour Volume:		256 vehicles			Heavy Trucks (3+ Axles):		15				
Vehicle Speed:		25 mph			Vehicle Mix						
Near/Far Lane Distance:		10 feet									
Site Data					VehicleType						
Barrier Height:		0.0 feet			Autos:		76.3%		11.0%	12.6%	91.88%
Barrier Type (0-Wall, 1-Berm):		0.0			Medium Trucks:		73.3%		9.2%	17.6%	5.79%
Centerline Dist. to Barrier:		30.0 feet			Heavy Trucks:		84.4%		3.2%	12.5%	2.33%
Centerline Dist. to Observer:		30.0 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:		30.000		Medium Trucks: 29.704 Heavy Trucks: 29.733		
Right View:		90.0 degrees			Medium Trucks:		29.704				
					Heavy Trucks:		29.733				
FHWA Noise Model Calculations											
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten				
Autos:		58.73	-5.57	3.22	-1.20	-4.49	0.000	0.000			
Medium Trucks:		70.80	-17.57	3.29	-1.20	-4.86	0.000	0.000			
Heavy Trucks:		77.97	-21.52	3.28	-1.20	-5.77	0.000	0.000			
Unmitigated Noise Levels (without Topo and barrier attenuation)											
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL					
Autos:		55.2	53.2	50.8	46.7	54.7	55.1				
Medium Trucks:		55.3	53.2	50.2	48.2	55.6	55.9				
Heavy Trucks:		58.5	57.0	48.8	50.0	58.0	58.1				
Vehicle Noise:		61.4	59.6	54.8	53.3	61.1	61.4				
Centerline Distance to Noise Contour (in feet)											
				70 dBA		65 dBA		60 dBA		55 dBA	
Ldn:				8		17		36		77	
CNEL:				8		17		37		80	

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY Without Project Road Name: Parkridge Av. Road Segment: s/o Second St.					Project Name: Palomino Job Number: 11795				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 4,931 vehicles					Autos: 15				
Peak Hour Percentage: 10%					Medium Trucks (2 Axles): 15				
Peak Hour Volume: 493 vehicles					Heavy Trucks (3+ Axles): 15				
Vehicle Speed: 40 mph					Vehicle Mix				
Near/Far Lane Distance: 36 feet					VehicleType	Day	Evening	Night	Daily
Site Data					Autos: 76.3% 11.0% 12.6% 91.88%				
Barrier Height: 0.0 feet					Medium Trucks: 73.3% 9.2% 17.6% 5.79%				
Barrier Type (0-Wall, 1-Berm): 0.0					Heavy Trucks: 84.4% 3.2% 12.5% 2.33%				
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: 40.460				
Road Grade: 0.0%					Medium Trucks: 40.241				
Left View: -90.0 degrees					Heavy Trucks: 40.262				
Right View: 90.0 degrees									
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos: 66.51 -4.76 1.28 -1.20 -4.61 0.000 0.000									
Medium Trucks: 77.72 -16.77 1.31 -1.20 -4.87 0.000 0.000									
Heavy Trucks: 82.99 -20.72 1.31 -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 59.9 57.5 53.3 61.3 61.8									
Medium Trucks: 61.1 58.9 55.9 54.0 61.4 61.7									
Heavy Trucks: 62.4 60.9 52.6 53.8 61.9 62.0									
Vehicle Noise: 66.6 64.7 60.5 58.5 66.3 66.6									
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				25	54	116	249		
CNEL:				26	56	121	261		

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL										
Scenario: OY Without Project Road Name: Parkridge Av. Road Segment: s/o Lincoln Av.					Project Name: Palomino Job Number: 11795					
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS					
Highway Data					Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt):		6,784 vehicles			Autos: 15					
Peak Hour Percentage:		10%			Medium Trucks (2 Axles): 15					
Peak Hour Volume:		678 vehicles			Heavy Trucks (3+ Axles): 15					
Vehicle Speed:		40 mph			Vehicle Mix					
Near/Far Lane Distance:		36 feet			VehicleType		Day	Evening	Night	Daily
Site Data					Autos: 76.3% 11.0% 12.6% 91.88%					
Barrier Height:		0.0 feet			Medium Trucks: 73.3% 9.2% 17.6% 5.79%					
Barrier Type (0-Wall, 1-Berm):		0.0			Heavy Trucks: 84.4% 3.2% 12.5% 2.33%					
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:		40.460			
Road Grade:		0.0%			Medium Trucks:		40.241			
Left View:		-90.0 degrees			Heavy Trucks:		40.262			
Right View:		90.0 degrees								
FHWA Noise Model Calculations										
VehicleType	REMED	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten			
Autos:		66.51	-3.38	1.28	-1.20	-4.61	0.000	0.000		
Medium Trucks:		77.72	-15.38	1.31	-1.20	-4.87	0.000	0.000		
Heavy Trucks:		82.99	-19.33	1.31	-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	61.2	58.9	54.7	62.7	63.2			
Medium Trucks:		62.4	60.3	57.3	55.3	62.8	63.1			
Heavy Trucks:		63.8	62.2	54.0	55.2	63.2	63.4			
Vehicle Noise:		67.9	66.1	61.9	59.9	67.7	68.0			
Centerline Distance to Noise Contour (in feet)										
				70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:				31	66	143	308			
CNEL:				32	70	150	323			

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY Without Project Road Name: Pacific Av. Road Segment: s/o Second St.					Project Name: Palomino Job Number: 11795				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 560 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 56 vehicles Vehicle Speed: 25 mph Near/Far Lane Distance: 10 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: 30.0 feet Centerline Dist. to Observer: 30.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					VehicleType	Day	Evening	Night	Daily
					Autos: 76.3% 11.0% 12.6% 91.88%				
					Medium Trucks: 73.3% 9.2% 17.6% 5.79%				
					Heavy Trucks: 84.4% 3.2% 12.5% 2.33%				
					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: 30.000 Medium Trucks: 29.704 Heavy Trucks: 29.733				
FHWA Noise Model Calculations									
VehicleType	REML	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos: 58.73 -12.17 3.22 -1.20 -4.49 0.000 0.000									
Medium Trucks: 70.80 -24.18 3.29 -1.20 -4.86 0.000 0.000									
Heavy Trucks: 77.97 -28.12 3.28 -1.20 -5.77 0.000 0.000									
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos: 48.6 46.6 44.2 40.1 48.1 48.5									
Medium Trucks: 48.7 46.6 43.6 41.6 49.0 49.3									
Heavy Trucks: 51.9 50.4 42.2 43.4 51.4 51.5									
Vehicle Noise: 54.8 53.0 48.2 46.7 54.5 54.8									
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				3	6	13	28		
CNEL:				3	6	13	29		

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY Without Project Road Name: Mountain Av. Road Segment: n/o Hamner Av.					Project Name: Palomino Job Number: 11795				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 11,135 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 1,114 vehicles Vehicle Speed: 40 mph Near/Far Lane Distance: 36 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: 76.3% 11.0% 12.6% 91.88% Medium Trucks: 73.3% 9.2% 17.6% 5.79% Heavy Trucks: 84.4% 3.2% 12.5% 2.33%				
					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: 40.460 Medium Trucks: 40.241 Heavy Trucks: 40.262				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	66.51	-1.23	1.28	-1.20	-4.61	0.000	0.000		
Medium Trucks:	77.72	-13.23	1.31	-1.20	-4.87	0.000	0.000		
Heavy Trucks:	82.99	-17.18	1.31	-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:	65.4	63.4	61.0	56.8	64.9	65.3			
Medium Trucks:	64.6	62.5	59.4	57.5	64.9	65.2			
Heavy Trucks:	65.9	64.4	56.2	57.3	65.4	65.5			
Vehicle Noise:	70.1	68.3	64.1	62.0	69.8	70.1			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				43	92	199	429		
CNEL:				45	97	208	449		

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY Without Project Road Name: Hamner Av. Road Segment: s/o Third St.					Project Name: Palomino Job Number: 11795				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 39,247 vehicles					Autos: 15				
Peak Hour Percentage: 10%					Medium Trucks (2 Axles): 15				
Peak Hour Volume: 3,925 vehicles					Heavy Trucks (3+ Axles): 15				
Vehicle Speed: 40 mph					Vehicle Mix				
Near/Far Lane Distance: 73 feet					VehicleType	Day	Evening	Night	Daily
Site Data					Autos: 76.3% 11.0% 12.6% 91.88%				
Barrier Height: 0.0 feet					Medium Trucks: 73.3% 9.2% 17.6% 5.79%				
Barrier Type (0-Wall, 1-Berm): 0.0					Heavy Trucks: 84.4% 3.2% 12.5% 2.33%				
Centerline Dist. to Barrier: 55.0 feet					Noise Source Elevations (in feet)				
Centerline Dist. to Observer: 55.0 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: 41.446				
Road Grade: 0.0%					Medium Trucks: 41.232				
Left View: -90.0 degrees					Heavy Trucks: 41.253				
Right View: 90.0 degrees									
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	66.51	4.24	1.12	-1.20	-4.67	0.000	0.000		
Medium Trucks:	77.72	-7.76	1.15	-1.20	-4.87	0.000	0.000		
Heavy Trucks:	82.99	-11.71	1.15	-1.20	-5.38	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	70.7	68.7	66.3	62.1	70.2	70.6			
Medium Trucks:	69.9	67.8	64.8	62.8	70.2	70.5			
Heavy Trucks:	71.2	69.7	61.5	62.7	70.7	70.8			
Vehicle Noise:	75.4	73.6	69.4	67.3	75.1	75.4			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			121	261	562	1,211			
CNEL:			127	273	589	1,269			

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY Without Project Road Name: Hammer Av. Road Segment: s/o Second St.					Project Name: Palomino Job Number: 11795				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 33,674 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 3,367 vehicles Vehicle Speed: 40 mph Near/Far Lane Distance: 73 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: 55.0 feet Centerline Dist. to Observer: 55.0 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: 76.3% 11.0% 12.6% 91.88% Medium Trucks: 73.3% 9.2% 17.6% 5.79% Heavy Trucks: 84.4% 3.2% 12.5% 2.33%				
					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.004 Grade Adjustment: 0.0				
FHWA Noise Model Calculations					Lane Equivalent Distance (in feet)				
					Autos: 41.446 Medium Trucks: 41.232 Heavy Trucks: 41.253				
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	66.51	3.58	1.12	-1.20	-4.67	0.000	0.000		
Medium Trucks:	77.72	-8.43	1.15	-1.20	-4.87	0.000	0.000		
Heavy Trucks:	82.99	-12.37	1.15	-1.20	-5.38	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn		CNEL		
Autos:	70.0	68.0	65.7	61.5	69.5		70.0		
Medium Trucks:	69.2	67.1	64.1	62.1	69.6		69.9		
Heavy Trucks:	70.6	69.0	60.8	62.0	70.0		70.2		
Vehicle Noise:	74.7	72.9	68.7	66.7	74.5		74.8		
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				109	236	508	1,094		
CNEL:				115	247	532	1,146		

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY Without Project Road Name: Hamner Av. Road Segment: s/o First St.				Project Name: Palomino Job Number: 11795					
SITE SPECIFIC INPUT DATA				NOISE MODEL INPUTS					
Highway Data				Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt): 26,577 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 2,658 vehicles Vehicle Speed: 40 mph Near/Far Lane Distance: 73 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: 55.0 feet Centerline Dist. to Observer: 55.0 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: 76.3% 11.0% 12.6% 91.88% Medium Trucks: 73.3% 9.2% 17.6% 5.79% Heavy Trucks: 84.4% 3.2% 12.5% 2.33%					
				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: 41.446 Medium Trucks: 41.232 Heavy Trucks: 41.253					
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	66.51	2.55	1.12	-1.20	-4.67	0.000	0.000		
Medium Trucks:	77.72	-9.45	1.15	-1.20	-4.87	0.000	0.000		
Heavy Trucks:	82.99	-13.40	1.15	-1.20	-5.38	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	69.0	67.0	64.6	60.5	68.5	68.9			
Medium Trucks:	68.2	66.1	63.1	61.1	68.5	68.9			
Heavy Trucks:	69.5	68.0	59.8	61.0	69.0	69.1			
Vehicle Noise:	73.7	71.9	67.7	65.6	73.5	73.8			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			93	201	434	934			
CNEL:			98	211	454	978			

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY Without Project Road Name: Hamner Av. Road Segment: s/o Hidden Valley Pkwy.					Project Name: Palomino Job Number: 11795				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 33,848 vehicles					Autos: 15				
Peak Hour Percentage: 10%					Medium Trucks (2 Axles): 15				
Peak Hour Volume: 3,385 vehicles					Heavy Trucks (3+ Axles): 15				
Vehicle Speed: 40 mph					Vehicle Mix				
Near/Far Lane Distance: 73 feet					VehicleType	Day	Evening	Night	Daily
Site Data					Autos: 76.3% 11.0% 12.6% 91.88%				
Barrier Height: 0.0 feet					Medium Trucks: 73.3% 9.2% 17.6% 5.79%				
Barrier Type (0-Wall, 1-Berm): 0.0					Heavy Trucks: 84.4% 3.2% 12.5% 2.33%				
Centerline Dist. to Barrier: 55.0 feet					Noise Source Elevations (in feet)				
Centerline Dist. to Observer: 55.0 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: 41.446				
Road Grade: 0.0%					Medium Trucks: 41.232				
Left View: -90.0 degrees					Heavy Trucks: 41.253				
Right View: 90.0 degrees									
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos: 66.51 3.60 1.12 -1.20 -4.67 0.000 0.000									
Medium Trucks: 77.72 -8.40 1.15 -1.20 -4.87 0.000 0.000									
Heavy Trucks: 82.99 -12.35 1.15 -1.20 -5.38 0.000 0.000									
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos: 70.0 68.1 65.7 61.5 69.5 70.0									
Medium Trucks: 69.3 67.1 64.1 62.2 69.6 69.9									
Heavy Trucks: 70.6 69.1 60.8 62.0 70.1 70.2									
Vehicle Noise: 74.8 72.9 68.7 66.7 74.5 74.8									
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				110	236	509	1,098		
CNEL:				115	248	534	1,149		

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY Without Project Road Name: E. Parkridge Av. Road Segment: s/o Hidden Valley Pkwy.					Project Name: Palomino Job Number: 11795				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt):		8,676 vehicles			Autos:		15		
Peak Hour Percentage:		10%			Medium Trucks (2 Axles):		15		
Peak Hour Volume:		868 vehicles			Heavy Trucks (3+ Axles):		15		
Vehicle Speed:		45 mph			Vehicle Mix				
Near/Far Lane Distance:		36 feet			VehicleType	Day	Evening	Night	Daily
Site Data					Autos: 76.3% 11.0% 12.6% 91.88%				
Barrier Height:		0.0 feet			Medium Trucks: 73.3% 9.2% 17.6% 5.79%				
Barrier Type (0-Wall, 1-Berm):		0.0			Heavy Trucks: 84.4% 3.2% 12.5% 2.33%				
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: 40.460				
Road Grade:		0.0%			Medium Trucks: 40.241				
Left View:		-90.0 degrees			Heavy Trucks: 40.262				
Right View:		90.0 degrees							
FHWA Noise Model Calculations									
VehicleType	REMEF	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:		68.46	-2.82	1.28	-1.20	-4.61	0.000	0.000	
Medium Trucks:		79.45	-14.83	1.31	-1.20	-4.87	0.000	0.000	
Heavy Trucks:		84.25	-18.77	1.31	-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:		65.7	63.7	61.4	57.2	65.2	65.7		
Medium Trucks:		64.7	62.6	59.6	57.6	65.0	65.4		
Heavy Trucks:		65.6	64.1	55.8	57.0	65.1	65.2		
Vehicle Noise:		70.1	68.3	64.2	62.1	69.9	70.2		
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				43	93	200	432		
CNEL:				45	98	210	453		

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY Without Project Road Name: Lincoln Av. Road Segment: s/o River Rd.					Project Name: Palomino Job Number: 11795				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 23,440 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 2,344 vehicles Vehicle Speed: 40 mph Near/Far Lane Distance: 36 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					Vehicle Type	Day	Evening	Night	Daily
					Autos: 76.3% 11.0% 12.6% 91.88%				
					Medium Trucks: 73.3% 9.2% 17.6% 5.79%				
					Heavy Trucks: 84.4% 3.2% 12.5% 2.33%				
					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: 40.460				
					Medium Trucks: 40.241				
					Heavy Trucks: 40.262				
FHWA Noise Model Calculations									
Vehicle Type	RECEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos: 66.51 2.01 1.28 -1.20 -4.61 0.000 0.000									
Medium Trucks: 77.72 -10.00 1.31 -1.20 -4.87 0.000 0.000									
Heavy Trucks: 82.99 -13.95 1.31 -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: 68.6 66.6 64.2 60.1 68.1 68.5									
Medium Trucks: 67.8 65.7 62.7 60.7 68.1 68.5									
Heavy Trucks: 69.2 67.6 59.4 60.6 68.6 68.8									
Vehicle Noise: 73.3 71.5 67.3 65.2 73.1 73.4									
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				70	152	327	704		
CNEL:				74	159	342	737		

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY Without Project Road Name: Lincoln Av. Road Segment: s/o Rincon St.					Project Name: Palomino Job Number: 11795				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 23,697 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 2,370 vehicles Vehicle Speed: 40 mph Near/Far Lane Distance: 36 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: 76.3% 11.0% 12.6% 91.88%				
					Medium Trucks: 73.3% 9.2% 17.6% 5.79%				
					Heavy Trucks: 84.4% 3.2% 12.5% 2.33%				
					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: 40.460 Medium Trucks: 40.241 Heavy Trucks: 40.262				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos: 66.51 2.05 1.28 -1.20 -4.61 0.000 0.000									
Medium Trucks: 77.72 -9.95 1.31 -1.20 -4.87 0.000 0.000									
Heavy Trucks: 82.99 -13.90 1.31 -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: 68.6 66.7 64.3 60.1 68.1 68.6									
Medium Trucks: 67.9 65.7 62.7 60.8 68.2 68.5									
Heavy Trucks: 69.2 67.7 59.4 60.6 68.7 68.8									
Vehicle Noise: 73.4 71.5 67.4 65.3 73.1 73.4									
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				71	153	329	709		
CNEL:				74	160	345	743		

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY Without Project Road Name: Lincoln Av. Road Segment: s/o Railroad St.					Project Name: Palomino Job Number: 11795				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 26,204 vehicles					Autos: 15				
Peak Hour Percentage: 10%					Medium Trucks (2 Axles): 15				
Peak Hour Volume: 2,620 vehicles					Heavy Trucks (3+ Axles): 15				
Vehicle Speed: 40 mph									
Near/Far Lane Distance: 36 feet									
Site Data					Vehicle Mix				
Barrier Height: 0.0 feet					Autos: 76.3% 11.0% 12.6% 91.88%				
Barrier Type (0-Wall, 1-Berm): 0.0					Medium Trucks: 73.3% 9.2% 17.6% 5.79%				
Centerline Dist. to Barrier: 44.0 feet					Heavy Trucks: 84.4% 3.2% 12.5% 2.33%				
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%					Grade Adjustment: 0.0				
Left View: -90.0 degrees									
Right View: 90.0 degrees									
FHWA Noise Model Calculations					Noise Source Elevations (in feet)				
					Autos: 0.000				
					Medium Trucks: 2.297				
					Heavy Trucks: 8.004				
FHWA Noise Model Calculations					Lane Equivalent Distance (in feet)				
					Autos: 40.460				
					Medium Trucks: 40.241				
					Heavy Trucks: 40.262				
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	66.51	2.49	1.28	-1.20	-4.61	0.000	0.000		
Medium Trucks:	77.72	-9.52	1.31	-1.20	-4.87	0.000	0.000		
Heavy Trucks:	82.99	-13.46	1.31	-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:	69.1	67.1	64.7	60.5	68.6	69.0			
Medium Trucks:	68.3	66.2	63.2	61.2	68.6	68.9			
Heavy Trucks:	69.6	68.1	59.9	61.1	69.1	69.2			
Vehicle Noise:	73.8	72.0	67.8	65.7	73.5	73.8			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				76	163	352	758		
CNEL:				79	171	369	794		

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY Without Project Road Name: Lincoln Av. Road Segment: s/o Pomona Rd.					Project Name: Palomino Job Number: 11795				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 31,267 vehicles					Autos: 15				
Peak Hour Percentage: 10%					Medium Trucks (2 Axles): 15				
Peak Hour Volume: 3,127 vehicles					Heavy Trucks (3+ Axles): 15				
Vehicle Speed: 40 mph					Vehicle Mix				
Near/Far Lane Distance: 36 feet					VehicleType	Day	Evening	Night	Daily
Site Data					Autos: 76.3% 11.0% 12.6% 91.88%				
Barrier Height: 0.0 feet					Medium Trucks: 73.3% 9.2% 17.6% 5.79%				
Barrier Type (0-Wall, 1-Berm): 0.0					Heavy Trucks: 84.4% 3.2% 12.5% 2.33%				
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: 40.460				
Road Grade: 0.0%					Medium Trucks: 40.241				
Left View: -90.0 degrees					Heavy Trucks: 40.262				
Right View: 90.0 degrees									
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	66.51	3.26	1.28	-1.20	-4.61	0.000	0.000		
Medium Trucks:	77.72	-8.75	1.31	-1.20	-4.87	0.000	0.000		
Heavy Trucks:	82.99	-12.69	1.31	-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:	69.8	67.9	65.5	61.3	69.3	69.8			
Medium Trucks:	69.1	66.9	63.9	62.0	69.4	69.7			
Heavy Trucks:	70.4	68.9	60.6	61.8	69.9	70.0			
Vehicle Noise:	74.6	72.7	68.6	66.5	74.3	74.6			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				85	184	396	853		
CNEL:				89	193	415	894		

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY Without Project Road Name: Second St. Road Segment: w/o Parkridge Av.					Project Name: Palomino Job Number: 11795				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 15,898 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 1,590 vehicles Vehicle Speed: 35 mph Near/Far Lane Distance: 10 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: 30.0 feet Centerline Dist. to Observer: 30.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					VehicleType	Day	Evening	Night	Daily
					Autos: 76.3% 11.0% 12.6% 91.88% Medium Trucks: 73.3% 9.2% 17.6% 5.79% Heavy Trucks: 84.4% 3.2% 12.5% 2.33%				
					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.004 Grade Adjustment: 0.0				
FHWA Noise Model Calculations					Lane Equivalent Distance (in feet)				
					Autos: 30.000 Medium Trucks: 29.704 Heavy Trucks: 29.733				
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	64.30	0.90	3.22	-1.20	-4.49	0.000	0.000		
Medium Trucks:	75.75	-11.11	3.29	-1.20	-4.86	0.000	0.000		
Heavy Trucks:	81.57	-15.05	3.28	-1.20	-5.77	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	67.2	65.3	62.9	58.7	66.7	67.2			
Medium Trucks:	66.7	64.6	61.6	59.6	67.0	67.4			
Heavy Trucks:	68.6	67.1	58.8	60.0	68.1	68.2			
Vehicle Noise:	72.4	70.5	66.2	64.3	72.1	72.4			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				41	89	192	413		
CNEL:				43	93	201	432		

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY Without Project Road Name: Second St. Road Segment: e/o Parkridge Av.					Project Name: Palomino Job Number: 11795				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 13,016 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 1,302 vehicles Vehicle Speed: 35 mph Near/Far Lane Distance: 10 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: 30.0 feet Centerline Dist. to Observer: 30.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					VehicleType	Day	Evening	Night	Daily
					Autos: 76.3% 11.0% 12.6% 91.88%				
					Medium Trucks: 73.3% 9.2% 17.6% 5.79%				
					Heavy Trucks: 84.4% 3.2% 12.5% 2.33%				
					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: 30.000 Medium Trucks: 29.704 Heavy Trucks: 29.733				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	64.30	0.03	3.22	-1.20	-4.49	0.000	0.000		
Medium Trucks:	75.75	-11.97	3.29	-1.20	-4.86	0.000	0.000		
Heavy Trucks:	81.57	-15.92	3.28	-1.20	-5.77	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	66.4	64.4	62.0	57.8	65.9	66.3			
Medium Trucks:	65.9	63.7	60.7	58.8	66.2	66.5			
Heavy Trucks:	67.7	66.2	58.0	59.1	67.2	67.3			
Vehicle Noise:	71.5	69.7	65.3	63.4	71.2	71.5			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				36	78	168	362		
CNEL:				38	81	176	378		

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY Without Project Road Name: Second St. Road Segment: w/o Pacific Av.					Project Name: Palomino Job Number: 11795				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 14,166 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 1,417 vehicles Vehicle Speed: 35 mph Near/Far Lane Distance: 10 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
					Vehicle Type	Day	Evening	Night	Daily
					Autos: 76.3% 11.0% 12.6% 91.88%				
					Medium Trucks: 73.3% 9.2% 17.6% 5.79%				
					Heavy Trucks: 84.4% 3.2% 12.5% 2.33%				
					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: 30.000				
					Medium Trucks: 29.704				
					Heavy Trucks: 29.733				
FHWA Noise Model Calculations									
Vehicle Type	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos: 64.30 0.40 3.22 -1.20 -4.49 0.000 0.000									
Medium Trucks: 75.75 -11.61 3.29 -1.20 -4.86 0.000 0.000									
Heavy Trucks: 81.57 -15.55 3.28 -1.20 -5.77 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: 66.7 64.8 62.4 58.2 66.2 66.7									
Medium Trucks: 66.2 64.1 61.1 59.1 66.5 66.9									
Heavy Trucks: 68.1 66.6 58.3 59.5 67.6 67.7									
Vehicle Noise: 71.9 70.0 65.7 63.8 71.6 71.9									
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				38	82	178	383		
CNEL:				40	86	186	400		

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY Without Project Road Name: Second St. Road Segment: e/o Pacific Av.					Project Name: Palomino Job Number: 11795				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 14,778 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 1,478 vehicles Vehicle Speed: 35 mph Near/Far Lane Distance: 10 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: 30.0 feet Centerline Dist. to Observer: 30.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					VehicleType	Day	Evening	Night	Daily
					Autos: 76.3% 11.0% 12.6% 91.88%				
					Medium Trucks: 73.3% 9.2% 17.6% 5.79%				
					Heavy Trucks: 84.4% 3.2% 12.5% 2.33%				
					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: 30.000				
					Medium Trucks: 29.704				
					Heavy Trucks: 29.733				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos: 64.30 0.58 3.22 -1.20 -4.49 0.000 0.000									
Medium Trucks: 75.75 -11.42 3.29 -1.20 -4.86 0.000 0.000									
Heavy Trucks: 81.57 -15.37 3.28 -1.20 -5.77 0.000 0.000									
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos: 66.9 64.9 62.6 58.4 66.4 66.9									
Medium Trucks: 66.4 64.3 61.3 59.3 66.7 67.1									
Heavy Trucks: 68.3 66.8 58.5 59.7 67.7 67.9									
Vehicle Noise: 72.0 70.2 65.9 63.9 71.8 72.1									
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				39	85	183	394		
CNEL:				41	89	191	412		

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY Without Project Road Name: Second St. Road Segment: w/o Mountain Av.					Project Name: Palomino Job Number: 11795				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 15,842 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 1,584 vehicles Vehicle Speed: 35 mph Near/Far Lane Distance: 10 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: 30.0 feet Centerline Dist. to Observer: 30.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					VehicleType	Day	Evening	Night	Daily
					Autos: 76.3% 11.0% 12.6% 91.88%				
					Medium Trucks: 73.3% 9.2% 17.6% 5.79%				
					Heavy Trucks: 84.4% 3.2% 12.5% 2.33%				
					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: 30.000 Medium Trucks: 29.704 Heavy Trucks: 29.733				
FHWA Noise Model Calculations									
VehicleType	REMED	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	64.30	0.88	3.22	-1.20	-4.49	0.000	0.000		
Medium Trucks:	75.75	-11.12	3.29	-1.20	-4.86	0.000	0.000		
Heavy Trucks:	81.57	-15.07	3.28	-1.20	-5.77	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	67.2	65.2	62.9	58.7	66.7	67.2			
Medium Trucks:	66.7	64.6	61.6	59.6	67.0	67.4			
Heavy Trucks:	68.6	67.1	58.8	60.0	68.1	68.2			
Vehicle Noise:	72.3	70.5	66.2	64.2	72.1	72.4			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				41	89	191	412		
CNEL:				43	93	200	431		

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY Without Project Road Name: Second St. Road Segment: e/o Mountain Av.					Project Name: Palomino Job Number: 11795				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 16,293 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 1,629 vehicles Vehicle Speed: 35 mph Near/Far Lane Distance: 36 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: 76.3% 11.0% 12.6% 91.88%				
					Medium Trucks: 73.3% 9.2% 17.6% 5.79%				
					Heavy Trucks: 84.4% 3.2% 12.5% 2.33%				
					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: 40.460 Medium Trucks: 40.241 Heavy Trucks: 40.262				
FHWA Noise Model Calculations									
VehicleType	REML	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos: 64.30 1.01 1.28 -1.20 -4.61 0.000 0.000									
Medium Trucks: 75.75 -11.00 1.31 -1.20 -4.87 0.000 0.000									
Heavy Trucks: 81.57 -14.95 1.31 -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: 65.4 63.4 61.0 56.9 64.9 65.3									
Medium Trucks: 64.9 62.7 59.7 57.8 65.2 65.5									
Heavy Trucks: 66.7 65.2 57.0 58.1 66.2 66.3									
Vehicle Noise: 70.5 68.7 64.3 62.4 70.2 70.5									
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			46	98	211	456			
CNEL:			48	103	221	476			

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY Without Project Road Name: Second St. Road Segment: e/o Dwy, 8					Project Name: Palomino Job Number: 11795				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 16,293 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 1,629 vehicles Vehicle Speed: 35 mph Near/Far Lane Distance: 36 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
					Vehicle Type	Day	Evening	Night	Daily
					Autos: 76.3% 11.0% 12.6% 91.88%				
					Medium Trucks: 73.3% 9.2% 17.6% 5.79%				
					Heavy Trucks: 84.4% 3.2% 12.5% 2.33%				
					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: 40.460				
					Medium Trucks: 40.241				
					Heavy Trucks: 40.262				
FHWA Noise Model Calculations									
Vehicle Type	REMED	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos: 64.30 1.01 1.28 -1.20 -4.61 0.000 0.000									
Medium Trucks: 75.75 -11.00 1.31 -1.20 -4.87 0.000 0.000									
Heavy Trucks: 81.57 -14.95 1.31 -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: 65.4 63.4 61.0 56.9 64.9 65.3									
Medium Trucks: 64.9 62.7 59.7 57.8 65.2 65.5									
Heavy Trucks: 66.7 65.2 57.0 58.1 66.2 66.3									
Vehicle Noise: 70.5 68.7 64.3 62.4 70.2 70.5									
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				46	98	211	456		
CNEL:				48	103	221	476		

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY Without Project Road Name: Second St. Road Segment: w/o Hammer Av.					Project Name: Palomino Job Number: 11795				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 18,657 vehicles					Autos: 15				
Peak Hour Percentage: 10%					Medium Trucks (2 Axles): 15				
Peak Hour Volume: 1,866 vehicles					Heavy Trucks (3+ Axles): 15				
Vehicle Speed: 35 mph					Vehicle Mix				
Near/Far Lane Distance: 36 feet					VehicleType	Day	Evening	Night	Daily
Site Data					Autos: 76.3% 11.0% 12.6% 91.88%				
Barrier Height: 0.0 feet					Medium Trucks: 73.3% 9.2% 17.6% 5.79%				
Barrier Type (0-Wall, 1-Berm): 0.0					Heavy Trucks: 84.4% 3.2% 12.5% 2.33%				
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: 40.460				
Road Grade: 0.0%					Medium Trucks: 40.241				
Left View: -90.0 degrees					Heavy Trucks: 40.262				
Right View: 90.0 degrees									
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos: 64.30 1.59 1.28 -1.20 -4.61 0.000 0.000									
Medium Trucks: 75.75 -10.41 1.31 -1.20 -4.87 0.000 0.000									
Heavy Trucks: 81.57 -14.36 1.31 -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: 66.0 64.0 61.6 57.4 65.5 65.9									
Medium Trucks: 65.4 63.3 60.3 58.4 65.8 66.1									
Heavy Trucks: 67.3 65.8 57.6 58.7 66.8 66.9									
Vehicle Noise: 71.1 69.3 64.9 63.0 70.8 71.1									
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				50	107	231	499		
CNEL:				52	112	242	521		

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY Without Project Road Name: First St. Road Segment: w/o Parkridge Av.					Project Name: Palomino Job Number: 11795				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 19,879 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 1,988 vehicles Vehicle Speed: 35 mph Near/Far Lane Distance: 10 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
					VehicleType	Day	Evening	Night	Daily
					Autos: 76.3%	11.0%	12.6%	91.88%	
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 30.0 feet Centerline Dist. to Observer: 30.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					Medium Trucks: 73.3% 9.2% 17.6% 5.79% Heavy Trucks: 84.4% 3.2% 12.5% 2.33%				
					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: 30.000 Medium Trucks: 29.704 Heavy Trucks: 29.733				
FHWA Noise Model Calculations									
VehicleType	REMED	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	64.30	1.87	3.22	-1.20	-4.49	0.000	0.000		
Medium Trucks:	75.75	-10.14	3.29	-1.20	-4.86	0.000	0.000		
Heavy Trucks:	81.57	-14.08	3.28	-1.20	-5.77	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	68.2	66.2	63.9	59.7	67.7	68.2			
Medium Trucks:	67.7	65.6	62.6	60.6	68.0	68.3			
Heavy Trucks:	69.6	68.0	59.8	61.0	69.0	69.2			
Vehicle Noise:	73.3	71.5	67.1	65.2	73.1	73.3			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				48	103	223	480		
CNEL:				50	108	233	502		

