

potential for building damage as a result of construction vibration would result in a less-than-significant impact.

| TABLE 4.5-9: VIBRATION VELOCITIES FOR CONSTRUCTION EQUIPMENT | | |
|---|-------------------------------------|-------------------------------------|
| Equipment | PPV at 25 feet (Inches /Second) /a/ | Vibration Decibels at 25 feet (VdB) |
| Caisson Drilling | 0.089 | 87 |
| Large Bulldozer | 0.089 | 87 |
| Loaded Trucks | 0.076 | 86 |
| /a/ Fragile buildings can be exposed to ground-borne vibration levels of 0.3 inches per second without experiencing structural damage. SOURCE: Federal Transit Administration, <i>Transit Noise and Vibration Impact Assessment</i> , May 2006. | | |

The FTA vibration impact criteria for annoyance are shown in **Table 4.5-2**. Construction activity would occur during daytime hours and, as such, the Category 3 thresholds for daytime uses were utilized for the analysis. A construction vibration annoyance impact would result if sensitive receptors would be exposed to vibration levels of 75 VdB RMS or greater. Typical heavy equipment (e.g., a large bulldozer) generates vibration levels of 87 VdB RMS at a distance of 25 feet. The nearest off-site sensitive receptor would be at least 65 feet from construction activity. At this distance, typical construction equipment would generate vibration levels of approximately 79 VdB RMS. This vibration level would exceed the annoyance threshold of 75 VdB RMS and, as such, construction-related vibration would result in a significant annoyance impact.

The Child Development Center located in the southwest portion of the project site would be potentially impacted by vibration generated during construction activity. The Child Development Center has an outdoor play area that would be 15 feet from the nearest construction activity which would occur during construction of the tennis courts, football and soccer fields. The building for the Child Development Center would be at least 30 feet from construction activity. The outdoor play area could potentially experience a vibration level of approximately 84.7 VdB. The Child Development Center building could experience a vibration noise level of approximately 85 VdB. Vibration levels would exceed the annoyance threshold at the Child Development Center building and the outdoor play area. Children use the outdoor area for limited period of time and vibration does not typically interfere with outdoor activities. Nonetheless, construction-related vibration at the Child Development Center building and outdoor play area would result in a significant annoyance impact.

Operational Impacts

Mobile Noise. The proposed project would generate 4,633 daily vehicle trips.⁸ To determine off-site noise impacts, traffic was modeled under future year (2016) “No Project” and “With Project” conditions utilizing FHWA RD-77-108 noise calculation formulas. Results of the analysis are summarized in **Tables 4.5-10**. The greatest project-related noise increase would be 1.0 dBA CNEL and would occur along Bleakwood Avenue between Floral Drive and Avenida Cesar Chavez. Mobile noise generated by the proposed project would not cause the ambient noise level measured at the property line of the affected uses to increase by 3 dBA CNEL to or within the “normally unacceptable” or “clearly unacceptable” category (**Table 4.5-5**) or any 5-dBA or more increase in noise level. Vehicular noise would result in a less-than-significant impact.

⁸Cordoba Corporation, *Traffic Impact and Parking Analysis of the East Los Angeles Community College Master Plan Update*, January 2010.