

Field Sound Transmission Test Report

Apparent Sound Transmission Class (ASTC)

Report Date:	2024-04-15 00:00:00	Source Room:	2nd Floor Great Room
Test Date:	2024-04-04 00:00:00	Receiver Room:	1st Floor Great Room/Kitchen
DLAA Test No	1.1.1	Test Assembly:	Floor-ceiling

STANDARDS:

ASTM E336-20	Standard Test Method for Measurement of Airborne Sound Attenuation between Rooms in Building
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 Method

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 Great Room. 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 3,949 cu. ft.

The receiver room was 1st Floor Great Room/Kitchen. 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 3,949 cu. ft.

The test assembly measured approximately 14.8x29.583, and had an area of approximately 428.0 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 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 AIC Test Procedure ASTM E1007-14

TEST INSTRUMENTATION:

Sound Level Meter	Larson Davis	831	4328	10/24/2022	4/4/2024
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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STATEMENT OF TEST RESULTS:

Frequency (Hz)	NR (dB)	Background (dB)	RT60 (s)	Sabines
125	15.5	39.2	0.846	229
160	18.4	33.0	0.633	306
200	24.4	37.1	0.996	194
250	30.0	34.4	1.023	189
315	32.1	33.7	1.137	170
400	36.1	33.3	1.345	144
500	37.2	32.5	1.262	153
630	40.5	31.2	1.141	170
800	44.6	30.6	1.118	173
1000	49.3	29.6	1.287	150
1250	53.4	28.9	1.459	133
1600	53.2	28.5	1.518	127
2000	54.3	24.9	1.461	132
2500	60.3	20.6	1.393	139
3150	64.4	18.5	1.403	138

The Apparent Sound Transmission Class (ASTC) of 40 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

*This test does fully conform to the requirements of ASTM E336-20, ASTM E413-16, and ASTM E2235-04(2012), with exceptions noted below.

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test_engineer
test_engineer_signature
test_date