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY Without Project Road Name: First St. Road Segment: e/o Parkridge Av.					Project Name: Palomino Job Number: 11795				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 19,551 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 1,955 vehicles Vehicle Speed: 35 mph Near/Far Lane Distance: 36 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: 76.3% 11.0% 12.6% 91.88%				
					Medium Trucks: 73.3% 9.2% 17.6% 5.79%				
					Heavy Trucks: 84.4% 3.2% 12.5% 2.33%				
					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: 40.460 Medium Trucks: 40.241 Heavy Trucks: 40.262				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos: 64.30 1.80 1.28 -1.20 -4.61 0.000 0.000									
Medium Trucks: 75.75 -10.21 1.31 -1.20 -4.87 0.000 0.000									
Heavy Trucks: 81.57 -14.15 1.31 -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: 66.2 64.2 61.8 57.6 65.7 66.1									
Medium Trucks: 65.7 63.5 60.5 58.6 66.0 66.3									
Heavy Trucks: 67.5 66.0 57.8 58.9 67.0 67.1									
Vehicle Noise: 71.3 69.5 65.1 63.2 71.0 71.3									
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				51	111	239	514		
CNEL:				54	116	250	538		

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY Without Project Road Name: First St. Road Segment: e/o Dwy. 1					Project Name: Palomino Job Number: 11795				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 19,552 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 1,955 vehicles Vehicle Speed: 35 mph Near/Far Lane Distance: 36 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:	76.3%	11.0%	12.6%	91.88%
					Medium Trucks:	73.3%	9.2%	17.6%	5.79%
					Heavy Trucks:	84.4%	3.2%	12.5%	2.33%
					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:	40.460			
					Medium Trucks:	40.241			
					Heavy Trucks:	40.262			
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	64.30	1.80	1.28	-1.20	-4.61	0.000	0.000		
Medium Trucks:	75.75	-10.21	1.31	-1.20	-4.87	0.000	0.000		
Heavy Trucks:	81.57	-14.15	1.31	-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:	66.2	64.2	61.8	57.6	65.7	66.1			
Medium Trucks:	65.7	63.5	60.5	58.6	66.0	66.3			
Heavy Trucks:	67.5	66.0	57.8	58.9	67.0	67.1			
Vehicle Noise:	71.3	69.5	65.1	63.2	71.0	71.3			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				51	111	239	514		
CNEL:				54	116	250	538		

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY Without Project Road Name: First St. Road Segment: e/o Mountain Av.					Project Name: Palomino Job Number: 11795				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 9,618 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 962 vehicles Vehicle Speed: 35 mph Near/Far Lane Distance: 36 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: 76.3% 11.0% 12.6% 91.88%				
					Medium Trucks: 73.3% 9.2% 17.6% 5.79%				
					Heavy Trucks: 84.4% 3.2% 12.5% 2.33%				
					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: 40.460				
					Medium Trucks: 40.241				
					Heavy Trucks: 40.262				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos: 64.30 -1.28 1.28 -1.20 -4.61 0.000 0.000									
Medium Trucks: 75.75 -13.29 1.31 -1.20 -4.87 0.000 0.000									
Heavy Trucks: 81.57 -17.23 1.31 -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: 63.1 61.1 58.7 54.6 62.6 63.1									
Medium Trucks: 62.6 60.4 57.4 55.5 62.9 63.2									
Heavy Trucks: 64.4 62.9 54.7 55.9 63.9 64.0									
Vehicle Noise: 68.2 66.4 62.0 60.1 67.9 68.2									
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				32	69	149	321		
CNEL:				34	72	156	335		

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY Without Project Road Name: First St. Road Segment: w/o Hamner Av.					Project Name: Palomino Job Number: 11795				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 10,270 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 1,027 vehicles Vehicle Speed: 35 mph Near/Far Lane Distance: 36 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					Vehicle Type	Day	Evening	Night	Daily
					Autos:	76.3%	11.0%	12.6%	91.88%
					Medium Trucks:	73.3%	9.2%	17.6%	5.79%
					Heavy Trucks:	84.4%	3.2%	12.5%	2.33%
					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:	40.460			
					Medium Trucks:	40.241			
					Heavy Trucks:	40.262			
FHWA Noise Model Calculations									
Vehicle Type	RECEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	64.30	-1.00	1.28	-1.20	-4.61	0.000	0.000		
Medium Trucks:	75.75	-13.00	1.31	-1.20	-4.87	0.000	0.000		
Heavy Trucks:	81.57	-16.95	1.31	-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:	63.4	61.4	59.0	54.9	62.9	63.3			
Medium Trucks:	62.9	60.7	57.7	55.8	63.2	63.5			
Heavy Trucks:	64.7	63.2	55.0	56.1	64.2	64.3			
Vehicle Noise:	68.5	66.7	62.3	60.4	68.2	68.5			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				33	72	155	335		
CNEL:				35	75	163	350		

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY Without Project Road Name: Hidden Valley Pkwy. Road Segment: w/o E. Parkridge Av.					Project Name: Palomino Job Number: 11795				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 23,901 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 2,390 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 52 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: 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					VehicleType	Day	Evening	Night	Daily
					Autos: 76.3% 11.0% 12.6% 91.88%				
					Medium Trucks: 73.3% 9.2% 17.6% 5.79%				
					Heavy Trucks: 84.4% 3.2% 12.5% 2.33%				
					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: 43.000				
					Medium Trucks: 42.794				
					Heavy Trucks: 42.814				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos: 68.46 1.58 0.88 -1.20 -4.65 0.000 0.000									
Medium Trucks: 79.45 -10.43 0.91 -1.20 -4.87 0.000 0.000									
Heavy Trucks: 84.25 -14.37 0.91 -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 67.8 65.4 61.2 69.2 69.7									
Medium Trucks: 68.7 66.6 63.6 61.6 69.0 69.4									
Heavy Trucks: 69.6 68.1 59.8 61.0 69.1 69.2									
Vehicle Noise: 74.1 72.3 68.3 66.1 73.9 74.2									
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				91	195	421	907		
CNEL:				95	205	441	951		

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY Without Project Road Name: Hidden Valley Pkwy. Road Segment: e/o E. Parkridge Av.					Project Name: Palomino Job Number: 11795				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 25,287 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 2,529 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 52 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: 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					VehicleType	Day	Evening	Night	Daily
					Autos:	76.3%	11.0%	12.6%	91.88%
					Medium Trucks:	73.3%	9.2%	17.6%	5.79%
					Heavy Trucks:	84.4%	3.2%	12.5%	2.33%
FHWA Noise Model Calculations					Noise Source Elevations (in feet)				
					Autos:	0.000			
					Medium Trucks:	2.297			
					Heavy Trucks:	8.004	Grade Adjustment:	0.0	
FHWA Noise Model Calculations					Lane Equivalent Distance (in feet)				
					Autos:	43.000			
					Medium Trucks:	42.794			
					Heavy Trucks:	42.814			
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	70.0	68.0	65.6	61.4	69.5	69.9			
Medium Trucks:	69.0	66.8	63.8	61.9	69.3	69.6			
Heavy Trucks:	69.8	68.3	60.1	61.3	69.3	69.4			
Vehicle Noise:	74.4	72.5	68.5	66.3	74.1	74.4			
Centerline Distance to Noise Contour (in feet)									
					70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:					94	203	437	942	
CNEL:					99	213	458	987	

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY With Project Road Name: River Rd. Road Segment: s/o Corydon St.					Project Name: Palomino Job Number: 11795				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 28,924 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 2,892 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 52 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: 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					VehicleType	Day	Evening	Night	Daily
					Autos:	76.3%	11.0%	12.6%	91.99%
					Medium Trucks:	73.3%	9.2%	17.6%	5.71%
					Heavy Trucks:	84.4%	3.2%	12.5%	2.30%
FHWA Noise Model Calculations					Noise Source Elevations (in feet)				
					Autos:	0.000			
					Medium Trucks:	2.297			
					Heavy Trucks:	8.004	Grade Adjustment:	0.0	
FHWA Noise Model Calculations					Lane Equivalent Distance (in feet)				
					Autos:	43.000			
					Medium Trucks:	42.794			
					Heavy Trucks:	42.814			
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	70.6	68.6	66.2	62.0	70.0	70.5			
Medium Trucks:	69.5	67.4	64.3	62.4	69.8	70.1			
Heavy Trucks:	70.4	68.8	60.6	61.8	69.8	70.0			
Vehicle Noise:	74.9	73.1	69.1	66.8	74.7	75.0			
Centerline Distance to Noise Contour (in feet)									
					70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:					102	221	475	1,024	
CNEL:					107	231	498	1,074	

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY With Project Road Name: River Rd. Road Segment: s/o Lincoln Av.					Project Name: Palomino Job Number: 11795				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 14,750 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 1,475 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 10 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: 30.0 feet Centerline Dist. to Observer: 30.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					VehicleType	Day	Evening	Night	Daily
					Autos:	76.3%	11.0%	12.6%	91.99%
					Medium Trucks:	73.3%	9.2%	17.6%	5.71%
					Heavy Trucks:	84.4%	3.2%	12.5%	2.30%
FHWA Noise Model Calculations					Noise Source Elevations (in feet)				
					Autos:	0.000			
					Medium Trucks:	2.297			
					Heavy Trucks:	8.004	Grade Adjustment:	0.0	
FHWA Noise Model Calculations					Lane Equivalent Distance (in feet)				
					Autos:	30.000			
					Medium Trucks:	29.704			
					Heavy Trucks:	29.733			
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	70.0	68.0	65.6	61.4	69.5	69.9			
Medium Trucks:	69.0	66.8	63.8	61.9	69.3	69.6			
Heavy Trucks:	69.8	68.3	60.0	61.2	69.3	69.4			
Vehicle Noise:	74.4	72.5	68.5	66.3	74.1	74.4			
Centerline Distance to Noise Contour (in feet)									
					70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:					56	121	262	564	
CNEL:					59	127	274	591	

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY With Project Road Name: Parkridge Av. Road Segment: n/o Second St.					Project Name: Palomino Job Number: 11795				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 2,767 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 277 vehicles Vehicle Speed: 25 mph Near/Far Lane Distance: 10 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: 30.0 feet Centerline Dist. to Observer: 30.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					VehicleType	Day	Evening	Night	Daily
					Autos:	76.3%	11.0%	12.6%	92.48%
					Medium Trucks:	73.3%	9.2%	17.6%	5.36%
					Heavy Trucks:	84.4%	3.2%	12.5%	2.16%
FHWA Noise Model Calculations					Noise Source Elevations (in feet)				
					Autos:	0.000			
					Medium Trucks:	2.297			
					Heavy Trucks:	8.004	Grade Adjustment:	0.0	
FHWA Noise Model Calculations					Lane Equivalent Distance (in feet)				
					Autos:	30.000			
					Medium Trucks:	29.704			
					Heavy Trucks:	29.733			
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	55.6	53.6	51.2	47.0	55.1	55.5			
Medium Trucks:	55.3	53.2	50.2	48.2	55.6	55.9			
Heavy Trucks:	58.5	57.0	48.8	50.0	58.0	58.1			
Vehicle Noise:	61.5	59.7	54.9	53.3	61.2	61.5			
Centerline Distance to Noise Contour (in feet)									
					70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:					8	17	36	78	
CNEL:					8	17	38	81	

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY With Project Road Name: Parkridge Av. Road Segment: s/o Second St.					Project Name: Palomino Job Number: 11795				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 5,137 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 514 vehicles Vehicle Speed: 40 mph Near/Far Lane Distance: 36 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:	76.3%	11.0%	12.6%	92.20%
					Medium Trucks:	73.3%	9.2%	17.6%	5.56%
					Heavy Trucks:	84.4%	3.2%	12.5%	2.24%
FHWA Noise Model Calculations					Noise Source Elevations (in feet)				
					Autos:	0.000			
					Medium Trucks:	2.297			
					Heavy Trucks:	8.004	Grade Adjustment:	0.0	
FHWA Noise Model Calculations					Lane Equivalent Distance (in feet)				
					Autos:	40.460			
					Medium Trucks:	40.241			
					Heavy Trucks:	40.262			
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	57.7	53.5	61.5	62.0			
Medium Trucks:	61.1	58.9	55.9	54.0	61.4	61.7			
Heavy Trucks:	62.4	60.9	52.6	53.8	61.9	62.0			
Vehicle Noise:	66.6	64.8	60.6	58.5	66.4	66.7			
Centerline Distance to Noise Contour (in feet)									
					70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:					25	54	117	251	
CNEL:					26	57	122	263	
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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY With Project Road Name: Parkridge Av. Road Segment: s/o Lincoln Av.					Project Name: Palomino Job Number: 11795				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 6,990 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 699 vehicles Vehicle Speed: 40 mph Near/Far Lane Distance: 36 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:	76.3%	11.0%	12.6%	92.12%
					Medium Trucks:	73.3%	9.2%	17.6%	5.62%
					Heavy Trucks:	84.4%	3.2%	12.5%	2.27%
FHWA Noise Model Calculations					Noise Source Elevations (in feet)				
					Autos:	0.000			
					Medium Trucks:	2.297			
					Heavy Trucks:	8.004	Grade Adjustment:	0.0	
FHWA Noise Model Calculations					Lane Equivalent Distance (in feet)				
					Autos:	40.460			
					Medium Trucks:	40.241			
					Heavy Trucks:	40.262			
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	63.4	61.4	59.0	54.8	62.8	63.3			
Medium Trucks:	62.4	60.3	57.3	55.3	62.8	63.1			
Heavy Trucks:	63.8	62.2	54.0	55.2	63.2	63.4			
Vehicle Noise:	68.0	66.2	62.0	59.9	67.7	68.0			
Centerline Distance to Noise Contour (in feet)									
					70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:					31	67	144	310	
CNEL:					33	70	151	325	
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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY With Project Road Name: Pacific Av. Road Segment: s/o Second St.					Project Name: Palomino Job Number: 11795				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 560 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 56 vehicles Vehicle Speed: 25 mph Near/Far Lane Distance: 10 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: 30.0 feet Centerline Dist. to Observer: 30.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					VehicleType	Day	Evening	Night	Daily
					Autos:	76.3%	11.0%	12.6%	91.88%
					Medium Trucks:	73.3%	9.2%	17.6%	5.79%
					Heavy Trucks:	84.4%	3.2%	12.5%	2.33%
FHWA Noise Model Calculations					Noise Source Elevations (in feet)				
					Autos:	0.000			
					Medium Trucks:	2.297			
					Heavy Trucks:	8.004	Grade Adjustment:	0.0	
FHWA Noise Model Calculations					Lane Equivalent Distance (in feet)				
					Autos:	30.000			
					Medium Trucks:	29.704			
					Heavy Trucks:	29.733			
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	48.6	46.6	44.2	40.1	48.1	48.5			
Medium Trucks:	48.7	46.6	43.6	41.6	49.0	49.3			
Heavy Trucks:	51.9	50.4	42.2	43.4	51.4	51.5			
Vehicle Noise:	54.8	53.0	48.2	46.7	54.5	54.8			
Centerline Distance to Noise Contour (in feet)									
					70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:					3	6	13	28	
CNEL:					3	6	13	29	
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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY With Project Road Name: Mountain Av. Road Segment: n/o Hamner Av.					Project Name: Palomino Job Number: 11795				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 13,926 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 1,393 vehicles Vehicle Speed: 40 mph Near/Far Lane Distance: 36 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:	76.3%	11.0%	12.6%	89.77%
					Medium Trucks:	73.3%	9.2%	17.6%	5.52%
					Heavy Trucks:	84.4%	3.2%	12.5%	4.71%
FHWA Noise Model Calculations					Noise Source Elevations (in feet)				
					Autos:	0.000			
					Medium Trucks:	2.297			
					Heavy Trucks:	8.004	Grade Adjustment:	0.0	
FHWA Noise Model Calculations					Lane Equivalent Distance (in feet)				
					Autos:	40.460			
					Medium Trucks:	40.241			
					Heavy Trucks:	40.262			
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	66.2	64.3	61.9	57.7	65.7	66.2			
Medium Trucks:	65.4	63.2	60.2	58.3	65.7	66.0			
Heavy Trucks:	69.9	68.4	60.2	61.4	69.4	69.5			
Vehicle Noise:	72.4	70.7	65.6	64.2	72.1	72.3			
Centerline Distance to Noise Contour (in feet)									
					70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:					61	131	281	606	
CNEL:					63	136	293	630	
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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY With Project Road Name: Hamner Av. Road Segment: s/o Third St.					Project Name: Palomino Job Number: 11795				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 39,660 vehicles					Autos: 15				
Peak Hour Percentage: 10%					Medium Trucks (2 Axles): 15				
Peak Hour Volume: 3,966 vehicles					Heavy Trucks (3+ Axles): 15				
Vehicle Speed: 40 mph					Vehicle Mix				
Near/Far Lane Distance: 73 feet									
Site Data					VehicleType				
Barrier Height: 0.0 feet					Autos: 76.3% 11.0% 12.6% 91.96%				
Barrier Type (0-Wall, 1-Berm): 0.0					Medium Trucks: 73.3% 9.2% 17.6% 5.73%				
Centerline Dist. to Barrier: 55.0 feet					Heavy Trucks: 84.4% 3.2% 12.5% 2.31%				
Centerline Dist. to Observer: 55.0 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: 41.446				
Left View: -90.0 degrees					Medium Trucks: 41.232				
Right View: 90.0 degrees					Heavy Trucks: 41.253				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos: 66.51 4.29 1.12 -1.20 -4.67 0.000 0.000									
Medium Trucks: 77.72 -7.76 1.15 -1.20 -4.87 0.000 0.000									
Heavy Trucks: 82.99 -11.71 1.15 -1.20 -5.38 0.000 0.000									
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos: 70.7 68.8 66.4 62.2 70.2 70.7									
Medium Trucks: 69.9 67.8 64.8 62.8 70.2 70.5									
Heavy Trucks: 71.2 69.7 61.5 62.7 70.7 70.8									
Vehicle Noise: 75.4 73.6 69.4 67.3 75.2 75.5									
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				121	262	564	1,214		
CNEL:				127	274	590	1,272		

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY With Project Road Name: Hamner Av. Road Segment: s/o Second St.					Project Name: Palomino Job Number: 11795				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 33,726 vehicles					Autos: 15				
Peak Hour Percentage: 10%					Medium Trucks (2 Axles): 15				
Peak Hour Volume: 3,373 vehicles					Heavy Trucks (3+ Axles): 15				
Vehicle Speed: 40 mph					Vehicle Mix				
Near/Far Lane Distance: 73 feet					VehicleType	Day	Evening	Night	Daily
Site Data					Autos: 76.3% 11.0% 12.6% 91.73%				
Barrier Height: 0.0 feet					Medium Trucks: 73.3% 9.2% 17.6% 5.82%				
Barrier Type (0-Wall, 1-Berm): 0.0					Heavy Trucks: 84.4% 3.2% 12.5% 2.45%				
Centerline Dist. to Barrier: 55.0 feet					Noise Source Elevations (in feet)				
Centerline Dist. to Observer: 55.0 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: 41.446				
Road Grade: 0.0%					Medium Trucks: 41.232				
Left View: -90.0 degrees					Heavy Trucks: 41.253				
Right View: 90.0 degrees									
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	66.51	3.58	1.12	-1.20	-4.67	0.000	0.000		
Medium Trucks:	77.72	-8.40	1.15	-1.20	-4.87	0.000	0.000		
Heavy Trucks:	82.99	-12.16	1.15	-1.20	-5.38	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	70.0	68.0	65.7	61.5	69.5	70.0			
Medium Trucks:	69.3	67.1	64.1	62.2	69.6	69.9			
Heavy Trucks:	70.8	69.3	61.0	62.2	70.3	70.4			
Vehicle Noise:	74.8	73.0	68.8	66.7	74.6	74.9			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				111	239	515	1,109		
CNEL:				116	250	539	1,160		

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY With Project Road Name: Hammer Av. Road Segment: s/o First St.					Project Name: Palomino Job Number: 11795				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 26,785 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 2,679 vehicles Vehicle Speed: 40 mph Near/Far Lane Distance: 73 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: 55.0 feet Centerline Dist. to Observer: 55.0 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: 76.3% 11.0% 12.6% 91.16%				
					Medium Trucks: 73.3% 9.2% 17.6% 5.93%				
					Heavy Trucks: 84.4% 3.2% 12.5% 2.91%				
					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: 41.446 Medium Trucks: 41.232 Heavy Trucks: 41.253				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	66.51	2.55	1.12	-1.20	-4.67	0.000	0.000	0.000	
Medium Trucks:	77.72	-9.32	1.15	-1.20	-4.87	0.000	0.000	0.000	
Heavy Trucks:	82.99	-12.41	1.15	-1.20	-5.38	0.000	0.000	0.000	
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn		CNEL		
Autos:	69.0	67.0	64.6	60.5	68.5		68.9		
Medium Trucks:	68.4	66.2	63.2	61.3	68.7		69.0		
Heavy Trucks:	70.5	69.0	60.8	61.9	70.0		70.1		
Vehicle Noise:	74.2	72.3	67.9	66.0	73.9		74.2		
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				100	215	463	997		
CNEL:				104	224	484	1,042		

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY With Project Road Name: Hammer Av. Road Segment: s/o Hidden Valley Pkwy.					Project Name: Palomino Job Number: 11795				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 34,313 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 3,431 vehicles Vehicle Speed: 40 mph Near/Far Lane Distance: 73 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: 55.0 feet Centerline Dist. to Observer: 55.0 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: 76.3% 11.0% 12.6% 91.83%				
					Medium Trucks: 73.3% 9.2% 17.6% 5.75%				
					Heavy Trucks: 84.4% 3.2% 12.5% 2.42%				
					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: 41.446 Medium Trucks: 41.232 Heavy Trucks: 41.253				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	66.51	3.66	1.12	-1.20	-4.67	0.000	0.000		
Medium Trucks:	77.72	-8.38	1.15	-1.20	-4.87	0.000	0.000		
Heavy Trucks:	82.99	-12.14	1.15	-1.20	-5.38	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	70.1	68.1	65.7	61.6	69.6	70.0			
Medium Trucks:	69.3	67.1	64.1	62.2	69.6	69.9			
Heavy Trucks:	70.8	69.3	61.0	62.2	70.3	70.4			
Vehicle Noise:	74.9	73.0	68.8	66.8	74.6	74.9			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			112	240	518	1,115			
CNEL:			117	252	542	1,168			

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY With Project Road Name: E. Parkridge Av. Road Segment: s/o Hidden Valley Pkwy.					Project Name: Palomino Job Number: 11795				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 8,882 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 888 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 36 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:	76.3%	11.0%	12.6%	92.06%
					Medium Trucks:	73.3%	9.2%	17.6%	5.66%
					Heavy Trucks:	84.4%	3.2%	12.5%	2.28%
FHWA Noise Model Calculations					Noise Source Elevations (in feet)				
					Autos:	0.000			
					Medium Trucks:	2.297			
					Heavy Trucks:	8.004	Grade Adjustment:	0.0	
FHWA Noise Model Calculations					Lane Equivalent Distance (in feet)				
					Autos:	40.460			
					Medium Trucks:	40.241			
					Heavy Trucks:	40.262			
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	65.8	63.9	61.5	57.3	65.3	65.8			
Medium Trucks:	64.7	62.6	59.6	57.6	65.0	65.4			
Heavy Trucks:	65.6	64.1	55.8	57.0	65.1	65.2			
Vehicle Noise:	70.2	68.3	64.3	62.1	69.9	70.2			
Centerline Distance to Noise Contour (in feet)									
					70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:					43	94	202	434	
CNEL:					46	98	211	456	

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY With Project Road Name: Lincoln Av. Road Segment: s/o River Rd.					Project Name: Palomino Job Number: 11795				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 24,472 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 2,447 vehicles Vehicle Speed: 40 mph Near/Far Lane Distance: 36 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:	76.3%	11.0%	12.6%	92.22%
					Medium Trucks:	73.3%	9.2%	17.6%	5.55%
					Heavy Trucks:	84.4%	3.2%	12.5%	2.24%
FHWA Noise Model Calculations					Noise Source Elevations (in feet)				
					Autos:	0.000			
					Medium Trucks:	2.297			
					Heavy Trucks:	8.004	Grade Adjustment:	0.0	
FHWA Noise Model Calculations					Lane Equivalent Distance (in feet)				
					Autos:	40.460			
					Medium Trucks:	40.241			
					Heavy Trucks:	40.262			
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	68.8	66.8	64.5	60.3	68.3	68.8			
Medium Trucks:	67.8	65.7	62.7	60.7	68.1	68.5			
Heavy Trucks:	69.2	67.6	59.4	60.6	68.6	68.8			
Vehicle Noise:	73.4	71.6	67.4	65.3	73.1	73.4			
Centerline Distance to Noise Contour (in feet)									
					70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:					71	153	330	711	
CNEL:					75	161	346	745	

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY With Project Road Name: Lincoln Av. Road Segment: s/o Rincon St.					Project Name: Palomino Job Number: 11795				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 24,729 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 2,473 vehicles Vehicle Speed: 40 mph Near/Far Lane Distance: 36 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:	76.3%	11.0%	12.6%	92.22%
					Medium Trucks:	73.3%	9.2%	17.6%	5.55%
					Heavy Trucks:	84.4%	3.2%	12.5%	2.24%
FHWA Noise Model Calculations					Noise Source Elevations (in feet)				
					Autos:	0.000			
					Medium Trucks:	2.297			
					Heavy Trucks:	8.004	Grade Adjustment:	0.0	
FHWA Noise Model Calculations					Lane Equivalent Distance (in feet)				
					Autos:	40.460			
					Medium Trucks:	40.241			
					Heavy Trucks:	40.262			
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	68.8	66.9	64.5	60.3	68.3	68.8			
Medium Trucks:	67.9	65.7	62.7	60.8	68.2	68.5			
Heavy Trucks:	69.2	67.7	59.4	60.6	68.7	68.8			
Vehicle Noise:	73.4	71.6	67.5	65.3	73.2	73.5			
Centerline Distance to Noise Contour (in feet)									
					70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:					72	154	333	716	
CNEL:					75	162	348	751	

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY With Project Road Name: Lincoln Av. Road Segment: s/o Railroad St.					Project Name: Palomino Job Number: 11795				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 27,030 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 2,703 vehicles Vehicle Speed: 40 mph Near/Far Lane Distance: 36 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:	76.3%	11.0%	12.6%	92.12%
					Medium Trucks:	73.3%	9.2%	17.6%	5.61%
					Heavy Trucks:	84.4%	3.2%	12.5%	2.26%
FHWA Noise Model Calculations					Noise Source Elevations (in feet)				
					Autos:	0.000			
					Medium Trucks:	2.297			
					Heavy Trucks:	8.004	Grade Adjustment:	0.0	
FHWA Noise Model Calculations					Lane Equivalent Distance (in feet)				
					Autos:	40.460			
					Medium Trucks:	40.241			
					Heavy Trucks:	40.262			
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	69.2	67.3	64.9	60.7	68.7	69.2			
Medium Trucks:	68.3	66.2	63.2	61.2	68.6	68.9			
Heavy Trucks:	69.6	68.1	59.9	61.1	69.1	69.2			
Vehicle Noise:	73.9	72.0	67.9	65.8	73.6	73.9			
Centerline Distance to Noise Contour (in feet)									
					70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:					76	165	355	764	
CNEL:					80	172	371	800	

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY With Project Road Name: Lincoln Av. Road Segment: s/o Pomona Rd.					Project Name: Palomino Job Number: 11795				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 32,093 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 3,209 vehicles Vehicle Speed: 40 mph Near/Far Lane Distance: 36 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: 76.3% 11.0% 12.6% 92.09% Medium Trucks: 73.3% 9.2% 17.6% 5.64% Heavy Trucks: 84.4% 3.2% 12.5% 2.27%				
					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: 40.460 Medium Trucks: 40.241 Heavy Trucks: 40.262				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos: 66.51 3.38 1.28 -1.20 -4.61 0.000 0.000									
Medium Trucks: 77.72 -8.75 1.31 -1.20 -4.87 0.000 0.000									
Heavy Trucks: 82.99 -12.69 1.31 -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: 70.0 68.0 65.6 61.4 69.5 69.9									
Medium Trucks: 69.1 66.9 63.9 62.0 69.4 69.7									
Heavy Trucks: 70.4 68.9 60.6 61.8 69.9 70.0									
Vehicle Noise: 74.6 72.8 68.6 66.5 74.4 74.7									
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				86	185	398	858		
CNEL:				90	194	417	899		

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY With Project Road Name: Second St. Road Segment: w/o Parkridge Av.					Project Name: Palomino Job Number: 11795				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 16,449 vehicles					Autos: 15				
Peak Hour Percentage: 10%					Medium Trucks (2 Axles): 15				
Peak Hour Volume: 1,645 vehicles					Heavy Trucks (3+ Axles): 15				
Vehicle Speed: 35 mph					Vehicle Mix				
Near/Far Lane Distance: 10 feet					VehicleType	Day	Evening	Night	Daily
Site Data					Autos: 76.3% 11.0% 12.6% 92.15%				
Barrier Height: 0.0 feet					Medium Trucks: 73.3% 9.2% 17.6% 5.60%				
Barrier Type (0-Wall, 1-Berm): 0.0					Heavy Trucks: 84.4% 3.2% 12.5% 2.26%				
Centerline Dist. to Barrier: 30.0 feet					Noise Source Elevations (in feet)				
Centerline Dist. to Observer: 30.0 feet					Autos: 0.000				
Barrier Distance to Observer: 0.0 feet					Medium Trucks: 2.297				
Observer Height (Above Pad): 5.0 feet					Heavy Trucks: 8.004 Grade Adjustment: 0.0				
Pad Elevation: 0.0 feet					Lane Equivalent Distance (in feet)				
Road Elevation: 0.0 feet					Autos: 30.000				
Road Grade: 0.0%					Medium Trucks: 29.704				
Left View: -90.0 degrees					Heavy Trucks: 29.733				
Right View: 90.0 degrees									
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	64.30	1.06	3.22	-1.20	-4.49	0.000	0.000		
Medium Trucks:	75.75	-11.11	3.29	-1.20	-4.86	0.000	0.000		
Heavy Trucks:	81.57	-15.05	3.28	-1.20	-5.77	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	67.4	65.4	63.0	58.9	66.9	67.3			
Medium Trucks:	66.7	64.6	61.6	59.6	67.0	67.4			
Heavy Trucks:	68.6	67.1	58.8	60.0	68.1	68.2			
Vehicle Noise:	72.4	70.6	66.3	64.3	72.1	72.4			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				42	90	193	416		
CNEL:				44	94	202	436		

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY With Project Road Name: Second St. Road Segment: e/o Parkridge Av.					Project Name: Palomino Job Number: 11795				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 13,979 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 1,398 vehicles Vehicle Speed: 35 mph Near/Far Lane Distance: 10 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: 30.0 feet Centerline Dist. to Observer: 30.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					VehicleType	Day	Evening	Night	Daily
					Autos: 76.3% 11.0% 12.6% 92.44% Medium Trucks: 73.3% 9.2% 17.6% 5.39% Heavy Trucks: 84.4% 3.2% 12.5% 2.17%				
					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: 30.000 Medium Trucks: 29.704 Heavy Trucks: 29.733				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	64.30	0.37	3.22	-1.20	-4.49	0.000	0.000		
Medium Trucks:	75.75	-11.97	3.29	-1.20	-4.86	0.000	0.000		
Heavy Trucks:	81.57	-15.92	3.28	-1.20	-5.77	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	66.7	64.7	62.3	58.2	66.2	66.6			
Medium Trucks:	65.9	63.7	60.7	58.8	66.2	66.5			
Heavy Trucks:	67.7	66.2	58.0	59.1	67.2	67.3			
Vehicle Noise:	71.6	69.8	65.5	63.5	71.3	71.6			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				37	79	171	367		
CNEL:				38	83	178	384		

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY With Project Road Name: Second St. Road Segment: w/o Pacific Av.					Project Name: Palomino Job Number: 11795				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 15,336 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 1,534 vehicles Vehicle Speed: 35 mph Near/Far Lane Distance: 10 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: 30.0 feet Centerline Dist. to Observer: 30.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					VehicleType	Day	Evening	Night	Daily
					Autos: 76.3% 11.0% 12.6% 92.50%				
					Medium Trucks: 73.3% 9.2% 17.6% 5.35%				
					Heavy Trucks: 84.4% 3.2% 12.5% 2.16%				
					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: 30.000 Medium Trucks: 29.704 Heavy Trucks: 29.733				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos: 64.30 0.77 3.22 -1.20 -4.49 0.000 0.000									
Medium Trucks: 75.75 -11.61 3.29 -1.20 -4.86 0.000 0.000									
Heavy Trucks: 81.57 -15.55 3.28 -1.20 -5.77 0.000 0.000									
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos: 67.1 65.1 62.8 58.6 66.6 67.1									
Medium Trucks: 66.2 64.1 61.1 59.1 66.5 66.9									
Heavy Trucks: 68.1 66.6 58.3 59.5 67.6 67.7									
Vehicle Noise: 72.0 70.2 65.9 63.9 71.7 72.0									
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				39	84	181	389		
CNEL:				41	88	189	407		

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY With Project Road Name: Second St. Road Segment: e/o Pacific Av.					Project Name: Palomino Job Number: 11795				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 15,948 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 1,595 vehicles Vehicle Speed: 35 mph Near/Far Lane Distance: 10 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: 30.0 feet Centerline Dist. to Observer: 30.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					VehicleType	Day	Evening	Night	Daily
					Autos:	76.3%	11.0%	12.6%	92.47%
					Medium Trucks:	73.3%	9.2%	17.6%	5.37%
					Heavy Trucks:	84.4%	3.2%	12.5%	2.16%
					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:	30.000			
					Medium Trucks:	29.704			
					Heavy Trucks:	29.733			
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	64.30	0.94	3.22	-1.20	-4.49	0.000	0.000		
Medium Trucks:	75.75	-11.42	3.29	-1.20	-4.86	0.000	0.000		
Heavy Trucks:	81.57	-15.37	3.28	-1.20	-5.77	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	67.3	65.3	62.9	58.7	66.8	67.2			
Medium Trucks:	66.4	64.3	61.3	59.3	66.7	67.1			
Heavy Trucks:	68.3	66.8	58.5	59.7	67.7	67.9			
Vehicle Noise:	72.2	70.3	66.0	64.0	71.9	72.2			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				40	86	186	400		
CNEL:				42	90	194	419		

