3.10 NOISE

As a result of the analysis undertaken in the Initial Study for the Los Angeles Mission College Facilities Master Plan, the Los Angeles Community College District (LACCD) determined that the proposed project may result in environmental impacts to noise. Therefore, this issue is being carried forward for detailed analysis in this EIR. This analysis was undertaken to identify opportunities to avoid, reduce, or otherwise mitigate potential significant impacts involving noise, as well as to identify potential alternatives.

The analysis of noise impacts includes a description of the regulatory framework that guides the decision-making process, existing conditions of the proposed project area, thresholds for determining if the proposed project would result in significant impacts, anticipated impacts (direct, indirect, and cumulative), mitigation measures, and level of significance after mitigation. The potential impacts to noise have been analyzed in accordance with the methodologies from federal and state agencies, and the City of Los Angeles.

Because the measurement and description of sound and its effects requires the use of units and quantities that may be unfamiliar to most readers, Appendix F presents some noise information including a Glossary of acoustic terminology. A review of Appendix F will assist the reader in evaluating the noise issues presented in this DEIS.

3.10.1 Setting

3.10.1.1 Regulatory Setting

A-Weighted Sound Level

Noise is the common term used to describe “unwanted sound”. The terms “noise” and “sound” are used interchangeably in this assessment. A Glossary of noise terms is provided in Appendix F. The unit of sound pressure level measurement is the decibel (dB). It is a unit describing the amplitude of sound pressure compared to a reference pressure. Commonly encountered sound levels range from slightly above the threshold of hearing and very quiet (around 20 dBA) to very loud sounds at 120 dBA. The sound pressure level is mathematically equal to 20 times the logarithm to the base 10 of the ratio of the pressure of the sound measured to a reference pressure, which is 20 micropascals for acoustical analyses in air.

The most common descriptor of sound and noise associated with community noise measurements is the A-weighted sound pressure level, which is abbreviated as dBA. It is defined as the sound pressure level in decibels as measured on a sound meter using the A-weighting filter network. The A-weighted frequency filter de-emphasizes the very low and very high frequency components of sound in a manner similar to the frequency response of human hearing, and correlates well with people’s group reactions to sound and environmental noise. All sound levels

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in this report are A-weighted. Nearly all community noise metrics are expressed in units of dBA. A-weighted sound pressure levels of typical sources of noise are shown in Table 3.10-1.

Table 3.10-1

<table>
<thead>
<tr>
<th>Noise Source (at a Given Distance)</th>
<th>Scale of A-Weighted Sound Level in Decibels</th>
<th>Noise Environment</th>
<th>Human Judgment of Noise Loudness (Relative to a Reference Loudness of 70 Decibels*)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Commercial Jet Take-off (200 ft)</td>
<td>120</td>
<td>Threshold of Pain</td>
<td>*32 times as loud</td>
</tr>
<tr>
<td>Pile Driver (50 ft)</td>
<td>110</td>
<td>Rock Music Concert</td>
<td>*16 times as loud</td>
</tr>
<tr>
<td>Ambulance Siren (100 ft)</td>
<td>100</td>
<td>Very Loud</td>
<td>*8 times as loud</td>
</tr>
<tr>
<td>Newspaper Press (5 ft)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Power Lawn Mower (3 ft)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Motorcycle (25 ft)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Propeller Plane Flyover (1,000 ft)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Diesel Truck, 40 mph (50 ft)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Garbage Disposal (3 ft)</td>
<td>80</td>
<td>High Urban Ambient Sound</td>
<td>*2 times as loud</td>
</tr>
<tr>
<td>Passenger Car, 65 mph (25 ft)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vacuum Cleaner (10 ft)</td>
<td>70</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Normal Conversation (5 ft)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Air Conditioning Unit (100 ft)</td>
<td>60</td>
<td>Data Processing Center Department Store</td>
<td>*1/2 as loud</td>
</tr>
<tr>
<td>Light Traffic (100 ft)</td>
<td>50</td>
<td>Private Business Office</td>
<td>*1/4 as loud</td>
</tr>
<tr>
<td>Bird Calls (distant)</td>
<td>40</td>
<td>Lower Limit of Urban Ambient Sound</td>
<td>Quiet *1/8 as loud</td>
</tr>
<tr>
<td>Soft Whisper (5 ft)</td>
<td>30</td>
<td>Quiet Bedroom</td>
<td></td>
</tr>
<tr>
<td></td>
<td>20</td>
<td>Recording Studio</td>
<td>Very Quiet</td>
</tr>
<tr>
<td></td>
<td>10</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>0</td>
<td>Threshold of Hearing</td>
<td></td>
</tr>
</tbody>
</table>

Source: Compiled by URS Corporation.

