

6.11.1 OVERVIEW AND SUMMARY

This section describes the ambient noise environment within the St. John's Seminary Residential Community Project area and discusses the regulatory framework with respect to regulations and other forms of guidance that address noise and vibration impacts. In addition, potential changes in the ambient noise environment that could result from the development of the St. John's Seminary Residential Community Project are evaluated in accordance with the California Environmental Quality Act (CEQA) and applicable City of Camarillo noise and vibration policies and guidelines, as well as mitigation measures to reduce identified impacts as appropriate and feasible.

6.11.2 LITERATURE AND DATA REVIEW

Project-related Studies and Reports

The following project-related studies were used to complete noise impact assessment (see **Appendices 6.11 and 6.17**):

- DKA Planning, "St. John's Seminary Noise Appendix," July 7, 2016
- Stantec, "St. John's Seminary Residential Project Traffic and Circulation Study," July 21, 2016 and

Other Data Sources

The following sources provided information regarding noise that would be applicable to the proposed project:

- California Department of Transportation, *Use of California Vehicle Noise Reference Energy Mean Emission Levels*, September 1995.
- American National Standards Institute of the Acoustical Society of America, *American National Standard Specification for Sound Level Meters*, January 1983 (as amended).
- Federal Railroad Administration, *High-Speed Ground Transportation Noise and Vibration Impact Assessment*, October 2005.
- California Department of Transportation, *Transportation and Construction Vibration Guidance Manual*, 2013

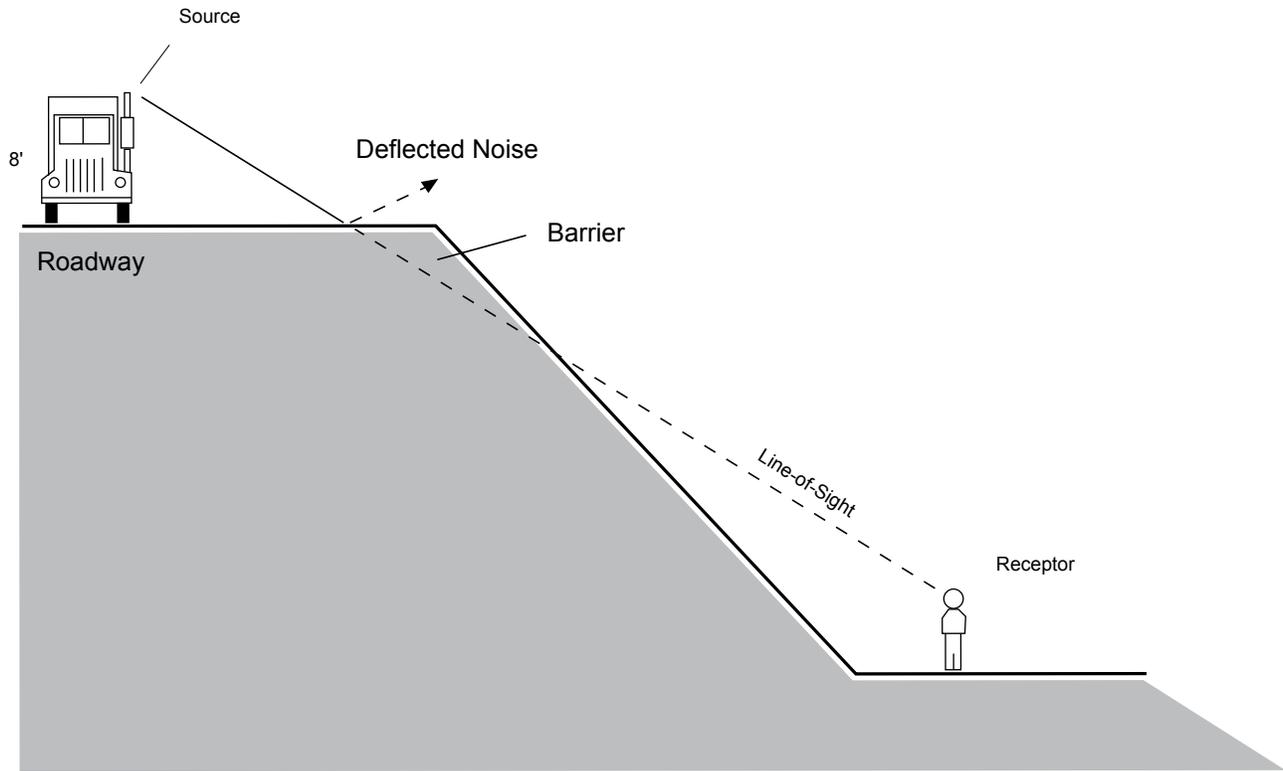
6.11.3 METHODOLOGY

Modeling and Data Collection

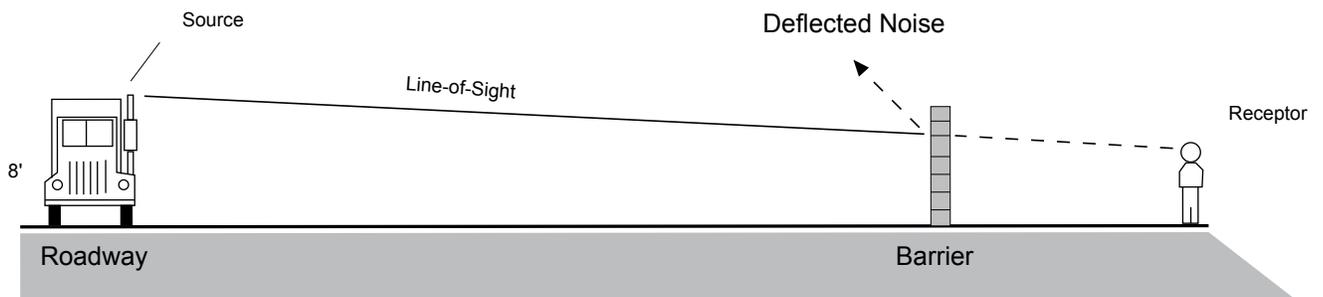
Analyses of existing and future noise environments presented in this section are based on technical reports, noise monitoring, and noise prediction modeling. Potential vibration impacts were determined using data from the Federal Transit Administration. Noise modeling procedures involved the calculation of existing and future roadway noise levels along local roadway and highway segments using the Federal Highway Administration (FHWA) Highway Noise Prediction Model (FHWA-RD-77-108)¹. This model calculates the average noise level in dB(A) CNEL (A-weighted sound level Community Noise Equivalent Level), along a given roadway segment based on traffic volumes, vehicle mix, average speeds, roadway geometry, and site conditions. Average vehicle noise rates (energy rates) utilized in the FHWA Noise Prediction Model were modified to reflect average vehicle noise rates identified for the State of California Department of Transportation. Traffic volumes used as data inputs to the noise prediction model were calculated based on average daily trip data (provided by Stantec) for roadway segments studied in the traffic impact analysis prepared for the project. The 24-hour traffic distribution was based on FHWA model default parameters. Calculation sheets and model outputs are provided in **Appendix 6.11** of this Environmental Impact Report (EIR).

On July 7, 2016, DKA Planning took short-term, 15 minute noise readings at various locations surrounding the project site in order to ascertain existing ambient noise conditions in the area. Noise measurements were taken using a Quest Technologies SoundPro DL Sound Level Meter. The SoundPro meter complies with the American National Standards Institute (ANSI) and International Electrotechnical Commission (IEC) for general environmental noise measurement instrumentation. The meter was equipped with an omni-directional microphone, calibrated before the day's measurements, and set at approximately five feet above the ground. The locations of the noise meters are shown in **Figure 6.11-1, Noise Monitoring Locations**.

¹ US Department of Transportation Federal Highway Administration, "Noise Prediction Model (FHWA-RD-77-108)", 1989.



"Barrier Effect" Resulting from Differences in Elevation.



"Barrier Effect" Resulting from Typical Soundwall.

SOURCE: Impact Sciences, Inc. – October 2004

FIGURE 6.11-3

Introduction to Noise

Noise is ordinarily described as unwanted sound. Sound is generally undesirable when it interferes with normal activities, causes actual physical harm, or has an adverse effect on health. The definition of noise as unwanted sound implies that it has an adverse effect on, or causes a substantial annoyance to, people and their environment.

Sound pressure level alone is not a reliable indicator of loudness because the human ear does not respond uniformly to sounds at all frequencies. For example, the human ear is less sensitive to low and high frequencies than to the medium frequencies that more closely correspond to human speech. In response to the human ear's sensitivity, or lack thereof, to different frequencies, the A-weighted noise level, referenced in unit of dB(A), was developed to better correspond with people's subjective judgment of sound levels. In general, changes in a noise level of less than 3 dB(A) are not noticed by the human ear.²

Changes from 3 to 5 dB(A) may be noticed by some individuals who are extremely sensitive to changes in noise. An increase greater than 5 dB(A) is readily noticeable, while the human ear perceives a 10 dB(A) increase in sound level to be a doubling of sound volume. A doubling of sound energy results in a 3 dB(A) increase in sound, which means that a doubling of sound wave energy (e.g., doubling the volume of traffic on a roadway) would result in a barely perceptible change in sound level. Common noise levels associated with certain activities are shown on **Figure 6.11-2, Common Noise Levels**.

Noise sources occur in two forms: (1) point sources, such as stationary equipment or individual motor vehicles; and (2) line sources, such as a roadway with a large number of mobile point sources (motor vehicles). Sound generated by a stationary point source typically diminishes (attenuates) at a rate of 6 dB(A) for each doubling of distance from the source to the receptor at acoustically hard sites and at a rate of 7.5 dB(A) at acoustically soft sites.³ A hard, or reflective, site does not provide any excess ground-effect attenuation and is characteristic of asphalt, concrete, and very hard-packed soil. An acoustically soft or absorptive site is characteristic of normal earth and ground with vegetation. As an example, a 60 dB(A) noise level measured at 50 feet from a point source at an acoustically hard site would be 54 dB(A) at 100 feet from the source and it would be 48 dB(A) at 200 feet from the source. Sound generated by a line source typically attenuates at a rate of 3 dB(A) and 4.5 dB(A) per doubling distance from the source to the receptor for hard and soft sites, respectively.⁴ Artificial or natural barriers can also attenuate sound levels, as illustrated in **Figure 6.11-3, Noise Attenuation by Barriers**. Solid walls and berms may reduce

² US Department of Transportation, Federal Highway Administration, *Highway Noise Fundamentals*, (Springfield, Virginia: September 1980), p. 81.

³ Ibid, p.97.

⁴ US Department of Transportation, Federal Highway Administration, *Highway Noise Fundamentals*, (Springfield, Virginia: September 1980), p. 97.

noise levels by 5 to 10 dB(A).⁵ The same point source at an acoustically soft site would be 52.5 dB(A) at 100 feet and 45 dB(A) at 200 feet from the source.

The minimum attenuation of exterior to interior noise provided by typical structures in California is provided in **Table 6.11-1, Outside to Inside Noise Attenuation (dB(A))**.