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY With Project Road Name: Second St. Road Segment: w/o Mountain Av.					Project Name: Palomino Job Number: 11795				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 17,012 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 1,701 vehicles Vehicle Speed: 35 mph Near/Far Lane Distance: 10 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: 30.0 feet Centerline Dist. to Observer: 30.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					VehicleType	Day	Evening	Night	Daily
					Autos: 76.3% 11.0% 12.6% 92.43%				
					Medium Trucks: 73.3% 9.2% 17.6% 5.39%				
					Heavy Trucks: 84.4% 3.2% 12.5% 2.17%				
Noise Source Elevations (in feet)					Grade Adjustment: 0.0				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.004				
Lane Equivalent Distance (in feet)									
					Autos: 30.000 Medium Trucks: 29.704 Heavy Trucks: 29.733				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	64.30	1.22	3.22	-1.20	-4.49	0.000	0.000		
Medium Trucks:	75.75	-11.12	3.29	-1.20	-4.86	0.000	0.000		
Heavy Trucks:	81.57	-15.07	3.28	-1.20	-5.77	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	67.5	65.6	63.2	59.0	67.0	67.5			
Medium Trucks:	66.7	64.6	61.6	59.6	67.0	67.4			
Heavy Trucks:	68.6	67.1	58.8	60.0	68.1	68.2			
Vehicle Noise:	72.5	70.6	66.3	64.3	72.2	72.5			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				42	90	194	419		
CNEL:				44	94	203	438		

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY With Project Road Name: Second St. Road Segment: e/o Mountain Av.					Project Name: Palomino Job Number: 11795				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 18,309 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 1,831 vehicles Vehicle Speed: 35 mph Near/Far Lane Distance: 36 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					Vehicle Type	Day	Evening	Night	Daily
					Autos: 76.3% 11.0% 12.6% 90.78%				
					Medium Trucks: 73.3% 9.2% 17.6% 5.63%				
					Heavy Trucks: 84.4% 3.2% 12.5% 3.59%				
					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: 40.460 Medium Trucks: 40.241 Heavy Trucks: 40.262				
FHWA Noise Model Calculations									
Vehicle Type	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	64.30	1.46	1.28	-1.20	-4.61	0.000	0.000		
Medium Trucks:	75.75	-10.62	1.31	-1.20	-4.87	0.000	0.000		
Heavy Trucks:	81.57	-12.57	1.31	-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:	65.8	63.9	61.5	57.3	65.3	65.8			
Medium Trucks:	65.2	63.1	60.1	58.1	65.6	65.9			
Heavy Trucks:	69.1	67.6	59.3	60.5	68.6	68.7			
Vehicle Noise:	71.9	70.1	65.2	63.7	71.5	71.8			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				56	120	258	556		
CNEL:				58	125	269	579		

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY With Project Road Name: Second St. Road Segment: e/o Dwy. 8					Project Name: Palomino Job Number: 11795				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 18,653 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 1,865 vehicles Vehicle Speed: 35 mph Near/Far Lane Distance: 36 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: 76.3% 11.0% 12.6% 90.95%				
					Medium Trucks: 73.3% 9.2% 17.6% 5.52%				
					Heavy Trucks: 84.4% 3.2% 12.5% 3.52%				
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: 40.460 Medium Trucks: 40.241 Heavy Trucks: 40.262				
FHWA Noise Model Calculations									
Vehicle Type	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	64.30	1.55	1.28	-1.20	-4.61	0.000	0.000		
Medium Trucks:	75.75	-10.62	1.31	-1.20	-4.87	0.000	0.000		
Heavy Trucks:	81.57	-12.57	1.31	-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:	65.9	64.0	61.6	57.4	65.4	65.9			
Medium Trucks:	65.2	63.1	60.1	58.1	65.6	65.9			
Heavy Trucks:	69.1	67.6	59.3	60.5	68.6	68.7			
Vehicle Noise:	71.9	70.1	65.2	63.7	71.5	71.8			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				56	120	259	558		
CNEL:				58	125	270	581		

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY With Project Road Name: Second St. Road Segment: w/o Hamner Av.					Project Name: Palomino Job Number: 11795				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 21,017 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 2,102 vehicles Vehicle Speed: 35 mph Near/Far Lane Distance: 36 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:	76.3%	11.0%	12.6%	91.06%
					Medium Trucks:	73.3%	9.2%	17.6%	5.55%
					Heavy Trucks:	84.4%	3.2%	12.5%	3.39%
					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:	40.460			
					Medium Trucks:	40.241			
					Heavy Trucks:	40.262			
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	64.30	2.07	1.28	-1.20	-4.61	0.000	0.000		
Medium Trucks:	75.75	-10.07	1.31	-1.20	-4.87	0.000	0.000		
Heavy Trucks:	81.57	-12.22	1.31	-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:	66.5	64.5	62.1	57.9	65.9	66.4			
Medium Trucks:	65.8	63.6	60.6	58.7	66.1	66.4			
Heavy Trucks:	69.5	67.9	59.7	60.9	68.9	69.1			
Vehicle Noise:	72.3	70.5	65.7	64.1	72.0	72.3			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				60	129	277	597		
CNEL:				62	134	289	622		

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY With Project Road Name: First St. Road Segment: w/o Parkridge Av.					Project Name: Palomino Job Number: 11795				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 21,118 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 2,112 vehicles Vehicle Speed: 35 mph Near/Far Lane Distance: 10 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: 30.0 feet Centerline Dist. to Observer: 30.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					VehicleType	Day	Evening	Night	Daily
					Autos:	76.3%	11.0%	12.6%	92.35%
					Medium Trucks:	73.3%	9.2%	17.6%	5.45%
					Heavy Trucks:	84.4%	3.2%	12.5%	2.20%
					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:	30.000			
					Medium Trucks:	29.704			
					Heavy Trucks:	29.733			
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	64.30	2.15	3.22	-1.20	-4.49	0.000	0.000		
Medium Trucks:	75.75	-10.14	3.29	-1.20	-4.86	0.000	0.000		
Heavy Trucks:	81.57	-14.08	3.28	-1.20	-5.77	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	68.5	66.5	64.1	60.0	68.0	68.4			
Medium Trucks:	67.7	65.6	62.6	60.6	68.0	68.3			
Heavy Trucks:	69.6	68.0	59.8	61.0	69.0	69.2			
Vehicle Noise:	73.4	71.6	67.3	65.3	73.1	73.4			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				49	105	226	486		
CNEL:				51	110	236	509		

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY With Project Road Name: First St. Road Segment: e/o Parkridge Av.					Project Name: Palomino Job Number: 11795				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 20,996 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 2,100 vehicles Vehicle Speed: 35 mph Near/Far Lane Distance: 36 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					Vehicle Type	Day	Evening	Night	Daily
					Autos:	76.3%	11.0%	12.6%	92.44%
					Medium Trucks:	73.3%	9.2%	17.6%	5.39%
					Heavy Trucks:	84.4%	3.2%	12.5%	2.17%
					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:	40.460			
					Medium Trucks:	40.241			
					Heavy Trucks:	40.262			
FHWA Noise Model Calculations									
Vehicle Type	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	64.30	2.13	1.28	-1.20	-4.61	0.000	0.000		
Medium Trucks:	75.75	-10.21	1.31	-1.20	-4.87	0.000	0.000		
Heavy Trucks:	81.57	-14.15	1.31	-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:	66.5	64.5	62.2	58.0	66.0	66.5			
Medium Trucks:	65.7	63.5	60.5	58.6	66.0	66.3			
Heavy Trucks:	67.5	66.0	57.8	58.9	67.0	67.1			
Vehicle Noise:	71.4	69.6	65.3	63.3	71.1	71.4			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				52	113	243	522		
CNEL:				55	118	254	547		

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY With Project Road Name: First St. Road Segment: e/o Dwy. 1					Project Name: Palomino Job Number: 11795				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 20,240 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 2,024 vehicles Vehicle Speed: 35 mph Near/Far Lane Distance: 36 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: 76.3% 11.0% 12.6% 92.15%				
					Medium Trucks: 73.3% 9.2% 17.6% 5.59%				
					Heavy Trucks: 84.4% 3.2% 12.5% 2.25%				
					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: 40.460 Medium Trucks: 40.241 Heavy Trucks: 40.262				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	64.30	1.96	1.28	-1.20	-4.61	0.000	0.000		
Medium Trucks:	75.75	-10.21	1.31	-1.20	-4.87	0.000	0.000		
Heavy Trucks:	81.57	-14.15	1.31	-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:	66.3	64.4	62.0	57.8	65.8	66.3			
Medium Trucks:	65.7	63.5	60.5	58.6	66.0	66.3			
Heavy Trucks:	67.5	66.0	57.8	58.9	67.0	67.1			
Vehicle Noise:	71.3	69.5	65.2	63.2	71.1	71.4			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				52	112	241	518		
CNEL:				54	117	252	542		

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY With Project Road Name: First St. Road Segment: e/o Mountain Av.					Project Name: Palomino Job Number: 11795				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 9,774 vehicles					Autos: 15				
Peak Hour Percentage: 10%					Medium Trucks (2 Axles): 15				
Peak Hour Volume: 977 vehicles					Heavy Trucks (3+ Axles): 15				
Vehicle Speed: 35 mph					Vehicle Mix				
Near/Far Lane Distance: 36 feet					VehicleType	Day	Evening	Night	Daily
Site Data					Autos: 76.3% 11.0% 12.6% 90.41%				
Barrier Height: 0.0 feet					Medium Trucks: 73.3% 9.2% 17.6% 6.08%				
Barrier Type (0-Wall, 1-Berm): 0.0					Heavy Trucks: 84.4% 3.2% 12.5% 3.51%				
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: 40.460				
Road Grade: 0.0%					Medium Trucks: 40.241				
Left View: -90.0 degrees					Heavy Trucks: 40.262				
Right View: 90.0 degrees									
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos: 64.30 -1.28 1.28 -1.20 -4.61 0.000 0.000									
Medium Trucks: 75.75 -13.01 1.31 -1.20 -4.87 0.000 0.000									
Heavy Trucks: 81.57 -15.39 1.31 -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: 63.1 61.1 58.7 54.6 62.6 63.1									
Medium Trucks: 62.9 60.7 57.7 55.8 63.2 63.5									
Heavy Trucks: 66.3 64.8 56.5 57.7 65.8 65.9									
Vehicle Noise: 69.1 67.4 62.5 61.0 68.8 69.1									
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			37	79	171	368			
CNEL:			38	83	178	383			

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY With Project Road Name: First St. Road Segment: w/o Hammer Av.					Project Name: Palomino Job Number: 11795				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 10,426 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 1,043 vehicles Vehicle Speed: 35 mph Near/Far Lane Distance: 36 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: 76.3% 11.0% 12.6% 90.50%				
					Medium Trucks: 73.3% 9.2% 17.6% 6.06%				
					Heavy Trucks: 84.4% 3.2% 12.5% 3.44%				
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: 40.460				
					Medium Trucks: 40.241				
					Heavy Trucks: 40.262				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos: 64.30 -1.00 1.28 -1.20 -4.61 0.000 0.000									
Medium Trucks: 75.75 -12.74 1.31 -1.20 -4.87 0.000 0.000									
Heavy Trucks: 81.57 -15.20 1.31 -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 61.4 59.0 54.9 62.9 63.3									
Medium Trucks: 63.1 61.0 58.0 56.0 63.4 63.8									
Heavy Trucks: 66.5 64.9 56.7 57.9 65.9 66.1									
Vehicle Noise: 69.4 67.6 62.8 61.2 69.1 69.3									
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			38	82	177	382			
CNEL:			40	86	185	397			

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY With Project Road Name: Hidden Valley Pkwy. Road Segment: w/o E. Parkridge Av.					Project Name: Palomino Job Number: 11795				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 24,452 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 2,445 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 52 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: 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 Type	Day	Evening	Night	Daily
					Autos: 76.3% 11.0% 12.6% 92.06%				
					Medium Trucks: 73.3% 9.2% 17.6% 5.66%				
					Heavy Trucks: 84.4% 3.2% 12.5% 2.28%				
					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: 43.000 Medium Trucks: 42.794 Heavy Trucks: 42.814				
FHWA Noise Model Calculations									
Vehicle Type	REMEEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	68.46	1.69	0.88	-1.20	-4.65	0.000	0.000		
Medium Trucks:	79.45	-10.43	0.91	-1.20	-4.87	0.000	0.000		
Heavy Trucks:	84.25	-14.37	0.91	-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:	69.8	67.9	65.5	61.3	69.3	69.8			
Medium Trucks:	68.7	66.6	63.6	61.6	69.0	69.4			
Heavy Trucks:	69.6	68.1	59.8	61.0	69.1	69.2			
Vehicle Noise:	74.2	72.3	68.3	66.1	73.9	74.2			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				91	196	423	912		
CNEL:				96	206	444	957		

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY With Project Road Name: Hidden Valley Pkwy. Road Segment: e/o E. Parkridge Av.					Project Name: Palomino Job Number: 11795				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 25,493 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 2,549 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 52 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: 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					VehicleType	Day	Evening	Night	Daily
					Autos: 76.3% 11.0% 12.6% 91.94%				
					Medium Trucks: 73.3% 9.2% 17.6% 5.74%				
					Heavy Trucks: 84.4% 3.2% 12.5% 2.32%				
FHWA Noise Model Calculations					Noise Source Elevations (in feet)				
					Autos: 0.000				
					Medium Trucks: 2.297				
					Heavy Trucks: 8.004 Grade Adjustment: 0.0				
FHWA Noise Model Calculations					Lane Equivalent Distance (in feet)				
					Autos: 43.000				
					Medium Trucks: 42.794				
					Heavy Trucks: 42.814				
Unmitigated Noise Levels (without Topo and barrier attenuation)									
Vehicle Type	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	68.46	1.86	0.88	-1.20	-4.65	0.000	0.000		
Medium Trucks:	79.45	-10.18	0.91	-1.20	-4.87	0.000	0.000		
Heavy Trucks:	84.25	-14.13	0.91	-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:	70.0	68.0	65.7	61.5	69.5	70.0			
Medium Trucks:	69.0	66.8	63.8	61.9	69.3	69.6			
Heavy Trucks:	69.8	68.3	60.1	61.3	69.3	69.4			
Vehicle Noise:	74.4	72.5	68.5	66.3	74.1	74.4			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				94	203	438	943		
CNEL:				99	213	459	989		

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL										
Scenario: HY Without Project Road Name: River Rd. Road Segment: s/o Corydon St.					Project Name: Palomino Job Number: 11795					
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS					
Highway Data					Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt): 34,803 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 3,480 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 52 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15					
Site Data					Vehicle Mix					
					Vehicle Type		Day	Evening	Night	Daily
					Autos: 76.3% 11.0% 12.6% 91.88%					
					Medium Trucks: 73.3% 9.2% 17.6% 5.79%					
					Heavy Trucks: 84.4% 3.2% 12.5% 2.33%					
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					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:		43.000			
					Medium Trucks:		42.794			
					Heavy Trucks:		42.814			
FHWA Noise Model Calculations										
Vehicle Type	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten			
Autos:	68.46	3.21	0.88	-1.20	-4.65	0.000	0.000			
Medium Trucks:	79.45	-8.79	0.91	-1.20	-4.87	0.000	0.000			
Heavy Trucks:	84.25	-12.74	0.91	-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:	71.4	69.4	67.0	62.8	70.8	71.3				
Medium Trucks:	70.4	68.2	65.2	63.3	70.7	71.0				
Heavy Trucks:	71.2	69.7	61.5	62.6	70.7	70.8				
Vehicle Noise:	75.8	73.9	69.9	67.7	75.5	75.8				
Centerline Distance to Noise Contour (in feet)										
				70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:				116	251	541	1,165			
CNEL:				122	263	567	1,222			

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: HY Without Project Road Name: River Rd. Road Segment: s/o Lincoln Av.					Project Name: Palomino Job Number: 11795				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 19,023 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 1,902 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 10 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: 30.0 feet Centerline Dist. to Observer: 30.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					VehicleType	Day	Evening	Night	Daily
					Autos: 76.3% 11.0% 12.6% 91.88%				
					Medium Trucks: 73.3% 9.2% 17.6% 5.79%				
					Heavy Trucks: 84.4% 3.2% 12.5% 2.33%				
FHWA Noise Model Calculations					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.004 Grade Adjustment: 0.0				
FHWA Noise Model Calculations					Lane Equivalent Distance (in feet)				
					Autos: 30.000 Medium Trucks: 29.704 Heavy Trucks: 29.733				
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	68.46	0.59	3.22	-1.20	-4.49	0.000	0.000		
Medium Trucks:	79.45	-11.42	3.29	-1.20	-4.86	0.000	0.000		
Heavy Trucks:	84.25	-15.36	3.28	-1.20	-5.77	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	71.1	69.1	66.7	62.5	70.6	71.0			
Medium Trucks:	70.1	68.0	65.0	63.0	70.4	70.8			
Heavy Trucks:	71.0	69.4	61.2	62.4	70.4	70.6			
Vehicle Noise:	75.5	73.7	69.6	67.4	75.3	75.6			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				67	145	312	672		
CNEL:				70	152	327	705		

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: HY Without Project Road Name: Parkridge Av. Road Segment: n/o Second St.					Project Name: Palomino Job Number: 11795				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt):		3,153 vehicles			Autos:		15		
Peak Hour Percentage:		10%			Medium Trucks (2 Axles):		15		
Peak Hour Volume:		315 vehicles			Heavy Trucks (3+ Axles):		15		
Vehicle Speed:		25 mph							
Near/Far Lane Distance:		10 feet							
Site Data					Vehicle Mix				
Barrier Height:		0.0 feet			Autos:		76.3%		11.0%
Barrier Type (0-Wall, 1-Berm):		0.0			Medium Trucks:		73.3%		9.2%
Centerline Dist. to Barrier:		30.0 feet			Heavy Trucks:		84.4%		3.2%
Centerline Dist. to Observer:		30.0 feet					12.5%		2.33%
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					Noise Source Elevations (in feet)				
Vehicle Type	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Grade Adjustment: 0.0		
Autos:	58.73	-4.67	3.22	-1.20	-4.49	0.000			
Medium Trucks:	70.80	-16.67	3.29	-1.20	-4.86	0.000			
Heavy Trucks:	77.97	-20.62	3.28	-1.20	-5.77	0.000			
FHWA Noise Model Calculations					Lane Equivalent Distance (in feet)				
Vehicle Type	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Grade Adjustment: 0.0		
Autos:	58.73	-4.67	3.22	-1.20	-4.49	0.000			
Medium Trucks:	70.80	-16.67	3.29	-1.20	-4.86	0.000			
Heavy Trucks:	77.97	-20.62	3.28	-1.20	-5.77	0.000			
Unmitigated Noise Levels (without Topo and barrier attenuation)									
Vehicle Type	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	56.1	54.1	51.7	47.6	55.6	56.0			
Medium Trucks:	56.2	54.1	51.1	49.1	56.5	56.9			
Heavy Trucks:	59.4	57.9	49.7	50.9	58.9	59.0			
Vehicle Noise:	62.3	60.5	55.7	54.2	62.0	62.3			
Centerline Distance to Noise Contour (in feet)									
	70 dBA		65 dBA		60 dBA		55 dBA		
Ldn:	9		19		41		88		
CNEL:	9		20		43		92		

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: HY Without Project Road Name: Parkridge Av. Road Segment: s/o Second St.					Project Name: Palomino Job Number: 11795				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 9,222 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 922 vehicles Vehicle Speed: 40 mph Near/Far Lane Distance: 36 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: 76.3% 11.0% 12.6% 91.88% Medium Trucks: 73.3% 9.2% 17.6% 5.79% Heavy Trucks: 84.4% 3.2% 12.5% 2.33%				
					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: 40.460 Medium Trucks: 40.241 Heavy Trucks: 40.262				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	66.51	-2.05	1.28	-1.20	-4.61	0.000	0.000		
Medium Trucks:	77.72	-14.05	1.31	-1.20	-4.87	0.000	0.000		
Heavy Trucks:	82.99	-18.00	1.31	-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:	64.5	62.6	60.2	56.0	64.0	64.5			
Medium Trucks:	63.8	61.6	58.6	56.7	64.1	64.4			
Heavy Trucks:	65.1	63.6	55.3	56.5	64.6	64.7			
Vehicle Noise:	69.3	67.4	63.3	61.2	69.0	69.3			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				38	81	175	378		
CNEL:				40	85	184	396		

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: HY Without Project Road Name: Parkridge Av. Road Segment: s/o Lincoln Av.					Project Name: Palomino Job Number: 11795				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 10,918 vehicles					Autos: 15				
Peak Hour Percentage: 10%					Medium Trucks (2 Axles): 15				
Peak Hour Volume: 1,092 vehicles					Heavy Trucks (3+ Axles): 15				
Vehicle Speed: 40 mph					Vehicle Mix				
Near/Far Lane Distance: 36 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: 76.3% 11.0% 12.6% 91.88%				
Barrier Distance to Observer: 0.0 feet					Medium Trucks: 73.3% 9.2% 17.6% 5.79%				
Observer Height (Above Pad): 5.0 feet					Heavy Trucks: 84.4% 3.2% 12.5% 2.33%				
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				
					Lane Equivalent Distance (in feet)				
					Autos: 40.460				
					Medium Trucks: 40.241				
					Heavy Trucks: 40.262				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	66.51	-1.31	1.28	-1.20	-4.61	0.000	0.000		
Medium Trucks:	77.72	-13.32	1.31	-1.20	-4.87	0.000	0.000		
Heavy Trucks:	82.99	-17.26	1.31	-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:	65.3	63.3	60.9	56.7	64.8	65.2			
Medium Trucks:	64.5	62.4	59.4	57.4	64.8	65.1			
Heavy Trucks:	65.8	64.3	56.1	57.3	65.3	65.4			
Vehicle Noise:	70.0	68.2	64.0	61.9	69.7	70.0			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				42	91	196	423		
CNEL:				44	95	206	443		

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: HY Without Project Road Name: Pacific Av. Road Segment: s/o Second St.					Project Name: Palomino Job Number: 11795				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 659 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 66 vehicles Vehicle Speed: 25 mph Near/Far Lane Distance: 10 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: 30.0 feet Centerline Dist. to Observer: 30.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					VehicleType	Day	Evening	Night	Daily
					Autos: 76.3% 11.0% 12.6% 91.88%				
					Medium Trucks: 73.3% 9.2% 17.6% 5.79%				
					Heavy Trucks: 84.4% 3.2% 12.5% 2.33%				
					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: 30.000 Medium Trucks: 29.704 Heavy Trucks: 29.733				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	58.73	-11.46	3.22	-1.20	-4.49	0.000	0.000		
Medium Trucks:	70.80	-23.47	3.29	-1.20	-4.86	0.000	0.000		
Heavy Trucks:	77.97	-27.41	3.28	-1.20	-5.77	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	49.3	47.3	44.9	40.8	48.8	49.3			
Medium Trucks:	49.4	47.3	44.3	42.3	49.7	50.1			
Heavy Trucks:	52.6	51.1	42.9	44.1	52.1	52.2			
Vehicle Noise:	55.5	53.7	48.9	47.4	55.2	55.5			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				3	7	14	31		
CNEL:				3	7	15	32		

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: HY Without Project Road Name: Mountain Av. Road Segment: n/o Hamner Av.					Project Name: Palomino Job Number: 11795				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 13,286 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 1,329 vehicles Vehicle Speed: 40 mph Near/Far Lane Distance: 36 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: 76.3% 11.0% 12.6% 91.88%				
					Medium Trucks: 73.3% 9.2% 17.6% 5.79%				
					Heavy Trucks: 84.4% 3.2% 12.5% 2.33%				
					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: 40.460 Medium Trucks: 40.241 Heavy Trucks: 40.262				
FHWA Noise Model Calculations									
VehicleType	REMED	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	66.51	-0.46	1.28	-1.20	-4.61	0.000	0.000		
Medium Trucks:	77.72	-12.47	1.31	-1.20	-4.87	0.000	0.000		
Heavy Trucks:	82.99	-16.41	1.31	-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:	66.1	64.2	61.8	57.6	65.6	66.1			
Medium Trucks:	65.4	63.2	60.2	58.3	65.7	66.0			
Heavy Trucks:	66.7	65.2	56.9	58.1	66.2	66.3			
Vehicle Noise:	70.9	69.0	64.8	62.8	70.6	70.9			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			48	104	224	482			
CNEL:			51	109	234	505			

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: HY Without Project Road Name: Hammer Av. Road Segment: s/o Third St.					Project Name: Palomino Job Number: 11795				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 48,087 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 4,809 vehicles Vehicle Speed: 40 mph Near/Far Lane Distance: 73 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: 55.0 feet Centerline Dist. to Observer: 55.0 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: 76.3% 11.0% 12.6% 91.88%				
					Medium Trucks: 73.3% 9.2% 17.6% 5.79%				
					Heavy Trucks: 84.4% 3.2% 12.5% 2.33%				
					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: 41.446 Medium Trucks: 41.232 Heavy Trucks: 41.253				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos: 66.51 5.13 1.12 -1.20 -4.67 0.000 0.000									
Medium Trucks: 77.72 -6.88 1.15 -1.20 -4.87 0.000 0.000									
Heavy Trucks: 82.99 -10.82 1.15 -1.20 -5.38 0.000 0.000									
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos: 71.6 69.6 67.2 63.0 71.1 71.5									
Medium Trucks: 70.8 68.6 65.6 63.7 71.1 71.4									
Heavy Trucks: 72.1 70.6 62.4 63.5 71.6 71.7									
Vehicle Noise: 76.3 74.5 70.3 68.2 76.0 76.3									
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			139	299	644	1,387			
CNEL:			145	313	674	1,453			

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: HY Without Project Road Name: Hamner Av. Road Segment: s/o Second St.					Project Name: Palomino Job Number: 11795				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 41,289 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 4,129 vehicles Vehicle Speed: 40 mph Near/Far Lane Distance: 73 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: 55.0 feet Centerline Dist. to Observer: 55.0 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: 76.3% 11.0% 12.6% 91.88% Medium Trucks: 73.3% 9.2% 17.6% 5.79% Heavy Trucks: 84.4% 3.2% 12.5% 2.33%				
					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: 41.446 Medium Trucks: 41.232 Heavy Trucks: 41.253				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	66.51	4.46	1.12	-1.20	-4.67	0.000	0.000		
Medium Trucks:	77.72	-7.54	1.15	-1.20	-4.87	0.000	0.000		
Heavy Trucks:	82.99	-11.49	1.15	-1.20	-5.38	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	70.9	68.9	66.5	62.4	70.4	70.9			
Medium Trucks:	70.1	68.0	65.0	63.0	70.4	70.8			
Heavy Trucks:	71.5	69.9	61.7	62.9	70.9	71.1			
Vehicle Noise:	75.6	73.8	69.6	67.5	75.4	75.7			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				125	270	582	1,253		
CNEL:				131	283	609	1,312		

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: HY Without Project Road Name: Hamner Av. Road Segment: s/o First St.					Project Name: Palomino Job Number: 11795				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 32,490 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 3,249 vehicles Vehicle Speed: 40 mph Near/Far Lane Distance: 73 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: 55.0 feet Centerline Dist. to Observer: 55.0 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: 76.3% 11.0% 12.6% 91.88% Medium Trucks: 73.3% 9.2% 17.6% 5.79% Heavy Trucks: 84.4% 3.2% 12.5% 2.33%				
					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: 41.446 Medium Trucks: 41.232 Heavy Trucks: 41.253				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	66.51	3.42	1.12	-1.20	-4.67	0.000	0.000		
Medium Trucks:	77.72	-8.58	1.15	-1.20	-4.87	0.000	0.000		
Heavy Trucks:	82.99	-12.53	1.15	-1.20	-5.38	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	69.9	67.9	65.5	61.3	69.4	69.8			
Medium Trucks:	69.1	66.9	63.9	62.0	69.4	69.7			
Heavy Trucks:	70.4	68.9	60.6	61.8	69.9	70.0			
Vehicle Noise:	74.6	72.7	68.6	66.5	74.3	74.6			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			107	230	496	1,068			
CNEL:			112	241	519	1,119			

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: HY Without Project Road Name: Hammer Av. Road Segment: s/o Hidden Valley Pkwy.					Project Name: Palomino Job Number: 11795				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 41,542 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 4,154 vehicles Vehicle Speed: 40 mph Near/Far Lane Distance: 73 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
					Vehicle Type	Day	Evening	Night	Daily
					Autos: 76.3% 11.0% 12.6% 91.88% Medium Trucks: 73.3% 9.2% 17.6% 5.79% Heavy Trucks: 84.4% 3.2% 12.5% 2.33%				
					Noise Source Elevations (in feet)				
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 55.0 feet Centerline Dist. to Observer: 55.0 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: 41.446 Medium Trucks: 41.232 Heavy Trucks: 41.253				
FHWA Noise Model Calculations									
Vehicle Type	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	66.51	4.49	1.12	-1.20	-4.67	0.000	0.000		
Medium Trucks:	77.72	-7.51	1.15	-1.20	-4.87	0.000	0.000		
Heavy Trucks:	82.99	-11.46	1.15	-1.20	-5.38	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	69.0	66.6	62.4	70.4	70.9			
Medium Trucks:	70.2	68.0	65.0	63.1	70.5	70.8			
Heavy Trucks:	71.5	70.0	61.7	62.9	71.0	71.1			
Vehicle Noise:	75.7	73.8	69.6	67.6	75.4	75.7			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				126	271	584	1,258		
CNEL:				132	284	612	1,318		

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: HY Without Project Road Name: E. Parkridge Av. Road Segment: s/o Hidden Valley Pkwy.					Project Name: Palomino Job Number: 11795				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 13,108 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 1,311 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 36 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: 76.3% 11.0% 12.6% 91.88% Medium Trucks: 73.3% 9.2% 17.6% 5.79% Heavy Trucks: 84.4% 3.2% 12.5% 2.33%				
					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: 40.460 Medium Trucks: 40.241 Heavy Trucks: 40.262				
FHWA Noise Model Calculations									
Vehicle Type	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	68.46	-1.03	1.28	-1.20	-4.61	0.000	0.000		
Medium Trucks:	79.45	-13.04	1.31	-1.20	-4.87	0.000	0.000		
Heavy Trucks:	84.25	-16.98	1.31	-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:	67.5	65.5	63.2	59.0	67.0	67.5			
Medium Trucks:	66.5	64.4	61.4	59.4	66.8	67.2			
Heavy Trucks:	67.4	65.8	57.6	58.8	66.8	67.0			
Vehicle Noise:	71.9	70.1	66.0	63.8	71.7	72.0			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			57	122	264	568			
CNEL:			60	128	277	596			

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: HY Without Project Road Name: Lincoln Av. Road Segment: s/o River Rd.					Project Name: Palomino Job Number: 11795				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 28,619 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 2,862 vehicles Vehicle Speed: 40 mph Near/Far Lane Distance: 36 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: 76.3% 11.0% 12.6% 91.88% Medium Trucks: 73.3% 9.2% 17.6% 5.79% Heavy Trucks: 84.4% 3.2% 12.5% 2.33%				
					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: 40.460 Medium Trucks: 40.241 Heavy Trucks: 40.262				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	66.51	2.87	1.28	-1.20	-4.61	0.000	0.000		
Medium Trucks:	77.72	-9.13	1.31	-1.20	-4.87	0.000	0.000		
Heavy Trucks:	82.99	-13.08	1.31	-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:	69.5	67.5	65.1	60.9	69.0	69.4			
Medium Trucks:	68.7	66.6	63.5	61.6	69.0	69.3			
Heavy Trucks:	70.0	68.5	60.3	61.4	69.5	69.6			
Vehicle Noise:	74.2	72.4	68.2	66.1	73.9	74.2			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				80	173	373	804		
CNEL:				84	181	391	842		

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: HY Without Project Road Name: Lincoln Av. Road Segment: s/o Rincon St.					Project Name: Palomino Job Number: 11795				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 28,597 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 2,860 vehicles Vehicle Speed: 40 mph Near/Far Lane Distance: 36 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: 76.3% 11.0% 12.6% 91.88%				
					Medium Trucks: 73.3% 9.2% 17.6% 5.79%				
					Heavy Trucks: 84.4% 3.2% 12.5% 2.33%				
FHWA Noise Model Calculations					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.004 Grade Adjustment: 0.0				
FHWA Noise Model Calculations					Lane Equivalent Distance (in feet)				
					Autos: 40.460 Medium Trucks: 40.241 Heavy Trucks: 40.262				
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	66.51	2.87	1.28	-1.20	-4.61	0.000	0.000		
Medium Trucks:	77.72	-9.14	1.31	-1.20	-4.87	0.000	0.000		
Heavy Trucks:	82.99	-13.08	1.31	-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:	69.5	67.5	65.1	60.9	69.0	69.4			
Medium Trucks:	68.7	66.5	63.5	61.6	69.0	69.3			
Heavy Trucks:	70.0	68.5	60.3	61.4	69.5	69.6			
Vehicle Noise:	74.2	72.4	68.2	66.1	73.9	74.2			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				80	173	373	804		
CNEL:				84	181	391	842		

