

**\*Table 2.5-3****Categorization of Residential Health, Care, and Support Facility Sites by Exterior Ambient Sound**

Exterior Site Noise Exposure Category	A	B	C	D
General description	Minimal	Moderate	Significant	Extreme
Day-night average sound level (Ldn) (dB) <sup>1</sup>	< 65	65–69	70–74	≥ 75
Average hourly nominal maximum sound level (L01) (dBA)	< 75	75–79	80–84	≥ 85
Exterior shell composite OITC rating (OITC <sub>c</sub> ) <sup>2,3</sup>	25	30	35	40
Design goal for facility nighttime exterior equipment sound (dBA) <sup>4</sup>	45	50	55	60
Exterior resident seating areas	Generally acceptable	Marginally acceptable	Generally not acceptable without special acoustic consideration	Generally not acceptable

\*Also see appendix table A2.5-b (Approximate Distance of Noise Sources for Use in Categorization of Residential Health, Care, and Support Facility Sites by Exterior Ambient Sound).

<sup>1</sup>By definition, the day-night average sound level (Ldn) includes the A-weighting and nighttime penalty.

<sup>2</sup>The exterior shell composite STC ratings are for closed windows. Opening windows effectively reduces shell composite STC ratings to 10 to 15, depending on the amount windows are opened. Consideration should be given to whether windows would be opened and for how long and under what circumstances, and the potential impact of open windows should be identified in the design.

<sup>3</sup>The OITC<sub>c</sub> ratings for interior spaces that are not acoustically sensitive (e.g., corridors, atriums, stairways) can be reduced by as much as 10 dB, but should be no less than OITC<sub>c</sub> 25. Interior spaces that are more sensitive to noise than a typical resident room (e.g., a teleconferencing space or auditorium) may require special consideration to determine an appropriate OITC<sub>c</sub> rating of the exterior façade.

<sup>4</sup>This is a design goal for acceptable emission of equipment sound to adjacent residential receptors in the absence of a local code. For equipment operating only during the daytime, levels may be increased by 5 dBA.

**Table A2.5-b****Approximate Distance of Noise Sources for Use in Categorization of Residential Health, Care, and Support Facility Sites by Exterior Ambient Sound**

Exterior Site Noise Exposure Category	A	B	C	D
General description	Minimal	Moderate	Significant	Extreme
Distance from nearest highway (ft.)	> 1000	250–1000	60–249	< 60
Slant distance from nearest aircraft flight track (ft.)	> 7000	3500–7000	1800–3499	< 1800
Distance from nearest rail line (ft.)	> 1500	500–1500	100–499	< 100

*Note:* This table can be used to approximate noise impact on a residential health, care, or support facility based on very conceptual conditions. Actual sound levels at a site can vary dramatically based on traffic volume and frequency of use of the transportation system as well as topological conditions and other features out of the control of the design team or the facility. A more accurate assessment of a site's exterior noise exposure should be made either by performing a sound level survey for a period sufficient to properly characterize noise impacts or by using any number of transportation noise estimation tools, such as software models recognized by the federal government or the noise assessment guidelines in *The Noise Guidebook* published by the U.S. Department of Housing and Urban Development.