Table 6.11-1
Outside to Inside Noise Attenuation (dB(A))

Building Type	Open Windows	Closed Windows ¹
Residences	17	25
Schools	17	25
Places of Worship	20	30
Hospitals/Convalescent	17	25
Offices	17	25
Theaters	20	30
Hotels/Motels	17	25

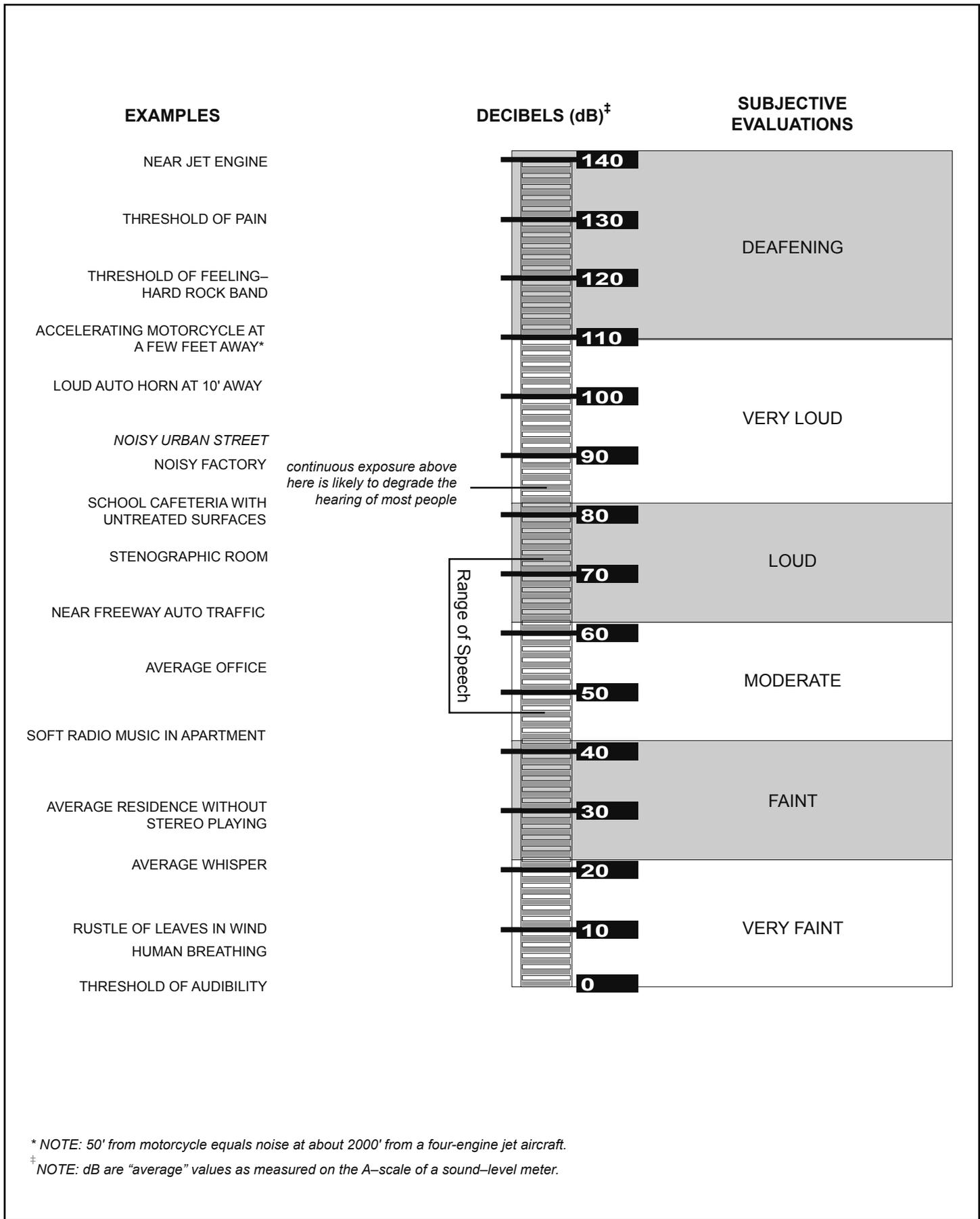
¹ As shown, structures with closed windows can attenuate exterior noise by a minimum of 25 to 30 dB(A).

Source: Transportation Research Board, National Research Council, *Highway Noise: A Design Guide for Highway Engineers*, National Cooperative Highway Research Program Report 117.

When assessing community reaction to noise, a scale that averages sound pressure levels over time and quantifies the result in terms of a single numerical descriptor is necessary. Several scales have been developed that address community noise levels. Those that are applicable to this analysis are the equivalent continuous noise level (Leq) and CNEL. Leq is the average A-weighted sound level measured over a given time interval. Leq can be measured over any period, but is typically measured for 1-minute, 15-minute, 1-hour, or 24-hour periods. CNEL is another average A-weighted sound level measured over a 24-hour period. However, this noise scale is adjusted to account for some individuals' increased sensitivity to noise levels during the evening and nighttime hours. A CNEL noise measurement is obtained by adding 5 decibels to sound levels occurring during the evening from 7:00 PM to 10:00 PM, and 10 decibels to sound levels occurring during the nighttime from 10:00 PM to 7:00 AM. The 5 and 10 decibel penalties are applied to account for increased noise sensitivity during the evening and nighttime hours. The logarithmic effect of adding these penalties to the 1-hour Leq measurements typically result in a CNEL measurement that is within approximately 3 dB(A) of the peak-hour Leq.⁶

⁵ Ibid, p.18.

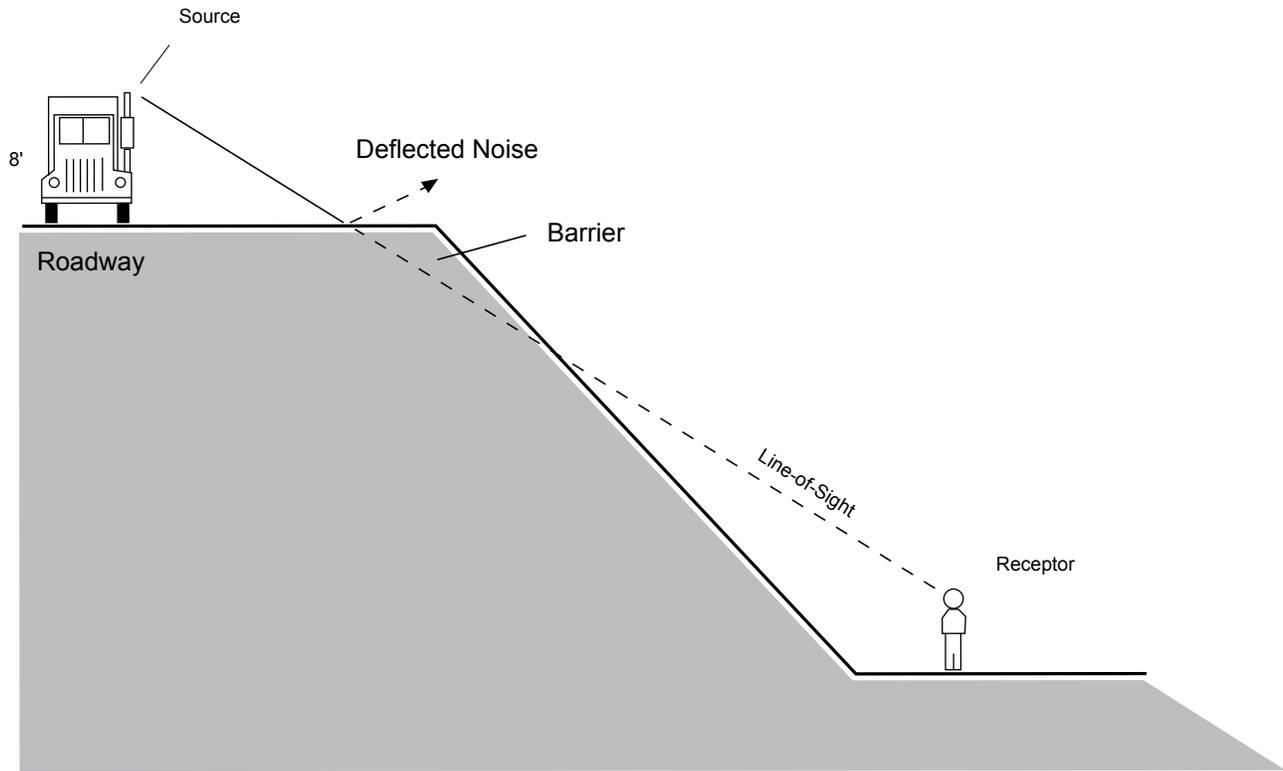
⁶ California Department of Transportation, *Technical Noise Supplement: A Technical Supplement to the Traffic Noise Analysis Protocol*, (Sacramento, California: October 1998), pp. N51-N54.



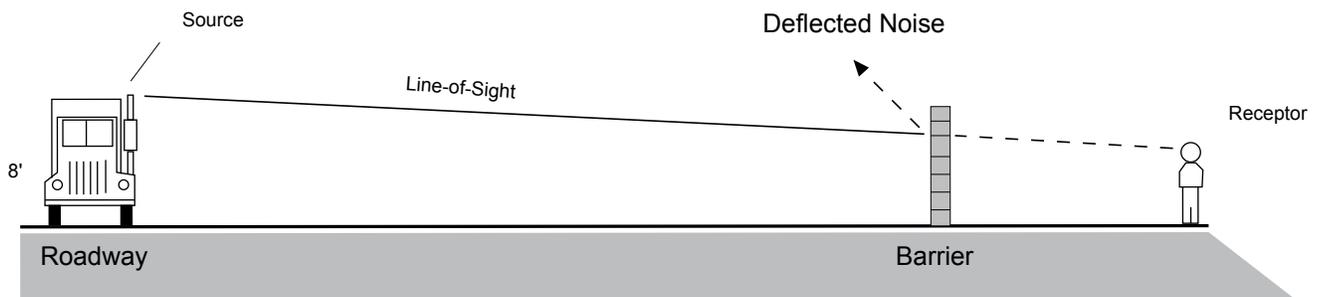
* NOTE: 50' from motorcycle equals noise at about 2000' from a four-engine jet aircraft.

[‡] NOTE: dB are "average" values as measured on the A-scale of a sound-level meter.

FIGURE 6.11-2



"Barrier Effect" Resulting from Differences in Elevation.



"Barrier Effect" Resulting from Typical Soundwall.

SOURCE: Impact Sciences, Inc. – October 2004

FIGURE 6.11-3

Introduction to Vibration

Vibration consists of waves transmitted through solid material. The solid medium can be excited by forces, movements, or pressure fields. Groundborne vibration propagates from the source through the ground to adjacent buildings by surface waves. Vibration may comprise a single pulse, a series of pulses, or a continuous oscillatory motion. The frequency of a vibrating object describes how rapidly it is oscillating, which is measured in hertz (Hz). Most environmental vibrations consist of a composite, or “spectrum” of many frequencies, and generally are classified as broadband or random vibrations. The normal frequency range of most groundborne vibration that can be felt generally starts from a low frequency of less than 1 Hz to a high of about 200 Hz. Vibration often is measured in terms of the peak particle velocity (PPV)⁷ in inches per second (in/sec).

Vibration energy spreads out as it travels through the ground, causing vibration amplitude to attenuate with increasing distance from the source. High-frequency vibrations reduce much more rapidly than low frequency, so that in the far field from a source, the low frequencies tend to dominate. An example of high-frequency vibration would be the ultrasound used in medicine, while source of low-frequency vibration include pumps, boilers, electrical installations, fans, and road and rail traffic. Soil properties also affect the propagation of vibration. When groundborne vibration interacts with a building, there is usually a ground-to-foundation coupling loss, but the vibration can also be amplified by the structural resonances of the walls and floors. Vibration in buildings is typically perceived as rattling windows or shaking items on shelves, or the motion of building surfaces.

Groundborne vibration can be perceived without instrumentation within a few hundred feet of certain types of construction activities, especially pile driving. Road vehicles rarely create enough groundborne vibration to be perceivable to humans unless the road surface is poorly maintained and there are potholes or bumps. If traffic, typically heavy trucks, induces perceptible vibration in buildings, such as window rattling or shaking of small loose items, then it is most likely an effect of low-frequency airborne noise or ground characteristics. Human annoyance by vibration is related to the number and duration of events. The more events or the greater the duration, the more annoying it will be to humans. **Figure 6.11-4, Typical Levels of Ground-Bourne Vibration**, identifies the typical groundborne vibration levels in inches per second PPV and human response to different levels of vibration.