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: HY Without Project Road Name: Lincoln Av. Road Segment: s/o Railroad St.					Project Name: Palomino Job Number: 11795				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 31,768 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 3,177 vehicles Vehicle Speed: 40 mph Near/Far Lane Distance: 36 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					Vehicle Type	Day	Evening	Night	Daily
					Autos: 76.3% 11.0% 12.6% 91.88% Medium Trucks: 73.3% 9.2% 17.6% 5.79% Heavy Trucks: 84.4% 3.2% 12.5% 2.33%				
					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: 40.460 Medium Trucks: 40.241 Heavy Trucks: 40.262				
FHWA Noise Model Calculations									
Vehicle Type	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	66.51	3.33	1.28	-1.20	-4.61	0.000	0.000		
Medium Trucks:	77.72	-8.68	1.31	-1.20	-4.87	0.000	0.000		
Heavy Trucks:	82.99	-12.63	1.31	-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:	69.9	67.9	65.6	61.4	69.4	69.9			
Medium Trucks:	69.1	67.0	64.0	62.1	69.5	69.8			
Heavy Trucks:	70.5	68.9	60.7	61.9	69.9	70.1			
Vehicle Noise:	74.7	72.8	68.6	66.6	74.4	74.7			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				86	186	400	862		
CNEL:				90	195	419	903		

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: HY Without Project Road Name: Lincoln Av. Road Segment: s/o Pomona Rd.					Project Name: Palomino Job Number: 11795				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 38,360 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 3,836 vehicles Vehicle Speed: 40 mph Near/Far Lane Distance: 36 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: 76.3% 11.0% 12.6% 91.88% Medium Trucks: 73.3% 9.2% 17.6% 5.79% Heavy Trucks: 84.4% 3.2% 12.5% 2.33%				
					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.004 Grade Adjustment: 0.0				
FHWA Noise Model Calculations					Lane Equivalent Distance (in feet)				
					Autos: 40.460 Medium Trucks: 40.241 Heavy Trucks: 40.262				
Vehicle Type	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	66.51	4.14	1.28	-1.20	-4.61	0.000	0.000		
Medium Trucks:	77.72	-7.86	1.31	-1.20	-4.87	0.000	0.000		
Heavy Trucks:	82.99	-11.81	1.31	-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:	70.7	68.8	66.4	62.2	70.2	70.7			
Medium Trucks:	70.0	67.8	64.8	62.9	70.3	70.6			
Heavy Trucks:	71.3	69.8	61.5	62.7	70.8	70.9			
Vehicle Noise:	75.5	73.6	69.4	67.4	75.2	75.5			
Centerline Distance to Noise Contour (in feet)									
	70 dBA		65 dBA		60 dBA		55 dBA		
Ldn:	98		211		454		978		
CNEL:	102		221		475		1,024		

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL										
Scenario: HY Without Project Road Name: Second St. Road Segment: w/o Parkridge Av.					Project Name: Palomino Job Number: 11795					
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS					
Highway Data					Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt): 18,468 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 1,847 vehicles Vehicle Speed: 35 mph Near/Far Lane Distance: 10 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15					
Site Data					Vehicle Mix					
					Vehicle Type		Day	Evening	Night	Daily
					Autos: 76.3% 11.0% 12.6% 91.88% Medium Trucks: 73.3% 9.2% 17.6% 5.79% Heavy Trucks: 84.4% 3.2% 12.5% 2.33%					
					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: 30.000 Medium Trucks: 29.704 Heavy Trucks: 29.733					
FHWA Noise Model Calculations										
Vehicle Type	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten			
Autos:	64.30	1.55	3.22	-1.20	-4.49	0.000	0.000			
Medium Trucks:	75.75	-10.46	3.29	-1.20	-4.86	0.000	0.000			
Heavy Trucks:	81.57	-14.40	3.28	-1.20	-5.77	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:	67.9	65.9	63.5	59.3	67.4	67.8				
Medium Trucks:	67.4	65.2	62.2	60.3	67.7	68.0				
Heavy Trucks:	69.2	67.7	59.5	60.7	68.7	68.9				
Vehicle Noise:	73.0	71.2	66.8	64.9	72.7	73.0				
Centerline Distance to Noise Contour (in feet)										
				70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:				46	98	212	457			
CNEL:				48	103	222	478			

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: HY Without Project Road Name: Second St. Road Segment: e/o Parkridge Av.					Project Name: Palomino Job Number: 11795				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 15,262 vehicles					Autos: 15				
Peak Hour Percentage: 10%					Medium Trucks (2 Axles): 15				
Peak Hour Volume: 1,526 vehicles					Heavy Trucks (3+ Axles): 15				
Vehicle Speed: 35 mph					Vehicle Mix				
Near/Far Lane Distance: 10 feet					VehicleType	Day	Evening	Night	Daily
Site Data					Autos: 76.3% 11.0% 12.6% 91.88%				
Barrier Height: 0.0 feet					Medium Trucks: 73.3% 9.2% 17.6% 5.79%				
Barrier Type (0-Wall, 1-Berm): 0.0					Heavy Trucks: 84.4% 3.2% 12.5% 2.33%				
Centerline Dist. to Barrier: 30.0 feet					Noise Source Elevations (in feet)				
Centerline Dist. to Observer: 30.0 feet					Autos: 0.000				
Barrier Distance to Observer: 0.0 feet					Medium Trucks: 2.297				
Observer Height (Above Pad): 5.0 feet					Heavy Trucks: 8.004 Grade Adjustment: 0.0				
Pad Elevation: 0.0 feet					Lane Equivalent Distance (in feet)				
Road Elevation: 0.0 feet					Autos: 30.000				
Road Grade: 0.0%					Medium Trucks: 29.704				
Left View: -90.0 degrees					Heavy Trucks: 29.733				
Right View: 90.0 degrees									
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	64.30	0.72	3.22	-1.20	-4.49	0.000	0.000		
Medium Trucks:	75.75	-11.28	3.29	-1.20	-4.86	0.000	0.000		
Heavy Trucks:	81.57	-15.23	3.28	-1.20	-5.77	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	67.0	65.1	62.7	58.5	66.5	67.0			
Medium Trucks:	66.6	64.4	61.4	59.5	66.9	67.2			
Heavy Trucks:	68.4	66.9	58.7	59.8	67.9	68.0			
Vehicle Noise:	72.2	70.4	66.0	64.1	71.9	72.2			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				40	87	187	402		
CNEL:				42	91	195	421		

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL										
Scenario: HY Without Project Road Name: Second St. Road Segment: w/o Pacific Av.					Project Name: Palomino Job Number: 11795					
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS					
Highway Data					Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt): 16,686 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 1,669 vehicles Vehicle Speed: 35 mph Near/Far Lane Distance: 10 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15					
Site Data					Vehicle Mix					
					VehicleType		Day	Evening	Night	Daily
					Autos: 76.3% 11.0% 12.6% 91.88% Medium Trucks: 73.3% 9.2% 17.6% 5.79% Heavy Trucks: 84.4% 3.2% 12.5% 2.33%					
					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: 30.000 Medium Trucks: 29.704 Heavy Trucks: 29.733					
FHWA Noise Model Calculations										
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten			
Autos:	64.30	1.11	3.22	-1.20	-4.49	0.000	0.000			
Medium Trucks:	75.75	-10.90	3.29	-1.20	-4.86	0.000	0.000			
Heavy Trucks:	81.57	-14.84	3.28	-1.20	-5.77	0.000	0.000			
Unmitigated Noise Levels (without Topo and barrier attenuation)										
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL				
Autos:	67.4	65.5	63.1	58.9	66.9			67.4		
Medium Trucks:	66.9	64.8	61.8	59.8	67.3			67.6		
Heavy Trucks:	68.8	67.3	59.0	60.2	68.3			68.4		
Vehicle Noise:	72.6	70.8	66.4	64.5	72.3			72.6		
Centerline Distance to Noise Contour (in feet)										
				70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:				43	92	198	427			
CNEL:				45	96	207	446			

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: HY Without Project Road Name: Second St. Road Segment: e/o Pacific Av.					Project Name: Palomino Job Number: 11795				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 17,478 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 1,748 vehicles Vehicle Speed: 35 mph Near/Far Lane Distance: 10 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
					VehicleType	Day	Evening	Night	Daily
					Autos: 76.3% 11.0% 12.6% 91.88% Medium Trucks: 73.3% 9.2% 17.6% 5.79% Heavy Trucks: 84.4% 3.2% 12.5% 2.33%				
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 30.0 feet Centerline Dist. to Observer: 30.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.004 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 30.000 Medium Trucks: 29.704 Heavy Trucks: 29.733				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	64.30	1.31	3.22	-1.20	-4.49	0.000	0.000		0.000
Medium Trucks:	75.75	-10.69	3.29	-1.20	-4.86	0.000	0.000		0.000
Heavy Trucks:	81.57	-14.64	3.28	-1.20	-5.77	0.000	0.000		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	63.3	59.1	67.1	67.6			
Medium Trucks:	67.1	65.0	62.0	60.0	67.5	67.8			
Heavy Trucks:	69.0	67.5	59.2	60.4	68.5	68.6			
Vehicle Noise:	72.8	71.0	66.6	64.7	72.5	72.8			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			44	95	204	440			
CNEL:			46	99	214	460			

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL								
Scenario: HY Without Project Road Name: Second St. Road Segment: w/o Mountain Av.				Project Name: Palomino Job Number: 11795				
SITE SPECIFIC INPUT DATA				NOISE MODEL INPUTS				
Highway Data				Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 18,795 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 1,880 vehicles Vehicle Speed: 35 mph Near/Far Lane Distance: 10 feet				Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data				Vehicle Mix				
				Vehicle Type	Day	Evening	Night	Daily
				Autos: 76.3% 11.0% 12.6% 91.88%				
				Medium Trucks: 73.3% 9.2% 17.6% 5.79%				
				Heavy Trucks: 84.4% 3.2% 12.5% 2.33%				
				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: 30.000				
				Medium Trucks: 29.704				
				Heavy Trucks: 29.733				
FHWA Noise Model Calculations								
Vehicle Type	REMED	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten	
Autos:	64.30	1.63	3.22	-1.20	-4.49	0.000	0.000	
Medium Trucks:	75.75	-10.38	3.29	-1.20	-4.86	0.000	0.000	
Heavy Trucks:	81.57	-14.32	3.28	-1.20	-5.77	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	66.0	63.6	59.4	67.4	67.9		
Medium Trucks:	67.5	65.3	62.3	60.4	67.8	68.1		
Heavy Trucks:	69.3	67.8	59.6	60.7	68.8	68.9		
Vehicle Noise:	73.1	71.3	66.9	65.0	72.8	73.1		
Centerline Distance to Noise Contour (in feet)								
			70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:			46	100	215	462		
CNEL:			48	104	224	483		

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: HY Without Project Road Name: Second St. Road Segment: e/o Mountain Av.					Project Name: Palomino Job Number: 11795				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 19,436 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 1,944 vehicles Vehicle Speed: 35 mph Near/Far Lane Distance: 36 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: 76.3% 11.0% 12.6% 91.88%				
					Medium Trucks: 73.3% 9.2% 17.6% 5.79%				
					Heavy Trucks: 84.4% 3.2% 12.5% 2.33%				
					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: 40.460 Medium Trucks: 40.241 Heavy Trucks: 40.262				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos: 64.30 1.77 1.28 -1.20 -4.61 0.000 0.000									
Medium Trucks: 75.75 -10.23 1.31 -1.20 -4.87 0.000 0.000									
Heavy Trucks: 81.57 -14.18 1.31 -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: 66.2 64.2 61.8 57.6 65.6 66.1									
Medium Trucks: 65.6 63.5 60.5 58.5 65.9 66.3									
Heavy Trucks: 67.5 66.0 57.7 58.9 67.0 67.1									
Vehicle Noise: 71.3 69.4 65.1 63.2 71.0 71.3									
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				51	110	238	512		
CNEL:				54	115	249	536		

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL										
Scenario: HY Without Project Road Name: Second St. Road Segment: e/o Dwy. 8					Project Name: Palomino Job Number: 11795					
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS					
Highway Data					Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt): 19,436 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 1,944 vehicles Vehicle Speed: 35 mph Near/Far Lane Distance: 36 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15					
Site Data					Vehicle Mix					
					Vehicle Type		Day	Evening	Night	Daily
					Autos: 76.3% 11.0% 12.6% 91.88%					
					Medium Trucks: 73.3% 9.2% 17.6% 5.79% Heavy Trucks: 84.4% 3.2% 12.5% 2.33%					
					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: 40.460					
					Medium Trucks: 40.241					
					Heavy Trucks: 40.262					
FHWA Noise Model Calculations										
Vehicle Type	REMEF	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Attenu	Berm Attenu			
Autos: 64.30 1.77 1.28 -1.20 -4.61 0.000 0.000										
Medium Trucks: 75.75 -10.23 1.31 -1.20 -4.87 0.000 0.000										
Heavy Trucks: 81.57 -14.18 1.31 -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: 66.2 64.2 61.8 57.6 65.6 66.1										
Medium Trucks: 65.6 63.5 60.5 58.5 65.9 66.3										
Heavy Trucks: 67.5 66.0 57.7 58.9 67.0 67.1										
Vehicle Noise: 71.3 69.4 65.1 63.2 71.0 71.3										
Centerline Distance to Noise Contour (in feet)										
			70 dBA		65 dBA		60 dBA		55 dBA	
Ldn:			51		110		238		512	
CNEL:			54		115		249		536	

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: HY Without Project Road Name: Second St. Road Segment: w/o Hamner Av.					Project Name: Palomino Job Number: 11795				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 23,101 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 2,310 vehicles Vehicle Speed: 35 mph Near/Far Lane Distance: 36 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: 76.3% 11.0% 12.6% 91.88%				
					Medium Trucks: 73.3% 9.2% 17.6% 5.79%				
					Heavy Trucks: 84.4% 3.2% 12.5% 2.33%				
					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: 40.460 Medium Trucks: 40.241 Heavy Trucks: 40.262				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos: 64.30 2.52 1.28 -1.20 -4.61 0.000 0.000									
Medium Trucks: 75.75 -9.48 1.31 -1.20 -4.87 0.000 0.000									
Heavy Trucks: 81.57 -13.43 1.31 -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: 66.9 64.9 62.6 58.4 66.4 66.9									
Medium Trucks: 66.4 64.2 61.2 59.3 66.7 67.0									
Heavy Trucks: 68.2 66.7 58.5 59.7 67.7 67.9									
Vehicle Noise: 72.0 70.2 65.8 63.9 71.7 72.0									
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			57	124	267	575			
CNEL:			60	130	279	601			

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: HY Without Project Road Name: First St. Road Segment: w/o Parkridge Av.					Project Name: Palomino Job Number: 11795				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 24,106 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 2,411 vehicles Vehicle Speed: 35 mph Near/Far Lane Distance: 10 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
					VehicleType	Day	Evening	Night	Daily
					Autos: 76.3% 11.0% 12.6% 91.88%				
					Medium Trucks: 73.3% 9.2% 17.6% 5.79%				
					Heavy Trucks: 84.4% 3.2% 12.5% 2.33%				
					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: 30.000				
					Medium Trucks: 29.704				
					Heavy Trucks: 29.733				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos: 64.30 2.71 3.22 -1.20 -4.49 0.000 0.000									
Medium Trucks: 75.75 -9.30 3.29 -1.20 -4.86 0.000 0.000									
Heavy Trucks: 81.57 -13.24 3.28 -1.20 -5.77 0.000 0.000									
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos: 69.0 67.1 64.7 60.5 68.5 69.0									
Medium Trucks: 68.5 66.4 63.4 61.4 68.9 69.2									
Heavy Trucks: 70.4 68.9 60.6 61.8 69.9 70.0									
Vehicle Noise: 74.2 72.3 68.0 66.1 73.9 74.2									
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				55	118	253	546		
CNEL:				57	123	265	570		

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: HY Without Project Road Name: First St. Road Segment: e/o Parkridge Av.					Project Name: Palomino Job Number: 11795				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 23,634 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 2,363 vehicles Vehicle Speed: 35 mph Near/Far Lane Distance: 36 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:	76.3%	11.0%	12.6%	91.88%
					Medium Trucks:	73.3%	9.2%	17.6%	5.79%
					Heavy Trucks:	84.4%	3.2%	12.5%	2.33%
					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:	40.460			
					Medium Trucks:	40.241			
					Heavy Trucks:	40.262			
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	64.30	2.62	1.28	-1.20	-4.61	0.000	0.000		
Medium Trucks:	75.75	-9.38	1.31	-1.20	-4.87	0.000	0.000		
Heavy Trucks:	81.57	-13.33	1.31	-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	65.0	62.7	58.5	66.5	67.0			
Medium Trucks:	66.5	64.3	61.3	59.4	66.8	67.1			
Heavy Trucks:	68.3	66.8	58.6	59.8	67.8	68.0			
Vehicle Noise:	72.1	70.3	65.9	64.0	71.8	72.1			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			58	126	271	584			
CNEL:			61	132	283	610			

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: HY Without Project Road Name: First St. Road Segment: e/o Dwy. 1					Project Name: Palomino Job Number: 11795				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 23,635 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 2,364 vehicles Vehicle Speed: 35 mph Near/Far Lane Distance: 36 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: 76.3% 11.0% 12.6% 91.88%				
					Medium Trucks: 73.3% 9.2% 17.6% 5.79%				
					Heavy Trucks: 84.4% 3.2% 12.5% 2.33%				
					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: 40.460				
					Medium Trucks: 40.241				
					Heavy Trucks: 40.262				
FHWA Noise Model Calculations									
VehicleType	REMED	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	64.30	2.62	1.28	-1.20	-4.61	0.000	0.000		
Medium Trucks:	75.75	-9.38	1.31	-1.20	-4.87	0.000	0.000		
Heavy Trucks:	81.57	-13.33	1.31	-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	65.0	62.7	58.5	66.5	67.0			
Medium Trucks:	66.5	64.3	61.3	59.4	66.8	67.1			
Heavy Trucks:	68.3	66.8	58.6	59.8	67.8	68.0			
Vehicle Noise:	72.1	70.3	65.9	64.0	71.8	72.1			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				58	126	271	584		
CNEL:				61	132	283	610		

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: HY Without Project Road Name: First St. Road Segment: e/o Mountain Av.					Project Name: Palomino Job Number: 11795				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 11,830 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 1,183 vehicles Vehicle Speed: 35 mph Near/Far Lane Distance: 36 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: 76.3% 11.0% 12.6% 91.88%				
					Medium Trucks: 73.3% 9.2% 17.6% 5.79%				
					Heavy Trucks: 84.4% 3.2% 12.5% 2.33%				
					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: 40.460 Medium Trucks: 40.241 Heavy Trucks: 40.262				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos: 64.30 -0.38 1.28 -1.20 -4.61 0.000 0.000									
Medium Trucks: 75.75 -12.39 1.31 -1.20 -4.87 0.000 0.000									
Heavy Trucks: 81.57 -16.34 1.31 -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: 64.0 62.0 59.6 55.5 63.5 63.9									
Medium Trucks: 63.5 61.3 58.3 56.4 63.8 64.1									
Heavy Trucks: 65.3 63.8 55.6 56.8 64.8 64.9									
Vehicle Noise: 69.1 67.3 62.9 61.0 68.8 69.1									
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				37	79	171	368		
CNEL:				38	83	179	385		

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: HY Without Project Road Name: First St. Road Segment: w/o Hamner Av.					Project Name: Palomino Job Number: 11795				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 12,637 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 1,264 vehicles Vehicle Speed: 35 mph Near/Far Lane Distance: 36 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:	76.3%	11.0%	12.6%	91.88%
					Medium Trucks:	73.3%	9.2%	17.6%	5.79%
					Heavy Trucks:	84.4%	3.2%	12.5%	2.33%
FHWA Noise Model Calculations					Noise Source Elevations (in feet)				
					Autos:	0.000			
					Medium Trucks:	2.297			
					Heavy Trucks:	8.004	Grade Adjustment:	0.0	
FHWA Noise Model Calculations					Lane Equivalent Distance (in feet)				
					Autos:	40.460			
					Medium Trucks:	40.241			
					Heavy Trucks:	40.262			
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	64.30	-0.10	1.28	-1.20	-4.61	0.000	0.000		
Medium Trucks:	75.75	-12.10	1.31	-1.20	-4.87	0.000	0.000		
Heavy Trucks:	81.57	-16.05	1.31	-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:	64.3	62.3	59.9	55.8	63.8	64.2			
Medium Trucks:	63.8	61.6	58.6	56.7	64.1	64.4			
Heavy Trucks:	65.6	64.1	55.9	57.0	65.1	65.2			
Vehicle Noise:	69.4	67.6	63.2	61.3	69.1	69.4			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				38	83	179	385		
CNEL:				40	87	187	402		
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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: HY Without Project Road Name: Hidden Valley Pkwy. Road Segment: w/o E. Parkridge Av.					Project Name: Palomino Job Number: 11795				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 29,276 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 2,928 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 52 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: 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					VehicleType	Day	Evening	Night	Daily
					Autos: 76.3% 11.0% 12.6% 91.88%				
					Medium Trucks: 73.3% 9.2% 17.6% 5.79%				
					Heavy Trucks: 84.4% 3.2% 12.5% 2.33%				
FHWA Noise Model Calculations					Noise Source Elevations (in feet)				
					Autos: 0.000				
					Medium Trucks: 2.297				
					Heavy Trucks: 8.004 Grade Adjustment: 0.0				
FHWA Noise Model Calculations					Lane Equivalent Distance (in feet)				
					Autos: 43.000				
					Medium Trucks: 42.794				
					Heavy Trucks: 42.814				
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	68.46	2.46	0.88	-1.20	-4.65	0.000	0.000		
Medium Trucks:	79.45	-9.55	0.91	-1.20	-4.87	0.000	0.000		
Heavy Trucks:	84.25	-13.49	0.91	-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:	70.6	68.6	66.3	62.1	70.1	70.6			
Medium Trucks:	69.6	67.5	64.5	62.5	69.9	70.3			
Heavy Trucks:	70.5	68.9	60.7	61.9	69.9	70.1			
Vehicle Noise:	75.0	73.2	69.1	66.9	74.8	75.1			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			104	224	482	1,038			
CNEL:			109	235	505	1,089			
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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: HY Without Project Road Name: Hidden Valley Pkwy. Road Segment: e/o E. Parkridge Av.					Project Name: Palomino Job Number: 11795				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 31,112 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 3,111 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 52 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: 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 Type	Day	Evening	Night	Daily
					Autos: 76.3% 11.0% 12.6% 91.88%				
					Medium Trucks: 73.3% 9.2% 17.6% 5.79%				
					Heavy Trucks: 84.4% 3.2% 12.5% 2.33%				
					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: 43.000 Medium Trucks: 42.794 Heavy Trucks: 42.814				
FHWA Noise Model Calculations									
Vehicle Type	REMODEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:		68.46	2.72	0.88	-1.20	-4.65	0.000	0.000	
Medium Trucks:		79.45	-9.28	0.91	-1.20	-4.87	0.000	0.000	
Heavy Trucks:		84.25	-13.23	0.91	-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:		70.9	68.9	66.5	62.3	70.4	70.8		
Medium Trucks:		69.9	67.7	64.7	62.8	70.2	70.5		
Heavy Trucks:		70.7	69.2	61.0	62.2	70.2	70.3		
Vehicle Noise:		75.3	73.4	69.4	67.2	75.0	75.3		
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				108	233	502	1,081		
CNEL:				113	244	526	1,134		
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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: HY With Project Road Name: River Rd. Road Segment: s/o Corydon St.					Project Name: Palomino Job Number: 11795				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 35,216 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 3,522 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 52 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: 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					VehicleType	Day	Evening	Night	Daily
					Autos: 76.3% 11.0% 12.6% 91.97%				
					Medium Trucks: 73.3% 9.2% 17.6% 5.72%				
					Heavy Trucks: 84.4% 3.2% 12.5% 2.31%				
FHWA Noise Model Calculations					Noise Source Elevations (in feet)				
					Autos: 0.000				
					Medium Trucks: 2.297				
					Heavy Trucks: 8.004 Grade Adjustment: 0.0				
FHWA Noise Model Calculations					Lane Equivalent Distance (in feet)				
					Autos: 43.000				
					Medium Trucks: 42.794				
					Heavy Trucks: 42.814				
Unmitigated Noise Levels (without Topo and barrier attenuation)									
Vehicle Type	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos: 68.46 3.27 0.88 -1.20 -4.65 0.000 0.000									
Medium Trucks: 79.45 -8.79 0.91 -1.20 -4.87 0.000 0.000									
Heavy Trucks: 84.25 -12.74 0.91 -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: 71.4 69.4 67.1 62.9 70.9 71.4									
Medium Trucks: 70.4 68.2 65.2 63.3 70.7 71.0									
Heavy Trucks: 71.2 69.7 61.5 62.6 70.7 70.8									
Vehicle Noise: 75.8 73.9 69.9 67.7 75.5 75.8									
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				117	252	542	1,168		
CNEL:				123	264	569	1,225		
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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: HY With Project Road Name: River Rd. Road Segment: s/o Lincoln Av.					Project Name: Palomino Job Number: 11795				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 19,229 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 1,923 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 10 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: 30.0 feet Centerline Dist. to Observer: 30.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					VehicleType	Day	Evening	Night	Daily
					Autos:	76.3%	11.0%	12.6%	91.96%
					Medium Trucks:	73.3%	9.2%	17.6%	5.73%
					Heavy Trucks:	84.4%	3.2%	12.5%	2.31%
FHWA Noise Model Calculations					Noise Source Elevations (in feet)				
					Autos:	0.000			
					Medium Trucks:	2.297			
					Heavy Trucks:	8.004	Grade Adjustment:	0.0	
FHWA Noise Model Calculations					Lane Equivalent Distance (in feet)				
					Autos:	30.000			
					Medium Trucks:	29.704			
					Heavy Trucks:	29.733			
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	71.1	69.2	66.8	62.6	70.6	71.1			
Medium Trucks:	70.1	68.0	65.0	63.0	70.4	70.8			
Heavy Trucks:	71.0	69.4	61.2	62.4	70.4	70.6			
Vehicle Noise:	75.5	73.7	69.6	67.4	75.3	75.6			
Centerline Distance to Noise Contour (in feet)									
					70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:					67	145	313	674	
CNEL:					71	152	328	707	

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: HY With Project Road Name: Parkridge Av. Road Segment: n/o Second St.					Project Name: Palomino Job Number: 11795				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 3,359 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 336 vehicles Vehicle Speed: 25 mph Near/Far Lane Distance: 10 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: 30.0 feet Centerline Dist. to Observer: 30.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					VehicleType	Day	Evening	Night	Daily
					Autos:	76.3%	11.0%	12.6%	92.38%
					Medium Trucks:	73.3%	9.2%	17.6%	5.43%
					Heavy Trucks:	84.4%	3.2%	12.5%	2.19%
FHWA Noise Model Calculations					Noise Source Elevations (in feet)				
					Autos:	0.000			
					Medium Trucks:	2.297			
					Heavy Trucks:	8.004	Grade Adjustment:	0.0	
FHWA Noise Model Calculations					Lane Equivalent Distance (in feet)				
					Autos:	30.000			
					Medium Trucks:	29.704			
					Heavy Trucks:	29.733			
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	56.4	54.4	52.0	47.9	55.9	56.3			
Medium Trucks:	56.2	54.1	51.1	49.1	56.5	56.9			
Heavy Trucks:	59.4	57.9	49.7	50.9	58.9	59.0			
Vehicle Noise:	62.4	60.6	55.8	54.2	62.1	62.4			
Centerline Distance to Noise Contour (in feet)									
					70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:					9	19	41	89	
CNEL:					9	20	43	93	

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: HY With Project Road Name: Parkridge Av. Road Segment: s/o Second St.					Project Name: Palomino Job Number: 11795				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 9,428 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 943 vehicles Vehicle Speed: 40 mph Near/Far Lane Distance: 36 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:	76.3%	11.0%	12.6%	92.05%
					Medium Trucks:	73.3%	9.2%	17.6%	5.66%
					Heavy Trucks:	84.4%	3.2%	12.5%	2.28%
FHWA Noise Model Calculations					Noise Source Elevations (in feet)				
					Autos:	0.000			
					Medium Trucks:	2.297			
					Heavy Trucks:	8.004	Grade Adjustment:	0.0	
FHWA Noise Model Calculations					Lane Equivalent Distance (in feet)				
					Autos:	40.460			
					Medium Trucks:	40.241			
					Heavy Trucks:	40.262			
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	60.3	56.1	64.1	64.6			
Medium Trucks:	63.8	61.6	58.6	56.7	64.1	64.4			
Heavy Trucks:	65.1	63.6	55.3	56.5	64.6	64.7			
Vehicle Noise:	69.3	67.5	63.3	61.2	69.0	69.3			
Centerline Distance to Noise Contour (in feet)									
					70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:					38	82	176	380	
CNEL:					40	86	185	398	

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: HY With Project Road Name: Parkridge Av. Road Segment: s/o Lincoln Av.					Project Name: Palomino Job Number: 11795				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 11,124 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 1,112 vehicles Vehicle Speed: 40 mph Near/Far Lane Distance: 36 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:	76.3%	11.0%	12.6%	92.03%
					Medium Trucks:	73.3%	9.2%	17.6%	5.68%
					Heavy Trucks:	84.4%	3.2%	12.5%	2.29%
FHWA Noise Model Calculations					Noise Source Elevations (in feet)				
					Autos:	0.000			
					Medium Trucks:	2.297			
					Heavy Trucks:	8.004	Grade Adjustment:	0.0	
FHWA Noise Model Calculations					Lane Equivalent Distance (in feet)				
					Autos:	40.460			
					Medium Trucks:	40.241			
					Heavy Trucks:	40.262			
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	65.4	63.4	61.0	56.8	64.9	65.3			
Medium Trucks:	64.5	62.4	59.4	57.4	64.8	65.1			
Heavy Trucks:	65.8	64.3	56.1	57.3	65.3	65.4			
Vehicle Noise:	70.0	68.2	64.0	61.9	69.8	70.1			
Centerline Distance to Noise Contour (in feet)									
					70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:					42	92	197	425	
CNEL:					45	96	207	445	

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: HY With Project Road Name: Pacific Av. Road Segment: s/o Second St.					Project Name: Palomino Job Number: 11795				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 659 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 66 vehicles Vehicle Speed: 25 mph Near/Far Lane Distance: 10 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: 30.0 feet Centerline Dist. to Observer: 30.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					VehicleType	Day	Evening	Night	Daily
					Autos:	76.3%	11.0%	12.6%	91.88%
					Medium Trucks:	73.3%	9.2%	17.6%	5.79%
					Heavy Trucks:	84.4%	3.2%	12.5%	2.33%
FHWA Noise Model Calculations					Noise Source Elevations (in feet)				
					Autos:	0.000			
					Medium Trucks:	2.297			
					Heavy Trucks:	8.004	Grade Adjustment:	0.0	
FHWA Noise Model Calculations					Lane Equivalent Distance (in feet)				
					Autos:	30.000			
					Medium Trucks:	29.704			
					Heavy Trucks:	29.733			
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	49.3	47.3	44.9	40.8	48.8	49.3			
Medium Trucks:	49.4	47.3	44.3	42.3	49.7	50.1			
Heavy Trucks:	52.6	51.1	42.9	44.1	52.1	52.2			
Vehicle Noise:	55.5	53.7	48.9	47.4	55.2	55.5			
Centerline Distance to Noise Contour (in feet)									
					70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:					3	7	14	31	
CNEL:					3	7	15	32	

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: HY With Project Road Name: Mountain Av. Road Segment: n/o Hamner Av.					Project Name: Palomino Job Number: 11795				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 16,077 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 1,608 vehicles Vehicle Speed: 40 mph Near/Far Lane Distance: 36 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:	76.3%	11.0%	12.6%	90.05%
					Medium Trucks:	73.3%	9.2%	17.6%	5.56%
					Heavy Trucks:	84.4%	3.2%	12.5%	4.39%
FHWA Noise Model Calculations					Noise Source Elevations (in feet)				
					Autos:	0.000			
					Medium Trucks:	2.297			
					Heavy Trucks:	8.004	Grade Adjustment:	0.0	
FHWA Noise Model Calculations					Lane Equivalent Distance (in feet)				
					Autos:	40.460			
					Medium Trucks:	40.241			
					Heavy Trucks:	40.262			
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	66.9	64.9	62.5	58.3	66.4	66.8			
Medium Trucks:	66.0	63.9	60.9	58.9	66.3	66.6			
Heavy Trucks:	70.3	68.7	60.5	61.7	69.7	69.9			
Vehicle Noise:	72.9	71.1	66.2	64.7	72.6	72.8			
Centerline Distance to Noise Contour (in feet)									
					70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:					65	140	302	652	
CNEL:					68	146	315	678	

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: HY With Project Road Name: Hamner Av. Road Segment: s/o Third St.					Project Name: Palomino Job Number: 11795				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 48,500 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 4,850 vehicles Vehicle Speed: 40 mph Near/Far Lane Distance: 73 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: 55.0 feet Centerline Dist. to Observer: 55.0 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:	76.3%	11.0%	12.6%	91.95%
					Medium Trucks:	73.3%	9.2%	17.6%	5.74%
					Heavy Trucks:	84.4%	3.2%	12.5%	2.31%
FHWA Noise Model Calculations					Noise Source Elevations (in feet)				
					Autos:	0.000			
					Medium Trucks:	2.297			
					Heavy Trucks:	8.004	Grade Adjustment:	0.0	
FHWA Noise Model Calculations					Lane Equivalent Distance (in feet)				
					Autos:	41.446			
					Medium Trucks:	41.232			
					Heavy Trucks:	41.253			
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	71.6	69.6	67.3	63.1	71.1	71.6			
Medium Trucks:	70.8	68.6	65.6	63.7	71.1	71.4			
Heavy Trucks:	72.1	70.6	62.4	63.5	71.6	71.7			
Vehicle Noise:	76.3	74.5	70.3	68.2	76.0	76.3			
Centerline Distance to Noise Contour (in feet)									
					70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:					139	299	645	1,390	
CNEL:					146	314	676	1,456	