**Equivalent Sound Level and Community Noise Equivalent Sound Level**

The A-weighted sound levels of long-term noise-producing activities within and around a community vary with time. Certain noise descriptors are preferred for use in describing community noise environments. These descriptors are based upon noise energy. Three common descriptors are the Equivalent Noise Level (L<sub>eq</sub>), the Day-Night Average Sound Level (DNL or L<sub>dn</sub>) and the Community Noise Equivalent Level (CNEL).

L<sub>eq</sub> is defined as the continuous steady-state noise level that would have the same total acoustical energy as a real fluctuating noise measured during the same period. Although L<sub>eq</sub> can be
measured or computed for any period, it is typically specified for one hour (L_{eq}[h]) or 24 hours (L_{eq}[24h]). L_{dn} is the same as a 24-hour L_{eq} except that noise occurring during the nighttime hours (10:00 p.m. – 7:00 a.m.) is “weighted” or penalized by adding 10 dBA to the nighttime noise levels. The nighttime penalty accounts for the increased annoyance of noise during typical sleeping hours. Both L_{eq} and L_{dn} account for the tempo (operational frequency), acoustic magnitude, duration and time of day of noise events. CNEL differs from L_{dn} only in that CNEL adds an additional penalty to the evening hours (7:00 p.m. to 10:00 p.m.). For typical community noise environments the numerical values of CNEL and L_{dn} are usually within a decibel of each other, thus many agencies and jurisdictions use the CNEL and L_{dn} noise metrics interchangeably.

Various regulatory agencies use both the L_{eq} and CNEL/L_{dn} descriptors for noise-related land use planning. Figure 3.10-1 and Figure 3.10-2 show typical L_{eq} and L_{dn}, respectively, for a variety of noise sources.

**Figure 3.10-1. Typical Hourly L_{eq}**

![Diagram showing typical hourly L_{eq} values for various noise sources.](image)

Ref: FTA, 1995 Figure 2-13  Typical Hourly L_{eq}'s
**Perception of Noise**

Evaluating differences between an existing and total predicted future noise environment assesses the potential responses of persons to changes in their noise environment. The following relationships of perception and response to quantifiable increases in long-term sound level are used as a basis for assessing potential effects of project noise:

- Except in a carefully controlled laboratory condition, a change of 1 dBA is very difficult to perceive.
- In the outside environment, a 3 dBA change is considered perceptible.
- An increase of 5 dBA is considered readily perceptible and would generally result in a change in community response to its noise environment.
- A 10 dBA increase is perceived as a doubling in loudness and would likely result in a widespread community response.

**Federal Standards and Regulations**

There are no federal noise standards that directly regulate environmental noise related to the construction or operation of the proposed project. With regard to noise exposure and workers, the Office of Safety and Health Administration regulations safeguard the hearing of workers exposed...
to occupational noise. These regulations are essentially implemented by California OSHA (CALOSHA) regulations.

**State of California Standards and Regulations**

The California Department of Health Services (CDHS) has studied the correlation of noise levels and their effects on various land uses and has established guidelines for evaluating the compatibility of various land uses as a function of community noise exposure. Section 65302(f) of the California Government Code requires each community to prepare and adopt a comprehensive long-range general plan for its physical development containing seven mandatory elements, including a noise element. The noise element must (1) identify and appraise noise problems in the community, (2) recognize Office of Noise Control guidelines, and (3) analyze and quantify current and projected noise levels.

Figure 3.10-3 presents general guidelines for environmental noise levels and land use compatibility. These guidelines are used by many agencies, environmental planners, and acoustical specialists as a starting point to evaluate the potential for noise impact on and by the project and methods for achieving noise-compatibility with respect to the nearby existing uses.

