

## APPENDIX 3D

### SOUND TRANSMISSION RATINGS

#### 1. Definitions

In this Appendix, in addition to the definitions set out in Schedule 1 of this Agreement:

**“STC”** means: Sound Transmission Class. STC is a single number that is an indication of a partition’s ability to block sound. The higher the STC, the higher is the sound transmission loss. For instance: loud speech can be understood fairly well through an STC 30 wall but should not be audible through a STC 60 wall;

**“NC”** means: Noise Criteria. NC is a single number rating that is sensitive to the relative loudness within a given space; and

**“dBA”** is a weighted sound pressure level is the sound pressure level within a space adjusted based on human hearing systems (e.g. less sensitive to low frequencies).

#### 2. Noise Transmission Ratings

Project Co will:

- (a) provide wall and floor assemblies with STC ratings in accordance with Table 1 below;
- (b) where possible, provide buffer zones (e.g. corridors) between noise sensitive areas (e.g. video-conferencing, meeting rooms and offices) and noisy areas (e.g. service areas and lounges);
- (c) where possible, avoid vertical adjacencies between noisy and noise sensitive areas;
- (d) in order to achieve the required level of speech privacy (speech privacy for confidentiality is critical), extend the STC rated assembly full-height from floor to the underside of structure above for all walls and partitions required to have an STC rating of 50 or higher per Table 1 below. If such a wall or partition cannot extend full height, provide an alternate system and provide an acoustic consultant’s report verifying that the required level of speech privacy will be achieved with the proposed design; and
- (e) if doors or interior windows are located in a wall required to have an STC rating of 50 per Table 1 below, then:
  - (1) such doors will be STC 45 and have an area of no more than 20% of the entire partition;
  - (2) such windows will be STC 45 and have an area of no more than 20% of the entire partition; and

- (3) such windows and doors located together will be STC 45 and have a combined area of no more than 20% of the entire partition.

**Table 1 – STC Ratings of Demising Walls**

Adjacency combination		STC – Walls	STC – Floors
Exam Room	Exam Room	50	50
Exam Room	Corridor	50	50
Meeting Room	Corridor	50	50
Exam Room	Public Space	55	50
Exam Room	Service areas	60	-
Toilet Room	Public space	45	-
Exam Room	Meeting Room	50	50
Meeting Room	Public space	50	50
Exam Room	Staff lounges	55	-
Public Space	Staff lounges	45	-
Procedure Room	Corridor	50	-
Procedure Room	Procedure Room	50	50
Meeting Room	Meeting Room	50	50
Counselling Room	Counselling Room	50	50
Counselling Room	Corridor	50	50
Office/Professional Office	Office/Professional Office	50	50
Office/Professional Office	Corridor/Professional Office	50	50
Video-conferencing room	Corridor	55	50

Table 1 – Notes:

- (a) “Public Space” includes lobbies, dining rooms, activity rooms and similar spaces.
- (b) “Service areas” include kitchens, elevators, elevator machine rooms, laundries, garages, maintenance rooms, mechanical and boiler rooms, nurse sanitations and similar spaces.

### 3. Noise Criteria Within Various Spaces

Project Co will:

- (a) in undertaking the design of the Facility, evaluate the expected noise from all mechanical systems in the Facility (using one rating system: either NC or dBA); and
- (b) design and construct the Facility so that noise from the mechanical systems does not exceed the noise level specified in Table 2 below within the room or space identified.

**Table 2 – Noise Criteria – Rating Within Various Spaces**

<b>Room Type</b>	<b>NC</b>	<b>dBA</b>
Exam room/Counselling room	30-35	35-40
Multiple occupant patient care areas	35-45	40-50
Procedure rooms	30-35	35-40
Corridors and public spaces	35-45	40-50
Testing/research lab, minimal speech	45-55	50-60
Research lab, extensive speech	40-50	45-55
Group teaching lab	35-45	40-50
Offices	30-40	35-45
Conference/meeting rooms	25-35	30-40
Video conferencing rooms	25 (max)	30 (max)
Auditoria, large lecture rooms	25-30	30-35