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: HY With Project Road Name: Hamner Av. Road Segment: s/o Second St.					Project Name: Palomino Job Number: 11795				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 41,341 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 4,134 vehicles Vehicle Speed: 40 mph Near/Far Lane Distance: 73 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: 55.0 feet Centerline Dist. to Observer: 55.0 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:	76.3%	11.0%	12.6%	91.76%
					Medium Trucks:	73.3%	9.2%	17.6%	5.81%
					Heavy Trucks:	84.4%	3.2%	12.5%	2.43%
FHWA Noise Model Calculations					Noise Source Elevations (in feet)				
					Autos:	0.000			
					Medium Trucks:	2.297			
					Heavy Trucks:	8.004	Grade Adjustment:	0.0	
FHWA Noise Model Calculations					Lane Equivalent Distance (in feet)				
					Autos:	41.446			
					Medium Trucks:	41.232			
					Heavy Trucks:	41.253			
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	70.9	68.9	66.5	62.4	70.4	70.9			
Medium Trucks:	70.1	68.0	65.0	63.1	70.5	70.8			
Heavy Trucks:	71.6	70.1	61.9	63.1	71.1	71.2			
Vehicle Noise:	75.7	73.9	69.6	67.6	75.4	75.7			
Centerline Distance to Noise Contour (in feet)									
					70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:					127	273	588	1,267	
CNEL:					133	286	616	1,326	

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: HY With Project Road Name: Hamner Av. Road Segment: s/o First St.					Project Name: Palomino Job Number: 11795				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 32,698 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 3,270 vehicles Vehicle Speed: 40 mph Near/Far Lane Distance: 73 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: 55.0 feet Centerline Dist. to Observer: 55.0 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:	76.3%	11.0%	12.6%	91.29%
					Medium Trucks:	73.3%	9.2%	17.6%	5.91%
					Heavy Trucks:	84.4%	3.2%	12.5%	2.80%
FHWA Noise Model Calculations					Noise Source Elevations (in feet)				
					Autos:	0.000			
					Medium Trucks:	2.297			
					Heavy Trucks:	8.004	Grade Adjustment:	0.0	
FHWA Noise Model Calculations					Lane Equivalent Distance (in feet)				
					Autos:	41.446			
					Medium Trucks:	41.232			
					Heavy Trucks:	41.253			
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	69.9	67.9	65.5	61.3	69.4	69.8			
Medium Trucks:	69.2	67.1	64.0	62.1	69.5	69.8			
Heavy Trucks:	71.2	69.7	61.5	62.7	70.7	70.8			
Vehicle Noise:	75.0	73.1	68.7	66.8	74.7	75.0			
Centerline Distance to Noise Contour (in feet)									
					70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:					113	243	523	1,127	
CNEL:					118	254	547	1,178	

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: HY With Project Road Name: Hamner Av. Road Segment: s/o Hidden Valley Pkwy.					Project Name: Palomino Job Number: 11795				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 42,007 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 4,201 vehicles Vehicle Speed: 40 mph Near/Far Lane Distance: 73 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: 55.0 feet Centerline Dist. to Observer: 55.0 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:	76.3%	11.0%	12.6%	91.84%
					Medium Trucks:	73.3%	9.2%	17.6%	5.75%
					Heavy Trucks:	84.4%	3.2%	12.5%	2.40%
FHWA Noise Model Calculations					Noise Source Elevations (in feet)				
					Autos:	0.000			
					Medium Trucks:	2.297			
					Heavy Trucks:	8.004	Grade Adjustment:	0.0	
FHWA Noise Model Calculations					Lane Equivalent Distance (in feet)				
					Autos:	41.446			
					Medium Trucks:	41.232			
					Heavy Trucks:	41.253			
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	71.0	69.0	66.6	62.4	70.5	70.9			
Medium Trucks:	70.2	68.0	65.0	63.1	70.5	70.8			
Heavy Trucks:	71.7	70.1	61.9	63.1	71.1	71.3			
Vehicle Noise:	75.7	73.9	69.7	67.6	75.5	75.8			
Centerline Distance to Noise Contour (in feet)									
					70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:					127	275	592	1,275	
CNEL:					133	288	620	1,335	

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: HY With Project Road Name: E. Parkridge Av. Road Segment: s/o Hidden Valley Pkwy.					Project Name: Palomino Job Number: 11795				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 13,314 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 1,331 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 36 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:	76.3%	11.0%	12.6%	92.00%
					Medium Trucks:	73.3%	9.2%	17.6%	5.70%
					Heavy Trucks:	84.4%	3.2%	12.5%	2.30%
FHWA Noise Model Calculations					Noise Source Elevations (in feet)				
					Autos:	0.000			
					Medium Trucks:	2.297			
					Heavy Trucks:	8.004	Grade Adjustment:	0.0	
FHWA Noise Model Calculations					Lane Equivalent Distance (in feet)				
					Autos:	40.460			
					Medium Trucks:	40.241			
					Heavy Trucks:	40.262			
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	67.6	65.6	63.2	59.1	67.1	67.5			
Medium Trucks:	66.5	64.4	61.4	59.4	66.8	67.2			
Heavy Trucks:	67.4	65.8	57.6	58.8	66.8	67.0			
Vehicle Noise:	72.0	70.1	66.1	63.9	71.7	72.0			
Centerline Distance to Noise Contour (in feet)									
					70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:					57	123	265	571	
CNEL:					60	129	278	599	

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: HY With Project Road Name: Lincoln Av. Road Segment: s/o River Rd.					Project Name: Palomino Job Number: 11795				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 29,651 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 2,965 vehicles Vehicle Speed: 40 mph Near/Far Lane Distance: 36 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:	76.3%	11.0%	12.6%	92.16%
					Medium Trucks:	73.3%	9.2%	17.6%	5.59%
					Heavy Trucks:	84.4%	3.2%	12.5%	2.25%
FHWA Noise Model Calculations					Noise Source Elevations (in feet)				
					Autos:	0.000			
					Medium Trucks:	2.297			
					Heavy Trucks:	8.004	Grade Adjustment:	0.0	
FHWA Noise Model Calculations					Lane Equivalent Distance (in feet)				
					Autos:	40.460			
					Medium Trucks:	40.241			
					Heavy Trucks:	40.262			
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	69.6	67.7	65.3	61.1	69.1	69.6			
Medium Trucks:	68.7	66.6	63.5	61.6	69.0	69.3			
Heavy Trucks:	70.0	68.5	60.3	61.4	69.5	69.6			
Vehicle Noise:	74.3	72.4	68.3	66.2	74.0	74.3			
Centerline Distance to Noise Contour (in feet)									
					70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:					81	175	376	811	
CNEL:					85	183	394	850	

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: HY With Project Road Name: Lincoln Av. Road Segment: s/o Rincon St.					Project Name: Palomino Job Number: 11795				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 29,629 vehicles					Autos: 15				
Peak Hour Percentage: 10%					Medium Trucks (2 Axles): 15				
Peak Hour Volume: 2,963 vehicles					Heavy Trucks (3+ Axles): 15				
Vehicle Speed: 40 mph					Vehicle Mix				
Near/Far Lane Distance: 36 feet					VehicleType	Day	Evening	Night	Daily
Site Data					Autos: 76.3% 11.0% 12.6% 92.16%				
Barrier Height: 0.0 feet					Medium Trucks: 73.3% 9.2% 17.6% 5.59%				
Barrier Type (0-Wall, 1-Berm): 0.0					Heavy Trucks: 84.4% 3.2% 12.5% 2.25%				
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: 40.460				
Road Grade: 0.0%					Medium Trucks: 40.241				
Left View: -90.0 degrees					Heavy Trucks: 40.262				
Right View: 90.0 degrees									
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos: 66.51 3.04 1.28 -1.20 -4.61 0.000 0.000									
Medium Trucks: 77.72 -9.14 1.31 -1.20 -4.87 0.000 0.000									
Heavy Trucks: 82.99 -13.08 1.31 -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: 69.6 67.7 65.3 61.1 69.1 69.6									
Medium Trucks: 68.7 66.5 63.5 61.6 69.0 69.3									
Heavy Trucks: 70.0 68.5 60.3 61.4 69.5 69.6									
Vehicle Noise: 74.3 72.4 68.3 66.2 74.0 74.3									
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				81	175	376	811		
CNEL:				85	183	394	849		

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: HY With Project Road Name: Lincoln Av. Road Segment: s/o Railroad St.					Project Name: Palomino Job Number: 11795				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 32,594 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 3,259 vehicles Vehicle Speed: 40 mph Near/Far Lane Distance: 36 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: 76.3% 11.0% 12.6% 92.08%				
					Medium Trucks: 73.3% 9.2% 17.6% 5.64%				
					Heavy Trucks: 84.4% 3.2% 12.5% 2.27%				
					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: 40.460 Medium Trucks: 40.241 Heavy Trucks: 40.262				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos: 66.51 3.45 1.28 -1.20 -4.61 0.000 0.000									
Medium Trucks: 77.72 -8.68 1.31 -1.20 -4.87 0.000 0.000									
Heavy Trucks: 82.99 -12.63 1.31 -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: 70.0 68.1 65.7 61.5 69.5 70.0									
Medium Trucks: 69.1 67.0 64.0 62.1 69.5 69.8									
Heavy Trucks: 70.5 68.9 60.7 61.9 69.9 70.1									
Vehicle Noise: 74.7 72.9 68.7 66.6 74.4 74.7									
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				87	187	403	868		
CNEL:				91	196	422	909		

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: HY With Project Road Name: Lincoln Av. Road Segment: s/o Pomona Rd.					Project Name: Palomino Job Number: 11795				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 39,186 vehicles					Autos: 15				
Peak Hour Percentage: 10%					Medium Trucks (2 Axles): 15				
Peak Hour Volume: 3,919 vehicles					Heavy Trucks (3+ Axles): 15				
Vehicle Speed: 40 mph					Vehicle Mix				
Near/Far Lane Distance: 36 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: 76.3% 11.0% 12.6% 92.05%				
Barrier Distance to Observer: 0.0 feet					Medium Trucks: 73.3% 9.2% 17.6% 5.67%				
Observer Height (Above Pad): 5.0 feet					Heavy Trucks: 84.4% 3.2% 12.5% 2.28%				
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: 40.460				
					Medium Trucks: 40.241				
					Heavy Trucks: 40.262				
FHWA Noise Model Calculations									
VehicleType	REMED	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	66.51	4.25	1.28	-1.20	-4.61	0.000	0.000		
Medium Trucks:	77.72	-7.86	1.31	-1.20	-4.87	0.000	0.000		
Heavy Trucks:	82.99	-11.81	1.31	-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:	70.8	68.9	66.5	62.3	70.3	70.8			
Medium Trucks:	70.0	67.8	64.8	62.9	70.3	70.6			
Heavy Trucks:	71.3	69.8	61.5	62.7	70.8	70.9			
Vehicle Noise:	75.5	73.7	69.5	67.4	75.2	75.5			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			98	212	456	983			
CNEL:			103	222	478	1,029			

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: HY With Project Road Name: Second St. Road Segment: w/o Parkridge Av.					Project Name: Palomino Job Number: 11795				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 19,019 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 1,902 vehicles Vehicle Speed: 35 mph Near/Far Lane Distance: 10 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: 30.0 feet Centerline Dist. to Observer: 30.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					VehicleType	Day	Evening	Night	Daily
					Autos: 76.3% 11.0% 12.6% 92.11%				
					Medium Trucks: 73.3% 9.2% 17.6% 5.62%				
					Heavy Trucks: 84.4% 3.2% 12.5% 2.27%				
					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: 30.000 Medium Trucks: 29.704 Heavy Trucks: 29.733				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos: 64.30 1.69 3.22 -1.20 -4.49 0.000 0.000									
Medium Trucks: 75.75 -10.46 3.29 -1.20 -4.86 0.000 0.000									
Heavy Trucks: 81.57 -14.40 3.28 -1.20 -5.77 0.000 0.000									
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos: 68.0 66.1 63.7 59.5 67.5 68.0									
Medium Trucks: 67.4 65.2 62.2 60.3 67.7 68.0									
Heavy Trucks: 69.2 67.7 59.5 60.7 68.7 68.9									
Vehicle Noise: 73.1 71.2 66.9 64.9 72.8 73.1									
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			46	99	213	460			
CNEL:			48	104	223	481			

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: HY With Project Road Name: Second St. Road Segment: e/o Parkridge Av.					Project Name: Palomino Job Number: 11795				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 16,225 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 1,623 vehicles Vehicle Speed: 35 mph Near/Far Lane Distance: 10 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
					VehicleType	Day	Evening	Night	Daily
					Autos: 76.3% 11.0% 12.6% 92.36%				
					Medium Trucks: 73.3% 9.2% 17.6% 5.45%				
					Heavy Trucks: 84.4% 3.2% 12.5% 2.20%				
					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: 30.000				
					Medium Trucks: 29.704				
					Heavy Trucks: 29.733				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos: 64.30 1.01 3.22 -1.20 -4.49 0.000 0.000									
Medium Trucks: 75.75 -11.28 3.29 -1.20 -4.86 0.000 0.000									
Heavy Trucks: 81.57 -15.23 3.28 -1.20 -5.77 0.000 0.000									
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos: 67.3 65.4 63.0 58.8 66.8 67.3									
Medium Trucks: 66.6 64.4 61.4 59.5 66.9 67.2									
Heavy Trucks: 68.4 66.9 58.7 59.8 67.9 68.0									
Vehicle Noise: 72.3 70.5 66.1 64.2 72.0 72.3									
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				41	88	189	408		
CNEL:				43	92	198	426		

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: HY With Project Road Name: Second St. Road Segment: w/o Pacific Av.					Project Name: Palomino Job Number: 11795				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 17,856 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 1,786 vehicles Vehicle Speed: 35 mph Near/Far Lane Distance: 10 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: 30.0 feet Centerline Dist. to Observer: 30.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					Vehicle Mix				
					VehicleType	Day	Evening	Night	Daily
					Autos:	76.3%	11.0%	12.6%	92.41%
					Medium Trucks:	73.3%	9.2%	17.6%	5.41%
					Heavy Trucks:	84.4%	3.2%	12.5%	2.18%
					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:	30.000			
					Medium Trucks:	29.704			
					Heavy Trucks:	29.733			
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	64.30	1.43	3.22	-1.20	-4.49	0.000	0.000		
Medium Trucks:	75.75	-10.90	3.29	-1.20	-4.86	0.000	0.000		
Heavy Trucks:	81.57	-14.84	3.28	-1.20	-5.77	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	67.8	65.8	63.4	59.2	67.3	67.7			
Medium Trucks:	66.9	64.8	61.8	59.8	67.3	67.6			
Heavy Trucks:	68.8	67.3	59.0	60.2	68.3	68.4			
Vehicle Noise:	72.7	70.8	66.5	64.6	72.4	72.7			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				43	93	201	433		
CNEL:				45	98	210	453		

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: HY With Project Road Name: Second St. Road Segment: e/o Pacific Av.					Project Name: Palomino Job Number: 11795				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 18,648 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 1,865 vehicles Vehicle Speed: 35 mph Near/Far Lane Distance: 10 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: 30.0 feet Centerline Dist. to Observer: 30.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					VehicleType	Day	Evening	Night	Daily
					Autos: 76.3% 11.0% 12.6% 92.39%				
					Medium Trucks: 73.3% 9.2% 17.6% 5.43%				
					Heavy Trucks: 84.4% 3.2% 12.5% 2.19%				
					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: 30.000 Medium Trucks: 29.704 Heavy Trucks: 29.733				
FHWA Noise Model Calculations									
VehicleType	REMED	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	64.30	1.62	3.22	-1.20	-4.49	0.000	0.000		
Medium Trucks:	75.75	-10.69	3.29	-1.20	-4.86	0.000	0.000		
Heavy Trucks:	81.57	-14.64	3.28	-1.20	-5.77	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	67.9	66.0	63.6	59.4	67.4	67.9			
Medium Trucks:	67.1	65.0	62.0	60.0	67.5	67.8			
Heavy Trucks:	69.0	67.5	59.2	60.4	68.5	68.6			
Vehicle Noise:	72.9	71.0	66.7	64.8	72.6	72.9			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				45	96	207	447		
CNEL:				47	101	217	467		

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: HY With Project Road Name: Second St. Road Segment: w/o Mountain Av.					Project Name: Palomino Job Number: 11795				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 19,965 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 1,996 vehicles Vehicle Speed: 35 mph Near/Far Lane Distance: 10 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: 30.0 feet Centerline Dist. to Observer: 30.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					VehicleType	Day	Evening	Night	Daily
					Autos: 76.3% 11.0% 12.6% 92.35%				
					Medium Trucks: 73.3% 9.2% 17.6% 5.45%				
					Heavy Trucks: 84.4% 3.2% 12.5% 2.20%				
					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: 30.000 Medium Trucks: 29.704 Heavy Trucks: 29.733				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos: 64.30 1.91 3.22 -1.20 -4.49 0.000 0.000									
Medium Trucks: 75.75 -10.38 3.29 -1.20 -4.86 0.000 0.000									
Heavy Trucks: 81.57 -14.32 3.28 -1.20 -5.77 0.000 0.000									
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos: 68.2 66.3 63.9 59.7 67.7 68.2									
Medium Trucks: 67.5 65.3 62.3 60.4 67.8 68.1									
Heavy Trucks: 69.3 67.8 59.6 60.7 68.8 68.9									
Vehicle Noise: 73.2 71.4 67.0 65.1 72.9 73.2									
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				47	101	217	468		
CNEL:				49	106	227	490		

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: HY With Project Road Name: Second St. Road Segment: e/o Mountain Av.					Project Name: Palomino Job Number: 11795				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 21,452 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 2,145 vehicles Vehicle Speed: 35 mph Near/Far Lane Distance: 36 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: 76.3% 11.0% 12.6% 90.94%				
					Medium Trucks: 73.3% 9.2% 17.6% 5.65%				
					Heavy Trucks: 84.4% 3.2% 12.5% 3.41%				
					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: 40.460 Medium Trucks: 40.241 Heavy Trucks: 40.262				
FHWA Noise Model Calculations									
Vehicle Type	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos: 64.30 2.16 1.28 -1.20 -4.61 0.000 0.000									
Medium Trucks: 75.75 -9.91 1.31 -1.20 -4.87 0.000 0.000									
Heavy Trucks: 81.57 -12.11 1.31 -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: 66.5 64.6 62.2 58.0 66.0 66.5									
Medium Trucks: 66.0 63.8 60.8 58.9 66.3 66.6									
Heavy Trucks: 69.6 68.0 59.8 61.0 69.0 69.2									
Vehicle Noise: 72.4 70.7 65.8 64.2 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		

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: HY With Project Road Name: Second St. Road Segment: e/o Dwy, 8					Project Name: Palomino Job Number: 11795				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 21,796 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 2,180 vehicles Vehicle Speed: 35 mph Near/Far Lane Distance: 36 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: 76.3% 11.0% 12.6% 91.09%				
					Medium Trucks: 73.3% 9.2% 17.6% 5.56%				
					Heavy Trucks: 84.4% 3.2% 12.5% 3.35%				
					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: 40.460 Medium Trucks: 40.241 Heavy Trucks: 40.262				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos: 64.30 2.23 1.28 -1.20 -4.61 0.000 0.000									
Medium Trucks: 75.75 -9.91 1.31 -1.20 -4.87 0.000 0.000									
Heavy Trucks: 81.57 -12.11 1.31 -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 64.6 62.3 58.1 66.1 66.6									
Medium Trucks: 66.0 63.8 60.8 58.9 66.3 66.6									
Heavy Trucks: 69.6 68.0 59.8 61.0 69.0 69.2									
Vehicle Noise: 72.4 70.7 65.8 64.3 72.1 72.4									
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				61	131	283	610		
CNEL:				64	137	295	635		

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: HY With Project Road Name: Second St. Road Segment: w/o Hamner Av.					Project Name: Palomino Job Number: 11795				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 25,461 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 2,546 vehicles Vehicle Speed: 35 mph Near/Far Lane Distance: 36 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: 76.3% 11.0% 12.6% 91.20%				
					Medium Trucks: 73.3% 9.2% 17.6% 5.60%				
					Heavy Trucks: 84.4% 3.2% 12.5% 3.21%				
					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: 40.460 Medium Trucks: 40.241 Heavy Trucks: 40.262				
FHWA Noise Model Calculations									
VehicleType	REMED	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	64.30	2.91	1.28	-1.20	-4.61	0.000	0.000		
Medium Trucks:	75.75	-9.21	1.31	-1.20	-4.87	0.000	0.000		
Heavy Trucks:	81.57	-11.63	1.31	-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	65.3	62.9	58.8	66.8	67.2			
Medium Trucks:	66.7	64.5	61.5	59.6	67.0	67.3			
Heavy Trucks:	70.0	68.5	60.3	61.5	69.5	69.7			
Vehicle Noise:	73.0	71.3	66.5	64.9	72.7	73.0			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				67	144	310	668		
CNEL:				70	150	323	696		

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: HY With Project Road Name: First St. Road Segment: w/o Parkridge Av.					Project Name: Palomino Job Number: 11795				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 25,345 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 2,534 vehicles Vehicle Speed: 35 mph Near/Far Lane Distance: 10 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: 30.0 feet Centerline Dist. to Observer: 30.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					VehicleType	Day	Evening	Night	Daily
					Autos: 76.3% 11.0% 12.6% 92.27%				
					Medium Trucks: 73.3% 9.2% 17.6% 5.51%				
					Heavy Trucks: 84.4% 3.2% 12.5% 2.22%				
					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: 30.000 Medium Trucks: 29.704 Heavy Trucks: 29.733				
FHWA Noise Model Calculations									
VehicleType	REML	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos: 64.30 2.94 3.22 -1.20 -4.49 0.000 0.000									
Medium Trucks: 75.75 -9.30 3.29 -1.20 -4.86 0.000 0.000									
Heavy Trucks: 81.57 -13.24 3.28 -1.20 -5.77 0.000 0.000									
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos: 69.3 67.3 64.9 60.7 68.8 69.2									
Medium Trucks: 68.5 66.4 63.4 61.4 68.9 69.2									
Heavy Trucks: 70.4 68.9 60.6 61.8 69.9 70.0									
Vehicle Noise: 74.2 72.4 68.1 66.1 74.0 74.3									
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				55	119	256	551		
CNEL:				58	124	268	577		

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: HY With Project Road Name: First St. Road Segment: e/o Parkridge Av.					Project Name: Palomino Job Number: 11795				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 25,079 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 2,508 vehicles Vehicle Speed: 35 mph Near/Far Lane Distance: 36 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: 76.3% 11.0% 12.6% 92.34%				
					Medium Trucks: 73.3% 9.2% 17.6% 5.46%				
					Heavy Trucks: 84.4% 3.2% 12.5% 2.20%				
					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: 40.460 Medium Trucks: 40.241 Heavy Trucks: 40.262				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos: 64.30 2.90 1.28 -1.20 -4.61 0.000 0.000									
Medium Trucks: 75.75 -9.38 1.31 -1.20 -4.87 0.000 0.000									
Heavy Trucks: 81.57 -13.33 1.31 -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 65.3 62.9 58.8 66.8 67.2									
Medium Trucks: 66.5 64.3 61.3 59.4 66.8 67.1									
Heavy Trucks: 68.3 66.8 58.6 59.8 67.8 68.0									
Vehicle Noise: 72.2 70.4 66.1 64.1 71.9 72.2									
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				59	127	274	591		
CNEL:				62	133	287	619		

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: HY With Project Road Name: First St. Road Segment: e/o Dwy. 1					Project Name: Palomino Job Number: 11795				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 24,323 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 2,432 vehicles Vehicle Speed: 35 mph Near/Far Lane Distance: 36 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: 76.3% 11.0% 12.6% 92.11%				
					Medium Trucks: 73.3% 9.2% 17.6% 5.63%				
					Heavy Trucks: 84.4% 3.2% 12.5% 2.27%				
					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: 40.460 Medium Trucks: 40.241 Heavy Trucks: 40.262				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos: 64.30 2.76 1.28 -1.20 -4.61 0.000 0.000									
Medium Trucks: 75.75 -9.38 1.31 -1.20 -4.87 0.000 0.000									
Heavy Trucks: 81.57 -13.33 1.31 -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: 67.1 65.2 62.8 58.6 66.6 67.1									
Medium Trucks: 66.5 64.3 61.3 59.4 66.8 67.1									
Heavy Trucks: 68.3 66.8 58.6 59.8 67.8 68.0									
Vehicle Noise: 72.2 70.3 66.0 64.0 71.9 72.2									
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				59	127	273	587		
CNEL:				61	132	285	614		

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: HY With Project Road Name: First St. Road Segment: e/o Mountain Av.					Project Name: Palomino Job Number: 11795				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 11,986 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 1,199 vehicles Vehicle Speed: 35 mph Near/Far Lane Distance: 36 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: 76.3% 11.0% 12.6% 90.68%				
					Medium Trucks: 73.3% 9.2% 17.6% 6.02%				
					Heavy Trucks: 84.4% 3.2% 12.5% 3.30%				
					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: 40.460 Medium Trucks: 40.241 Heavy Trucks: 40.262				
FHWA Noise Model Calculations									
VehicleType	REMED	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	64.30	-0.38	1.28	-1.20	-4.61	0.000	0.000		
Medium Trucks:	75.75	-12.16	1.31	-1.20	-4.87	0.000	0.000		
Heavy Trucks:	81.57	-14.78	1.31	-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:	64.0	62.0	59.6	55.5	63.5	63.9			
Medium Trucks:	63.7	61.6	58.5	56.6	64.0	64.3			
Heavy Trucks:	66.9	65.4	57.1	58.3	66.4	66.5			
Vehicle Noise:	69.9	68.1	63.3	61.7	69.6	69.9			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				41	89	192	413		
CNEL:				43	93	200	430		

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: HY With Project Road Name: First St. Road Segment: w/o Hamner Av.					Project Name: Palomino Job Number: 11795				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 12,793 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 1,279 vehicles Vehicle Speed: 35 mph Near/Far Lane Distance: 36 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: 76.3% 11.0% 12.6% 90.76%				
					Medium Trucks: 73.3% 9.2% 17.6% 6.01%				
					Heavy Trucks: 84.4% 3.2% 12.5% 3.24%				
					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: 40.460 Medium Trucks: 40.241 Heavy Trucks: 40.262				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos: 64.30 -0.10 1.28 -1.20 -4.61 0.000 0.000									
Medium Trucks: 75.75 -11.89 1.31 -1.20 -4.87 0.000 0.000									
Heavy Trucks: 81.57 -14.58 1.31 -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: 64.3 62.3 59.9 55.8 63.8 64.2									
Medium Trucks: 64.0 61.8 58.8 56.9 64.3 64.6									
Heavy Trucks: 67.1 65.6 57.3 58.5 66.6 66.7									
Vehicle Noise: 70.1 68.3 63.6 62.0 69.8 70.1									
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				43	92	199	428		
CNEL:				45	96	207	447		

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: HY With Project Road Name: Hidden Valley Pkwy. Road Segment: w/o E. Parkridge Av.					Project Name: Palomino Job Number: 11795				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 29,827 vehicles					Autos: 15				
Peak Hour Percentage: 10%					Medium Trucks (2 Axles): 15				
Peak Hour Volume: 2,983 vehicles					Heavy Trucks (3+ Axles): 15				
Vehicle Speed: 45 mph									
Near/Far Lane Distance: 52 feet					Vehicle Mix				
					VehicleType	Day	Evening	Night	Daily
Site Data					Autos: 76.3% 11.0% 12.6% 92.03%				
					Medium Trucks: 73.3% 9.2% 17.6% 5.68%				
					Heavy Trucks: 84.4% 3.2% 12.5% 2.29%				
					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									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	68.46	2.55	0.88	-1.20	-4.65	0.000	0.000		
Medium Trucks:	79.45	-9.55	0.91	-1.20	-4.87	0.000	0.000		
Heavy Trucks:	84.25	-13.49	0.91	-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:	70.7	68.7	66.3	62.2	70.2	70.6			
Medium Trucks:	69.6	67.5	64.5	62.5	69.9	70.3			
Heavy Trucks:	70.5	68.9	60.7	61.9	69.9	70.1			
Vehicle Noise:	75.1	73.2	69.2	67.0	74.8	75.1			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				104	225	484	1,043		
CNEL:				109	236	508	1,094		

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: HY With Project Road Name: Hidden Valley Pkwy. Road Segment: e/o E. Parkridge Av.					Project Name: Palomino Job Number: 11795				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 31,318 vehicles					Autos: 15				
Peak Hour Percentage: 10%					Medium Trucks (2 Axles): 15				
Peak Hour Volume: 3,132 vehicles					Heavy Trucks (3+ Axles): 15				
Vehicle Speed: 45 mph					Vehicle Mix				
Near/Far Lane Distance: 52 feet					VehicleType	Day	Evening	Night	Daily
Site Data					Autos: 76.3% 11.0% 12.6% 91.93%				
Barrier Height: 0.0 feet					Medium Trucks: 73.3% 9.2% 17.6% 5.75%				
Barrier Type (0-Wall, 1-Berm): 0.0					Heavy Trucks: 84.4% 3.2% 12.5% 2.32%				
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: 43.000				
Road Grade: 0.0%					Medium Trucks: 42.794				
Left View: -90.0 degrees					Heavy Trucks: 42.814				
Right View: 90.0 degrees									
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	68.46	2.76	0.88	-1.20	-4.65	0.000	0.000		
Medium Trucks:	79.45	-9.28	0.91	-1.20	-4.87	0.000	0.000		
Heavy Trucks:	84.25	-13.23	0.91	-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:	70.9	68.9	66.5	62.4	70.4	70.9			
Medium Trucks:	69.9	67.7	64.7	62.8	70.2	70.5			
Heavy Trucks:	70.7	69.2	61.0	62.2	70.2	70.3			
Vehicle Noise:	75.3	73.4	69.4	67.2	75.0	75.3			
Centerline Distance to Noise Contour (in feet)									
	70 dBA		65 dBA		60 dBA		55 dBA		
Ldn:	108		233		503		1,083		
CNEL:	114		245		527		1,136		

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APPENDIX 9.1:

OPERATIONAL STATIONARY-SOURCE NOISE CALCULATIONS

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STATIONARY SOURCE NOISE PREDICTION MODEL

8/10/2019

Observer Location: R1

Source: Air Conditioning Unit (Roof-Top)
Condition: Operational

Project Name: Palomino

Job Number: 11795

Analyst: B. Lawson

NOISE MODEL INPUTS

Noise Distance to Observer	289.0 feet	Barrier Height:	30.0 feet
Noise Distance to Barrier:	60.0 feet	Noise Source Height:	5.0 feet
Barrier Distance to Observer:	229.0 feet	Observer Height:	5.0 feet
Observer Elevation:	0.0 feet	Barrier Type (0-Wall, 1-Berm):	0
Noise Source Elevation:	30.0 feet	Drop Off Coefficient:	20.0
Barrier Elevation:	0.0 feet	20 = 6 dBA per doubling of distance 15 = 4.5 dBA per doubling of distance	

NOISE MODEL PROJECTIONS

Noise Level	Distance (feet)	Leq	L50	L25	L8	L2	Lmax
Reference (Sample)	5.0	77.2	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	289.0	-35.2	-35.2	-35.2	-35.2	-35.2	-35.2
Shielding (Barrier Attenuation)	60.0	-5.2	-5.2	-5.2	-5.2	-5.2	-5.2
Raw (Distance + Barrier)		36.8	-40.4	-40.4	-40.4	-40.4	-40.4
39 Minute Hourly Adjustment		34.9	-42.3	-42.3	-42.3	-42.3	-42.3

STATIONARY SOURCE NOISE PREDICTION MODEL

8/10/2019

Observer Location: R1

Source: Truck Idle/Reefer Activity
Condition: Operational

Project Name: Palomino

Job Number: 11795

Analyst: B. Lawson

NOISE MODEL INPUTS

Noise Distance to Observer	401.0 feet	Barrier Height:	30.0 feet
Noise Distance to Barrier:	10.0 feet	Noise Source Height:	8.0 feet
Barrier Distance to Observer:	391.0 feet	Observer Height:	5.0 feet
Observer Elevation:	0.0 feet	Barrier Type (0-Wall, 1-Berm):	0
Noise Source Elevation:	0.0 feet	Drop Off Coefficient:	20.0
Barrier Elevation:	0.0 feet	20 = 6 dBA per doubling of distance 15 = 4.5 dBA per doubling of distance	

NOISE MODEL PROJECTIONS

Noise Level	Distance (feet)	Leq	L50	L25	L8	L2	Lmax
Reference (Sample)	30.0	70.1	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	401.0	-22.5	-22.5	-22.5	-22.5	-22.5	-22.5
Shielding (Barrier Attenuation)	10.0	-17.7	-17.7	-17.7	-17.7	-17.7	-17.7
Raw (Distance + Barrier)		29.9	-40.2	-40.2	-40.2	-40.2	-40.2
60 Minute Hourly Adjustment		29.9	-40.2	-40.2	-40.2	-40.2	-40.2

STATIONARY SOURCE NOISE PREDICTION MODEL

8/10/2019

Observer Location: R1

Project Name: Palomino

Source: Parking Lot Vehicle Movements (Industria) Job Number: 11795
 Condition: Operational Analyst: B. Lawson

NOISE MODEL INPUTS

Noise Distance to Observer	159.0 feet	Barrier Height:	0.0 feet
Noise Distance to Barrier:	159.0 feet	Noise Source Height:	5.0 feet
Barrier Distance to Observer:	0.0 feet	Observer Height:	5.0 feet
Observer Elevation:	0.0 feet	Barrier Type (0-Wall, 1-Berm):	0
Noise Source Elevation:	0.0 feet	Drop Off Coefficient:	20.0
Barrier Elevation:	0.0 feet	20 = 6 dBA per doubling of distance 15 = 4.5 dBA per doubling of distance	