The California Noise Insulation Standards (State Building Code—CCR, Part 2, Title 24) regulates the level of external environmental noise allowed within buildings used for residential purposes. While this would include school dormitories, none are planned for LA Mission College. California regulates occupational noise exposure from both construction and operation noise.

**Local Standards and Regulations**

(a) **City of Los Angeles General Plan Noise Element**

The City of Los Angeles has adopted local guidelines based on the community noise compatibility guidelines established by the CDHS for use in assessing the compatibility of various land use types with a range of noise levels. These guidelines are set forth in the City General Plan Noise Element and are expressed in terms of Community Noise Equivalent Levels. CNEL guidelines for specific land uses are classified into four categories: (1) "normally acceptable," (2) "conditionally acceptable," (3) "normally unacceptable," and (4) "clearly unacceptable." A CNEL value of 70 dBA is considered the dividing line between a "conditionally acceptable" and "normally unacceptable" noise environment for noise sensitive land uses, including single-family and multi-family residences and schools.
## Figure 3.10-3

<table>
<thead>
<tr>
<th>Land Use Category</th>
<th>Community Noise Exposure (Ldn or CNEI, dBA)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>55</td>
</tr>
<tr>
<td>Residential - Low Density</td>
<td></td>
</tr>
<tr>
<td>Single Family, Duplex, Mobile Homes</td>
<td></td>
</tr>
<tr>
<td>Residential - Multi. Family</td>
<td></td>
</tr>
<tr>
<td>Transient Lodging - Motels, Hostels</td>
<td></td>
</tr>
<tr>
<td>Schools, Libraries, Churches, Hospitals, Nursing Homes</td>
<td></td>
</tr>
<tr>
<td>Auditoriums, Concert Halls, Amphitheaters</td>
<td></td>
</tr>
<tr>
<td>Sports Arenas, Outdoor Spectator Sports</td>
<td></td>
</tr>
<tr>
<td>Playgrounds, Neighborhood Parks</td>
<td></td>
</tr>
<tr>
<td>Golf Courses, Riding Stables, Water, Recreation, Cemeteries</td>
<td></td>
</tr>
<tr>
<td>Office Buildings, Business Commercial and Professional</td>
<td></td>
</tr>
<tr>
<td>Industrial, Manufacturing, Utilities, Agriculture</td>
<td></td>
</tr>
</tbody>
</table>

**INTERPRETATION:**

- **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, butt with closed windows and fresh air supply systems 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: Compiled by URS Corporation, 2006.
(b) City of Los Angeles Noise Regulation

The City of Los Angeles Noise Regulation is provided in Chapter 11 of the Los Angeles Municipal Code ("Municipal Code"). Section 111.02 of the Municipal Code provides procedures and criteria for the measurement of the sound level of "offending" noise sources. These procedures recognize and account for perceived differences in the nuisance level of different types of noise and/or noise sources. Specifically, the procedures provide for a penalty of 5 dBA for steady high-pitched noise or repeated impulsive noises to account for the nuisance nature of these types of noise. Conversely, the procedures provide a credit of 5 dBA for noise occurring less than 15 minutes in a period of 60 consecutive minutes during the day, as short-term noise events are typically less of a nuisance than sustained noise levels. The Municipal Code provides presumed ambient noise levels, where the actual measured ambient conditions are not known or are less than the presumed daytime (7:00 A.M. to 10:00 P.M.) and nighttime (10:00 P.M. to 7:00 A.M.) minimum ambient noise levels defined in Section 111.02 of the Municipal Code. These presumed ambient noise levels are provided in Table 3.10-2 below.