⁷ Particle velocity is the velocity of a particle (real or imagined) in a medium as it transmits a wave.

6.11.4 APPLICABLE REGULATIONS

Federal Regulations

Department of Housing and Urban Development

The US Department of Housing and Urban Development (HUD) has set a goal of 65 dB(A) day-night average sound level (Ldn)(a 24-hours noise measurement equivalent to CNEL) as a desirable maximum exterior standard for residential units developed under HUD funding. While HUD does not specify acceptable interior noise levels, standard construction of residential dwellings constructed under Title 24 standards typically provides in excess of 20 dB(A) of attenuation with the windows closed. Based on this premise, the interior Ldn should not exceed 45 dB(A) Ldn.⁸

Federal Transit Administration

The Federal Transit Administration has published guidelines for assessing the impact of groundborne vibration associated with construction activities, which have been applied by other jurisdictions to other types of projects. The Federal Transit Administration measure of the threshold of architectural damage for conventional sensitive structures (e.g., residential units) is 0.2 in/sec PPV.⁹ The vibration threshold of perception is 0.01 in/sec PPV.

State Regulations

California Department of Health Services

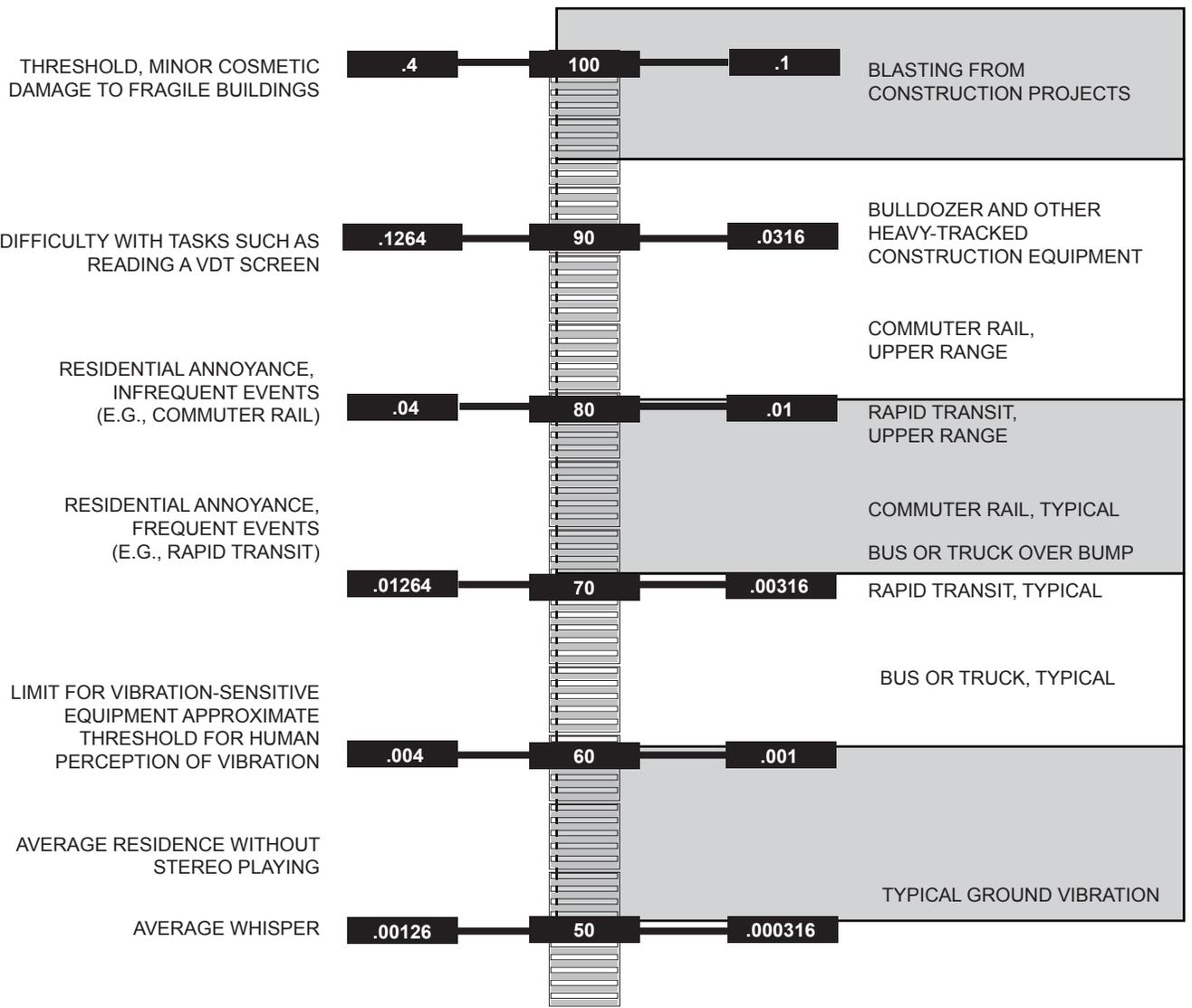
The California Department of Health Services, Environmental Health Division, has published recommended guidelines for noise and land use compatibility, referred to as the Guidelines for Noise and Land Use Compatibility (State Guidelines).¹⁰ The State Guidelines indicate that residential land uses and other noise-sensitive receptors generally should be located in areas where outdoor ambient noise levels do not exceed 65 to 70 dB(A) (CNEL/Ldn). The Department of Health Services does not mandate application of this compatibility matrix to development projects; however, under Government Code Section 65302(f), each jurisdiction is required to consider the State Guidelines when developing its general plan noise element and when determining acceptable noise levels within its community.

⁸ US Code of Federal Regulations, Title 24, Part 51, Housing and Urban Development, Environmental Criteria and Standards, revised April 1, 2004.

⁹ US Department of Transportation, Federal Administration, Office of Planning and Environment, Transit and Vibration Impact Assessment, FTA-VA-90-1003-06, May 2006.

¹⁰ California Department of Health Services. *Guidelines for the Preparation and Content of Noise Elements of the General Plan*, 1976. These guidelines are also published by the Governor's Office and Planning and Research in the state of California General Plan Guidelines (2003).

HUMAN/STRUCTURAL RESPONSE	PPV AMPLITUDE IN INCHES ¹ PER SECOND	VELOCITY LEVEL IN VdB	RMS VELOCITY AMPLITUDE IN ² INCHES/SECOND	TYPICAL SOURCES 50 FEET FROM SOURCE
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¹ PPV is typically a factor 1.7 to 6 times greater than RMS vibration velocity. A factor of 4 was used to calculate noise levels.

² Vibration levels in terms of velocity levels are defined as: $V=20 \times \log_{10} (a/r)$
 V=velocity levels in decibels
 a=RMS velocity amplitude
 r=reference amplitude (accepted reference quantities for vibration velocity are 1×10^{-6} inches/second in the United States)

FIGURE 6.11-4

Consistent with the California Noise Insulation Standards, the State Department of Housing and Community Development requires that new multi-family units cannot be exposed to outdoor ambient noise levels in excess of 65 dB(A) (CNEL/Ldn), and, if necessary, sufficient noise insulation must be provided to ensure interior ambient levels of 45 dB(A) or less.

Under the State Guidelines, an exterior level of 70 dB(A) CNEL is typically the dividing line between an acceptable and unacceptable exterior noise environment for all noise-sensitive uses, including schools, libraries, places of worship, hospitals, day care centers, and nursing homes of conventional construction. Noise levels below 75 dB(A) CNEL are typically acceptable for industrial uses. In unacceptable interior noise environments, additional noise insulation features, such as extra batting or resilient channels in exterior walls, double-paned windows, air conditioners to enable occupants to keep their windows closed without compromising comfort, solid wood doors, and noise baffles on exterior vents, are typically needed to provide acceptable interior noise levels.

California 2003 General Plan

The State of California's 2003 General Plan Guidelines establishes county and city standards for acceptable exterior noise levels based on land use. These criteria are incorporated into land use planning processes to prevent or reduce noise and land use incompatibilities. **Table 6.11-2** illustrates State compatibility considerations between various land uses and exterior noise levels.

**TABLE 6.11-2
STATE OF CALIFORNIA NOISE/LAND USE COMPATIBILITY MATRIX**

Land Use Category	Community Noise Exposure (dB, L _{dn} or CNEL)					
	55	60	65	70	75	80
Residential - Low Density Single-Family, Duplex, Mobile Homes						
Residential - Multi-Family						
Transient Lodging - Motels Hotels						
Schools, Libraries, Churches, Hospitals, Nursing Homes						
Auditoriums, Concert Halls, Amphitheaters						
Sports Arena, Outdoor Spectator Sports						
Playgrounds, Neighborhood Parks						
Golf Courses, Riding Stables, Water Recreation, Cemeteries						
Office Buildings, Business Commercial and Professional						
Industrial, Manufacturing, Utilities, Agriculture						

	Normally Acceptable - Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction without any special noise insulation requirements.
	Conditionally Acceptable - New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the design. Conventional construction, but with closed windows and fresh air supply system or air conditioning will normally suffice.
	Normally Unacceptable - New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design.
	Clearly Unacceptable - New construction or development should generally not be undertaken.

Source: California Office of Planning and Research, General Plan Guidelines - Noise Element Guidelines (Appendix C), 2003.

California Department of Transportation

In 2013, the California Department of Transportation (Caltrans) published the Transportation and Construction Vibration Guidance Manual to aid in the estimation and analysis of vibration impacts. Typically, potential building and structural damages are the foremost concern when considering the impacts of construction-related vibrations. **Table 6.11-3** summarizes Caltrans' vibration guidelines for building and structural damage.

Table 6.11-3
Building Damage Vibration Guidelines (Ppv)

Structure and Condition	Significance Thresholds (in/sec PPV)	
	Transient Sources	Continuous/Frequent/ Intermittent Sources
Extremely fragile historic buildings, ruins, ancient monuments	0.12	0.08
Fragile buildings	0.2	0.1
Historic and some old buildings	0.5	0.25
Older residential structures	0.5	0.3
New residential structures	1.0	0.5
Modern industrial/commercial buildings	2.0	0.5

Source: California Department of Transportation, 2013.

Local Regulations

City of Camarillo

Camarillo General Plan

The City of Camarillo General Plan contains a Noise Element providing guidance for the control of noise to protect residents, workers, and visitors from potentially adverse noise impacts. The Element's primary goal is to regulate long-term noise impacts to preserve acceptable noise environments for all types of land uses. Policies relating to construction activities are general in nature and not intended to directly regulate construction-related noises. Concerning long-term noise impacts, the Element contains stated goals, objectives, policies, and measures designed to guide City decision-making with respect to its purpose. Though the following policies would not directly regulate the project's operational noise impacts, adherence to them would ensure the project's consistency with the City's General Plan.

- Policy 1.1.1** Ensure acceptable noise levels near noise-sensitive uses such as schools, houses of worship, hospitals, and convalescent homes in accordance with the City's Land Use/Noise Compatibility Matrix.
- Policy 1.1.2** Where a potential noise conflict may occur, developers should submit noise assessment reports during the project planning process to identify potential noise impacts to their own developments and on nearby residential uses and other noise-sensitive land uses. New developments should incorporate appropriate noise mitigation measures in their project designs in order to meet the standards contained in this Element and the Camarillo Municipal Code.
- Policy 2.1.1** Practical measures to reduce noise impacts from transportation system noise sources should be utilized to the extent feasible.
- Policy 2.1.3** Contractors should incorporate appropriate noise mitigation measures, such as limiting the hours of construction, into new and upgraded roadway projects adjacent to nearby noise-sensitive land uses.
- Policy 2.1.4** The City should strive to reduce transportation system noise impacts through the design and coordination of transportation infrastructure and circulation.
- Policy 3.1.4** The City should seek to limit the impact of nuisance noise sources upon residential and other noise sensitive uses.

