4.8.2.2 Construction Noise Impact Assessment. Although the Tier 1 action is only to preserve right-of-way, a discussion of potential future construction noise impacts is provided in this section. Construction noise represents a short-term impact on existing noise levels. The duration and level of construction noise are dependent on the phases of activity:

- Ground clearing, including demolition and removal of existing structures, trees, rocks and soil;
- Excavation;
- Placement of foundations and roadbeds;
- Erection of structures, including bridges and retaining walls;
- Finishing, including filling, grading, paving, landscaping, and cleanup operations.

Noise levels for equipment that might be used for the excavation and construction of the proposed project are presented in Table 4.8.G. The noise levels presented are at a reference diameter of 15 m (50 ft). The construction equipment noise levels decrease at a rate of approximately 6 dBA per doubling of the distance. Therefore, at 30 m (100 ft) the noise levels will be about 6 dBA less than the levels shown at 15 m (50 ft). Similarly, at 60 m (200 ft) the noise levels would be 12 dBA less than shown. Intervening structures or topography can act as a noise barrier and reduce noise levels further.

Table 4.8.G - Construction Equipment Noise Levels

Source	Lmax at 15 m (50 ft) (dBA)	Model Tested
Backhoe	85	John Deere 609A
Front Loader	84	Caterpillar 980
Dozer	84	Catepillar D7e
Grader	91	Caterpillar 16
Scraper	92	Caterpillar 660
Compressor	80-89	Various Tested

Note: Lmax - The highest sound pressure level in a specific time period.

4.8.3 Potential Noise Abatement Measures to be Considered in Tier 2

To comply with FHWA, Caltrans, and County noise standards for residential uses and schools, the following potential abatement measures are recommended for noise sensitive uses located in areas impacted by 66 dBA CNEL/Ldn or 66 dBA L_{eq} (Category B land uses) noise or higher from the preferred alternative:

4.8.3.1 Sound barriers should be evaluated for outdoor active use areas, such as backyards, patios, or balconies. Sound berms should be provided instead of walls wherever possible.