Table 3.10-2

City of Los Angeles Presumed Ambient Noise Levels

<table>
<thead>
<tr>
<th>Land Use Zone</th>
<th>Presumed Noise Levels (dBA, Leq)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Daytime (7:00 a.m. to 10:00 p.m.)</td>
</tr>
<tr>
<td>Residential</td>
<td>50</td>
</tr>
<tr>
<td>Commercial</td>
<td>60</td>
</tr>
<tr>
<td>Light Industrial</td>
<td>65</td>
</tr>
<tr>
<td>Heavy Industrial</td>
<td>70</td>
</tr>
</tbody>
</table>

Source: Los Angeles Municipal Code, Chapter 11. Section 111.02

Section 112.05 of the Municipal Code sets a maximum noise level for powered equipment of 75 dBA at a distance of 50 feet when operated within 500 feet of a residential zone. Compliance with this standard is only required where "technically feasible". Section 41.40 of the Municipal Code also prohibits construction between the hours of 9:00 P.M. and 7:00 A.M. Monday through Friday, 6:00 P.M. and 8:00 A.M. on Saturday, and at any time on Sunday. In general, the City of Los Angeles Department of Building and Safety enforces noise ordinance provisions relative to equipment and the Los Angeles Police Department enforces provisions relative to noise generated by people.

In accordance with the Municipal Code, a noise level increase of 5 dBA over the existing average ambient noise level at an adjacent property line is considered a noise violation. This standard applies to: (1) radios, television sets, and similar devices defined in Municipal Code section 112.01; (2) air conditioning, refrigeration, heating, pumping, filtering equipment defined in Municipal Code section 112.02; (3) powered equipment intended for repetitive use in
residential areas and other machinery, equipment, and devices defined in Municipal Code section 112.04; and (4) motor vehicles driven on-site as defined in Municipal Code section 114.02.

No specific noise thresholds are provided for "general noise," except for Article 6 of the Noise Regulation, which makes it "unlawful for any person to willfully make or continue, or cause to be made or continued, any loud, unnecessary, and unusual noise which disturbs the peace or quiet of any neighborhood or which causes discomfort or annoyance to any reasonable person of normal sensitiveness residing in the area." The Noise Regulation does not provide any definition of "loud" noise.

3.10.1.2 Environmental Setting

The following analysis describes the existing noise environment within the project area and evaluates future noise levels at nearby land uses resulting from project construction and operation. This analysis identifies the potential for significant impacts where predicted noise levels may exceed thresholds of significance and provides mitigation measures to address impacts, if necessary. Because the local environs of the campus are highly urbanized and nearly fully developed, the ambient acoustical environment is very stationary (i.e., community noise levels remain fairly constant over time) and is believed to be the same as when measured during preparation of the previous Draft EIR. Thus, the current analysis of the existing acoustical (and regulatory) environment draws upon the previously collected information where appropriate.

The proposed project locates new facilities within the existing campus boundaries and in new parcels located easterly and southeasterly of the intersection of Eldridge Avenue and Harding Street (“Project”). The primary noise source in the project area is traffic using adjacent local roadways and the somewhat lower intensity but nearly continuous noise from traffic using nearby freeways. The most heavily traveled roadways in the vicinity of the project area include Hubbard Street and Lexicon Avenue, which are located westerly of the Project, and Eldridge Avenue, which is located southerly of the Project. Other sources of noise in the immediate Project area include commercial activities (e.g., delivery and refuse trucks), residential activities (e.g., passenger vehicles, pets, and landscape maintenance operations), and park activities.

Based on a review of the field observations and measured sound data from the previous LAMC Facilities Master Plan DEIR, the existing noise environment in the vicinity of the project site is heavily influenced by traffic on local streets. Higher noise levels are experienced during the daytime hours when traffic volumes are higher, and lower noise levels are experienced during nighttime hours when traffic volumes are lower. To a lesser extent, the noise environment is affected by school activities, recreational activities, and lawn maintenance activities.

To further characterize the area’s noise environment, the CNEL generated by existing traffic on local roadways was established in the previous Draft EIR using roadway noise equations provided in the Caltrans Technical Noise Supplement (TeNS) document and traffic volume data provided by the previous Draft EIR’s traffic consultant. CNEL noise levels were predicted at the roadway right-of-way, and at 50 feet and 100 feet from the right-of-way along each roadway segment analyzed in the previous Draft EIR traffic study.
Existing traffic noise levels were found to be typical of densely populated urban areas, with modeled values ranging from 55 dBA CNEL to 67 dBA CNEL adjacent to area roads. As previously discussed, the general ambient community noise level for established urban areas is quite stable over many years. Therefore the use of the previously measured noise levels, in light of the fact that they are consistent with noise levels of similarly developed communities, is appropriate.