The Noise Element also utilizes an adapted noise and land use compatibility matrix based on the State's compatibility guidelines, shown for reference in **Table 6.11-2** of this document. The City's matrix is shown in **Table 6.11-4**, below.

**TABLE 6.11-4
CITY OF CAMARILLO NOISE/LAND USE COMPATIBILITY MATRIX**

Land Use Category	Community Noise Exposure (dB, L _{dn} or CNEL)					
	55	60	65	70	75	80
Residential - Low Density Single-Family, Duplex, Mobile Homes						
Residential - Multi-Family						
Transient Lodging - Motels Hotels						
Schools, Libraries, Churches, Hospitals, Nursing Homes						
Auditoriums, Concert Halls, Amphitheaters						
Sports Arena, Outdoor Spectator Sports						
Playgrounds, Neighborhood Parks						
Golf Courses, Riding Stables, Water Recreation, Cemeteries						
Office Buildings, Business Commercial and Professional						
Industrial, Manufacturing, Utilities, Agriculture						

	Normally Acceptable - Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction without any special noise insulation requirements.
	Conditionally Acceptable - New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the design. Conventional construction, but with closed windows and fresh air supply system or air conditioning will normally suffice.
	Normally Unacceptable - New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design.
	Clearly Unacceptable - New construction or development should generally not be undertaken.

Source: City of Camarillo General Plan - Noise Element, 2015.

Camarillo Municipal Code

The City of Camarillo Municipal Code (CMC) establishes the following exterior noise levels, which, unless otherwise specifically indicated, shall apply to all receptor properties within a designated noise zone and shall constitute the ambient noise level for the purpose of establishing standards.¹¹ These standards are shown in **Table 6.11-5, City of Camarillo Exterior Noise Standards.**

**Table 6.11-5
City of Camarillo Exterior Noise Standards**

Noise Zone	Designated Noise Zone Land Use	Time Interval	Exterior Noise Level (dB(A))
I	Agricultural and open space properties	7:00 AM to 9:00 PM	55
		9:00 PM to 7:00 AM	45
II	Residential properties	7:00 AM to 9:00 PM	55
		9:00 PM to 7:00 AM	45
III	Commercial/Office properties	7:00 AM to 9:00 PM	65
		9:00 PM to 7:00 AM	55
IV	Industrial properties	7:00 AM to 9:00 PM	65
		9:00 PM to 7:00 AM	55

Source: City of Camarillo Municipal Code, Chapter 10.34 Noise Regulations, Sections 10.34.010 through 10.34.150.

The following interior noise levels for common wall residential dwellings shall apply, unless otherwise specifically indicated, within all such dwellings with windows in their normal seasonal configuration and shall constitute the ambient noise level for the purpose of establishing standards. These standards are shown in **Table 6.11-6, City of Camarillo Interior Noise Standards.**

**Table 6.11-6
City of Camarillo Interior Noise Standards**

Noise Zone	Designated Noise Zone Land Use	Time Interval	Exterior Noise Level (dB(A))
All	Common wall and freestanding dwellings	7:00 AM to 9:00 PM	40
		9:00 PM to 7:00 AM	45

Source: City of Camarillo Municipal Code, Chapter 10.34 Noise Regulations, Sections 10.34.010 through 10.34.150.

¹¹ City of Camarillo Municipal Code, Chapter 10.34, Noise Regulations.

Prohibited Noise Sources – Motor Vehicles

The following noise sources are prohibited under the City of Camarillo Municipal Code Noise Regulations:

- **Refuse Collection Vehicles.** No person authorized to engage in waste disposal service or garbage collection shall operate any truck-mounted waste or garbage loading and/or compacting equipment or similar device in any manner so as to create any noise exceeding 80 dB(A), measures at a distance of 50 feet from the equipment in an open area. Between the hours of 9:00 PM and 7:00 AM, Section 10.34.040 of this Municipal Code shall apply.
- **Vehicles Off Public Right-of-way.** No person shall operate or cause to be operated any motorized vehicle, which shall include motorized recreation vehicles, off a public right-of-way in such a manner that the sound levels emitted there from violate the provisions of Section 10.34.040, 10.35.050 and 10.34.060 of the Noise Regulations of the City of Camarillo Municipal Code.
- **Vehicle or Aircraft Repair and Testing.** No person shall repair, rebuild, modify, or test any motor vehicle or aircraft in such a manner that the sound levels emitted there from violate provisions of Sections 10.34.040, 10.35.050, and 10.34.060 of the Noise Regulations of the City of Camarillo Municipal Code.
- **Standing Motor Vehicles.** No person shall operate or permit the operation of any motor vehicle with a gross vehicle weight rating in excess of six thousand pounds, or any auxiliary equipment attached to such a vehicle, for a period longer than 5 minutes in any hour while the vehicle is stationary, for reasons other than traffic congestion, on a public right-of-way or public space within 200 feet of a residential area between the hours of 9:00 PM and 7:00 AM

Prohibited Noise Sources – Sound Signaling Devices and Special Prohibitions

The following sound signaling devices and special prohibitions are prohibited under the City of Camarillo Municipal Code Noise Regulations:

- **Stationary Non-emergency Signaling Devices.** No person shall sound or permit the sounding of any electronically amplified signal from any stationary bell, chime, siren, whistle, or similar device, intended primarily for nonemergency purposes, from any place, for more than 10 seconds in any hourly period. Houses of religious worship shall be exempted from the operations of this provision.
- **Emergency Signaling Devices.** (1) No person shall intentionally sound or permit the sounding outdoors of any fire, burglar or civil defense alarm, siren, whistle or similar stationary emergency signaling device, except for emergency purposes or for testing. (2) Testing of a stationary emergency signaling system, including the functioning of the signaling device, shall not occur more than once in each calendar month. Such testing shall not occur before 7:00 AM or after 9:00 PM. The testing time for any single device shall not exceed 60 seconds.

- **Amplified Sound.** It is unlawful for any person, other than law enforcement personnel or other authorized governmental personnel, to install, use or operate within the City a loudspeaker or sound-amplifying equipment in a fixed or movable position for the purposes of giving instructions, directions, talks, addresses, lecturing, or transmitting music to any persons or assemblages of persons in or upon any street, alley, sidewalk, park, place or public property without first obtaining a permit from the director of planning and community development in accordance with Section 10.34.130 of the City of Camarillo Municipal Code Noise Regulations.
- **Power Tools and Machinery.** It is unlawful for any person to operate or permit the operation of any mechanically powered saw, sander, drill, grinder, lawnmower, or garden tool, or any similar tool, between 9:00 PM and 7:00 AM the next day so as to create a noise disturbance which violates the provisions of Sections 10.34.040, 10.34.050 and 10.34.060 of the Noise Regulations of the City of Camarillo Municipal Code.
- **Weed and Debris Blowers.** It is unlawful for any person to operate or to permit the operation of any mechanically powered blower, such as is commonly used for cleaning yards, driveways, gutters, and curbs, and parking lots, between hours of 9:00 PM and 7:00 AM the next day.

Exempt Noise Sources

The following noise sources are exempt from the noise regulations:

- **Emergency Exemption.** The emission of sound for the purpose of alerting persons to the existence of an emergency or the emission of sound in the performance of emergency work.
- **Warning Devices.** Warning devices necessary for the protection of public safety, as for example, police and fire and ambulance sirens, including the testing of such devices.
- **Outdoor Activities.** Activities conducted on public playgrounds and public or private school grounds, including but not limited to school athletic and school entertainment events.
- **Drums.** It is unlawful for any person to use any drums or other instrument or device of any kind for the purpose of attracting attention by the creation of noise within the City. This section shall not apply to any person who is a participant in a school band or in a parade for which a permit has been approved by the City to engage in such conduct.
- **Machinery, Equipment, Fans and Air-conditioning.** It is unlawful for any person to operate any machinery, equipment, pump, fan, air-conditioning apparatus, or similar mechanical device so as to create any noise, which violates the provisions of Sections 10.34.040, 10.34.050, and 10.34.060 of the Noise Regulations.
- **Construction, Buildings and Structures.** It is unlawful for any person adjacent to or within any residential zone in the City to operate power construction equipment or tools or perform any outside construction or repair work on buildings, or structures to operate any pile driver, steam shovel, pneumatic hammer, steam or electric hoist, or other construction device between the hours of 7:00 PM of one day to 7:00 AM of the next day or at any time on any Sunday, or at any time on any public holiday, in such a manner as to violate the noise standards set forth in Sections 10.34.040, 10.34.050, and 10.34.060, and it shall not be unlawful to do so at any other time. The performance of emergency

work is exempt from the provisions of this Section. (1) Home repair and routine maintenance of personal property such as automobiles or boats is not considered construction. (2) The planning commission or City council shall retain the right to impose more restrictive hours of construction activity by adding appropriate conditions to the City's approval of subdivisions, planned development permits, conditional use permits, variances, and other projects. (3) All minor construction activities such as, but not limited to, home additions, roof replacement, and patio construction shall be subject to the provisions of the Noise Regulations.

City of Camarillo Noise Ordinance

The City of Camarillo City Council has adopted a noise ordinance due to certain sounds at certain levels that can be harmful to the health and welfare of the citizens residing within the City limits. The City's noise ordinance regulates the times certain noise sources can be operated and defines acceptable noise limits within the City's limits. Events or actions may be prohibited if they cause a noise disturbance. These could include continuously barking dogs, noisy construction equipment, horns and signaling devices not being used for a danger warning, radios and TV sets, and engine repair and testing.

City of Camarillo On-Site Threshold

Construction

Construction noise standards for the City of Camarillo are found in the Camarillo Municipal Code (CMC). The CMC does not provide construction noise limits. However, it is unlawful for any person adjacent to or within any residential zone in the City to operate power construction equipment or tools or perform any outside construction or repair work on buildings or structures; or to operate any pile driver, steam shovel, pneumatic hammer, steam or electrical hoist, or other construction device between the hours of 7:00 PM of one day to 7:00 AM of the next day or at any time on any Sunday, or at any time on any public holiday, in such a manner as to violate the noise standards that are described above in **Table 6.11-2** and **Table 6.11-3**.¹² The CMC is interpreted to provide an exemption from established noise limits for construction activities that occur between the hours of 7:00 A.M. and 7:00 P.M. on Monday through Saturday; construction activities exceeding established noise standards would be prohibited on Sundays and federal holidays.

Operational

According to the CMC residential properties are considered "normally acceptable" with exterior noise levels up to 55 dB(A) L_{dn}/CNEL from 7:00 AM to 9:00 PM and 45 dB(A) L_{dn}/CNEL from 9:00 PM to 7:00 AM. Therefore, the residential portion of the proposed project would result in a significant noise impact if

¹² City of Camarillo, Municipal Code, Section 10.34.120, " Noise Regulations."

a person residing within a usable area (such as a yard or patio) of the proposed residential uses would be exposed to exterior noise above 55 dB(A) Ldn/CNEL during the hours of 7:00 AM to 9:00 PM and 45 dB(A) Ldn/CNEL during the hours of 9:00 PM to 7:00 AM. Additionally, agricultural and open space properties are considered “normally acceptable” with exterior noise levels up to 55 dB(A) Ldn/CNEL during the hours of 7:00 AM to 9:00 PM and 45 dB(A) between the hours of 9:00 PM to 7:00 AM. In addition, as presented in the City of Camarillo Municipal Code, the maximum interior noise threshold is 40 dB(A) Ldn/CNEL between the hours of 9:00 PM to 7:00 AM and 45 dB(A) Ldn/CNEL between the hours of 7:00 AM to 9:00 PM for all noise-sensitive noise zones.

