

Field Sound Transmission Test Report

Apparent Sound Transmission Class (ASTC)

Report Date:	2024-04-15		
Test Date:	2024-04-04		
DLAA Test No	1.3.1	Source Room:	2nd Floor Bed 3
Test Site	Gentry apts	Receiver Room:	1st Floor Bed 2
Client	Gentry Builders	Test Assembly:	Floor-ceiling

STANDARDS:

ASTM E336-16	Standard Test Method for Measurement of Airborne Sound Attenuation between Rooms in Buildings
ASTM E413-16	Standard Classification for Rating Sound Insulation
ASTM E2235-04(2012)	Standard Test Method for Determination of Decay Rates for Use in Sound Insulation Test Methods

STATEMENT OF CONFORMANCE:

Testing was conducted in accordance with ASTM E336-20, ASTM E413-16, and ASTM E2235-04(2012), with exceptions noted below. All requirements for measuring and reporting Airborne Sound Attenuation between Rooms in Buildings (ATL) and Apparent Sound Transmission Class (ASTC) were met.

TEST ENVIRONMENT:

The source room was 2nd Floor Bed 3. The space was finished, unfurnished. The floor was Carpet. The ceiling was gyp. The walls were gyp. All doors and windows were closed during the testing period. The source room had a volume of approximately 796 cu. ft.

The receiver room was 1st Floor Bed 2. The space was finished unfurnished. The floor was LVT. The ceiling was gyp. The walls were gyp. All doors and windows were closed during the testing period. The source room had a volume of approximately 1,413 cu. ft.

The test assembly measured approximately 9x9.8, and had an area of approximately 88.2 sq. ft.

TEST ASSEMBLY:

The tested assembly was the Floor-ceiling. The assembly was not field verified, and was based on information provided by the client and drawings for the project. The client advised that no slab treatment or self-leveling was applied. Results may vary if slab treatment or self-leveling or any adhesive is used in other installations.

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Test Assembly: Floor-ceiling

TEST PROCEDURE:

Determination of space-average sound pressure levels was performed via the manually scanned microphones technique, described in ASTC Test Procedure ASTM E336-16, Paragraph 11.4.3.3. The source room was selected in accordance with ASTM E336-11 Paragraph 9.2.5, which states that 'If a corridor must be used as one of the spaces for measurement of ATL or FTL, it shall be used as the source space.'

Flanking transmission was not evaluated.

To evaluate room absorption, 1 microphone was used to measure 4 decays at 4 locations around the receiving room for a total of 16 measurements, per AIICT Test Procedure ASTM E1007-14

TEST INSTRUMENTATION:

Equipment Type	Manufacturer	Model Number	Serial Number	Last NIST Traceable Calibration	Last Local Calibration
Microphone Pre-Amp	Larson Davis	PRM831	046469	10/24/2022	4/4/2024
Microphone	Larson Davis	377B20	168830	10/20/2022	4/4/2024
Calibrator	Larson Davis	CAL200	5955	10/26/2022	N/A
Amplified Loudspeaker	QSC	K10	GAA530909	N/A	N/A
Noise Generator	NTi Audio	MR-PRO	0162	N/A	N/A
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DLAA Test No 1.3.1

Source Room: 2nd Floor Bed 3

Test Site Gentry apts

Receiver Room: 1st Floor Bed 2

Client Gentry Builders

Test Assembly: Floor-ceiling

STATEMENT OF TEST RESULTS:

Frequency (Hz)	L1, Average Source Room Level (dB)	L2, Average Corrected Receiver Room Level (dB)	Average Receiver Background Level (dB)	Average RT60 (seconds)	Noise Reduction, NR (dB)	Apparent Transmission Loss, ATL (dB)	Exceptions noted in ASTM E336-16
100	96.1	76.2	31.9	0.630	19.9	19.0	0
125	96.0	78.6	33.2	0.769	17.4	17.3	0
160	92.9	67.9	35.2	0.574	25.0	23.7	0
200	88.8	61.6	36.9	0.748	27.2	27.0	0
250	87.8	60.2	30.5	1.441	27.6	30.2	0
315	88.4	52.3	27.9	0.970	36.1	37.0	0
400	88.4	50.3	23.0	1.075	38.1	39.5	0
500	84.2	45.2	21.1	1.162	39.0	40.7	0
630	82.1	44.6	20.7	1.057	37.5	38.8	0
800	84.2	44.7	19.8	1.004	39.5	40.6	0
1000	82.2	41.4	18.6	1.078	40.8	42.2	0
1250	82.8	34.3	16.2	1.213	48.5	50.4	0
1600	80.1	33.6	14.8	1.265	46.5	48.6	0
2000	78.6	31.1	11.0	1.225	47.5	49.5	0
2500	81.0	27.3	9.0	1.101	53.7	55.2	0
3150	82.5	30.6	8.4	0.998	51.9	53.0	0
4000	83.3	29.5	11.2	1.051	53.8	55.1	0