### 3.10.2 Significance Thresholds

The project sites are located within the City of Los Angeles. The thresholds herein have been developed based on review of Appendix G of the CEQA Guidelines, local standards and regulations, and applicable significance criteria adopted by the City of Los Angeles.

#### 3.10.2.1 Construction

Section 112.05 of the City of Los Angeles Municipal Code sets a maximum noise level for powered equipment of 75 dBA at a distance of 50 feet when operated within 500 feet of a residential zone. Compliance with this standard is only required where “technically feasible.” This standard differentiates between mobile or stationary pieces of equipment. In addition, the *City of Los Angeles CEQA Thresholds Guide* provides that a significant impact related to construction noise would result if project construction activities cause the exterior ambient noise level to increase by 5 dBA or more at a noise sensitive use, which in the case of the project alternatives is the property line of any residence. The existing ambient noise level in the vicinity of the campus was measured between 54 and 57 dBA $L_{eq}$ in the previous Master Plan Draft EIR. The existing noise level for the Foothill Boulevard and the McLay Street locations is assumed to be the same based on land use and intensity of development. The existing noise level is assumed to range from 49 to 52 dBA $L_{eq}$ for the Terra Vista Alternative and Sayre Street location, also based on land use and intensity of development.

#### 3.10.2.2 Operation

As discussed above, the City has established community noise compatibility guidelines in the Noise Elements of its General Plan. While the City does not provide a significance threshold in its plan, the *City of Los Angeles CEQA Thresholds Guide* does provide a numerical significance threshold and, therefore, the following thresholds of significance will be applied to the proposed project as set forth in the *City of Los Angeles CEQA Thresholds Guide*, which states that a significant impact related to operational noise would result if:

- The project causes the ambient noise level measured at the property line of affected uses to increase by 3 dBA in CNEL to or within the “normally unacceptable” or “clearly unacceptable” noise/land use compatibility category; or
- The project causes any 5 dBA or greater noise increase.
3.10.3  Environmental Impact Analysis

3.10.3.1  Project Features

The project proposes to include the following noise control measures within the plans, specifications, and estimates (“bid”) documents for each construction project to reduce noise impacts to the extent feasible:

1. Construction contractors shall comply with City of Los Angeles standards for nonscheduled, intermittent, short-term operations of mobile equipment (e.g., backhoes, bulldozers, motor graders, and scrapers), and the noise standards for repetitively scheduled and relatively long-term construction operations of stationary equipment (e.g., compressors and generators). A listing of “technically feasible” noise emission levels from a variety of construction equipment is included in Appendix F.

2. Construction contractors shall prepare and comply with an Owner-approved Construction Noise Control Plan.

3. The Contractor shall prepare and post readily visible informational signs at each entrance to the construction site(s) indicating that the site is a “NOISE CONTROLLED ZONE” and that persons, vehicles, and/or machinery (including subcontractor personnel, vehicles, machinery, and equipment) may be barred from the site for violations of the Noise Control Plan and noise regulations. The Noise Complaint Hotline telephone number shall appear prominently on the sign. The overall sign(s), including format, size, style, content, etc., shall have been approved by the Owner prior to posting.

4. All noise-producing project equipment and vehicles using internal combustion engines shall be equipped with exhaust silencers; air-inlet silencers; and any other shields, shrouds, or other noise control devices as provided when the equipment was new. All noise control devices shall be utilized and in good operating condition that meets or exceeded its original specifications and performance.

5. All mobile or fixed noise-producing equipment used on the project, which is regulated for noise output by a local, state, national, or international agency, shall comply with such regulation while in the course of project activity. This includes vehicles licensed for use on public highways that must satisfy the California Vehicle Code, and specifically Division 12, Chapter 5, Article 2.5 Sections 27200 through 27207. (See Appendix Table 3.10-A-1.)