City of Camarillo Off-Site Thresholds

Noise-level increases are also addressed in the Noise Element of the *City of Camarillo General Plan*. According to the Noise Element, and as shown in **Table 6.11-7, Subjective Effect of Changes in Sound Pressure**, an increase in noise level of 3 dB(A) would be barely perceptible to the human ear, and an increase in noise level of 5 dB(A) would be clearly noticeable to the human ear.

**Table 6.11-7
Subjective Effect of Changes in Sound Pressure**

Change in Sound Pressure Level (dB)	Change in Pressure Amplitude, Pa ¹		Change in Subjective Loudness
	Decreasing	Increasing	
3	1/2	2	Just perceptible
5	1/3	3	Clearly noticeable
10	1/10	10	Half or twice as loud
20	1/100	100	Much quieter or louder

¹ Pa is Pascal.

Source: City of Camarillo General Plan, “Noise Element” City of Camarillo Department of Community Development, August 28, 1996, 12.27.

Therefore, if the future noise levels from an action results in an increase of 5 dB(A) CNEL or more, the action would have a potentially significant impact.

Vibration Thresholds

Construction

The 2008 California Environmental Quality Act (CEQA) Statutes and Guidelines do not define the levels at which groundborne vibration is considered excessive. The vibration threshold of perception for people is 0.01 in/sec PPV. Normally, construction activities do not cause structural damage; however, the

architectural damage risk level for continuous vibrations, including pile driving, to be a PPV is somewhere between 0.2 and 2.0 in/sec.¹³ Therefore, should construction activity cause a PPV of above 0.01 in/sec near sensitive receptors or between 0.2 and 2.0 in/sec at nearby structures that do not contain sensitive receptors for any length of time, a significant impact would occur.

Operational

Although the City of Camarillo does not have a numeric threshold for vibration, residential areas should not be exposed to perceptible ground vibration from passing trains as perceived at the ground or second floor. Perceptible motion shall be presumed to be a motion velocity of 0.01 in/sec PPV over a range of 1 to 100 Hz. Therefore, should train activity cause a PPV at residential locations of above 0.01 in/sec, a significant impact would occur.¹⁴

6.11.5 EXISTING CONDITIONS

Local Setting

The predominant noise sources in the City of Camarillo, as in other communities, are the transportation systems. These include major streets and highways and train and rapid transit operations on rail lines within the City. The noise environment in Camarillo is typical of what would be expected within a suburban community with freeway and rail corridors.

Other sources of noise within the City include industrial and commercial activities, sports activities within public parks, construction activities, aircraft flyovers to and from PMTC (Pacific Missile Test Center) Point Mugu, aircraft operations of Camarillo Airport, neighborhood noise sources (e.g., power gardening equipment, air conditioning equipment, other human activities), and animals, such as barking dogs.

Freeways

According to the results of noise measurements and the roadway noise computer model analysis conducted within the *City of Camarillo General Plan*,¹⁵ the Ventura Freeway is the most predominate traffic noise source within the City for both existing and future conditions.

¹³ California Department of Transportation, *Transportation and Construction Vibration Guidance Manual*, 2013.

¹⁴ Ibid.

¹⁵ City of Camarillo General Plan, "Noise Element" City of Camarillo Department of Community Development, September 9, 2015.

Major and Minor Arterial Roadways

Roadways which produce the greatest traffic noise currently include Santa Rosa Road, Las Posas Road, Adolfo Road, Lewis Road, Mission Oaks Boulevard, Pleasant Valley Road, Flynn Road and Arneill Road.¹⁶ The majority of roadway segments will generate an increase of 3 dB(A) or less from vehicle travel, which is barely perceptible to the human ear.

In general, most of the land uses along the major roadways were commercial or residential with some mitigation measures incorporated into the design. The mitigation is in terms of sound walls or setbacks from the roadway. However, there currently are a number of residential homes that are located along major and secondary arterials, which are or will be exposed to noise levels greater than 65 CNEL.

Railroads

The Metrolink system, which runs daily light rail commuter trains during the morning and afternoon hours, currently does not produce substantially high noise nor will it in future years. This is due primarily to the lighter trains and engines in use. The required use of warning horns when approaching railway-roadway crossings will continue to generate loud noise for nearby locations during each brief pass-by.

Amtrak operates passenger rail service traveling north- and southbound on the rail line. Its engines and railcars are heavier than Metrolink's; however, they are not as heavy as the freight trains that run through the City of Camarillo. Amtrak trains currently produce moderate to high noise. These trains also generate loud warning horn noise near rail crossings.

The Southern Pacific Transportation Company, which operates freight trains on the rail line in the City, currently produces significant noise. Freight train noise will continue to be significant along the rail corridor in the future. Loud horn noise is generated by freight trains near rail crossings also.

¹⁶ Ibid, 12.13.

The future projections for the three rail operations are based on a doubling in the total number of train operations, which resulted in an approximately 3 dB(A) increase for the future years.¹⁷ This noise projection was an assumption to estimate the worst potential noise increase. Neither the existing nor future railroad noise projections include the effects of train horns near roadway crossing locations along the rail line. Train horns, when used when approaching intersections, would result in significantly larger noise contours for the areas near a crossing.

Aircraft

Current operations for Camarillo Airport result in both 60 and 65 CNEL contours extending beyond the airport boundaries. These contours, however, extend over primarily non-sensitive noise areas.¹⁸ Although future operations are expected to increase, the elimination of noisier turbojets would result in a CNEL decrease, such that only a reduced 60 CNEL contour would extend beyond the boundaries of the airport.

Current operations at PMTC Point Mugu significantly impact areas south of the City. The 60 CNEL contour extends northeasterly almost to the 101 Freeway near the Pleasant Valley–Santa Rosa interchange. Individual aircraft flyovers cause short-term high-level noise disturbances along the same northeasterly flight path to the bend in Upland Road and beyond, consequently impacting residential and noise-sensitive land uses. Future operations are projected to remain essentially the same as current operations. However, future operations at PMTC Point Mugu may increase substantially should it become a joint-use facility with commercial aviation.

Agricultural land may be a source of noise at times due to normal farming practices such as soil tillage, the use of harvesting equipment, or water pumping. These activities or any other farming activity, which has been in operation for three years, or more which is conducted in a manner consistent with proper and accepted practices as established by similar agricultural operations in the area are exempt from local laws by state government code. Farming operations are expected to continue and are encouraged for both economic substance and as a physical definition to the urban area of the City.

¹⁷ City of Camarillo General Plan, “Noise Element” City of Camarillo Department of Community Development, September 9, 2015.

¹⁸ City of Camarillo General Plan, “Noise Element.” August 28, 1996, 12.13.

Existing Noise Environment

Noise Sources and Receptors

As shown in **Figure 3.0-1**, the project site is predominantly surrounded by single-family residences, religious land uses, agricultural land uses, and open space. Of these, the following receptors were chosen specifically for detailed construction noise impact analysis given their potential sensitivities to noise and their proximity to the project site.

Castillo de Rosas Residences: single-family residential land uses located up to approximately 100 feet east of the project site along Castillo de Rosas.

Woodcreek Road Residences: single-family residential land uses located up to approximately 200 feet east of the project site along Woodcreek Road.

Plata Rosa Court Residences: single-family residential land uses located up to approximately 100 feet east of the project site along Plata Rosa Court.

Padre Serra Parish: a church and related uses located up to approximately 150 feet southeast of the project site along Upland Road.

Via Secoya Residences: single-family residential land uses located up to approximately 700 feet southwest of the project site along Via Secoya.

Via Arandana Residences: single-family residential land uses located up to approximately 650 west of the project site along Via Arandana.

At the intersection of Flynn Road and Upland Road, ambient noise levels were primarily a result of vehicle traffic along these roads. Near the eastward bend of Woodcreek Road, noise was mostly attributable to residential vehicle traffic. The lowest ambient noise levels were recorded at the Castillo de Rosas cul-de-sac. Here, noise sources were mostly limited to wind and common residential noises (e.g., dogs barking, car doors closing, etc.). Monitored ambient noise levels ranged from 45.2 dBA L_{eq} at the Castillo de Rosas cul-de-sac to 68.7 dBA L_{eq} at the intersection of Flynn Road and Upland Road.

The 45.2 dBA L_{eq} ambient noise level measured at the Castillo de Rosas cul-de-sac was assigned to Castillo de Rosas Residences without adjustment, as it was recorded within the immediate vicinity of residences located along Castillo de Rosas. It was also assigned to Plata Rosa Court Residences, as the single-family homes located at this cul-de-sac similarly experience limited levels of residential traffic. This noise level is typical of less dense to moderately dense suburban neighborhoods.

The 49.9 dBA L_{eq} ambient noise level measured near the eastward bend of Woodcreek Road was assigned to Woodcreek Road Residences, which are located along this residential street.

Given their proximity to the intersection of Flynn Road and Upland Road, Via Arandana Residences and Del Rayo Court Residences were both assigned the 68.7 dBA L_{eq} ambient noise level measured at this location. This noise level corresponds largely with the 67 dBA L_{eq} ambient noise level measured along Upland Road near its intersection with Hillridge Drive in the City of Camarillo 2015 General Plan Noise Element. For Padre Serra Parish and Via Secoya Residences, their respective 52.8 dBA L_{eq} and 50.3 dBA L_{eq} ambient noise levels were estimated according to their distances from Upland Road. These estimations were utilized to more accurately account for these receptors' setbacks from Upland Road, the primary source of noise for both receptors. For example, Padre Serra Parish is located over 250 feet from Upland Road; a noise measurement taken along Upland Road and directly applied to Padre Serra Parish would likely exaggerate that receptor's true ambient noise level.

With regard to Somis Road Residences, the City of Camarillo conducted multiple noise studies along Lewis/Somis Road as part of its 2015 General Plan Noise Element. At both short-term noise study locations, roadside ambient noise levels were found to be 72 dBA L_{eq} . Both long-term noise study locations similarly yielded results in excess of 70 dBA CNEL. Therefore for this analysis, Somis Road Residences was assigned an ambient noise level of 72 dBA L_{eq} , as this noise level would likely best represent its ambient noise conditions during hours of potential construction activities.

Ambient noise levels for all project receptors are shown in **Table 6.11-8** for reference, below.

Table 6.11-8
Existing Ambient Noise Levels

Sensitive Receptor	Existing Ambient Noise Level (dBA L_{eq})
Castillo de Rosas Residences	45.2
Woodcreek Road Residences	49.9
Plata Rosa Court Residences	45.2
Padre Sierra Parish	52.8
Via Secoya Residences	50.3
Via Arandana Residences	68.7
Somis Road Residences	72.0

Source: DKA Planning, 2016; City of Camarillo General Plan Noise Element, 2015.

Roadway Noise

In order to characterize the ambient roadway noise environment surrounding the project site, the existing traffic volumes of nearby road segments were modeled using the Federal Highway Administration's (FHWA) Traffic Noise Model 2.5 (TNM 2.5). This noise prediction software uses traffic volumes, vehicle mix, average speeds, roadway geometry, and other inputs to calculate average noise levels in dBA along inputted roadway segments. **Table 6.11-9** lists the A.M. Peak Hour and P.M. Peak Hour results of this modeling.