ASTC: 41

The Apparent Sound Transmission Class (ASTC) of 41 was calculated. The ASTC rating is based on Apparent Transmission Loss (ATL), and includes the effects of noise flanking. The ASTC reference contour is shown on the next page, and has been fit to the Apparent Transmission Loss values, in accordance with the procedure of ASTC Test Procedure ASTM E336-16

The results stated in this report represent only the specific construction and acoustical conditions present at the time of the test. Measurements performed in accordance with this test method on nominally identical constructions and acoustical conditions may produce different results.

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DLAA Test No 1.3.1

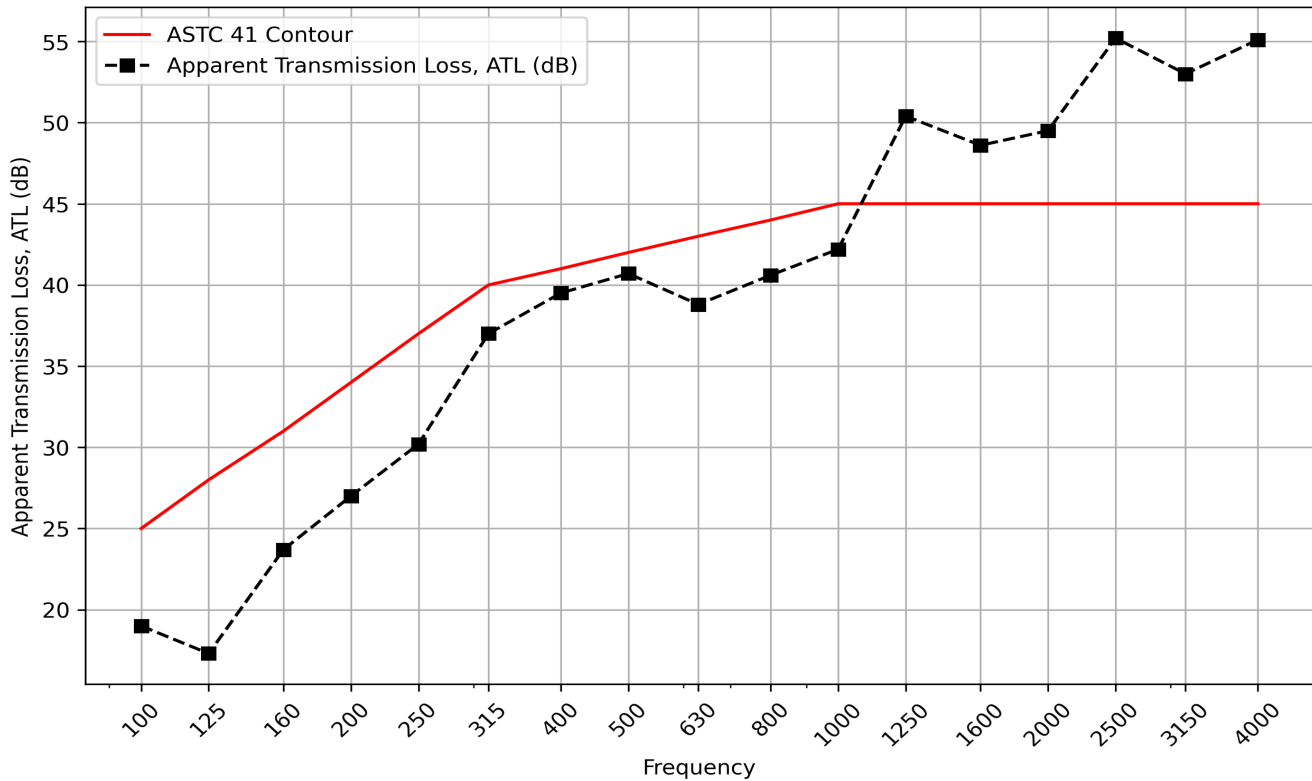
Test Site Gentry apts

Client Gentry Builders

Source Room: 2nd Floor Bed 3

Receiver Room: 1st Floor Bed 2

Test Assembly: Floor-ceiling



ASTC: 41

Test Conducted By:

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