6. Mobile or fixed noise-producing equipment including, but not limited to, truck-mounted, trailer-mounted, skid-mounted, and "package" equipment (e.g., fans, cranes, arc-welders, air compressors, electrical generators) shall be equipped with enclosures, shrouds, covers, shields, and noise control features as necessary to satisfy the specified noise limits contained in Appendix F.

7. Where it can perform the same task, electrically-powered equipment shall be used instead of pneumatic or internal combustion powered equipment.
8. Impact noise associated with construction shall be minimized by use of noise control techniques, procedures, and acoustically treated equipment. For example, bins used to transport excavated material, including rocks and debris, shall be constructed of non-metallic material or have a non-metallic liner to reduce impact noise; similarly, dump trucks shall have resilient bed liners installed to minimize impact noise.

9. Erection of effective temporary soundwalls, placement of flexible sound-control curtains, or installation of other types of noise barriers shall be accomplished where project activity is unavoidably close to noise-sensitive receptors, including activities where quieted versions of powered equipment are utilized. These noise control barriers and devices may be utilized on a short-term basis for the duration of a specific activity or may be required for extended periods (up to the total duration of construction) as necessary to satisfy the noise level limits. Refer to Appendix 3.10-B for additional information regarding required characteristics of acoustically effective sound barriers.

10. Travel to and from the job site for materials delivery, construction worker transport, bulk debris or construction material transport trucks, and construction equipment movements shall be by way of designated and approved routes. Other routes off the freeways and/or major roads to the work site(s) shall be selected and submitted for approval based upon the least overall noise impact to noise-sensitive receptors. Subsequent to approval by the Owner, the designated route(s) shall be used exclusively unless specific approval is granted by the Owner to deviate from the approved route(s).

11. Project-related vehicles, including Contractor’s and Subcontractor’s personal vehicles, shall park in designated project parking areas only and shall not park in any public or private residential or commercial areas in the vicinity of the project job sites(s) without written permission from the Owner.

12. Material stockpiles, equipment staging areas, vehicle/equipment maintenance areas, and any other potentially noise-producing operations shall be located as far as practicable from noise-sensitive receptors. These areas shall be located as shown on the approved drawings and/or as directed by the Owner. These areas may require additional noise control features as specified elsewhere in the bid documents or in the Noise Control Plan.

13. Noise-producing signals, including but not limited to horns, whistles, alarms, and bells, shall be used for immediate safety warning and emergency purposes only.

14. No public address or paging loudspeaker; two-way radio loudspeaker (including cell phones); or music system (including personal or vehicle-mounted radio/tape/CD players) located within 500 feet of the project boundaries shall be audible at any adjacent noise-sensitive receptor.

15. No unnecessary shouting, yelling, screaming, or loud or obnoxious vocal or other sounds, or any profanity generated by any construction personnel shall be audible at any location outside the project site boundaries.

16. Construction hours for exterior construction and hauling activities are between the hours of 7:00 a.m. and 6:00 p.m., Monday through Friday, and 8:00 a.m. and 5:00 p.m. on Saturday. No construction will occur on Sundays and legal holidays.
17. Roof-mounted equipment will include noise control measures such as intake/exhaust silencers, acoustical linings, equipment enclosures, and acoustically-effective parapet screens to ensure that noise from stationary mechanical equipment associated with the proposed project would not exceed 50 dBA during daytime hours and 40 dBA during nighttime hours as measured at the nearest sensitive receptor, and that any noise level increase would remain below the 5 dBA significance threshold.

Appendix F contains supplemental information on the regulatory noise limits applied by the California Vehicle Code to heavy trucks, a vehicle type includes many construction vehicles licensed for use on public roads. The Appendix also provides information on materials that could be used for local construction noise barriers, and on quieter versions of commonly used construction equipment such as compressors, welders, generators, etc.