**Table 6.11-9
Roadway Noise Levels – Existing (2016)**

Roadway Segment	Existing Ambient Noise Level (dBA Leq)	
	A.M. Peak Hour	P.M. Peak Hour
1. E/B Las Posas Road, W of Lewis Road	70.6	70.6
2. W/B Las Posas Road, W of Lewis Road	67.0	67.1
3. N/B Flynn Road, N of Avenida Acaso	66.2	66.9
4. S/B Flynn Road, N of Avenida Acaso	67.1	65.9
5. N/B Santa Rosa Road, N of Adolfo Road	71.2	72.1
6. S/B Santa Rosa Road, N of Adolfo Road	71.9	71.7

Source: DKA Planning, 2016; City of Camarillo General Plan Noise Element, 2015.

Roadway Segments 1 and 2

Noise-sensitive land uses along this segment of Las Posas Road include churches, Camarillo Public Library, and residences.

Roadway Segments 3 and 4

Noise-sensitive land uses along this segment of Flynn Road are primarily single-family residences.

Roadway Segments 5 and 6

Noise-sensitive land uses along this segment of Santa Rosa Road are primarily single-family residences.

6.11.6 THRESHOLDS OF SIGNIFICANCE

In accordance with Appendix G of the *California Environmental Quality Act (CEQA) Guidelines*, the project could have a potential significant noise impact if were to cause any of the following:

1. **Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.**
2. **Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels.**
3. **A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project.**
4. **A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project.**
5. **For a project located within 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.**
6. **For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels.**

Additionally, this analysis considers a substantial increase in ambient noise levels to be any 5 dBA or greater increase. Increases of 5 dBA are considered to be a threshold of annoyance to people of ordinary sensitivity.

Project Elements

The Applicant proposes to develop 88.45 acres of the St. John's Seminary property with up to 300 residential units and a public trailhead parking area. The residential units, in addition to related community uses and amenities (e.g., walking trails, private parks, and other recreation areas), would be developed across the Seminary's existing Undergraduate Campus area. The public trailhead would be located at a non-contiguous 0.26 acre portion of the Seminary property near the intersection of Upland Road and Somis Road.

6.11.7 ENVIRONMENTAL IMPACTS

The environmental impact analysis presented below is based on determinations made in the Notice of Preparation (NOP) for issues that were determined to be potentially significant with mitigation incorporated, or for issues identified by reviewing agencies, organizations, or individuals commenting on the NOP that made a reasonable argument that the issue was potentially significant (see Responses to NOP, **Appendix 2.0**).

Expose persons to or generate noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.

Impacts

Construction impacts are addressed further in this section, under the impact category “Cause a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project.”

During project operations, the residential development and public trailhead would produce noise impacts from on-site activities, as well as off-site mobile noise from vehicles traveling on local roads to access or leave these proposed uses. The direct on-site impacts would include:

Mechanical Equipment

Modern heating and air conditioning units typically produce noise levels of approximately 55 dBA at 3 feet of distance.¹⁹ Based on the distance from the project site to nearby receptors, ambient noise levels, and the relatively quiet operation of modern heating and air conditioning systems, these on-site noise sources would not cause audible noise increases at any receiving property line. As a result, the project would comply with Section 10.34.110 of the City of Camarillo Municipal Code, which regulates the noise impacts of heating and air conditioning systems at receiving property lines to the standards set forth in Sections 10.34.040, 10.34.050, and 10.34.060.

Residential Land Uses

Noise from recurrent activities (e.g., conversation, consumer electronics) or non-recurrent activities (e.g., social gatherings) would elevate ambient noise levels to different degrees. The City’s Noise Ordinance would provide a means to address any nuisances related to residential noise. It is important to consider that the project is located within a predominantly residential area of the City. The project’s residential noises would therefore be largely comparable with existing environmental noises.

¹⁹ Federal Transit Administration, Transit Noise and Vibration Impact Assessment, May 2006.

Auto-Related Activities

Operational noises related to vehicles would include intermittent noise events such as door slamming and vehicle engine start-ups. However, these noise events are infrequent and do not significantly increase ambient noise levels.

Recreational Land Uses

Noises associated with the project's proposed private and public parkland would include conversations, playing, and social gatherings. These noises would not significantly increase ambient noise levels at any nearby receptors. The City's Noise Ordinance would provide a means to address any periodic nuisances related to noise sources such as amplified music, events, or large gatherings.

The majority of the project's operational noise impacts would be from indirect noise impacts associated with its 2,080 net new daily trips. The mobile noise impacts of these vehicle trips were modeled using FHWA TNM 2.5 noise prediction software, comparing an existing year (2016) no project scenario to an existing year (2016) with project scenario. **Tables 6.11-10** and **6.11-11** show the project's estimated contributions to ambient noise level increases along modeled roadway segments.

Table 6.11-10
Existing A.M. Peak Hour Mobile Source Noise Levels

Roadway Segment	Existing Ambient Noise Level (dBA Leq)			
	No Project (2016)	With Project (2016)	Project Change	Significant Impact?
1. E/B Las Posas Road, W of Lewis Road	70.6	70.6	0.0	No
2. W/B Las Posas Road, W of Lewis Road	67.0	67.1	0.1	No
3. N/B Flynn Road, N of Avenida Acaso	66.2	66.4	0.2	No
4. S/B Flynn Road, N of Avenida Acaso	67.1	67.3	0.2	No
5. N/B Santa Rosa Road, N of Adolfo Road	71.2	71.3	0.1	No
6. S/B Santa Rosa Road, N of Adolfo Road	71.9	71.9	0.0	No

Source: DKA Planning, 2016.

**Table 6.11-11
Existing P.M. Peak Hour Mobile Sources Levels**

Roadway Segment	Existing Ambient Noise Level (dBA Leq)			
	No Project (2016)	With Project (2016)	Project Change	Significant Impact?
1. E/B Las Posas Road, W of Lewis Road	70.0	70.1	0.1	No
2. W/B Las Posas Road, W of Lewis Road	66.4	66.6	0.2	No
3. N/B Flynn Road, N of Avenida Acaso	66.9	67.1	0.2	No
4. S/B Flynn Road, N of Avenida Acaso	65.9	66.1	0.2	No
5. N/B Santa Rosa Road, N of Adolfo Road	72.1	72.1	0.0	No
6. S/B Santa Rosa Road, N of Adolfo Road	71.7	71.7	0.0	No

Source: DKA Planning, 2016.

At all roadway segments, the project would have a less than significant impact.

Roadway Segments 1 and 2

Project traffic is projected to raise roadside ambient noise levels at these segments by no more than 0.2 dBA, during the P.M. Peak Hour. This noise increase would be considered below levels of human perceptibility. It should be noted that the existing noise levels of Roadway Segment 1 fall within the City's "Normally Unacceptable" noise category for residential land uses. However, the project would not exacerbate these ambient noise conditions to a significant degree. With regard to the library and church land uses along Roadway Segment 2, the project would not raise their ambient noise levels to or within their "Normally Unacceptable" or "Clearly Unacceptable" noise categories.

Roadway Segments 3 and 4

Project traffic is projected to raise roadside ambient noise levels at these segments by no more than 0.2 dBA. This noise increase would be considered below levels of human perceptibility. The project would not raise the ambient noise levels of roadside residential uses to or within the City's "Normally Unacceptable" or "Clearly Unacceptable" noise categories.

Roadway Segments 5 and 6

Project traffic is projected to raise roadside ambient noise levels at these segments by no more than 0.1 dBA. This noise increase would be considered below levels of human perceptibility. Though the existing noise levels of Roadway Segments 5 and 6 fall within the City's "Normally Unacceptable" noise category for residential land uses, the project would not exacerbate these ambient noise conditions to a significant degree.

Mitigation Measures

No mitigation is required.

Residual Impacts

Impacts would be less than significant.

Expose persons to or generate excessive groundborne vibration or groundborne noise levels.

Construction Vibration Impacts

Ground-borne vibration would be generated by a number of on-site construction activities. Of all potential construction activities, scraper operations during the residential component's major land development phase would be anticipated to have the greatest vibration impacts at off-site receptors. As shown in Table 6.11-14, scraper activities could generate ground-borne vibration levels of 0.022 inches per second PPV at homes nearest to the project site. However, this vibration intensity would be far below the 0.5 inches per second PPV threshold that Caltrans considers potentially harmful to new residential structures.

As shown in **Table 6.11-12**, no receptor would experience ground-borne vibration levels in excess of its respective threshold for building damage. The project's vibration impacts with respect to building damage would be considered **less than significant**.

**Table 6.11-12
Building Damage Vibration Levels at Off-Site Structures (Unmitigated)**

Off-Site Structures	Distance to Project Site (ft.)	Estimated PPV (in/sec)	Structural Significance Threshold (in/sec)	Significant?
Castillo de Rosas Residences	100	0.022	0.5	No
Woodcreek Road Residences	200	0.011	0.5	No
Plata Rosa Court Residences	100	0.022	0.5	No
Padre Serra Parish	150	0.015	0.5	No
Somis Road Residences	30	0.003	0.3	No
Del Rayo Court Residences	175	<0.001	0.5	No

Source: DKA Planning, 2016.

In terms of land use disruption and human annoyance, the project would also have a less than significant impact. As shown in **Table 6.11-13**, project-related vibration would not exceed FTA criteria at any nearby receptor.

**Table 6.11-13
Land Use Disruption Vibration Levels From (Unmitigated)**

Off-Site Receptor	Distance to Project Site (ft.)	Estimated VdB	Land Use Interference Threshold (VdB)	Significant?
Castillo de Rosas Residences	100	68.9	72	No
Woodcreek Road Residences	200	59.9	72	No
Plata Rosa Court Residences	100	68.9	72	No
Padre Serra Parish	150	63.7	75	No
Somis Road Residences	30	55.6	72	No
Del Rayo Court Residences	175	32.6	72	No

Source: DKA Planning, 2016.

Operational Vibration Impacts

During operations of the project, there would be no significant stationary sources of ground-borne vibration, such as industrial equipment. Operational ground-borne vibration in the project vicinity would be generated by vehicle travel on local roadways. However, passenger vehicles rarely create enough ground-borne vibration to be perceptible to humans unless road surfaces are poorly maintained and contain potholes or bumps. The project's operational vibration impacts would be less than significant.

Mitigation Measures

No mitigation is required.

Residual Impacts

Impacts will be less than significant.

Cause a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project.

Impacts

As previously discussed, potential noise impacts due to roadways, electrical, and mechanical equipment, and on-site and off-site residential uses are considered to be less than significant.

Mitigation Measures

No mitigation is required.

Residual Impacts

Impacts will be less than significant.

Cause a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project.

Impacts

During construction of the project, noise-generating activities could occur both on and off-site. Construction activities would likely be confined to hours between 7:00 A.M. and 7:00 P.M. Monday through Friday, as Section 10.34.120, Subsection (E), of the City of Camarillo Municipal Code exempts construction activities from its noise provisions between these hours. Though not anticipated, construction activities occurring outside of these hours Monday through Saturday, or at any time on any Sunday or public holiday, would be held to Code standards.

Over the course of the project's residential development, construction activities would largely fall into one of two phases: Major land development and homebuilding. Sub-phases specific to major land development would include site preparation, demolition of existing structures, rough and fine grading, utility trenching, road paving, and landscaping. Homebuilding activities would include utility connections, fine grading, building construction, architectural coating, driveway paving, and finishing/landscaping. It is anticipated that homebuilding would begin following the completion of most major land development phases. As a result, homebuilding would not be expected to overlap with major land development site preparation, demolition, and grading sub-phases; expected to be the loudest of the project's development.

Analysis of the project's on-site construction noise impacts is broken into four sections: Site Preparation and Demolition, Grading, Homebuilding, and Parkland Development. These phases were specifically analyzed given their potential to result in significant construction noise impacts.