NOISE MODEL PROJECTIONS

Noise Level	Distance (feet)	Leq	L50	L25	L8	L2	Lmax
Reference (Sample)	10.0	52.2	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	159.0	-24.0	-24.0	-24.0	-24.0	-24.0	-24.0
Shielding (Barrier Attenuation)	159.0	0.0	0.0	0.0	0.0	0.0	0.0
Raw (Distance + Barrier)		28.2	-24.0	-24.0	-24.0	-24.0	-24.0
60 Minute Hourly Adjustment		28.2	-24.0	-24.0	-24.0	-24.0	-24.0

STATIONARY SOURCE NOISE PREDICTION MODEL

8/10/2019

Observer Location: R2

Project Name: Palomino

Source: Air Conditioning Unit (Roof-Top) Job Number: 11795
 Condition: Operational Analyst: B. Lawson

NOISE MODEL INPUTS

Noise Distance to Observer	186.0 feet	Barrier Height:	30.0 feet
Noise Distance to Barrier:	30.0 feet	Noise Source Height:	5.0 feet
Barrier Distance to Observer:	156.0 feet	Observer Height:	5.0 feet
Observer Elevation:	0.0 feet	Barrier Type (0-Wall, 1-Berm):	0
Noise Source Elevation:	30.0 feet	Drop Off Coefficient:	20.0
Barrier Elevation:	0.0 feet	20 = 6 dBA per doubling of distance 15 = 4.5 dBA per doubling of distance	

NOISE MODEL PROJECTIONS

Noise Level	Distance (feet)	Leq	L50	L25	L8	L2	Lmax
Reference (Sample)	5.0	77.2	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	186.0	-31.4	-31.4	-31.4	-31.4	-31.4	-31.4
Shielding (Barrier Attenuation)	30.0	-4.9	-4.9	-4.9	-4.9	-4.9	-4.9
Raw (Distance + Barrier)		40.9	-36.3	-36.3	-36.3	-36.3	-36.3
39 Minute Hourly Adjustment		39.0	-38.2	-38.2	-38.2	-38.2	-38.2

STATIONARY SOURCE NOISE PREDICTION MODEL		8/10/2019
Observer Location: R2		Project Name: Palomino
Source: Parking Lot Vehicle Movements (Industria		Job Number: 11795
Condition: Operational		Analyst: B. Lawson
NOISE MODEL INPUTS		

Noise Distance to Observer	35.0 feet	Barrier Height:	0.0 feet
Noise Distance to Barrier:	35.0 feet	Noise Source Height:	5.0 feet
Barrier Distance to Observer:	0.0 feet	Observer Height:	5.0 feet
Observer Elevation:	0.0 feet	Barrier Type (0-Wall, 1-Berm):	0
Noise Source Elevation:	0.0 feet	Drop Off Coefficient:	20.0
Barrier Elevation:	0.0 feet	20 = 6 dBA per doubling of distance 15 = 4.5 dBA per doubling of distance	

NOISE MODEL PROJECTIONS							
Noise Level	Distance (feet)	Leq	L50	L25	L8	L2	Lmax
Reference (Sample)	10.0	52.2	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	35.0	-10.9	-10.9	-10.9	-10.9	-10.9	-10.9
Shielding (Barrier Attenuation)	35.0	0.0	0.0	0.0	0.0	0.0	0.0
Raw (Distance + Barrier)		41.3	-10.9	-10.9	-10.9	-10.9	-10.9
60 Minute Hourly Adjustment		41.3	-10.9	-10.9	-10.9	-10.9	-10.9

STATIONARY SOURCE NOISE PREDICTION MODEL		8/10/2019
Observer Location: R2		Project Name: Palomino
Source: Truck Idle/Reefer Activity		Job Number: 11795
Condition: Operational		Analyst: B. Lawson
NOISE MODEL INPUTS		

Noise Distance to Observer	522.0 feet	Barrier Height:	30.0 feet
Noise Distance to Barrier:	10.0 feet	Noise Source Height:	8.0 feet
Barrier Distance to Observer:	512.0 feet	Observer Height:	5.0 feet
Observer Elevation:	0.0 feet	Barrier Type (0-Wall, 1-Berm):	0
Noise Source Elevation:	0.0 feet	Drop Off Coefficient:	20.0
Barrier Elevation:	0.0 feet	20 = 6 dBA per doubling of distance 15 = 4.5 dBA per doubling of distance	

NOISE MODEL PROJECTIONS							
Noise Level	Distance (feet)	Leq	L50	L25	L8	L2	Lmax
Reference (Sample)	30.0	70.1	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	522.0	-24.8	-24.8	-24.8	-24.8	-24.8	-24.8
Shielding (Barrier Attenuation)	10.0	-17.6	-17.6	-17.6	-17.6	-17.6	-17.6
Raw (Distance + Barrier)		27.7	-42.4	-42.4	-42.4	-42.4	-42.4
60 Minute Hourly Adjustment		27.7	-42.4	-42.4	-42.4	-42.4	-42.4

STATIONARY SOURCE NOISE PREDICTION MODEL		8/10/2019
Observer Location: R3		<i>Project Name:</i> Palomino
Source: Air Conditioning Unit (Roof-Top)		<i>Job Number:</i> 11795
Condition: Operational		<i>Analyst:</i> B. Lawson
NOISE MODEL INPUTS		

Noise Distance to Observer	346.0 feet	Barrier Height:	30.0 feet
Noise Distance to Barrier:	220.0 feet	Noise Source Height:	5.0 feet
Barrier Distance to Observer:	126.0 feet	Observer Height:	5.0 feet
Observer Elevation:	0.0 feet	Barrier Type (0-Wall, 1-Berm):	0
Noise Source Elevation:	30.0 feet	Drop Off Coefficient:	20.0
Barrier Elevation:	0.0 feet	20 = 6 dBA per doubling of distance 15 = 4.5 dBA per doubling of distance	

NOISE MODEL PROJECTIONS							
Noise Level	Distance (feet)	Leq	L50	L25	L8	L2	Lmax
Reference (Sample)	5.0	77.2	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	346.0	-36.8	-36.8	-36.8	-36.8	-36.8	-36.8
Shielding (Barrier Attenuation)	220.0	-10.7	-10.7	-10.7	-10.7	-10.7	-10.7
Raw (Distance + Barrier)		29.7	-47.5	-47.5	-47.5	-47.5	-47.5
39 Minute Hourly Adjustment		27.8	-49.4	-49.4	-49.4	-49.4	-49.4

STATIONARY SOURCE NOISE PREDICTION MODEL		8/10/2019
Observer Location: R3		<i>Project Name:</i> Palomino
Source: Parking Lot Vehicle Movements (Industria		<i>Job Number:</i> 11795
Condition: Operational		<i>Analyst:</i> B. Lawson
NOISE MODEL INPUTS		

Noise Distance to Observer	158.0 feet	Barrier Height:	6.0 feet
Noise Distance to Barrier:	70.0 feet	Noise Source Height:	5.0 feet
Barrier Distance to Observer:	88.0 feet	Observer Height:	5.0 feet
Observer Elevation:	0.0 feet	Barrier Type (0-Wall, 1-Berm):	0
Noise Source Elevation:	0.0 feet	Drop Off Coefficient:	20.0
Barrier Elevation:	0.0 feet	20 = 6 dBA per doubling of distance 15 = 4.5 dBA per doubling of distance	

NOISE MODEL PROJECTIONS							
Noise Level	Distance (feet)	Leq	L50	L25	L8	L2	Lmax
Reference (Sample)	10.0	52.2	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	158.0	-24.0	-24.0	-24.0	-24.0	-24.0	-24.0
Shielding (Barrier Attenuation)	70.0	-5.1	-5.1	-5.1	-5.1	-5.1	-5.1
Raw (Distance + Barrier)		23.1	-29.1	-29.1	-29.1	-29.1	-29.1
60 Minute Hourly Adjustment		23.1	-29.1	-29.1	-29.1	-29.1	-29.1

STATIONARY SOURCE NOISE PREDICTION MODEL

8/10/2019

Observer Location: R4

Source: Air Conditioning Unit (Roof-Top)
Condition: Operational

Project Name: Palomino

Job Number: 11795

Analyst: B. Lawson

NOISE MODEL INPUTS

Noise Distance to Observer	224.0 feet	Barrier Height:	30.0 feet
Noise Distance to Barrier:	60.0 feet	Noise Source Height:	5.0 feet
Barrier Distance to Observer:	164.0 feet	Observer Height:	5.0 feet
Observer Elevation:	0.0 feet	Barrier Type (0-Wall, 1-Berm):	0
Noise Source Elevation:	30.0 feet	Drop Off Coefficient:	20.0
Barrier Elevation:	0.0 feet	20 = 6 dBA per doubling of distance 15 = 4.5 dBA per doubling of distance	

NOISE MODEL PROJECTIONS

Noise Level	Distance (feet)	Leq	L50	L25	L8	L2	Lmax
Reference (Sample)	5.0	77.2	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	224.0	-33.0	-33.0	-33.0	-33.0	-33.0	-33.0
Shielding (Barrier Attenuation)	60.0	-6.0	-6.0	-6.0	-6.0	-6.0	-6.0
Raw (Distance + Barrier)		38.2	-39.0	-39.0	-39.0	-39.0	-39.0
39 Minute Hourly Adjustment		36.3	-40.9	-40.9	-40.9	-40.9	-40.9

STATIONARY SOURCE NOISE PREDICTION MODEL

8/10/2019

Observer Location: R4

Source: Truck Unloading/Docking Activity
Condition: Operational

Project Name: Palomino

Job Number: 11795

Analyst: B. Lawson

NOISE MODEL INPUTS

Noise Distance to Observer	234.0 feet	Barrier Height:	0.0 feet
Noise Distance to Barrier:	130.0 feet	Noise Source Height:	8.0 feet
Barrier Distance to Observer:	104.0 feet	Observer Height:	5.0 feet
Observer Elevation:	0.0 feet	Barrier Type (0-Wall, 1-Berm):	0
Noise Source Elevation:	0.0 feet	Drop Off Coefficient:	20.0
Barrier Elevation:	0.0 feet	20 = 6 dBA per doubling of distance 15 = 4.5 dBA per doubling of distance	

NOISE MODEL PROJECTIONS

Noise Level	Distance (feet)	Leq	L50	L25	L8	L2	Lmax
Reference (Sample)	30.0	67.2	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	234.0	-17.8	-17.8	-17.8	-17.8	-17.8	-17.8
Shielding (Barrier Attenuation)	130.0	0.0	0.0	0.0	0.0	0.0	0.0
Raw (Distance + Barrier)		49.4	-17.8	-17.8	-17.8	-17.8	-17.8
60 Minute Hourly Adjustment		49.4	-17.8	-17.8	-17.8	-17.8	-17.8

STATIONARY SOURCE NOISE PREDICTION MODEL

8/10/2019

Observer Location: R4

Project Name: Palomino

Source: Parking Lot Vehicle Movements (Industria) Job Number: 11795
 Condition: Operational Analyst: B. Lawson

NOISE MODEL INPUTS

Noise Distance to Observer	264.0 feet	Barrier Height:	0.0 feet
Noise Distance to Barrier:	264.0 feet	Noise Source Height:	5.0 feet
Barrier Distance to Observer:	0.0 feet	Observer Height:	5.0 feet
Observer Elevation:	0.0 feet	Barrier Type (0-Wall, 1-Berm):	0
Noise Source Elevation:	0.0 feet	Drop Off Coefficient:	20.0
Barrier Elevation:	0.0 feet	20 = 6 dBA per doubling of distance 15 = 4.5 dBA per doubling of distance	

NOISE MODEL PROJECTIONS

Noise Level	Distance (feet)	Leq	L50	L25	L8	L2	Lmax
Reference (Sample)	10.0	52.2	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	264.0	-28.4	-28.4	-28.4	-28.4	-28.4	-28.4
Shielding (Barrier Attenuation)	264.0	0.0	0.0	0.0	0.0	0.0	0.0
Raw (Distance + Barrier)		23.8	-28.4	-28.4	-28.4	-28.4	-28.4
60 Minute Hourly Adjustment		23.8	-28.4	-28.4	-28.4	-28.4	-28.4

STATIONARY SOURCE NOISE PREDICTION MODEL

8/10/2019

Observer Location: R4

Project Name: Palomino

Source: Parking Lot Vehicle Movements (Commer) Job Number: 11795
 Condition: Operational Analyst: B. Lawson

NOISE MODEL INPUTS

Noise Distance to Observer	440.0 feet	Barrier Height:	0.0 feet
Noise Distance to Barrier:	440.0 feet	Noise Source Height:	5.0 feet
Barrier Distance to Observer:	0.0 feet	Observer Height:	5.0 feet
Observer Elevation:	0.0 feet	Barrier Type (0-Wall, 1-Berm):	0
Noise Source Elevation:	0.0 feet	Drop Off Coefficient:	20.0
Barrier Elevation:	0.0 feet	20 = 6 dBA per doubling of distance 15 = 4.5 dBA per doubling of distance	

NOISE MODEL PROJECTIONS

Noise Level	Distance (feet)	Leq	L50	L25	L8	L2	Lmax
Reference (Sample)	5.0	60.1	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	440.0	-38.9	-38.9	-38.9	-38.9	-38.9	-38.9
Shielding (Barrier Attenuation)	440.0	0.0	0.0	0.0	0.0	0.0	0.0
Raw (Distance + Barrier)		21.2	-38.9	-38.9	-38.9	-38.9	-38.9
60 Minute Hourly Adjustment		21.2	-38.9	-38.9	-38.9	-38.9	-38.9

STATIONARY SOURCE NOISE PREDICTION MODEL

8/10/2019

Observer Location: R4

Source: Drive-Through Speakerphone
Condition: Operational

Project Name: Palomino

Job Number: 11795

Analyst: B. Lawson

NOISE MODEL INPUTS

Noise Distance to Observer	598.0 feet	Barrier Height:	10.0 feet
Noise Distance to Barrier:	10.0 feet	Noise Source Height:	3.0 feet
Barrier Distance to Observer:	588.0 feet	Observer Height:	5.0 feet
Observer Elevation:	0.0 feet	Barrier Type (0-Wall, 1-Berm):	0
Noise Source Elevation:	0.0 feet	Drop Off Coefficient:	20.0
Barrier Elevation:	0.0 feet	20 = 6 dBA per doubling of distance 15 = 4.5 dBA per doubling of distance	

NOISE MODEL PROJECTIONS

Noise Level	Distance (feet)	Leq	L50	L25	L8	L2	Lmax
Reference (Sample)	15.0	62.0	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	598.0	-32.0	-32.0	-32.0	-32.0	-32.0	-32.0
Shielding (Barrier Attenuation)	10.0	-12.5	-12.5	-12.5	-12.5	-12.5	-12.5
Raw (Distance + Barrier)		17.5	-44.5	-44.5	-44.5	-44.5	-44.5
60 Minute Hourly Adjustment		17.5	-44.5	-44.5	-44.5	-44.5	-44.5

STATIONARY SOURCE NOISE PREDICTION MODEL

8/10/2019

Observer Location: R4

Source: Gas Station Activity
Condition: Operational

Project Name: Palomino

Job Number: 11795

Analyst: B. Lawson

NOISE MODEL INPUTS

Noise Distance to Observer	486.0 feet	Barrier Height:	0.0 feet
Noise Distance to Barrier:	486.0 feet	Noise Source Height:	5.0 feet
Barrier Distance to Observer:	0.0 feet	Observer Height:	5.0 feet
Observer Elevation:	0.0 feet	Barrier Type (0-Wall, 1-Berm):	0
Noise Source Elevation:	0.0 feet	Drop Off Coefficient:	20.0
Barrier Elevation:	0.0 feet	20 = 6 dBA per doubling of distance 15 = 4.5 dBA per doubling of distance	

NOISE MODEL PROJECTIONS

Noise Level	Distance (feet)	Leq	L50	L25	L8	L2	Lmax
Reference (Sample)	5.0	68.2	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	486.0	-39.8	-39.8	-39.8	-39.8	-39.8	-39.8
Shielding (Barrier Attenuation)	486.0	0.0	0.0	0.0	0.0	0.0	0.0
Raw (Distance + Barrier)		28.4	-39.8	-39.8	-39.8	-39.8	-39.8
60 Minute Hourly Adjustment		28.4	-39.8	-39.8	-39.8	-39.8	-39.8

STATIONARY SOURCE NOISE PREDICTION MODEL

8/10/2019

Observer Location: R5

Source: Air Conditioning Unit (Roof-Top)
Condition: Operational

Project Name: Palomino

Job Number: 11795

Analyst: B. Lawson

NOISE MODEL INPUTS

Noise Distance to Observer	180.0 feet	Barrier Height:	10.0 feet
Noise Distance to Barrier:	10.0 feet	Noise Source Height:	5.0 feet
Barrier Distance to Observer:	170.0 feet	Observer Height:	5.0 feet
Observer Elevation:	0.0 feet	Barrier Type (0-Wall, 1-Berm):	0
Noise Source Elevation:	10.0 feet	Drop Off Coefficient:	20.0
Barrier Elevation:	0.0 feet	20 = 6 dBA per doubling of distance 15 = 4.5 dBA per doubling of distance	

NOISE MODEL PROJECTIONS

Noise Level	Distance (feet)	Leq	L50	L25	L8	L2	Lmax
Reference (Sample)	5.0	77.2	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	180.0	-31.1	-31.1	-31.1	-31.1	-31.1	-31.1
Shielding (Barrier Attenuation)	10.0	-10.2	-10.2	-10.2	-10.2	-10.2	-10.2
Raw (Distance + Barrier)		35.9	-41.3	-41.3	-41.3	-41.3	-41.3
39 Minute Hourly Adjustment		34.0	-43.2	-43.2	-43.2	-43.2	-43.2

STATIONARY SOURCE NOISE PREDICTION MODEL

8/10/2019

Observer Location: R5

Source: Parking Lot Vehicle Movements (Industria
Condition: Operational

Project Name: Palomino

Job Number: 11795

Analyst: B. Lawson

NOISE MODEL INPUTS

Noise Distance to Observer	296.0 feet	Barrier Height:	0.0 feet
Noise Distance to Barrier:	296.0 feet	Noise Source Height:	5.0 feet
Barrier Distance to Observer:	0.0 feet	Observer Height:	5.0 feet
Observer Elevation:	0.0 feet	Barrier Type (0-Wall, 1-Berm):	0
Noise Source Elevation:	0.0 feet	Drop Off Coefficient:	20.0
Barrier Elevation:	0.0 feet	20 = 6 dBA per doubling of distance 15 = 4.5 dBA per doubling of distance	

NOISE MODEL PROJECTIONS

Noise Level	Distance (feet)	Leq	L50	L25	L8	L2	Lmax
Reference (Sample)	10.0	52.2	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	296.0	-29.4	-29.4	-29.4	-29.4	-29.4	-29.4
Shielding (Barrier Attenuation)	296.0	0.0	0.0	0.0	0.0	0.0	0.0
Raw (Distance + Barrier)		22.8	-29.4	-29.4	-29.4	-29.4	-29.4
60 Minute Hourly Adjustment		22.8	-29.4	-29.4	-29.4	-29.4	-29.4

STATIONARY SOURCE NOISE PREDICTION MODEL

8/10/2019

Observer Location: R5

Project Name: Palomino

Source: Parking Lot Vehicle Movements (Commer
Condition: Operational

Job Number: 11795

Analyst: B. Lawson

NOISE MODEL INPUTS

Noise Distance to Observer	128.0 feet	Barrier Height:	0.0 feet
Noise Distance to Barrier:	128.0 feet	Noise Source Height:	5.0 feet
Barrier Distance to Observer:	0.0 feet	Observer Height:	5.0 feet
Observer Elevation:	0.0 feet	Barrier Type (0-Wall, 1-Berm):	0
Noise Source Elevation:	0.0 feet	Drop Off Coefficient:	20.0
Barrier Elevation:	0.0 feet	20 = 6 dBA per doubling of distance 15 = 4.5 dBA per doubling of distance	

NOISE MODEL PROJECTIONS

Noise Level	Distance (feet)	Leq	L50	L25	L8	L2	Lmax
Reference (Sample)	5.0	60.1	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	128.0	-28.2	-28.2	-28.2	-28.2	-28.2	-28.2
Shielding (Barrier Attenuation)	128.0	0.0	0.0	0.0	0.0	0.0	0.0
Raw (Distance + Barrier)		31.9	-28.2	-28.2	-28.2	-28.2	-28.2
60 Minute Hourly Adjustment		31.9	-28.2	-28.2	-28.2	-28.2	-28.2

STATIONARY SOURCE NOISE PREDICTION MODEL

8/10/2019

Observer Location: R5

Project Name: Palomino

Source: Drive-Through Speakerphone
Condition: Operational

Job Number: 11795

Analyst: B. Lawson

NOISE MODEL INPUTS

Noise Distance to Observer	281.0 feet	Barrier Height:	10.0 feet
Noise Distance to Barrier:	10.0 feet	Noise Source Height:	3.0 feet
Barrier Distance to Observer:	271.0 feet	Observer Height:	5.0 feet
Observer Elevation:	0.0 feet	Barrier Type (0-Wall, 1-Berm):	0
Noise Source Elevation:	0.0 feet	Drop Off Coefficient:	20.0
Barrier Elevation:	0.0 feet	20 = 6 dBA per doubling of distance 15 = 4.5 dBA per doubling of distance	

NOISE MODEL PROJECTIONS

Noise Level	Distance (feet)	Leq	L50	L25	L8	L2	Lmax
Reference (Sample)	15.0	62.0	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	281.0	-25.5	-25.5	-25.5	-25.5	-25.5	-25.5
Shielding (Barrier Attenuation)	10.0	-12.6	-12.6	-12.6	-12.6	-12.6	-12.6
Raw (Distance + Barrier)		23.9	-38.1	-38.1	-38.1	-38.1	-38.1
60 Minute Hourly Adjustment		23.9	-38.1	-38.1	-38.1	-38.1	-38.1

STATIONARY SOURCE NOISE PREDICTION MODEL

8/10/2019

Observer Location: R5

Source: Gas Station Activity
Condition: Operational

Project Name: Palomino

Job Number: 11795

Analyst: B. Lawson

NOISE MODEL INPUTS

Noise Distance to Observer	111.0 feet	Barrier Height:	0.0 feet
Noise Distance to Barrier:	111.0 feet	Noise Source Height:	5.0 feet
Barrier Distance to Observer:	0.0 feet	Observer Height:	5.0 feet
Observer Elevation:	0.0 feet	Barrier Type (0-Wall, 1-Berm):	0
Noise Source Elevation:	0.0 feet	Drop Off Coefficient:	20.0
Barrier Elevation:	0.0 feet	20 = 6 dBA per doubling of distance 15 = 4.5 dBA per doubling of distance	

NOISE MODEL PROJECTIONS

Noise Level	Distance (feet)	Leq	L50	L25	L8	L2	Lmax
Reference (Sample)	5.0	68.2	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	111.0	-26.9	-26.9	-26.9	-26.9	-26.9	-26.9
Shielding (Barrier Attenuation)	111.0	0.0	0.0	0.0	0.0	0.0	0.0
Raw (Distance + Barrier)		41.3	-26.9	-26.9	-26.9	-26.9	-26.9
60 Minute Hourly Adjustment		41.3	-26.9	-26.9	-26.9	-26.9	-26.9

STATIONARY SOURCE NOISE PREDICTION MODEL

8/10/2019

Observer Location: R6

Source: Air Conditioning Unit (Roof-Top)
Condition: Operational

Project Name: Palomino

Job Number: 11795

Analyst: B. Lawson

NOISE MODEL INPUTS

Noise Distance to Observer	166.0 feet	Barrier Height:	10.0 feet
Noise Distance to Barrier:	10.0 feet	Noise Source Height:	5.0 feet
Barrier Distance to Observer:	156.0 feet	Observer Height:	5.0 feet
Observer Elevation:	0.0 feet	Barrier Type (0-Wall, 1-Berm):	0
Noise Source Elevation:	10.0 feet	Drop Off Coefficient:	20.0
Barrier Elevation:	0.0 feet	20 = 6 dBA per doubling of distance 15 = 4.5 dBA per doubling of distance	

NOISE MODEL PROJECTIONS

Noise Level	Distance (feet)	Leq	L50	L25	L8	L2	Lmax
Reference (Sample)	5.0	77.2	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	166.0	-30.4	-30.4	-30.4	-30.4	-30.4	-30.4
Shielding (Barrier Attenuation)	10.0	-10.1	-10.1	-10.1	-10.1	-10.1	-10.1
Raw (Distance + Barrier)		36.7	-40.5	-40.5	-40.5	-40.5	-40.5
39 Minute Hourly Adjustment		34.8	-42.4	-42.4	-42.4	-42.4	-42.4

STATIONARY SOURCE NOISE PREDICTION MODEL

8/10/2019

Observer Location: R6

Source: Truck Unloading/Docking Activity
Condition: Operational

Project Name: Palomino

Job Number: 11795

Analyst: B. Lawson

NOISE MODEL INPUTS

Noise Distance to Observer	579.0 feet	Barrier Height:	0.0 feet
Noise Distance to Barrier:	579.0 feet	Noise Source Height:	8.0 feet
Barrier Distance to Observer:	0.0 feet	Observer Height:	5.0 feet
Observer Elevation:	0.0 feet	Barrier Type (0-Wall, 1-Berm):	0
Noise Source Elevation:	0.0 feet	Drop Off Coefficient:	20.0
Barrier Elevation:	0.0 feet	20 = 6 dBA per doubling of distance 15 = 4.5 dBA per doubling of distance	

NOISE MODEL PROJECTIONS

Noise Level	Distance (feet)	Leq	L50	L25	L8	L2	Lmax
Reference (Sample)	30.0	67.2	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	579.0	-25.7	-25.7	-25.7	-25.7	-25.7	-25.7
Shielding (Barrier Attenuation)	579.0	0.0	0.0	0.0	0.0	0.0	0.0
Raw (Distance + Barrier)		41.5	-25.7	-25.7	-25.7	-25.7	-25.7
60 Minute Hourly Adjustment		41.5	-25.7	-25.7	-25.7	-25.7	-25.7

STATIONARY SOURCE NOISE PREDICTION MODEL

8/10/2019

Observer Location: R6

Source: Parking Lot Vehicle Movements (Industria
Condition: Operational

Project Name: Palomino

Job Number: 11795

Analyst: B. Lawson

NOISE MODEL INPUTS

Noise Distance to Observer	488.0 feet	Barrier Height:	0.0 feet
Noise Distance to Barrier:	488.0 feet	Noise Source Height:	5.0 feet
Barrier Distance to Observer:	0.0 feet	Observer Height:	5.0 feet
Observer Elevation:	0.0 feet	Barrier Type (0-Wall, 1-Berm):	0
Noise Source Elevation:	0.0 feet	Drop Off Coefficient:	20.0
Barrier Elevation:	0.0 feet	20 = 6 dBA per doubling of distance 15 = 4.5 dBA per doubling of distance	

NOISE MODEL PROJECTIONS

Noise Level	Distance (feet)	Leq	L50	L25	L8	L2	Lmax
Reference (Sample)	10.0	52.2	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	488.0	-33.8	-33.8	-33.8	-33.8	-33.8	-33.8
Shielding (Barrier Attenuation)	488.0	0.0	0.0	0.0	0.0	0.0	0.0
Raw (Distance + Barrier)		18.4	-33.8	-33.8	-33.8	-33.8	-33.8
60 Minute Hourly Adjustment		18.4	-33.8	-33.8	-33.8	-33.8	-33.8

STATIONARY SOURCE NOISE PREDICTION MODEL

8/10/2019

Observer Location: R6

Project Name: Palomino

Source: Parking Lot Vehicle Movements (Commer
Condition: Operational

Job Number: 11795

Analyst: B. Lawson

NOISE MODEL INPUTS

Noise Distance to Observer	161.0 feet	Barrier Height:	0.0 feet
Noise Distance to Barrier:	161.0 feet	Noise Source Height:	5.0 feet
Barrier Distance to Observer:	0.0 feet	Observer Height:	5.0 feet
Observer Elevation:	0.0 feet	Barrier Type (0-Wall, 1-Berm):	0
Noise Source Elevation:	0.0 feet	Drop Off Coefficient:	20.0
Barrier Elevation:	0.0 feet	20 = 6 dBA per doubling of distance 15 = 4.5 dBA per doubling of distance	

NOISE MODEL PROJECTIONS

Noise Level	Distance (feet)	Leq	L50	L25	L8	L2	Lmax
Reference (Sample)	5.0	60.1	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	161.0	-30.2	-30.2	-30.2	-30.2	-30.2	-30.2
Shielding (Barrier Attenuation)	161.0	0.0	0.0	0.0	0.0	0.0	0.0
Raw (Distance + Barrier)		29.9	-30.2	-30.2	-30.2	-30.2	-30.2
60 Minute Hourly Adjustment		29.9	-30.2	-30.2	-30.2	-30.2	-30.2

STATIONARY SOURCE NOISE PREDICTION MODEL

8/10/2019

Observer Location: R6

Project Name: Palomino

Source: Drive-Through Speakerphone
Condition: Operational

Job Number: 11795

Analyst: B. Lawson

NOISE MODEL INPUTS

Noise Distance to Observer	307.0 feet	Barrier Height:	10.0 feet
Noise Distance to Barrier:	65.0 feet	Noise Source Height:	3.0 feet
Barrier Distance to Observer:	242.0 feet	Observer Height:	5.0 feet
Observer Elevation:	0.0 feet	Barrier Type (0-Wall, 1-Berm):	0
Noise Source Elevation:	0.0 feet	Drop Off Coefficient:	20.0
Barrier Elevation:	0.0 feet	20 = 6 dBA per doubling of distance 15 = 4.5 dBA per doubling of distance	

NOISE MODEL PROJECTIONS

Noise Level	Distance (feet)	Leq	L50	L25	L8	L2	Lmax
Reference (Sample)	15.0	62.0	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	307.0	-26.2	-26.2	-26.2	-26.2	-26.2	-26.2
Shielding (Barrier Attenuation)	65.0	-8.0	-8.0	-8.0	-8.0	-8.0	-8.0
Raw (Distance + Barrier)		27.8	-34.2	-34.2	-34.2	-34.2	-34.2
60 Minute Hourly Adjustment		27.8	-34.2	-34.2	-34.2	-34.2	-34.2

STATIONARY SOURCE NOISE PREDICTION MODEL

8/10/2019

Observer Location: R6

Source: Gas Station Activity
Condition: Operational

Project Name: Palomino

Job Number: 11795

Analyst: B. Lawson

NOISE MODEL INPUTS

Noise Distance to Observer	122.0 feet	Barrier Height:	0.0 feet
Noise Distance to Barrier:	122.0 feet	Noise Source Height:	5.0 feet
Barrier Distance to Observer:	0.0 feet	Observer Height:	5.0 feet
Observer Elevation:	0.0 feet	Barrier Type (0-Wall, 1-Berm):	0
Noise Source Elevation:	0.0 feet	Drop Off Coefficient:	20.0
Barrier Elevation:	0.0 feet	20 = 6 dBA per doubling of distance 15 = 4.5 dBA per doubling of distance	

NOISE MODEL PROJECTIONS

Noise Level	Distance (feet)	Leq	L50	L25	L8	L2	Lmax
Reference (Sample)	5.0	68.2	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	122.0	-27.7	-27.7	-27.7	-27.7	-27.7	-27.7
Shielding (Barrier Attenuation)	122.0	0.0	0.0	0.0	0.0	0.0	0.0
Raw (Distance + Barrier)		40.5	-27.7	-27.7	-27.7	-27.7	-27.7
60 Minute Hourly Adjustment		40.5	-27.7	-27.7	-27.7	-27.7	-27.7

STATIONARY SOURCE NOISE PREDICTION MODEL

8/10/2019

Observer Location: R7

Source: Air Conditioning Unit (Roof-Top)
Condition: Operational

Project Name: Palomino

Job Number: 11795

Analyst: B. Lawson

NOISE MODEL INPUTS

Noise Distance to Observer	300.0 feet	Barrier Height:	30.0 feet
Noise Distance to Barrier:	160.0 feet	Noise Source Height:	5.0 feet
Barrier Distance to Observer:	140.0 feet	Observer Height:	5.0 feet
Observer Elevation:	0.0 feet	Barrier Type (0-Wall, 1-Berm):	0
Noise Source Elevation:	30.0 feet	Drop Off Coefficient:	20.0
Barrier Elevation:	0.0 feet	20 = 6 dBA per doubling of distance 15 = 4.5 dBA per doubling of distance	

NOISE MODEL PROJECTIONS

Noise Level	Distance (feet)	Leq	L50	L25	L8	L2	Lmax
Reference (Sample)	5.0	77.2	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	300.0	-35.6	-35.6	-35.6	-35.6	-35.6	-35.6
Shielding (Barrier Attenuation)	160.0	-9.6	-9.6	-9.6	-9.6	-9.6	-9.6
Raw (Distance + Barrier)		32.0	-45.2	-45.2	-45.2	-45.2	-45.2
39 Minute Hourly Adjustment		30.1	-47.1	-47.1	-47.1	-47.1	-47.1

STATIONARY SOURCE NOISE PREDICTION MODEL		8/10/2019
Observer Location: R7		Project Name: Palomino
Source: Parking Lot Vehicle Movements (Industria		Job Number: 11795
Condition: Operational		Analyst: B. Lawson
NOISE MODEL INPUTS		

Noise Distance to Observer	202.0 feet	Barrier Height:	0.0 feet
Noise Distance to Barrier:	202.0 feet	Noise Source Height:	5.0 feet
Barrier Distance to Observer:	0.0 feet	Observer Height:	5.0 feet
Observer Elevation:	0.0 feet	Barrier Type (0-Wall, 1-Berm):	0
Noise Source Elevation:	0.0 feet	Drop Off Coefficient:	20.0
Barrier Elevation:	0.0 feet	20 = 6 dBA per doubling of distance	
		15 = 4.5 dBA per doubling of distance	