3.10.3.2 Construction Impacts

Based upon studies conducted for the Federal Environmental Protection Agency it has been found that various phases of construction (e.g., clearing and grading, excavation, finishing) generate fairly consistent average noise levels during a particular construction activity. The loudest phases (excavation and finishing) would generate a noise level of 89 dBA at a distance of 50 feet from the activity center. On a large construction site, most of the sources of noise will move from place to place during the course of the project. Using a sound attenuation rate of 6 dBA for every doubling of distance from the source, the maximum construction noise levels are estimated to range from 87 dBA to 89 dBA $L_{eq}$ at the residences across Eldridge Avenue from the main campus, and from 77 dBA to 85 dBA $L_{eq}$ at the residences near the Harding Street Site. Some project construction activities would generate noise that would be audible on the school grounds and at the residential properties. Construction noise may intermittently exceed desirable interior classroom noise levels. This would only be for intermittent construction activity occurring in locations near the school buildings. Noise from construction occurring on the project site closest to the residences could temporarily disrupt noise-sensitive activities conducted in residential areas. This noise would be of limited duration and much of the time would not be at the maximum levels. Application of reasonable and practicable noise reduction actions listed previously in the Project Features section would reduce these estimates. However, because ambient noise levels range from about 61 to 63 dBA CNEL, construction activities would increase ambient levels by more than 5 dBA CNEL, resulting in a significant impact, according to the City’s impact significance threshold.

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3.10.3.3 Operational Impacts

Noise associated with operation of LAMC would consist of mechanical noise, parking area noise (door closures, engine starts, raised voices, car stereos, and slow speed movement), and grounds maintenance noise. These various sources are discussed individually below.

Mechanical noise (from HVAC units for example) is expected to produce a sound pressure level of 80 dBA at a distance of 3 feet from the source. Using a sound attenuation rate of 6 dBA for every doubling of distance from the source, the resulting sound pressure levels at the property lines of residences across Eldridge Ave would be 43 dBA, and a sound level of 45 dBA at the property lines of residences near the Harding Street Site. This noise level would be well below the ambient noise levels estimated previously, would be inaudible, and does not take into account shielding effects from the parapet around the roof on which the HVAC units are to be located. This extra shielding would further ensure that the mechanical noise would satisfy the City’s noise regulation. Impacts would be less than significant.

Parking area noise would be predominantly generated by automobile, light duty truck, and van-related activity, with an occasional bus using the on-site parking areas. The parking area closest to the residences would be the future diagonal parking spaces on the westbound side of Eldridge Avenue. The second closest parking area would be an interim parking lot proposed for the Harding Street Site. This lot is suitable for all types of vehicles, but is planned to be replaced in the future by an underground parking structure. Even with an underground structure some at-grade vehicular activity is expected to occur. Potentially noticeable noises generated by use of a parking area are associated with car door slams, engine starts, raised voices from vehicle occupants, and loud car stereos. Slow speed light-duty vehicle movement would contribute negligible noise. Infrequent noises may include horn honking and loud exhaust pipes. Car-door slams and engine start-ups for a variety of light-duty vehicle types were previously measured by URS. Male voices are louder than female voices, so the analysis below considers noise levels from male speech as a worst case sound source and noise levels from female speech as a benchmark for assessing impacts to typical background receptor noise. A male using a “raised” or “loud” voice generates a maximum noise level of about 75 dBA at about 3 feet. Other sounds generate an average maximum noise level of 69 dBA at a distance of 15 feet. If these noises were generated by students parking in the westbound diagonal spaces along Eldridge Avenue, propagation losses would reduce these noise levels at the nearest residential receptor, located 60 feet away, to a maximum of 50 dBA (half as loud as typical female speech) for the vocal noises and 57 dBA (a level typical level of female speech) for the other noises. If the sounds were generated from the nearest paved-lot spaces, which are located 100 feet away from the houses nearest to the Harding Street site, the maximum noise levels would be 51 dBA, half as loud as typical female speech. These levels of intermittent sound, while audible, would not cause a significant impact because they would be similar to the level of background noise in the area.

URS measured a loud car stereo directly behind a test vehicle, with its windows down and sunroof open during testing of car audio noise conducted during a previous study. The

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4 URS, 2001. YMCA Omni Center and Sports Complex Expansion. Largo, FL.
measurement yielded an energy average sound level of 63 dBA at a distance of 60 feet. This is also the distance from the parking areas to the nearest noise-sensitive uses respectively, thus, the resulting noise level would be 63 dBA (about the same level as normal male speech). This level of intermittent sound would be clearly audible and similar to current maximum levels, but would not cause a significant impact (increase in CNEL of more than 5 dBA or an increase in existing maximum levels of more than 5 dBA) because it would not be frequent or sustained. The LAMC would post good neighbor request signs to minimize this noise and would take disciplinary measures for repeated violations. Generation of this type of noise is also a violation of the California Vehicle Code and citations may also be issued by peace officers.