Site Preparation and Demolition

Site Preparation and Demolition activities are anticipated to take place over the course of approximately 2 months and would most significantly involve the demolition and removal of the Seminary’s existing Undergraduate Campus. Construction activities related to Site Preparation and Demolition would require heavy-equipment such as excavators, loaders, backhoes, and end dumps, as well as smaller equipment such as hand-held pneumatic tools. Secondary noise could also be generated by construction worker vehicles and equipment deliveries. For this analysis, Site Preparation and Demolition noise impacts were modeled using the noise reference levels of excavators and front-end loaders, as these vehicles typically operate in tandem. Excavators can produce average peak noise levels of 81 dBA at a reference distance of 50 feet; front-end loaders, 79 dBA.²⁰ Other construction equipment and vehicles utilized for Site Preparation and Demolition would not be as loud as excavators and front-end loaders. Therefore, this analysis examines a “worst-case scenario”; the noise impacts of other construction vehicles and equipment operated during Site Preparation and Demolition activities would not exceed those analyzed here.

**Table 6.11-14
Construction Noise Levels – Unmitigated: Site Preparation and Demolition**

Sensitive Receptor	Distance from Site (feet)	Maximum Construction Noise Level (dBA)	Existing Ambient (dBA, Leq)	New Ambient (dBA, Leq)	Increase
Castillo de Rosas Residences	100	73.1	45.2	73.1	27.9
Woodcreek Road Residences	200	60.7	49.9	61.1	11.2
Plata Rosa Court Residences	100	73.1	45.2	73.1	27.9
Padre Serra Parish	150	69.6	52.8	69.7	16.9
Via Secoya Residences	700	56.2	50.3	57.2	6.9
Via Arandana Residences	650	56.9	68.7	69.0	0.3

Source: DKA Planning, 2016.

Given the ambient noise conditions in the project area and the proximity of receptors, significant noise impacts could occur at five project receptors as a result of on-site Site Preparation and Demolition activities. Impacts are shown in **Table 6.11-14** and summarized below:

²⁰ Federal Highway Administration, Construction Noise Handbook, 2006.

Castillo de Rosas Residences

At this receptor, single-family homes nearest to the project site are projected to experience noise levels of up to 73.1 dBA as a result of Site Preparation and Demolition activities, an increase of 27.9 dBA over existing ambient noise conditions. These elevated noise levels would exceed the 5.0 dBA noise increase threshold considered to delineate a significant noise impact.

Woodcreek Road Residences

At this receptor, single-family homes nearest to the project site are projected to experience noise levels of up to 61.1 dBA as a result of Site Preparation and Demolition activities, an increase of 11.2 dBA over existing ambient noise conditions. These elevated noise levels would exceed the 5.0 dBA noise increase threshold considered to delineate a significant noise impact.

Plata Rosa Court Residences

At this receptor, single-family homes nearest to the project site are projected to experience noise levels of up to 73.1 dBA as a result of Site Preparation and Demolition activities, an increase of 27.9 dBA over existing ambient noise conditions. These elevated noise levels would exceed the 5.0 dBA noise increase threshold considered to delineate a significant noise impact.

Padre Serra Parish

Padre Serra Parish is projected to experience noise levels of up to 69.7 dBA as a result of Site Preparation and Demolition activities, an increase of 16.9 dBA over existing ambient noise conditions. These elevated noise levels would exceed the 5.0 dBA noise increase threshold considered to delineate a significant noise impact.

Via Secoya Residences

At this receptor, single-family homes nearest to the project site are project to experience noise levels of up to 57.2 dBA as a result of Site Preparation and Demolition activities, an increase of 6.9 dBA over existing ambient noise conditions. These elevated noise levels would exceed the 5.0 dBA noise increase threshold considered to delineate a significant noise impact.

Via Arandana Residences

This receptor is not projected to experience significant noise impacts as a result of Site Preparation and Demolition activities given its existing ambient noise levels and distance from the project site.

The project's specific site preparation and demolition noise levels would exceed the 5.0 dBA noise increase threshold considered to delineate a significant noise impact at the Castillo de Rosas Residences, Woodcreek Road Residences, and Plata Rosa Court Residences. Mitigation Measures 6.11-1 through 6.11-5 are recommended to reduce the project's construction noise impacts to the maximum feasible degree.

Further, the CMC is interpreted to provide an exemption from established noise limits for construction activities that occur between the hours of 7:00 A.M. and 7:00 P.M. on Monday through Saturday; construction activities exceeding established noise standards would be prohibited on Sundays and federal holidays. Therefore, project specific site preparation and demolition noise impacts would be less considered than significant.

Grading

The project's major land development phase would require two types of grading activities: Rough grading and fine grading. Of these, rough grading would utilize the loudest pieces of equipment, including excavators, graders, dozers, scrapers, loaders, backhoes, and tractors. Secondary noise could also be generated by construction worker vehicles and equipment deliveries. The project's rough grading impacts were modeled using the noise reference levels of scrapers. Scrapers can produce average peak noise levels of 84 dBA at a reference distance of 50 feet; other construction vehicles and equipment utilized for Grading would not be as loud as scrapers.²¹

**Table 6.11-15
Construction Noise Levels – Unmitigated: Grading**

Sensitive Receptor	Distance From Site (feet)	Maximum Construction Noise Level (dBA)	Existing Ambient (dBA, Leq)	New Ambient (dBA, Leq)	Increase
Castillo de Rosas Residences	100	74.0	45.2	74.0	28.8
Woodcreek Road Residences	200	61.6	49.9	61.9	12.0
Plata Rosa Court Residences	100	74.0	45.2	74.0	28.8
Padre Serra Parish	150	70.5	52.8	70.6	17.8
Via Secoya Residences	700	57.1	50.3	57.9	7.6
Via Arandana Residences	650	57.7	68.7	69.0	0.3

Source: DKA Planning, 2016.

Given the ambient noise conditions in the project area and the proximity of receptors, significant noise impacts could occur at five project receptors as a result of on-site Grading activities. Impacts are shown in **Table 6.11-15** and summarized below:

²¹ Ibid.

Castillo de Rosas Residences

At this receptor, single-family homes nearest to the project site are projected to experience noise levels of up to 74.0 dBA as a result of Grading activities, an increase of 28.8 dBA over existing ambient noise conditions. These elevated noise levels would exceed the 5.0 dBA noise increase threshold considered to delineate a significant noise impact.

Woodcreek Road Residences

At this receptor, single-family homes nearest to the project site are projected to experience noise levels of up to 61.9 dBA as a result of Grading activities, an increase of 12.0 dBA over existing ambient noise conditions. These elevated noise levels would exceed the 5.0 dBA noise increase threshold considered to delineate a significant noise impact.

Plata Rosa Court Residences

At this receptor, single-family homes nearest to the project site are projected to experience noise levels of up to 74.0 dBA as a result of Grading activities, an increase of 28.8 dBA over existing ambient noise conditions. These elevated noise levels would exceed the 5.0 dBA noise increase threshold considered to delineate a significant noise impact.

Padre Serra Parish

Padre Serra Parish is projected to experience noise levels of up to 70.6 dBA as a result of Grading activities, an increase of 17.8 dBA over existing ambient noise conditions. These elevated noise levels would exceed the 5.0 dBA noise increase threshold considered to delineate a significant noise impact.

Via Secoya Residences

At this receptor, single-family homes nearest to the project site are project to experience noise levels of up to 57.9 dBA as a result of Grading activities, an increase of 7.6 dBA over existing ambient noise conditions. These elevated noise levels would exceed the 5.0 dBA noise increase threshold considered to delineate a significant noise impact.

Via Arandana Residences

This receptor is not projected to experience significant noise impacts as a result of Site Preparation and Demolition activities given its existing ambient noise levels and distance from the project site.

The project's specific grading noise levels would exceed the 5.0 dBA noise increase threshold considered to delineate a significant noise impact at the Castillo de Rosas Residences, Woodcreek Road Residences, Plata Rosa Court Residences, and Via Secoya Residences. Mitigation Measures 6.11-1 through 6.11-5 are

recommended to reduce the project's construction noise impacts to the maximum feasible degree. Further, the CMC is interpreted to provide an exemption from established noise limits for construction activities that occur between the hours of 7:00 A.M. and 7:00 P.M. on Monday through Saturday; construction activities exceeding established noise standards would be prohibited on Sundays and federal holidays. Therefore, project specific grading operation noise impacts would be considered less than significant.

Homebuilding

Following the completion of the project's rough and fine grading activities for major land development, Homebuilding would occur continuously at the project site over the course of approximately the next two years. However, homebuilding activities would not occur all at once; instead, tracts of ~20 residential units would be developed at a time. Some overlap of construction would occur between the development of multiple tracts.

While the use of tractors, loaders, and backhoes is anticipated during the Homebuilding phase, heavy equipment usage would not be as intensive as during the Site Preparation and Demolition and Grading phases. During these phases, heavy equipment usage would be extensive and continuous, thus having the potential to create sustained significant noise impacts at project receptors. During Homebuilding, a minimal number of tractors, loaders, and backhoes would be required for utility connections, fine grading, and soil export. These activities would create intermittent noise impacts incapable of causing sustained 5.0 dBA or greater noise increases at project receptors.

Homebuilding activities would primarily utilize hand-held tools, pneumatic devices, and other smaller types of equipment that produce considerably less noise than heavy-duty construction vehicles. Further, the CMC is interpreted to provide an exemption from established noise limits for construction activities that occur between the hours of 7:00 A.M. and 7:00 P.M. on Monday through Saturday; construction activities exceeding established noise standards would be prohibited on Sundays and federal holidays. Therefore, project specific homebuilding operation noise impacts would be considered less than significant.

Soils and Demolished Materials Export

With regard to off-site construction-related noise impacts, the project would generate a maximum of 200 haul truck trips per day. Assuming an 8 hour work day, an average of 25 trucks could access or exit the project site per hour. A 3 dBA increase in roadway noise levels requires an approximate doubling of

roadway traffic volume, assuming that travel speed and fleet mix remain constant.²² Though the project's addition of haul trucks would alter the fleet mix of any truck routes, their minimal addition to local roadways would not nearly double those roads' traffic volumes, let alone augment their traffic to levels capable of producing sustained, perceptible increases in roadside ambient noise levels. As a result, the project's off-site construction noise impacts would be considered less than significant.

Mitigation Measures

- 6.11-1** All construction areas for staging and warming-up equipment shall be located as far as possible from adjacent residences.
- 6.11-2** Portable noise sheds for small, noisy equipment such as air compressors, dewatering pumps, and generators shall be provided where feasible.
- 6.11-3** As feasible, construction activities shall use specially quieted equipment such as electric air compressors and similar power tools, rather than diesel equipment.
- 6.11-4** All construction equipment powered by internal combustion engines shall be equipped with exhaust mufflers or other suitable noise reduction devices capable of achieving a sound attenuation of at least 3 dBA at 50 feet of distance.
- 6.11-5** Construction activities whose specific location on the site may be flexible (e.g., operation of compressors and generators, cement mixers, general truck idling) shall be conducted as far as possible from the nearest noise-sensitive land uses, particularly away Castillo de Rosas Residences, Woodcreek Road Residences, and Plata Rosa Court Residences.

Residual Impacts

Impacts would be less than significant.

6.11.8 CUMULATIVE ANALYSIS

Construction Noise Impacts

As no other developments have been identified within areas 1,000 feet from the project Site, project construction activities would likely not contribute to significant cumulative construction noise impacts.

Mobile Source Noise Impacts

²² California Department of Transportation, Technical Noise Supplement to the Traffic Noise Analysis Protocol, September 2013.