NOISE MODEL PROJECTIONS							
Noise Level	Distance (feet)	Leq	L50	L25	L8	L2	Lmax
Reference (Sample)	10.0	52.2	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	202.0	-26.1	-26.1	-26.1	-26.1	-26.1	-26.1
Shielding (Barrier Attenuation)	202.0	0.0	0.0	0.0	0.0	0.0	0.0
Raw (Distance + Barrier)		26.1	-26.1	-26.1	-26.1	-26.1	-26.1
60 Minute Hourly Adjustment		26.1	-26.1	-26.1	-26.1	-26.1	-26.1

STATIONARY SOURCE NOISE PREDICTION MODEL		8/10/2019
Observer Location: R7		Project Name: Palomino
Source: Parking Lot Vehicle Movements (Commer		Job Number: 11795
Condition: Operational		Analyst: B. Lawson
NOISE MODEL INPUTS		

Noise Distance to Observer	684.0 feet	Barrier Height:	0.0 feet
Noise Distance to Barrier:	684.0 feet	Noise Source Height:	5.0 feet
Barrier Distance to Observer:	0.0 feet	Observer Height:	5.0 feet
Observer Elevation:	0.0 feet	Barrier Type (0-Wall, 1-Berm):	0
Noise Source Elevation:	0.0 feet	Drop Off Coefficient:	20.0
Barrier Elevation:	0.0 feet	20 = 6 dBA per doubling of distance	
		15 = 4.5 dBA per doubling of distance	

NOISE MODEL PROJECTIONS							
Noise Level	Distance (feet)	Leq	L50	L25	L8	L2	Lmax
Reference (Sample)	5.0	60.1	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	684.0	-42.7	-42.7	-42.7	-42.7	-42.7	-42.7
Shielding (Barrier Attenuation)	684.0	0.0	0.0	0.0	0.0	0.0	0.0
Raw (Distance + Barrier)		17.4	-42.7	-42.7	-42.7	-42.7	-42.7
60 Minute Hourly Adjustment		17.4	-42.7	-42.7	-42.7	-42.7	-42.7

STATIONARY SOURCE NOISE PREDICTION MODEL		8/10/2019
Observer Location: R7		Project Name: Palomino
Source: Drive-Through Speakerphone		Job Number: 11795
Condition: Operational		Analyst: B. Lawson
NOISE MODEL INPUTS		

Noise Distance to Observer	1,027.0 feet	Barrier Height:	0.0 feet
Noise Distance to Barrier:	1,027.0 feet	Noise Source Height:	3.0 feet
Barrier Distance to Observer:	0.0 feet	Observer Height:	5.0 feet
Observer Elevation:	0.0 feet	Barrier Type (0-Wall, 1-Berm):	0
Noise Source Elevation:	0.0 feet	Drop Off Coefficient:	20.0
Barrier Elevation:	0.0 feet	20 = 6 dBA per doubling of distance	
		15 = 4.5 dBA per doubling of distance	

NOISE MODEL PROJECTIONS							
Noise Level	Distance (feet)	Leq	L50	L25	L8	L2	Lmax
Reference (Sample)	15.0	62.0	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	1,027.0	-36.7	-36.7	-36.7	-36.7	-36.7	-36.7
Shielding (Barrier Attenuation)	1,027.0	0.0	0.0	0.0	0.0	0.0	0.0
Raw (Distance + Barrier)		25.3	-36.7	-36.7	-36.7	-36.7	-36.7
60 Minute Hourly Adjustment		25.3	-36.7	-36.7	-36.7	-36.7	-36.7

STATIONARY SOURCE NOISE PREDICTION MODEL		8/10/2019
Observer Location: R7		<i>Project Name:</i> Palomino
Source: Gas Station Activity		<i>Job Number:</i> 11795
Condition: Operational		<i>Analyst:</i> B. Lawson
NOISE MODEL INPUTS		

Noise Distance to Observer	1,027.0 feet	Barrier Height:	0.0 feet
Noise Distance to Barrier:	1,027.0 feet	Noise Source Height:	5.0 feet
Barrier Distance to Observer:	0.0 feet	Observer Height:	5.0 feet
Observer Elevation:	0.0 feet	Barrier Type (0-Wall, 1-Berm):	0
Noise Source Elevation:	0.0 feet	Drop Off Coefficient:	20.0
Barrier Elevation:	0.0 feet	20 = 6 dBA per doubling of distance	
		15 = 4.5 dBA per doubling of distance	

NOISE MODEL PROJECTIONS							
Noise Level	Distance (feet)	Leq	L50	L25	L8	L2	Lmax
Reference (Sample)	5.0	68.2	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	1,027.0	-46.3	-46.3	-46.3	-46.3	-46.3	-46.3
Shielding (Barrier Attenuation)	1,027.0	0.0	0.0	0.0	0.0	0.0	0.0
Raw (Distance + Barrier)		21.9	-46.3	-46.3	-46.3	-46.3	-46.3
60 Minute Hourly Adjustment		21.9	-46.3	-46.3	-46.3	-46.3	-46.3

STATIONARY SOURCE NOISE PREDICTION MODEL		8/10/2019
Observer Location: R8		<i>Project Name:</i> Palomino
Source: Air Conditioning Unit (Roof-Top)		<i>Job Number:</i> 11795
Condition: Operational		<i>Analyst:</i> B. Lawson
NOISE MODEL INPUTS		

Noise Distance to Observer	339.0 feet	Barrier Height:	30.0 feet
Noise Distance to Barrier:	30.0 feet	Noise Source Height:	5.0 feet
Barrier Distance to Observer:	309.0 feet	Observer Height:	5.0 feet
Observer Elevation:	0.0 feet	Barrier Type (0-Wall, 1-Berm):	0
Noise Source Elevation:	30.0 feet	Drop Off Coefficient:	20.0
Barrier Elevation:	0.0 feet	20 = 6 dBA per doubling of distance 15 = 4.5 dBA per doubling of distance	

NOISE MODEL PROJECTIONS							
Noise Level	Distance (feet)	Leq	L50	L25	L8	L2	Lmax
Reference (Sample)	5.0	77.2	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	339.0	-36.6	-36.6	-36.6	-36.6	-36.6	-36.6
Shielding (Barrier Attenuation)	30.0	-6.0	-6.0	-6.0	-6.0	-6.0	-6.0
Raw (Distance + Barrier)		34.6	-42.6	-42.6	-42.6	-42.6	-42.6
39 Minute Hourly Adjustment		32.7	-44.5	-44.5	-44.5	-44.5	-44.5

STATIONARY SOURCE NOISE PREDICTION MODEL		8/10/2019
Observer Location: R8		<i>Project Name:</i> Palomino
Source: Parking Lot Vehicle Movements (Industria		<i>Job Number:</i> 11795
Condition: Operational		<i>Analyst:</i> B. Lawson
NOISE MODEL INPUTS		

Noise Distance to Observer	147.0 feet	Barrier Height:	0.0 feet
Noise Distance to Barrier:	147.0 feet	Noise Source Height:	5.0 feet
Barrier Distance to Observer:	0.0 feet	Observer Height:	5.0 feet
Observer Elevation:	0.0 feet	Barrier Type (0-Wall, 1-Berm):	0
Noise Source Elevation:	0.0 feet	Drop Off Coefficient:	20.0
Barrier Elevation:	0.0 feet	20 = 6 dBA per doubling of distance 15 = 4.5 dBA per doubling of distance	

NOISE MODEL PROJECTIONS							
Noise Level	Distance (feet)	Leq	L50	L25	L8	L2	Lmax
Reference (Sample)	10.0	52.2	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	147.0	-23.3	-23.3	-23.3	-23.3	-23.3	-23.3
Shielding (Barrier Attenuation)	147.0	0.0	0.0	0.0	0.0	0.0	0.0
Raw (Distance + Barrier)		28.9	-23.3	-23.3	-23.3	-23.3	-23.3
60 Minute Hourly Adjustment		28.9	-23.3	-23.3	-23.3	-23.3	-23.3

STATIONARY SOURCE NOISE PREDICTION MODEL		8/10/2019
Observer Location: R8		Project Name: Palomino
Source: Truck Idle/Reefer Activity		Job Number: 11795
Condition: Operational		Analyst: B. Lawson
NOISE MODEL INPUTS		

Noise Distance to Observer	394.0 feet	Barrier Height:	30.0 feet
Noise Distance to Barrier:	10.0 feet	Noise Source Height:	8.0 feet
Barrier Distance to Observer:	384.0 feet	Observer Height:	5.0 feet
Observer Elevation:	0.0 feet	Barrier Type (0-Wall, 1-Berm):	0
Noise Source Elevation:	0.0 feet	Drop Off Coefficient:	20.0
Barrier Elevation:	0.0 feet	20 = 6 dBA per doubling of distance	
		15 = 4.5 dBA per doubling of distance	

NOISE MODEL PROJECTIONS							
Noise Level	Distance (feet)	Leq	L50	L25	L8	L2	Lmax
Reference (Sample)	30.0	70.1	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	394.0	-22.4	-22.4	-22.4	-22.4	-22.4	-22.4
Shielding (Barrier Attenuation)	10.0	-17.7	-17.7	-17.7	-17.7	-17.7	-17.7
Raw (Distance + Barrier)		30.0	-40.1	-40.1	-40.1	-40.1	-40.1
60 Minute Hourly Adjustment		30.0	-40.1	-40.1	-40.1	-40.1	-40.1

STATIONARY SOURCE NOISE PREDICTION MODEL		8/10/2019
Observer Location: R9		<i>Project Name:</i> Palomino
Source: Air Conditioning Unit (Roof-Top)		<i>Job Number:</i> 11795
Condition: Operational		<i>Analyst:</i> B. Lawson
NOISE MODEL INPUTS		

Noise Distance to Observer	350.0 feet	Barrier Height:	30.0 feet
Noise Distance to Barrier:	10.0 feet	Noise Source Height:	5.0 feet
Barrier Distance to Observer:	340.0 feet	Observer Height:	5.0 feet
Observer Elevation:	0.0 feet	Barrier Type (0-Wall, 1-Berm):	0
Noise Source Elevation:	30.0 feet	Drop Off Coefficient:	20.0
Barrier Elevation:	0.0 feet	20 = 6 dBA per doubling of distance	
		15 = 4.5 dBA per doubling of distance	

NOISE MODEL PROJECTIONS							
Noise Level	Distance (feet)	Leq	L50	L25	L8	L2	Lmax
Reference (Sample)	5.0	77.2	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	350.0	-36.9	-36.9	-36.9	-36.9	-36.9	-36.9
Shielding (Barrier Attenuation)	10.0	-9.7	-9.7	-9.7	-9.7	-9.7	-9.7
Raw (Distance + Barrier)		30.6	-46.6	-46.6	-46.6	-46.6	-46.6
39 Minute Hourly Adjustment		28.7	-48.5	-48.5	-48.5	-48.5	-48.5

STATIONARY SOURCE NOISE PREDICTION MODEL

8/10/2019

Observer Location: R9

Project Name: Palomino

Source: Parking Lot Vehicle Movements (Industria) Job Number: 11795
 Condition: Operational Analyst: B. Lawson

NOISE MODEL INPUTS

Noise Distance to Observer	156.0 feet	Barrier Height:	0.0 feet
Noise Distance to Barrier:	156.0 feet	Noise Source Height:	5.0 feet
Barrier Distance to Observer:	0.0 feet	Observer Height:	5.0 feet
Observer Elevation:	0.0 feet	Barrier Type (0-Wall, 1-Berm):	0
Noise Source Elevation:	0.0 feet	Drop Off Coefficient:	20.0
Barrier Elevation:	0.0 feet	20 = 6 dBA per doubling of distance 15 = 4.5 dBA per doubling of distance	

NOISE MODEL PROJECTIONS

Noise Level	Distance (feet)	Leq	L50	L25	L8	L2	Lmax
Reference (Sample)	10.0	52.2	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	156.0	-23.9	-23.9	-23.9	-23.9	-23.9	-23.9
Shielding (Barrier Attenuation)	156.0	0.0	0.0	0.0	0.0	0.0	0.0
Raw (Distance + Barrier)		28.3	-23.9	-23.9	-23.9	-23.9	-23.9
60 Minute Hourly Adjustment		28.3	-23.9	-23.9	-23.9	-23.9	-23.9

STATIONARY SOURCE NOISE PREDICTION MODEL

8/10/2019

Observer Location: R10

Project Name: Palomino

Source: Air Conditioning Unit (Roof-Top) Job Number: 11795
 Condition: Operational Analyst: B. Lawson

NOISE MODEL INPUTS

Noise Distance to Observer	191.0 feet	Barrier Height:	30.0 feet
Noise Distance to Barrier:	10.0 feet	Noise Source Height:	5.0 feet
Barrier Distance to Observer:	181.0 feet	Observer Height:	5.0 feet
Observer Elevation:	0.0 feet	Barrier Type (0-Wall, 1-Berm):	0
Noise Source Elevation:	30.0 feet	Drop Off Coefficient:	20.0
Barrier Elevation:	0.0 feet	20 = 6 dBA per doubling of distance 15 = 4.5 dBA per doubling of distance	

NOISE MODEL PROJECTIONS

Noise Level	Distance (feet)	Leq	L50	L25	L8	L2	Lmax
Reference (Sample)	5.0	77.2	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	191.0	-31.6	-31.6	-31.6	-31.6	-31.6	-31.6
Shielding (Barrier Attenuation)	10.0	-8.7	-8.7	-8.7	-8.7	-8.7	-8.7
Raw (Distance + Barrier)		36.9	-40.3	-40.3	-40.3	-40.3	-40.3
39 Minute Hourly Adjustment		35.0	-42.2	-42.2	-42.2	-42.2	-42.2

STATIONARY SOURCE NOISE PREDICTION MODEL

8/10/2019

Observer Location: R10*Project Name:* Palomino

Source: Parking Lot Vehicle Movements (Industria) *Job Number:* 11795
Condition: Operational *Analyst:* B. Lawson

NOISE MODEL INPUTS

<i>Noise Distance to Observer</i>	118.0 feet	<i>Barrier Height:</i>	0.0 feet
<i>Noise Distance to Barrier:</i>	118.0 feet	<i>Noise Source Height:</i>	5.0 feet
<i>Barrier Distance to Observer:</i>	0.0 feet	<i>Observer Height:</i>	5.0 feet
<i>Observer Elevation:</i>	0.0 feet	<i>Barrier Type (0-Wall, 1-Berm):</i>	0
<i>Noise Source Elevation:</i>	0.0 feet	<i>Drop Off Coefficient:</i>	20.0
<i>Barrier Elevation:</i>	0.0 feet	20 = 6 dBA per doubling of distance 15 = 4.5 dBA per doubling of distance	

NOISE MODEL PROJECTIONS

Noise Level	Distance (feet)	Leq	L50	L25	L8	L2	Lmax
Reference (Sample)	10.0	52.2	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	118.0	-21.4	-21.4	-21.4	-21.4	-21.4	-21.4
Shielding (Barrier Attenuation)	118.0	0.0	0.0	0.0	0.0	0.0	0.0
Raw (Distance + Barrier)		30.8	-21.4	-21.4	-21.4	-21.4	-21.4
60 Minute Hourly Adjustment		30.8	-21.4	-21.4	-21.4	-21.4	-21.4

STATIONARY SOURCE NOISE PREDICTION MODEL

8/11/2019

Observer Location: R1

Source: Air Conditioning Unit (Roof-Top)
Condition: Operational

Project Name: Palomino

Job Number: 11795

Analyst: B. Lawson

NOISE MODEL INPUTS

Noise Distance to Observer	289.0 feet	Barrier Height:	30.0 feet
Noise Distance to Barrier:	60.0 feet	Noise Source Height:	5.0 feet
Barrier Distance to Observer:	229.0 feet	Observer Height:	5.0 feet
Observer Elevation:	0.0 feet	Barrier Type (0-Wall, 1-Berm):	0
Noise Source Elevation:	30.0 feet	Drop Off Coefficient:	20.0
Barrier Elevation:	0.0 feet	20 = 6 dBA per doubling of distance 15 = 4.5 dBA per doubling of distance	

NOISE MODEL PROJECTIONS

Noise Level	Distance (feet)	Leq	L50	L25	L8	L2	Lmax
Reference (Sample)	5.0	77.2	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	289.0	-35.2	-35.2	-35.2	-35.2	-35.2	-35.2
Shielding (Barrier Attenuation)	60.0	-5.2	-5.2	-5.2	-5.2	-5.2	-5.2
Raw (Distance + Barrier)		36.8	-40.4	-40.4	-40.4	-40.4	-40.4
39 Minute Hourly Adjustment		34.9	-42.3	-42.3	-42.3	-42.3	-42.3

STATIONARY SOURCE NOISE PREDICTION MODEL

8/11/2019

Observer Location: R1

Source: Truck Idle/Reefer Activity
Condition: Operational

Project Name: Palomino

Job Number: 11795

Analyst: B. Lawson

NOISE MODEL INPUTS

Noise Distance to Observer	401.0 feet	Barrier Height:	30.0 feet
Noise Distance to Barrier:	10.0 feet	Noise Source Height:	8.0 feet
Barrier Distance to Observer:	391.0 feet	Observer Height:	5.0 feet
Observer Elevation:	0.0 feet	Barrier Type (0-Wall, 1-Berm):	0
Noise Source Elevation:	0.0 feet	Drop Off Coefficient:	20.0
Barrier Elevation:	0.0 feet	20 = 6 dBA per doubling of distance 15 = 4.5 dBA per doubling of distance	

NOISE MODEL PROJECTIONS

Noise Level	Distance (feet)	Leq	L50	L25	L8	L2	Lmax
Reference (Sample)	30.0	70.1	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	401.0	-22.5	-22.5	-22.5	-22.5	-22.5	-22.5
Shielding (Barrier Attenuation)	10.0	-17.7	-17.7	-17.7	-17.7	-17.7	-17.7
Raw (Distance + Barrier)		29.9	-40.2	-40.2	-40.2	-40.2	-40.2
60 Minute Hourly Adjustment		29.9	-40.2	-40.2	-40.2	-40.2	-40.2

STATIONARY SOURCE NOISE PREDICTION MODEL

8/11/2019

Observer Location: R1

Project Name: Palomino

Source: Parking Lot Vehicle Movements (Industria) Job Number: 11795
 Condition: Operational Analyst: B. Lawson

NOISE MODEL INPUTS

Noise Distance to Observer	159.0 feet	Barrier Height:	0.0 feet
Noise Distance to Barrier:	159.0 feet	Noise Source Height:	5.0 feet
Barrier Distance to Observer:	0.0 feet	Observer Height:	5.0 feet
Observer Elevation:	0.0 feet	Barrier Type (0-Wall, 1-Berm):	0
Noise Source Elevation:	0.0 feet	Drop Off Coefficient:	20.0
Barrier Elevation:	0.0 feet	20 = 6 dBA per doubling of distance 15 = 4.5 dBA per doubling of distance	

NOISE MODEL PROJECTIONS

Noise Level	Distance (feet)	Leq	L50	L25	L8	L2	Lmax
Reference (Sample)	10.0	52.2	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	159.0	-24.0	-24.0	-24.0	-24.0	-24.0	-24.0
Shielding (Barrier Attenuation)	159.0	0.0	0.0	0.0	0.0	0.0	0.0
Raw (Distance + Barrier)		28.2	-24.0	-24.0	-24.0	-24.0	-24.0
60 Minute Hourly Adjustment		28.2	-24.0	-24.0	-24.0	-24.0	-24.0

STATIONARY SOURCE NOISE PREDICTION MODEL

8/11/2019

Observer Location: R2

Project Name: Palomino

Source: Air Conditioning Unit (Roof-Top) Job Number: 11795
 Condition: Operational Analyst: B. Lawson

NOISE MODEL INPUTS

Noise Distance to Observer	186.0 feet	Barrier Height:	30.0 feet
Noise Distance to Barrier:	30.0 feet	Noise Source Height:	5.0 feet
Barrier Distance to Observer:	156.0 feet	Observer Height:	5.0 feet
Observer Elevation:	0.0 feet	Barrier Type (0-Wall, 1-Berm):	0
Noise Source Elevation:	30.0 feet	Drop Off Coefficient:	20.0
Barrier Elevation:	0.0 feet	20 = 6 dBA per doubling of distance 15 = 4.5 dBA per doubling of distance	

NOISE MODEL PROJECTIONS

Noise Level	Distance (feet)	Leq	L50	L25	L8	L2	Lmax
Reference (Sample)	5.0	77.2	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	186.0	-31.4	-31.4	-31.4	-31.4	-31.4	-31.4
Shielding (Barrier Attenuation)	30.0	-4.9	-4.9	-4.9	-4.9	-4.9	-4.9
Raw (Distance + Barrier)		40.9	-36.3	-36.3	-36.3	-36.3	-36.3
39 Minute Hourly Adjustment		39.0	-38.2	-38.2	-38.2	-38.2	-38.2

STATIONARY SOURCE NOISE PREDICTION MODEL

8/11/2019

Observer Location: R2

Project Name: Palomino

Source: Parking Lot Vehicle Movements (Industria) Job Number: 11795
 Condition: Operational Analyst: B. Lawson

NOISE MODEL INPUTS

Noise Distance to Observer	35.0 feet	Barrier Height:	0.0 feet
Noise Distance to Barrier:	35.0 feet	Noise Source Height:	5.0 feet
Barrier Distance to Observer:	0.0 feet	Observer Height:	5.0 feet
Observer Elevation:	0.0 feet	Barrier Type (0-Wall, 1-Berm):	0
Noise Source Elevation:	0.0 feet	Drop Off Coefficient:	20.0
Barrier Elevation:	0.0 feet	20 = 6 dBA per doubling of distance 15 = 4.5 dBA per doubling of distance	

NOISE MODEL PROJECTIONS

Noise Level	Distance (feet)	Leq	L50	L25	L8	L2	Lmax
Reference (Sample)	10.0	52.2	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	35.0	-10.9	-10.9	-10.9	-10.9	-10.9	-10.9
Shielding (Barrier Attenuation)	35.0	0.0	0.0	0.0	0.0	0.0	0.0
Raw (Distance + Barrier)		41.3	-10.9	-10.9	-10.9	-10.9	-10.9
60 Minute Hourly Adjustment		41.3	-10.9	-10.9	-10.9	-10.9	-10.9

STATIONARY SOURCE NOISE PREDICTION MODEL

8/11/2019

Observer Location: R2

Project Name: Palomino

Source: Truck Idle/Reefer Activity Job Number: 11795
 Condition: Operational Analyst: B. Lawson

NOISE MODEL INPUTS

Noise Distance to Observer	522.0 feet	Barrier Height:	30.0 feet
Noise Distance to Barrier:	10.0 feet	Noise Source Height:	8.0 feet
Barrier Distance to Observer:	512.0 feet	Observer Height:	5.0 feet
Observer Elevation:	0.0 feet	Barrier Type (0-Wall, 1-Berm):	0
Noise Source Elevation:	0.0 feet	Drop Off Coefficient:	20.0
Barrier Elevation:	0.0 feet	20 = 6 dBA per doubling of distance 15 = 4.5 dBA per doubling of distance	

NOISE MODEL PROJECTIONS

Noise Level	Distance (feet)	Leq	L50	L25	L8	L2	Lmax
Reference (Sample)	30.0	70.1	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	522.0	-24.8	-24.8	-24.8	-24.8	-24.8	-24.8
Shielding (Barrier Attenuation)	10.0	-17.6	-17.6	-17.6	-17.6	-17.6	-17.6
Raw (Distance + Barrier)		27.7	-42.4	-42.4	-42.4	-42.4	-42.4
60 Minute Hourly Adjustment		27.7	-42.4	-42.4	-42.4	-42.4	-42.4

STATIONARY SOURCE NOISE PREDICTION MODEL

8/11/2019

Observer Location: R3

Source: Air Conditioning Unit (Roof-Top)
Condition: Operational

Project Name: Palomino

Job Number: 11795

Analyst: B. Lawson

NOISE MODEL INPUTS

Noise Distance to Observer	346.0 feet	Barrier Height:	30.0 feet
Noise Distance to Barrier:	220.0 feet	Noise Source Height:	5.0 feet
Barrier Distance to Observer:	126.0 feet	Observer Height:	5.0 feet
Observer Elevation:	0.0 feet	Barrier Type (0-Wall, 1-Berm):	0
Noise Source Elevation:	30.0 feet	Drop Off Coefficient:	20.0
Barrier Elevation:	0.0 feet	20 = 6 dBA per doubling of distance 15 = 4.5 dBA per doubling of distance	

NOISE MODEL PROJECTIONS

Noise Level	Distance (feet)	Leq	L50	L25	L8	L2	Lmax
Reference (Sample)	5.0	77.2	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	346.0	-36.8	-36.8	-36.8	-36.8	-36.8	-36.8
Shielding (Barrier Attenuation)	220.0	-10.7	-10.7	-10.7	-10.7	-10.7	-10.7
Raw (Distance + Barrier)		29.7	-47.5	-47.5	-47.5	-47.5	-47.5
39 Minute Hourly Adjustment		27.8	-49.4	-49.4	-49.4	-49.4	-49.4

STATIONARY SOURCE NOISE PREDICTION MODEL

8/11/2019

Observer Location: R3

Source: Parking Lot Vehicle Movements (Industria
Condition: Operational

Project Name: Palomino

Job Number: 11795

Analyst: B. Lawson

NOISE MODEL INPUTS

Noise Distance to Observer	158.0 feet	Barrier Height:	6.0 feet
Noise Distance to Barrier:	70.0 feet	Noise Source Height:	5.0 feet
Barrier Distance to Observer:	88.0 feet	Observer Height:	5.0 feet
Observer Elevation:	0.0 feet	Barrier Type (0-Wall, 1-Berm):	0
Noise Source Elevation:	0.0 feet	Drop Off Coefficient:	20.0
Barrier Elevation:	0.0 feet	20 = 6 dBA per doubling of distance 15 = 4.5 dBA per doubling of distance	

NOISE MODEL PROJECTIONS

Noise Level	Distance (feet)	Leq	L50	L25	L8	L2	Lmax
Reference (Sample)	10.0	52.2	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	158.0	-24.0	-24.0	-24.0	-24.0	-24.0	-24.0
Shielding (Barrier Attenuation)	70.0	-5.1	-5.1	-5.1	-5.1	-5.1	-5.1
Raw (Distance + Barrier)		23.1	-29.1	-29.1	-29.1	-29.1	-29.1
60 Minute Hourly Adjustment		23.1	-29.1	-29.1	-29.1	-29.1	-29.1

STATIONARY SOURCE NOISE PREDICTION MODEL		8/11/2019
Observer Location: R4		Project Name: Palomino
Source: Air Conditioning Unit (Roof-Top)		Job Number: 11795
Condition: Operational		Analyst: B. Lawson
NOISE MODEL INPUTS		

Noise Distance to Observer	224.0 feet	Barrier Height:	30.0 feet
Noise Distance to Barrier:	60.0 feet	Noise Source Height:	5.0 feet
Barrier Distance to Observer:	164.0 feet	Observer Height:	5.0 feet
Observer Elevation:	0.0 feet	Barrier Type (0-Wall, 1-Berm):	0
Noise Source Elevation:	30.0 feet	Drop Off Coefficient:	20.0
Barrier Elevation:	0.0 feet	20 = 6 dBA per doubling of distance	
		15 = 4.5 dBA per doubling of distance	

NOISE MODEL PROJECTIONS							
Noise Level	Distance (feet)	Leq	L50	L25	L8	L2	Lmax
Reference (Sample)	5.0	77.2	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	224.0	-33.0	-33.0	-33.0	-33.0	-33.0	-33.0
Shielding (Barrier Attenuation)	60.0	-6.0	-6.0	-6.0	-6.0	-6.0	-6.0
Raw (Distance + Barrier)		38.2	-39.0	-39.0	-39.0	-39.0	-39.0
39 Minute Hourly Adjustment		36.3	-40.9	-40.9	-40.9	-40.9	-40.9

STATIONARY SOURCE NOISE PREDICTION MODEL		8/11/2019
Observer Location: R4		<i>Project Name:</i> Palomino
Source: Truck Unloading/Docking Activity		<i>Job Number:</i> 11795
Condition: Operational		<i>Analyst:</i> B. Lawson
NOISE MODEL INPUTS		

Noise Distance to Observer	234.0 feet	Barrier Height:	10.0 feet
Noise Distance to Barrier:	130.0 feet	Noise Source Height:	8.0 feet
Barrier Distance to Observer:	104.0 feet	Observer Height:	5.0 feet
Observer Elevation:	0.0 feet	Barrier Type (0-Wall, 1-Berm):	0
Noise Source Elevation:	0.0 feet	Drop Off Coefficient:	20.0
Barrier Elevation:	0.0 feet	20 = 6 dBA per doubling of distance	
		15 = 4.5 dBA per doubling of distance	

NOISE MODEL PROJECTIONS							
Noise Level	Distance (feet)	Leq	L50	L25	L8	L2	Lmax
Reference (Sample)	30.0	67.2	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	234.0	-17.8	-17.8	-17.8	-17.8	-17.8	-17.8
Shielding (Barrier Attenuation)	130.0	-6.1	-6.1	-6.1	-6.1	-6.1	-6.1
Raw (Distance + Barrier)		43.3	-23.9	-23.9	-23.9	-23.9	-23.9
60 Minute Hourly Adjustment		43.3	-23.9	-23.9	-23.9	-23.9	-23.9

STATIONARY SOURCE NOISE PREDICTION MODEL

8/11/2019

Observer Location: R4

Project Name: Palomino

Source: Parking Lot Vehicle Movements (Industria) Job Number: 11795
 Condition: Operational Analyst: B. Lawson

NOISE MODEL INPUTS

Noise Distance to Observer	264.0 feet	Barrier Height:	0.0 feet
Noise Distance to Barrier:	264.0 feet	Noise Source Height:	5.0 feet
Barrier Distance to Observer:	0.0 feet	Observer Height:	5.0 feet
Observer Elevation:	0.0 feet	Barrier Type (0-Wall, 1-Berm):	0
Noise Source Elevation:	0.0 feet	Drop Off Coefficient:	20.0
Barrier Elevation:	0.0 feet	20 = 6 dBA per doubling of distance 15 = 4.5 dBA per doubling of distance	

NOISE MODEL PROJECTIONS

Noise Level	Distance (feet)	Leq	L50	L25	L8	L2	Lmax
Reference (Sample)	10.0	52.2	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	264.0	-28.4	-28.4	-28.4	-28.4	-28.4	-28.4
Shielding (Barrier Attenuation)	264.0	0.0	0.0	0.0	0.0	0.0	0.0
Raw (Distance + Barrier)		23.8	-28.4	-28.4	-28.4	-28.4	-28.4
60 Minute Hourly Adjustment		23.8	-28.4	-28.4	-28.4	-28.4	-28.4

STATIONARY SOURCE NOISE PREDICTION MODEL

8/11/2019

Observer Location: R4

Project Name: Palomino

Source: Parking Lot Vehicle Movements (Commer) Job Number: 11795
 Condition: Operational Analyst: B. Lawson

NOISE MODEL INPUTS

Noise Distance to Observer	440.0 feet	Barrier Height:	0.0 feet
Noise Distance to Barrier:	440.0 feet	Noise Source Height:	5.0 feet
Barrier Distance to Observer:	0.0 feet	Observer Height:	5.0 feet
Observer Elevation:	0.0 feet	Barrier Type (0-Wall, 1-Berm):	0
Noise Source Elevation:	0.0 feet	Drop Off Coefficient:	20.0
Barrier Elevation:	0.0 feet	20 = 6 dBA per doubling of distance 15 = 4.5 dBA per doubling of distance	

NOISE MODEL PROJECTIONS

Noise Level	Distance (feet)	Leq	L50	L25	L8	L2	Lmax
Reference (Sample)	5.0	60.1	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	440.0	-38.9	-38.9	-38.9	-38.9	-38.9	-38.9
Shielding (Barrier Attenuation)	440.0	0.0	0.0	0.0	0.0	0.0	0.0
Raw (Distance + Barrier)		21.2	-38.9	-38.9	-38.9	-38.9	-38.9
60 Minute Hourly Adjustment		21.2	-38.9	-38.9	-38.9	-38.9	-38.9

STATIONARY SOURCE NOISE PREDICTION MODEL		8/11/2019
Observer Location: R4		Project Name: Palomino
Source: Drive-Through Speakerphone		Job Number: 11795
Condition: Operational		Analyst: B. Lawson
NOISE MODEL INPUTS		

Noise Distance to Observer	598.0 feet	Barrier Height:	10.0 feet
Noise Distance to Barrier:	10.0 feet	Noise Source Height:	3.0 feet
Barrier Distance to Observer:	588.0 feet	Observer Height:	5.0 feet
Observer Elevation:	0.0 feet	Barrier Type (0-Wall, 1-Berm):	0
Noise Source Elevation:	0.0 feet	Drop Off Coefficient:	20.0
Barrier Elevation:	0.0 feet	20 = 6 dBA per doubling of distance 15 = 4.5 dBA per doubling of distance	

NOISE MODEL PROJECTIONS							
Noise Level	Distance (feet)	Leq	L50	L25	L8	L2	Lmax
Reference (Sample)	15.0	62.0	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	598.0	-32.0	-32.0	-32.0	-32.0	-32.0	-32.0
Shielding (Barrier Attenuation)	10.0	-12.5	-12.5	-12.5	-12.5	-12.5	-12.5
Raw (Distance + Barrier)		17.5	-44.5	-44.5	-44.5	-44.5	-44.5
60 Minute Hourly Adjustment		17.5	-44.5	-44.5	-44.5	-44.5	-44.5

STATIONARY SOURCE NOISE PREDICTION MODEL		8/11/2019
Observer Location: R4		<i>Project Name:</i> Palomino
Source: Gas Station Activity		<i>Job Number:</i> 11795
Condition: Operational		<i>Analyst:</i> B. Lawson
NOISE MODEL INPUTS		

