

2.5-8.4 Design Criteria for Room Noise Levels

2.5-8.4.1 Room noise levels caused by HVAC and other building systems shall not exceed the maximum values shown in Table 2.5-5 (Maximum Design Criteria for Noise in Interior Spaces Caused by Building Systems).

2.5-8.4.2 Room noise levels shall be determined for unoccupied rooms (e.g., without operating medical equipment).

2.5-8.5 Design Criteria for Performance of Interior Wall and Floor/Ceiling Constructions

2.5-8.5.1 Sound isolation shall be considered for all occupied spaces adjacent to construction activities.

***2.5-8.5.2** The composite sound transmission class (STC) rating of demising wall assemblies shall not be

less than the ratings indicated in Table 2.5-6 (Design Criteria for Minimum Sound Isolation Performance Between Enclosed Rooms).

*2.5-8.6 Design Guidelines for Speech Privacy

Designated spaces in which protected health information is conveyed shall be designed to meet speech privacy goals using one of the four speech privacy rating methods as shown in Table 2.5-7 (Design Criteria for Speech Privacy for Enclosed Rooms and Open-Plan Spaces).

*2.5-8.7 Design Criteria for Building Vibration

2.5-8.7.1 General

Seismic restraint covered elsewhere in the *Guidelines* shall be compatible with vibration isolation methods covered in this section.

APPENDIX

A2.5-8.5.2 A “demising wall assembly” is a wall assembly that separates one occupied space from another occupied space or from a corridor. Partitions in an occupied space are non-demising partitions. For example, the wall between two resident rooms is demising, but the partition in a resident room that encloses the bathroom for that room is non-demising.

A2.5-8.6 Speech privacy. Federal legislation requires that facilities protect resident, participant, and patient information privacy. This includes speech privacy in all residential health, care, or support facilities wherever resident, participant, or patient health information is discussed, whether between staff, on the telephone, or during dictation.

a. Methods for determining speech privacy. Select only one of the metrics in Table 2.5-7 (Design Criteria for Speech Privacy for Enclosed Rooms and Open-Plan Spaces) for determining speech privacy in closed- and open-plan settings. Examples of closed-plan settings are staff private offices, conference rooms, examination rooms, and single-resident rooms. Examples of open-plan settings are waiting areas, reception areas, and staff open (not fully enclosed) offices.

All four metrics in Table 2.5-7 define speech privacy in terms of the intelligibility of speech from the transmitted speech signal compared to the continuous background sound at a receptor position. The choice and use of the selected metric should be made by qualified, experienced professionals.

—Criteria for the AI (Articulation Index) metric are defined in ASTM E1130: *Standard Test Method for Objective Measurement of Speech Privacy in Open Plan Spaces Using Articulation Index*.

—Criteria for the SII (Speech Intelligibility Index) metric are defined in ANSI/ASA S3.5: *Methods for Calculation of the Speech*

Intelligibility Index.

—Criteria for the SPC (Speech Privacy Class) metric are defined in ASTM E2638: *Standard Test Method for Objective Measurement of the Speech Privacy Provided by a Closed Room* and “ASTM Metrics for Rating Speech Privacy of Closed Rooms and Open Plan Spaces,” an article from the September 2011 edition of *Canadian Acoustics*, the journal of the Canadian Acoustical Association.

—Criteria for the PI (Privacy Index) metric for converting AI values into percentages are defined in ASTM E1130: *Standard Test Method for Objective Measurement of Speech Privacy in Open Plan Spaces Using Articulation Index*.

b. Speech privacy in open-plan spaces. People working in open-plan spaces are most productive when distraction from voices, equipment, etc. is minimal. Therefore, the acoustic environment should be designed to minimize such distractions. One option for achieving speech privacy in open-plan spaces is provision of a private room where confidential conversations may take place.

A2.5-8.7 Building vibration

- Building vibration refers to vibration produced by building equipment and activities, not vibration produced by earthquakes.
- Vibration levels to which occupants are exposed should not exceed those in ANSI/ASA S2.71: *Guide to the Evaluation of Human Exposure to Vibration in Buildings*.
- Vibration produced by building mechanical, plumbing, and electrical equipment; footfalls, and medical equipment should be considered in facility design.