This was discussed to some extent already in the paragraph right before 3.10.4 below, which has been rewritten]Grounds maintenance noise would be produced by mechanized equipment such as a riding lawnmower. A riding mower produces approximately 71 dBA at a distance of 100 feet. Walls are present at residential property lines where grounds maintenance noise levels could reach a temporary maximum of approximately 100 dBA at 3 feet from the mower inside the wall and approximately 85 dBA on the other side of the wall inside the residential parcel. A typical residential lawnmower produces approximately 100 dBA at the operator’s ear. Thus, the College’s grounds maintenance lawnmower would sound less than half as loud as a lawnmower operating at a residence. Because this noise would be sporadic, intermittent, and moving from place to place, the ambient CNEL noise levels would not likely be audibly increased, such that any single sensitive use would not be significantly impacted.

3.10.3.4 Roadway Noise Impacts

The traffic volumes associated with project trips would have the potential to increase roadway noise levels on local roadways around the LAMC area. Expansion of the college also has the potential to increase roadway noise levels on local roadways around LAMC from additional students traveling to and from the campus. Based on the recent URS Traffic Study conducted for the Project, the highest increase in traffic volume on local roads would be 100 percent above the existing traffic volumes in a limited portion of Eldridge Avenue. This would result in a maximum traffic noise increase of 3 dBA $L_{eq}$ during any given hour of campus activity or in the overall 24-hour $L_{dn}$. This increase in traffic noise is below the threshold of significance for noise impact, thus roadway noise impacts would be less than significant.

The Project is planned to provide substantial additional on-site parking for students, staff and visitors. This should reduce the existing volume of off-campus parking on local residential streets. To the extent that students, staff and visitors cause intermittent noise because they are looking for parking places, the project would reduce these existing activities, thus providing a beneficial effect of reducing the noise associated with off-campus parking in local neighborhoods.
3.10.4 Cumulative and Indirect Impacts

Because the area is essentially built-out, no other major non-Project facilities and traffic generators are likely to be developed in the Project area and, therefore, no significant cumulative or indirect noise impacts are expected.

3.10.5 Mitigation Measures

3.10.5.1 Construction Noise Mitigation

Project construction noise will comply with the provisions of the Los Angeles Municipal Code that regulates construction noise. However, project construction noise will exceed the +5 decibel CNEL increase limit as set forth in the City’s Draft CEQA Thresholds Guide, even with application of the best practices for construction noise control that are designed into the Project features as discussed above in Section 3.10.2.3. No additional mitigation measures are available to reduce construction noise; thus, a significant although temporary noise impact will remain.

3.10.5.2 Operational Noise Mitigation

Noise emissions from operation of the Project facilities would be less than significant due to prudent design features of future campus facilities. Recommended noise control measures to further mitigate less than significant operational noise impacts include:

- Specify low-noise (Lw/PWL ≤9.0 Bel) machinery with no predominant pure tones at any locations requiring fans, HVAC, or similar devices.
- Provide barriers such as solid roof parapets, solid walls, enclosures, or other means of localized noise control around HVAC units and other machinery in the final building design, if determined to be necessary to prevent adverse noise impacts.
- Place refuse collection, trash compactors, and loading docks or delivery zones in areas that will reduce noise exposure to nearby noise-sensitive receptors.
- Post “Good Neighbor” sign in parking areas advising all students, faculty, and visitors that due to the presence of nearby residences, unnecessary noise is strongly discouraged.
- Planting of trees and shrubbery, while useful for visual screening, is not an effective noise control mechanism and is not considered a mitigation measure for noise impacts.

3.10.5.3 Roadway Noise Mitigation

The increase in roadway noise due to the Project is less than significant; therefore, no mitigation measures are required.
3.10.6 Level of Significance after Mitigation

Construction noise will remain a significant temporary impact.