Noise Distance to Observer	486.0 feet	Barrier Height:	0.0 feet
Noise Distance to Barrier:	486.0 feet	Noise Source Height:	5.0 feet
Barrier Distance to Observer:	0.0 feet	Observer Height:	5.0 feet
Observer Elevation:	0.0 feet	Barrier Type (0-Wall, 1-Berm):	0
Noise Source Elevation:	0.0 feet	Drop Off Coefficient:	20.0
Barrier Elevation:	0.0 feet	20 = 6 dBA per doubling of distance 15 = 4.5 dBA per doubling of distance	

NOISE MODEL PROJECTIONS							
Noise Level	Distance (feet)	Leq	L50	L25	L8	L2	Lmax
Reference (Sample)	5.0	68.2	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	486.0	-39.8	-39.8	-39.8	-39.8	-39.8	-39.8
Shielding (Barrier Attenuation)	486.0	0.0	0.0	0.0	0.0	0.0	0.0
Raw (Distance + Barrier)		28.4	-39.8	-39.8	-39.8	-39.8	-39.8
60 Minute Hourly Adjustment		28.4	-39.8	-39.8	-39.8	-39.8	-39.8

STATIONARY SOURCE NOISE PREDICTION MODEL

8/11/2019

Observer Location: R5

Source: Air Conditioning Unit (Roof-Top)
Condition: Operational

Project Name: Palomino

Job Number: 11795

Analyst: B. Lawson

NOISE MODEL INPUTS

Noise Distance to Observer	180.0 feet	Barrier Height:	10.0 feet
Noise Distance to Barrier:	10.0 feet	Noise Source Height:	5.0 feet
Barrier Distance to Observer:	170.0 feet	Observer Height:	5.0 feet
Observer Elevation:	0.0 feet	Barrier Type (0-Wall, 1-Berm):	0
Noise Source Elevation:	10.0 feet	Drop Off Coefficient:	20.0
Barrier Elevation:	0.0 feet	20 = 6 dBA per doubling of distance 15 = 4.5 dBA per doubling of distance	

NOISE MODEL PROJECTIONS

Noise Level	Distance (feet)	Leq	L50	L25	L8	L2	Lmax
Reference (Sample)	5.0	77.2	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	180.0	-31.1	-31.1	-31.1	-31.1	-31.1	-31.1
Shielding (Barrier Attenuation)	10.0	-10.2	-10.2	-10.2	-10.2	-10.2	-10.2
Raw (Distance + Barrier)		35.9	-41.3	-41.3	-41.3	-41.3	-41.3
39 Minute Hourly Adjustment		34.0	-43.2	-43.2	-43.2	-43.2	-43.2

STATIONARY SOURCE NOISE PREDICTION MODEL

8/11/2019

Observer Location: R5

Source: Parking Lot Vehicle Movements (Industria
Condition: Operational

Project Name: Palomino

Job Number: 11795

Analyst: B. Lawson

NOISE MODEL INPUTS

Noise Distance to Observer	296.0 feet	Barrier Height:	0.0 feet
Noise Distance to Barrier:	296.0 feet	Noise Source Height:	5.0 feet
Barrier Distance to Observer:	0.0 feet	Observer Height:	5.0 feet
Observer Elevation:	0.0 feet	Barrier Type (0-Wall, 1-Berm):	0
Noise Source Elevation:	0.0 feet	Drop Off Coefficient:	20.0
Barrier Elevation:	0.0 feet	20 = 6 dBA per doubling of distance 15 = 4.5 dBA per doubling of distance	

NOISE MODEL PROJECTIONS

Noise Level	Distance (feet)	Leq	L50	L25	L8	L2	Lmax
Reference (Sample)	10.0	52.2	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	296.0	-29.4	-29.4	-29.4	-29.4	-29.4	-29.4
Shielding (Barrier Attenuation)	296.0	0.0	0.0	0.0	0.0	0.0	0.0
Raw (Distance + Barrier)		22.8	-29.4	-29.4	-29.4	-29.4	-29.4
60 Minute Hourly Adjustment		22.8	-29.4	-29.4	-29.4	-29.4	-29.4

STATIONARY SOURCE NOISE PREDICTION MODEL

8/11/2019

Observer Location: R5

Project Name: Palomino

Source: Parking Lot Vehicle Movements (Commer
Condition: Operational

Job Number: 11795

Analyst: B. Lawson

NOISE MODEL INPUTS

Noise Distance to Observer	128.0 feet	Barrier Height:	0.0 feet
Noise Distance to Barrier:	128.0 feet	Noise Source Height:	5.0 feet
Barrier Distance to Observer:	0.0 feet	Observer Height:	5.0 feet
Observer Elevation:	0.0 feet	Barrier Type (0-Wall, 1-Berm):	0
Noise Source Elevation:	0.0 feet	Drop Off Coefficient:	20.0
Barrier Elevation:	0.0 feet	20 = 6 dBA per doubling of distance 15 = 4.5 dBA per doubling of distance	

NOISE MODEL PROJECTIONS

Noise Level	Distance (feet)	Leq	L50	L25	L8	L2	Lmax
Reference (Sample)	5.0	60.1	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	128.0	-28.2	-28.2	-28.2	-28.2	-28.2	-28.2
Shielding (Barrier Attenuation)	128.0	0.0	0.0	0.0	0.0	0.0	0.0
Raw (Distance + Barrier)		31.9	-28.2	-28.2	-28.2	-28.2	-28.2
60 Minute Hourly Adjustment		31.9	-28.2	-28.2	-28.2	-28.2	-28.2

STATIONARY SOURCE NOISE PREDICTION MODEL

8/11/2019

Observer Location: R5

Project Name: Palomino

Source: Drive-Through Speakerphone
Condition: Operational

Job Number: 11795

Analyst: B. Lawson

NOISE MODEL INPUTS

Noise Distance to Observer	281.0 feet	Barrier Height:	10.0 feet
Noise Distance to Barrier:	10.0 feet	Noise Source Height:	3.0 feet
Barrier Distance to Observer:	271.0 feet	Observer Height:	5.0 feet
Observer Elevation:	0.0 feet	Barrier Type (0-Wall, 1-Berm):	0
Noise Source Elevation:	0.0 feet	Drop Off Coefficient:	20.0
Barrier Elevation:	0.0 feet	20 = 6 dBA per doubling of distance 15 = 4.5 dBA per doubling of distance	

NOISE MODEL PROJECTIONS

Noise Level	Distance (feet)	Leq	L50	L25	L8	L2	Lmax
Reference (Sample)	15.0	62.0	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	281.0	-25.5	-25.5	-25.5	-25.5	-25.5	-25.5
Shielding (Barrier Attenuation)	10.0	-12.6	-12.6	-12.6	-12.6	-12.6	-12.6
Raw (Distance + Barrier)		23.9	-38.1	-38.1	-38.1	-38.1	-38.1
60 Minute Hourly Adjustment		23.9	-38.1	-38.1	-38.1	-38.1	-38.1

STATIONARY SOURCE NOISE PREDICTION MODEL

8/11/2019

Observer Location: R5

Source: Gas Station Activity
Condition: Operational

Project Name: Palomino

Job Number: 11795

Analyst: B. Lawson

NOISE MODEL INPUTS

Noise Distance to Observer	111.0 feet	Barrier Height:	0.0 feet
Noise Distance to Barrier:	111.0 feet	Noise Source Height:	5.0 feet
Barrier Distance to Observer:	0.0 feet	Observer Height:	5.0 feet
Observer Elevation:	0.0 feet	Barrier Type (0-Wall, 1-Berm):	0
Noise Source Elevation:	0.0 feet	Drop Off Coefficient:	20.0
Barrier Elevation:	0.0 feet	20 = 6 dBA per doubling of distance 15 = 4.5 dBA per doubling of distance	

NOISE MODEL PROJECTIONS

Noise Level	Distance (feet)	Leq	L50	L25	L8	L2	Lmax
Reference (Sample)	5.0	68.2	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	111.0	-26.9	-26.9	-26.9	-26.9	-26.9	-26.9
Shielding (Barrier Attenuation)	111.0	0.0	0.0	0.0	0.0	0.0	0.0
Raw (Distance + Barrier)		41.3	-26.9	-26.9	-26.9	-26.9	-26.9
60 Minute Hourly Adjustment		41.3	-26.9	-26.9	-26.9	-26.9	-26.9

STATIONARY SOURCE NOISE PREDICTION MODEL

8/11/2019

Observer Location: R6

Source: Air Conditioning Unit (Roof-Top)
Condition: Operational

Project Name: Palomino

Job Number: 11795

Analyst: B. Lawson

NOISE MODEL INPUTS

Noise Distance to Observer	166.0 feet	Barrier Height:	10.0 feet
Noise Distance to Barrier:	10.0 feet	Noise Source Height:	5.0 feet
Barrier Distance to Observer:	156.0 feet	Observer Height:	5.0 feet
Observer Elevation:	0.0 feet	Barrier Type (0-Wall, 1-Berm):	0
Noise Source Elevation:	10.0 feet	Drop Off Coefficient:	20.0
Barrier Elevation:	0.0 feet	20 = 6 dBA per doubling of distance 15 = 4.5 dBA per doubling of distance	

NOISE MODEL PROJECTIONS

Noise Level	Distance (feet)	Leq	L50	L25	L8	L2	Lmax
Reference (Sample)	5.0	77.2	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	166.0	-30.4	-30.4	-30.4	-30.4	-30.4	-30.4
Shielding (Barrier Attenuation)	10.0	-10.1	-10.1	-10.1	-10.1	-10.1	-10.1
Raw (Distance + Barrier)		36.7	-40.5	-40.5	-40.5	-40.5	-40.5
39 Minute Hourly Adjustment		34.8	-42.4	-42.4	-42.4	-42.4	-42.4

STATIONARY SOURCE NOISE PREDICTION MODEL		8/11/2019
Observer Location: R6		Project Name: Palomino
Source: Truck Unloading/Docking Activity		Job Number: 11795
Condition: Operational		Analyst: B. Lawson
NOISE MODEL INPUTS		

Noise Distance to Observer	579.0 feet	Barrier Height:	0.0 feet
Noise Distance to Barrier:	579.0 feet	Noise Source Height:	8.0 feet
Barrier Distance to Observer:	0.0 feet	Observer Height:	5.0 feet
Observer Elevation:	0.0 feet	Barrier Type (0-Wall, 1-Berm):	0
Noise Source Elevation:	0.0 feet	Drop Off Coefficient:	20.0
Barrier Elevation:	0.0 feet	20 = 6 dBA per doubling of distance 15 = 4.5 dBA per doubling of distance	

NOISE MODEL PROJECTIONS							
Noise Level	Distance (feet)	Leq	L50	L25	L8	L2	Lmax
Reference (Sample)	30.0	67.2	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	579.0	-25.7	-25.7	-25.7	-25.7	-25.7	-25.7
Shielding (Barrier Attenuation)	579.0	0.0	0.0	0.0	0.0	0.0	0.0
Raw (Distance + Barrier)		41.5	-25.7	-25.7	-25.7	-25.7	-25.7
60 Minute Hourly Adjustment		41.5	-25.7	-25.7	-25.7	-25.7	-25.7

STATIONARY SOURCE NOISE PREDICTION MODEL		8/11/2019
Observer Location: R6		Project Name: Palomino
Source: Parking Lot Vehicle Movements (Industria		Job Number: 11795
Condition: Operational		Analyst: B. Lawson
NOISE MODEL INPUTS		

Noise Distance to Observer	488.0 feet	Barrier Height:	0.0 feet
Noise Distance to Barrier:	488.0 feet	Noise Source Height:	5.0 feet
Barrier Distance to Observer:	0.0 feet	Observer Height:	5.0 feet
Observer Elevation:	0.0 feet	Barrier Type (0-Wall, 1-Berm):	0
Noise Source Elevation:	0.0 feet	Drop Off Coefficient:	20.0
Barrier Elevation:	0.0 feet	20 = 6 dBA per doubling of distance 15 = 4.5 dBA per doubling of distance	

NOISE MODEL PROJECTIONS							
Noise Level	Distance (feet)	Leq	L50	L25	L8	L2	Lmax
Reference (Sample)	10.0	52.2	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	488.0	-33.8	-33.8	-33.8	-33.8	-33.8	-33.8
Shielding (Barrier Attenuation)	488.0	0.0	0.0	0.0	0.0	0.0	0.0
Raw (Distance + Barrier)		18.4	-33.8	-33.8	-33.8	-33.8	-33.8
60 Minute Hourly Adjustment		18.4	-33.8	-33.8	-33.8	-33.8	-33.8

STATIONARY SOURCE NOISE PREDICTION MODEL

8/11/2019

Observer Location: R6

Project Name: Palomino

Source: Parking Lot Vehicle Movements (Commer Job Number: 11795
 Condition: Operational Analyst: B. Lawson

NOISE MODEL INPUTS

Noise Distance to Observer	161.0 feet	Barrier Height:	0.0 feet
Noise Distance to Barrier:	161.0 feet	Noise Source Height:	5.0 feet
Barrier Distance to Observer:	0.0 feet	Observer Height:	5.0 feet
Observer Elevation:	0.0 feet	Barrier Type (0-Wall, 1-Berm):	0
Noise Source Elevation:	0.0 feet	Drop Off Coefficient:	20.0
Barrier Elevation:	0.0 feet	20 = 6 dBA per doubling of distance 15 = 4.5 dBA per doubling of distance	

NOISE MODEL PROJECTIONS

Noise Level	Distance (feet)	Leq	L50	L25	L8	L2	Lmax
Reference (Sample)	5.0	60.1	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	161.0	-30.2	-30.2	-30.2	-30.2	-30.2	-30.2
Shielding (Barrier Attenuation)	161.0	0.0	0.0	0.0	0.0	0.0	0.0
Raw (Distance + Barrier)		29.9	-30.2	-30.2	-30.2	-30.2	-30.2
60 Minute Hourly Adjustment		29.9	-30.2	-30.2	-30.2	-30.2	-30.2

STATIONARY SOURCE NOISE PREDICTION MODEL

8/11/2019

Observer Location: R6

Project Name: Palomino

Source: Drive-Through Speakerphone Job Number: 11795
 Condition: Operational Analyst: B. Lawson

NOISE MODEL INPUTS

Noise Distance to Observer	307.0 feet	Barrier Height:	10.0 feet
Noise Distance to Barrier:	65.0 feet	Noise Source Height:	3.0 feet
Barrier Distance to Observer:	242.0 feet	Observer Height:	5.0 feet
Observer Elevation:	0.0 feet	Barrier Type (0-Wall, 1-Berm):	0
Noise Source Elevation:	0.0 feet	Drop Off Coefficient:	20.0
Barrier Elevation:	0.0 feet	20 = 6 dBA per doubling of distance 15 = 4.5 dBA per doubling of distance	

NOISE MODEL PROJECTIONS

Noise Level	Distance (feet)	Leq	L50	L25	L8	L2	Lmax
Reference (Sample)	15.0	62.0	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	307.0	-26.2	-26.2	-26.2	-26.2	-26.2	-26.2
Shielding (Barrier Attenuation)	65.0	-8.0	-8.0	-8.0	-8.0	-8.0	-8.0
Raw (Distance + Barrier)		27.8	-34.2	-34.2	-34.2	-34.2	-34.2
60 Minute Hourly Adjustment		27.8	-34.2	-34.2	-34.2	-34.2	-34.2

STATIONARY SOURCE NOISE PREDICTION MODEL

8/11/2019

Observer Location: R6

Source: Gas Station Activity
Condition: Operational

Project Name: Palomino

Job Number: 11795

Analyst: B. Lawson

NOISE MODEL INPUTS

Noise Distance to Observer	122.0 feet	Barrier Height:	0.0 feet
Noise Distance to Barrier:	122.0 feet	Noise Source Height:	5.0 feet
Barrier Distance to Observer:	0.0 feet	Observer Height:	5.0 feet
Observer Elevation:	0.0 feet	Barrier Type (0-Wall, 1-Berm):	0
Noise Source Elevation:	0.0 feet	Drop Off Coefficient:	20.0
Barrier Elevation:	0.0 feet	20 = 6 dBA per doubling of distance 15 = 4.5 dBA per doubling of distance	

NOISE MODEL PROJECTIONS

Noise Level	Distance (feet)	Leq	L50	L25	L8	L2	Lmax
Reference (Sample)	5.0	68.2	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	122.0	-27.7	-27.7	-27.7	-27.7	-27.7	-27.7
Shielding (Barrier Attenuation)	122.0	0.0	0.0	0.0	0.0	0.0	0.0
Raw (Distance + Barrier)		40.5	-27.7	-27.7	-27.7	-27.7	-27.7
60 Minute Hourly Adjustment		40.5	-27.7	-27.7	-27.7	-27.7	-27.7

STATIONARY SOURCE NOISE PREDICTION MODEL

8/11/2019

Observer Location: R7

Source: Air Conditioning Unit (Roof-Top)
Condition: Operational

Project Name: Palomino

Job Number: 11795

Analyst: B. Lawson

NOISE MODEL INPUTS

Noise Distance to Observer	300.0 feet	Barrier Height:	30.0 feet
Noise Distance to Barrier:	160.0 feet	Noise Source Height:	5.0 feet
Barrier Distance to Observer:	140.0 feet	Observer Height:	5.0 feet
Observer Elevation:	0.0 feet	Barrier Type (0-Wall, 1-Berm):	0
Noise Source Elevation:	30.0 feet	Drop Off Coefficient:	20.0
Barrier Elevation:	0.0 feet	20 = 6 dBA per doubling of distance 15 = 4.5 dBA per doubling of distance	

NOISE MODEL PROJECTIONS

Noise Level	Distance (feet)	Leq	L50	L25	L8	L2	Lmax
Reference (Sample)	5.0	77.2	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	300.0	-35.6	-35.6	-35.6	-35.6	-35.6	-35.6
Shielding (Barrier Attenuation)	160.0	-9.6	-9.6	-9.6	-9.6	-9.6	-9.6
Raw (Distance + Barrier)		32.0	-45.2	-45.2	-45.2	-45.2	-45.2
39 Minute Hourly Adjustment		30.1	-47.1	-47.1	-47.1	-47.1	-47.1

STATIONARY SOURCE NOISE PREDICTION MODEL

8/11/2019

Observer Location: R7

Project Name: Palomino

Source: Parking Lot Vehicle Movements (Industria) Job Number: 11795
 Condition: Operational Analyst: B. Lawson

NOISE MODEL INPUTS

Noise Distance to Observer	202.0 feet	Barrier Height:	0.0 feet
Noise Distance to Barrier:	202.0 feet	Noise Source Height:	5.0 feet
Barrier Distance to Observer:	0.0 feet	Observer Height:	5.0 feet
Observer Elevation:	0.0 feet	Barrier Type (0-Wall, 1-Berm):	0
Noise Source Elevation:	0.0 feet	Drop Off Coefficient:	20.0
Barrier Elevation:	0.0 feet		

20 = 6 dBA per doubling of distance
 15 = 4.5 dBA per doubling of distance

NOISE MODEL PROJECTIONS

Noise Level	Distance (feet)	Leq	L50	L25	L8	L2	Lmax
Reference (Sample)	10.0	52.2	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	202.0	-26.1	-26.1	-26.1	-26.1	-26.1	-26.1
Shielding (Barrier Attenuation)	202.0	0.0	0.0	0.0	0.0	0.0	0.0
Raw (Distance + Barrier)		26.1	-26.1	-26.1	-26.1	-26.1	-26.1
60 Minute Hourly Adjustment		26.1	-26.1	-26.1	-26.1	-26.1	-26.1

STATIONARY SOURCE NOISE PREDICTION MODEL

8/11/2019

Observer Location: R7

Project Name: Palomino

Source: Parking Lot Vehicle Movements (Commer) Job Number: 11795
 Condition: Operational Analyst: B. Lawson

NOISE MODEL INPUTS

Noise Distance to Observer	684.0 feet	Barrier Height:	0.0 feet
Noise Distance to Barrier:	684.0 feet	Noise Source Height:	5.0 feet
Barrier Distance to Observer:	0.0 feet	Observer Height:	5.0 feet
Observer Elevation:	0.0 feet	Barrier Type (0-Wall, 1-Berm):	0
Noise Source Elevation:	0.0 feet	Drop Off Coefficient:	20.0
Barrier Elevation:	0.0 feet		

20 = 6 dBA per doubling of distance
 15 = 4.5 dBA per doubling of distance

NOISE MODEL PROJECTIONS

Noise Level	Distance (feet)	Leq	L50	L25	L8	L2	Lmax
Reference (Sample)	5.0	60.1	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	684.0	-42.7	-42.7	-42.7	-42.7	-42.7	-42.7
Shielding (Barrier Attenuation)	684.0	0.0	0.0	0.0	0.0	0.0	0.0
Raw (Distance + Barrier)		17.4	-42.7	-42.7	-42.7	-42.7	-42.7
60 Minute Hourly Adjustment		17.4	-42.7	-42.7	-42.7	-42.7	-42.7

STATIONARY SOURCE NOISE PREDICTION MODEL		8/11/2019
Observer Location: R7		Project Name: Palomino
Source: Drive-Through Speakerphone		Job Number: 11795
Condition: Operational		Analyst: B. Lawson
NOISE MODEL INPUTS		

Noise Distance to Observer	1,027.0 feet	Barrier Height:	0.0 feet
Noise Distance to Barrier:	1,027.0 feet	Noise Source Height:	3.0 feet
Barrier Distance to Observer:	0.0 feet	Observer Height:	5.0 feet
Observer Elevation:	0.0 feet	Barrier Type (0-Wall, 1-Berm):	0
Noise Source Elevation:	0.0 feet	Drop Off Coefficient:	20.0
Barrier Elevation:	0.0 feet	20 = 6 dBA per doubling of distance	
		15 = 4.5 dBA per doubling of distance	

NOISE MODEL PROJECTIONS							
Noise Level	Distance (feet)	Leq	L50	L25	L8	L2	Lmax
Reference (Sample)	15.0	62.0	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	1,027.0	-36.7	-36.7	-36.7	-36.7	-36.7	-36.7
Shielding (Barrier Attenuation)	1,027.0	0.0	0.0	0.0	0.0	0.0	0.0
Raw (Distance + Barrier)		25.3	-36.7	-36.7	-36.7	-36.7	-36.7
60 Minute Hourly Adjustment		25.3	-36.7	-36.7	-36.7	-36.7	-36.7

STATIONARY SOURCE NOISE PREDICTION MODEL		8/11/2019
Observer Location: R7		<i>Project Name:</i> Palomino
Source: Gas Station Activity		<i>Job Number:</i> 11795
Condition: Operational		<i>Analyst:</i> B. Lawson
NOISE MODEL INPUTS		

Noise Distance to Observer	1,027.0 feet	Barrier Height:	0.0 feet
Noise Distance to Barrier:	1,027.0 feet	Noise Source Height:	5.0 feet
Barrier Distance to Observer:	0.0 feet	Observer Height:	5.0 feet
Observer Elevation:	0.0 feet	Barrier Type (0-Wall, 1-Berm):	0
Noise Source Elevation:	0.0 feet	Drop Off Coefficient:	20.0
Barrier Elevation:	0.0 feet	20 = 6 dBA per doubling of distance	
		15 = 4.5 dBA per doubling of distance	

NOISE MODEL PROJECTIONS							
Noise Level	Distance (feet)	Leq	L50	L25	L8	L2	Lmax
Reference (Sample)	5.0	68.2	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	1,027.0	-46.3	-46.3	-46.3	-46.3	-46.3	-46.3
Shielding (Barrier Attenuation)	1,027.0	0.0	0.0	0.0	0.0	0.0	0.0
Raw (Distance + Barrier)		21.9	-46.3	-46.3	-46.3	-46.3	-46.3
60 Minute Hourly Adjustment		21.9	-46.3	-46.3	-46.3	-46.3	-46.3

STATIONARY SOURCE NOISE PREDICTION MODEL

8/11/2019

Observer Location: R8

Source: Air Conditioning Unit (Roof-Top)
Condition: Operational

Project Name: Palomino

Job Number: 11795

Analyst: B. Lawson

NOISE MODEL INPUTS

Noise Distance to Observer	339.0 feet	Barrier Height:	30.0 feet
Noise Distance to Barrier:	30.0 feet	Noise Source Height:	5.0 feet
Barrier Distance to Observer:	309.0 feet	Observer Height:	5.0 feet
Observer Elevation:	0.0 feet	Barrier Type (0-Wall, 1-Berm):	0
Noise Source Elevation:	30.0 feet	Drop Off Coefficient:	20.0
Barrier Elevation:	0.0 feet	20 = 6 dBA per doubling of distance 15 = 4.5 dBA per doubling of distance	

NOISE MODEL PROJECTIONS

Noise Level	Distance (feet)	Leq	L50	L25	L8	L2	Lmax
Reference (Sample)	5.0	77.2	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	339.0	-36.6	-36.6	-36.6	-36.6	-36.6	-36.6
Shielding (Barrier Attenuation)	30.0	-6.0	-6.0	-6.0	-6.0	-6.0	-6.0
Raw (Distance + Barrier)		34.6	-42.6	-42.6	-42.6	-42.6	-42.6
39 Minute Hourly Adjustment		32.7	-44.5	-44.5	-44.5	-44.5	-44.5

STATIONARY SOURCE NOISE PREDICTION MODEL

8/11/2019

Observer Location: R8

Source: Parking Lot Vehicle Movements (Industria
Condition: Operational

Project Name: Palomino

Job Number: 11795

Analyst: B. Lawson

NOISE MODEL INPUTS

Noise Distance to Observer	147.0 feet	Barrier Height:	0.0 feet
Noise Distance to Barrier:	147.0 feet	Noise Source Height:	5.0 feet
Barrier Distance to Observer:	0.0 feet	Observer Height:	5.0 feet
Observer Elevation:	0.0 feet	Barrier Type (0-Wall, 1-Berm):	0
Noise Source Elevation:	0.0 feet	Drop Off Coefficient:	20.0
Barrier Elevation:	0.0 feet	20 = 6 dBA per doubling of distance 15 = 4.5 dBA per doubling of distance	

NOISE MODEL PROJECTIONS

Noise Level	Distance (feet)	Leq	L50	L25	L8	L2	Lmax
Reference (Sample)	10.0	52.2	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	147.0	-23.3	-23.3	-23.3	-23.3	-23.3	-23.3
Shielding (Barrier Attenuation)	147.0	0.0	0.0	0.0	0.0	0.0	0.0
Raw (Distance + Barrier)		28.9	-23.3	-23.3	-23.3	-23.3	-23.3
60 Minute Hourly Adjustment		28.9	-23.3	-23.3	-23.3	-23.3	-23.3

STATIONARY SOURCE NOISE PREDICTION MODEL

8/11/2019

Observer Location: R8

Source: Truck Idle/Reefer Activity
Condition: Operational

Project Name: Palomino

Job Number: 11795

Analyst: B. Lawson

NOISE MODEL INPUTS

Noise Distance to Observer	394.0 feet	Barrier Height:	30.0 feet
Noise Distance to Barrier:	10.0 feet	Noise Source Height:	8.0 feet
Barrier Distance to Observer:	384.0 feet	Observer Height:	5.0 feet
Observer Elevation:	0.0 feet	Barrier Type (0-Wall, 1-Berm):	0
Noise Source Elevation:	0.0 feet	Drop Off Coefficient:	20.0
Barrier Elevation:	0.0 feet	20 = 6 dBA per doubling of distance 15 = 4.5 dBA per doubling of distance	

NOISE MODEL PROJECTIONS

Noise Level	Distance (feet)	Leq	L50	L25	L8	L2	Lmax
Reference (Sample)	30.0	70.1	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	394.0	-22.4	-22.4	-22.4	-22.4	-22.4	-22.4
Shielding (Barrier Attenuation)	10.0	-17.7	-17.7	-17.7	-17.7	-17.7	-17.7
Raw (Distance + Barrier)		30.0	-40.1	-40.1	-40.1	-40.1	-40.1
60 Minute Hourly Adjustment		30.0	-40.1	-40.1	-40.1	-40.1	-40.1

STATIONARY SOURCE NOISE PREDICTION MODEL

8/11/2019

Observer Location: R9

Source: Air Conditioning Unit (Roof-Top)
Condition: Operational

Project Name: Palomino

Job Number: 11795

Analyst: B. Lawson

NOISE MODEL INPUTS

Noise Distance to Observer	350.0 feet	Barrier Height:	30.0 feet
Noise Distance to Barrier:	10.0 feet	Noise Source Height:	5.0 feet
Barrier Distance to Observer:	340.0 feet	Observer Height:	5.0 feet
Observer Elevation:	0.0 feet	Barrier Type (0-Wall, 1-Berm):	0
Noise Source Elevation:	30.0 feet	Drop Off Coefficient:	20.0
Barrier Elevation:	0.0 feet	20 = 6 dBA per doubling of distance 15 = 4.5 dBA per doubling of distance	

NOISE MODEL PROJECTIONS

Noise Level	Distance (feet)	Leq	L50	L25	L8	L2	Lmax
Reference (Sample)	5.0	77.2	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	350.0	-36.9	-36.9	-36.9	-36.9	-36.9	-36.9
Shielding (Barrier Attenuation)	10.0	-9.7	-9.7	-9.7	-9.7	-9.7	-9.7
Raw (Distance + Barrier)		30.6	-46.6	-46.6	-46.6	-46.6	-46.6
39 Minute Hourly Adjustment		28.7	-48.5	-48.5	-48.5	-48.5	-48.5

STATIONARY SOURCE NOISE PREDICTION MODEL

8/11/2019

Observer Location: R9

Project Name: Palomino

Source: Parking Lot Vehicle Movements (Industria) Job Number: 11795
 Condition: Operational Analyst: B. Lawson

NOISE MODEL INPUTS

Noise Distance to Observer	156.0 feet	Barrier Height:	0.0 feet
Noise Distance to Barrier:	156.0 feet	Noise Source Height:	5.0 feet
Barrier Distance to Observer:	0.0 feet	Observer Height:	5.0 feet
Observer Elevation:	0.0 feet	Barrier Type (0-Wall, 1-Berm):	0
Noise Source Elevation:	0.0 feet	Drop Off Coefficient:	20.0
Barrier Elevation:	0.0 feet	20 = 6 dBA per doubling of distance 15 = 4.5 dBA per doubling of distance	

NOISE MODEL PROJECTIONS

Noise Level	Distance (feet)	Leq	L50	L25	L8	L2	Lmax
Reference (Sample)	10.0	52.2	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	156.0	-23.9	-23.9	-23.9	-23.9	-23.9	-23.9
Shielding (Barrier Attenuation)	156.0	0.0	0.0	0.0	0.0	0.0	0.0
Raw (Distance + Barrier)		28.3	-23.9	-23.9	-23.9	-23.9	-23.9
60 Minute Hourly Adjustment		28.3	-23.9	-23.9	-23.9	-23.9	-23.9

STATIONARY SOURCE NOISE PREDICTION MODEL

8/11/2019

Observer Location: R10

Project Name: Palomino

Source: Air Conditioning Unit (Roof-Top) Job Number: 11795
 Condition: Operational Analyst: B. Lawson

NOISE MODEL INPUTS

Noise Distance to Observer	191.0 feet	Barrier Height:	30.0 feet
Noise Distance to Barrier:	10.0 feet	Noise Source Height:	5.0 feet
Barrier Distance to Observer:	181.0 feet	Observer Height:	5.0 feet
Observer Elevation:	0.0 feet	Barrier Type (0-Wall, 1-Berm):	0
Noise Source Elevation:	30.0 feet	Drop Off Coefficient:	20.0
Barrier Elevation:	0.0 feet	20 = 6 dBA per doubling of distance 15 = 4.5 dBA per doubling of distance	

NOISE MODEL PROJECTIONS

Noise Level	Distance (feet)	Leq	L50	L25	L8	L2	Lmax
Reference (Sample)	5.0	77.2	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	191.0	-31.6	-31.6	-31.6	-31.6	-31.6	-31.6
Shielding (Barrier Attenuation)	10.0	-8.7	-8.7	-8.7	-8.7	-8.7	-8.7
Raw (Distance + Barrier)		36.9	-40.3	-40.3	-40.3	-40.3	-40.3
39 Minute Hourly Adjustment		35.0	-42.2	-42.2	-42.2	-42.2	-42.2

STATIONARY SOURCE NOISE PREDICTION MODEL

8/11/2019

Observer Location: R10*Project Name:* Palomino

Source: Parking Lot Vehicle Movements (Industria) *Job Number:* 11795
Condition: Operational *Analyst:* B. Lawson

NOISE MODEL INPUTS

<i>Noise Distance to Observer</i>	118.0 feet	<i>Barrier Height:</i>	0.0 feet
<i>Noise Distance to Barrier:</i>	118.0 feet	<i>Noise Source Height:</i>	5.0 feet
<i>Barrier Distance to Observer:</i>	0.0 feet	<i>Observer Height:</i>	5.0 feet
<i>Observer Elevation:</i>	0.0 feet	<i>Barrier Type (0-Wall, 1-Berm):</i>	0
<i>Noise Source Elevation:</i>	0.0 feet	<i>Drop Off Coefficient:</i>	20.0
<i>Barrier Elevation:</i>	0.0 feet	20 = 6 dBA per doubling of distance 15 = 4.5 dBA per doubling of distance	

NOISE MODEL PROJECTIONS

<i>Noise Level</i>	<i>Distance (feet)</i>	<i>Leq</i>	<i>L50</i>	<i>L25</i>	<i>L8</i>	<i>L2</i>	<i>Lmax</i>
Reference (Sample)	10.0	52.2	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	118.0	-21.4	-21.4	-21.4	-21.4	-21.4	-21.4
Shielding (Barrier Attenuation)	118.0	0.0	0.0	0.0	0.0	0.0	0.0
Raw (Distance + Barrier)		30.8	-21.4	-21.4	-21.4	-21.4	-21.4
60 Minute Hourly Adjustment		30.8	-21.4	-21.4	-21.4	-21.4	-21.4