The majority of any long-term noise impacts would come from traffic traveling to and from the project site. This, the addition of future traffic from any new developments in the project area, and overall ambient traffic growth would elevate ambient noise levels surrounding local roadways. However, the project's incremental contribution to permanent off-site ambient noise level increases along local roads would be minimal. As shown in **Tables 6.11-16** and **6.11-17**, future increases of these ambient noise levels would be marginal, with or without the addition of project traffic. The largest cumulative noise increase would be 0.6 dBA along westbound Las Posas Road, west of Lewis Road, during the P.M. Peak Hour. The project's greatest individual noise increase would be only 0.2 dBA, along multiple roadway segments. Both of these noise increases would be far below thresholds of perceptibility. As a result, the project's individual and cumulative mobile source impacts would be considered less than significant.

Table 6.11-16
Existing A.M. Peak Hour Mobile Source Noise Levels

Roadway Segment	Existing Ambient Noise Level (dBA Leq)				
	Existing (2016)	Future: Without Project	Future With Project	Project Change	Significant Impact
1. E/B Las Posas Road, W of Lewis Road	70.6	70.8	70.8	0.0	No
2. W/B Las Posas Road, W of Lewis Road	67.0	67.2	67.3	0.1	No
3. N/B Flynn Road, N of Avenida Acaso	66.2	66.2	66.4	0.2	No
4. S/B Flynn Road, N of Avenida Acaso	67.1	67.1	67.3	0.2	No
5. N/B Santa Rosa Road, N of Adolfo Road	71.2	71.2	71.3	0.1	No
6. S/B Santa Rosa Road, N of Adolfo Road	71.9	71.9	71.9	0.0	No

Source: DKA Planning, 2016.

Table 6.11-17
Existing A.M. Peak Hour Mobile Source Noise Levels

Roadway Segment	Existing Ambient Noise Level (dBA Leq)				
	Existing (2016)	Future: Without Project	Future With Project	Project Change	Significant Impact
1. E/B Las Posas Road, W of Lewis Road	70.0	70.4	70.5	0.1	No
2. W/B Las Posas Road, W of Lewis Road	66.4	66.8	67.0	0.2	No
3. N/B Flynn Road, N of Avenida Acaso	66.9	67.0	67.2	0.2	No
4. S/B Flynn Road, N of Avenida Acaso	65.9	66.0	66.2	0.2	No
5. N/B Santa Rosa Road, N of Adolfo Road	72.1	72.1	72.1	0.0	No
6. S/B Santa Rosa Road, N of Adolfo Road	71.7	71.7	71.7	0.0	No

Source: DKA Planning, 2016.

Roadway Segments 1 and 2

As discussed earlier, existing ambient noise levels along Roadway Segment 1 are within the City's "Normally Unacceptable" noise category for residential land uses. However, the project's individual and cumulative noise impacts would not exacerbate these conditions by a significant degree. With regard to the library and church land uses along Roadway Segment 2, the project would not individually or cumulatively raise their ambient noise levels to or within their "Normally Unacceptable" or "Clearly Unacceptable" noise categories.

Roadway Segments 3 and 4

The project would not individually or cumulatively raise ambient noise levels at roadside residential land uses to or within their "Normally Unacceptable" or "Clearly Unacceptable" noise categories.

Roadway Segments 5 and 6

As discussed earlier, existing ambient noise levels along Roadways Segments 5 and 6 are within the City's "Normally Unacceptable" noise category for residential land uses. However, the project's individual and cumulative noise impacts would not exacerbate these conditions by a significant degree.

Mitigation Measures

- 6.11-1** All construction areas for staging and warming-up equipment shall be located as far as possible from adjacent residences.
- 6.11-2** Portable noise sheds for small, noisy equipment such as air compressors, dewatering pumps, and generators shall be provided where feasible.
- 6.11-3** As feasible, construction activities shall use specially quieted equipment such as electric air compressors and similar power tools, rather than diesel equipment.
- 6.11-4** All construction equipment powered by internal combustion engines shall be equipped with exhaust mufflers or other suitable noise reduction devices capable of achieving a sound attenuation of at least 3 dBA at 50 feet of distance.
- 6.11-5** Construction activities whose specific location on the site may be flexible (e.g., operation of compressors and generators, cement mixers, general truck idling) shall be conducted as far as possible from the nearest noise-sensitive land uses, particularly away Castillo de Rosas Residences, Woodcreek Road Residences, and Plata Rosa Court Residences.

Residual Impacts

As shown and discussed below, Mitigation Measures 6.11-1 through 6.11-5 would minimize the project's significant noise impacts to the maximum extent feasible.

Site Preparation and Demolition

Table 6.11-18
Construction Noise Levels – Mitigated: Site Preparation & Demolition

Sensitive Receptor	Distance from Site (feet)	Maximum Construction Noise Level (dBA)	Existing Ambient (dBA, L _{eq})	New Ambient (dBA, L _{eq})	Increase
Castillo de Rosas Residences	100	55.1	45.2	55.5	10.3
Woodcreek Road Residences	200	57.7	49.9	58.4	8.5
Plata Rosa Court Residences	100	55.1	45.2	55.5	10.3
Padre Serra Parish	150	51.6	52.8	55.3	2.5
Via Secoya Residences	700	53.2	50.3	55.0	4.7
Via Arandana Residences	650	53.9	68.7	68.8	0.1

Source: DKA Planning, 2016.

As shown in **Table 6.11-18** and discussed below, three receptors would still experience significant noise impacts after the implementation of Mitigation Measures 6.11-1 through 6.11-6.

Castillo de Rosas Residences

Even with the implementation of Mitigation Measures 6.11-1 through 6.11-5, Castillo de Rosas would still experience noise levels of up to 55.5 dBA as a result of Site Preparation and Demolition activities, an increase of 10.3 dBA over existing ambient conditions. Though these mitigated noise levels would exceed the 5.0 dBA noise increase threshold considered to delineate a significant noise impact, it is important to consider that they would still fall within the City's "Normally Acceptable" noise category for low-density, single-family homes.

Woodcreek Road Residences

Woodcreek Road Residences would experience mitigated noise levels of up to 58.4 dBA, an increase of 8.5 dBA over existing ambient conditions. Though these mitigated noise levels would still exceed the 5.0 dBA noise increase threshold considered to delineate a significant noise impact, it is important to consider that they would still fall within the City's "Normally Acceptable" noise category for low-density, single-family homes. It should be noted that terrain constraints would limit the effectiveness of any temporary noise barriers erected to block line-of-

sight noise travel from the project site to Woodcreek Road Residences given its elevated location atop a ridge.

Plata Rosa Court Residences

Plata Rosa Court Residences would experience mitigated noise levels of up to 55.5 dBA, an increase of 10.3 dBA over existing ambient conditions. Though these elevated noise levels would still exceed the 5.0 dBA noise increase threshold considered to delineate a significant noise impact, it is important to consider that they would still fall within the City's "Normally Acceptable" noise category for low-density, single-family homes.

Padre Serra Parish

After the implementation of Mitigation Measures 6.11-1 through 6.11-5, Padre Serra Parish would experience noise levels of up to 55.3 dBA, an increase of 2.5 dBA over existing ambient conditions. Thus after mitigation, the project's Site Preparation and Demolition-related noise impacts at Padre Serra Parish would be considered less than significant. Noise levels experienced by Padre Serra Parish would also remain within the City's "Normally Acceptable" noise category for churches.

Via Secoya Residences

Via Secoya Residences would experience mitigated noise levels of up to 55.0 dBA, an increase of 4.7 dBA over existing ambient conditions. Thus after mitigation, the project's Site Preparation and Demolition-related noise impacts at Via Secoya Residences would be considered less than significant. Noise levels experienced by Via Secoya Residences would also remain within the City's "Normally Acceptable" noise category for low-density, single-family homes.

Via Arandana Residences

This receptor is not projected to experience significant noise impacts as a result of Site Preparation and Demolition activities given its existing ambient noise levels and distance from the project site. Nevertheless, its noise impacts would be reduced by the implementation of Mitigation Measures 6.11-1 through 6.11-5.

Grading

**Table 6.11-19
Construction Noise Levels – Mitigated: Grading**

Sensitive Receptor	Distance from Site (feet)	Maximum Construction Noise Level (dBA)	Existing Ambient (dBA, Leq)	New Ambient (dBA, Leq)	Increase
Castillo de Rosas Residences	100	55.1	45.2	55.5	10.3
Woodcreek Road Residences	200	57.7	49.9	58.4	8.5
Plata Rosa Court Residences	100	55.1	45.2	55.5	10.3
Padre Serra Parish	150	51.6	52.8	55.3	2.5
Via Secoya Residences	700	53.2	50.3	55.0	4.7
Via Arandana Residences	650	53.9	68.7	68.8	0.1

Source: DKA Planning, 2016.

As shown in **Table 6.11-19** and discussed below, four receptors would still experience significant noise impacts after the implementation of Mitigation Measures 6.11-1 through 6.11-5.

Castillo de Rosas Residences

Even with the implementation of Mitigation Measures 6.11-1 through 6.11-5, Castillo de Rosas would still experience noise levels of up to 56.3 dBA as a result of Grading activities, an increase of 11.1 dBA over existing ambient conditions. Though these mitigated noise levels would exceed the 5.0 dBA noise increase threshold considered to delineate a significant noise impact, it is important to consider that they would still fall within the City's "Normally Acceptable" noise category for low-density, single-family homes.

Woodcreek Road Residences

Woodcreek Road Residences would experience mitigated noise levels of up to 59.1 dBA, an increase of 9.2 dBA over existing ambient conditions. Though these mitigated noise levels would still exceed the 5.0 dBA noise increase threshold considered to delineate a significant noise impact, it is important to consider that they would still fall within the City's "Normally Acceptable" noise category for low-density, single-family homes. As discussed earlier, terrain constraints would limit the effectiveness of any temporary noise barriers erected to block line-of-sight noise travel from the project site to Woodcreek Road Residences given its elevated location atop a ridge.

Plata Rosa Court Residences

Plata Rosa Court Residences would experience mitigated noise levels of up to 56.3 dBA, an increase of 11.1 dBA over existing ambient conditions. Though these elevated noise levels would still exceed the 5.0 dBA noise increase threshold considered to delineate a significant noise impact, it is important to consider that they would still fall within the City's "Normally Acceptable" noise category for low-density, single-family homes.

Padre Serra Parish

After the implementation of Mitigation Measures 6.11-1 through 6.11-5, Padre Serra Parish would experience noise levels of up to 55.7 dBA, an increase of 2.9 dBA over existing ambient conditions. Thus after mitigation, the project's Grading-related noise impacts at Padre Serra Parish would be considered less than significant. Noise levels experienced by Padre Serra Parish would also remain within the City's "Normally Acceptable" noise category for churches.

Via Secoya Residences

Even with the implementation of Mitigation Measures 6.11-1 through 6.11-5, Castillo de Rosas would still experience noise levels of up to 55.6 dBA as a result of Grading activities, an increase of 5.3 dBA over existing ambient conditions. Though these mitigated noise levels would still exceed the 5.0 dBA noise increase threshold considered to delineate a significant noise impact, it is important to consider that they would still fall within the City's "Normally Acceptable" noise category for low-density, single-family homes. As with Woodcreek Road Residences, terrain constraints would limit the effectiveness of temporary noise barriers erected to block line-of-sight noise travel from the project site to Via Secoya Residences.

Via Arandana Residences

This receptor is not projected to experience significant noise impacts as a result of grading activities given its existing ambient noise levels and distance from the project site. Nevertheless, its noise impacts would be reduced by the implementation of Mitigation Measures 6.11-1 through 6.11-5.

In addition, the CMC is interpreted to provide an exemption from established noise limits for construction activities that occur between the hours of 7:00 A.M. and 7:00 P.M. on Monday through Saturday; construction activities exceeding established noise standards would be prohibited on Sundays and federal holidays. Therefore, project specific construction noise impacts would be considered less than significant.