



WESTERN ELECTRO - ACOUSTIC LABORATORY

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TESTING • CALIBRATION • RESEARCH

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SOUND TRANSMISSION LOSS TEST REPORT NO. TL09-592

CLIENT: **DMFCWBS, LLC**
9100 Centre Pointe Drive, Suite 210
West Chester, OH 45069

Page 1 of 2
8 October 2009

TEST DATE: 24 September 2009

INTRODUCTION

The methods and procedures used for this test conform to the provisions and requirements of ASTM E 90-04, *Standard Test Method for Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions*. Copies of the test standard are available at www.astm.org. The test chamber source and receiving room volumes are 204 and 148.4 cubic meters respectively. Western Electro-Acoustic Laboratory is accredited by NVLAP (National Voluntary Laboratory Accreditation Program) Lab Code 100256-0 for this test procedure. NVLAP is part of the United States Department of Commerce, National Institute of Standards and Technology (NIST). This test report relates only to the item(s) tested.

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DESCRIPTION OF TEST SPECIMEN

The test specimen was a chase wall assembly constructed with two parallel rows of metal studs and type X gypsum board. The studs and tracks were ProSTUD-015 (25 GA equivalent) 1-5/8 inch (41 mm) metal. Two separate parallel walls were constructed with 9-1/2 inches (241 mm) from the outside face of one frame to the outside face of the other frame. In each frame, the studs were spaced horizontally at 24 inches (610 mm) O.C. Both frames were isolated from the test opening with 1/4 inch (6.4 mm) neoprene pads. 3-1/2 inch (89 mm) thick, 23 inch (584 mm) wide R-13 unfaced fiberglass batts were stapled to one side of the wall in the stud cavities. One the three intermediate stud pairs, 9-1/2 inch (241 mm) by 12 inch (305 mm) gypsum board braces were screwed to the studs at the mid height position. On both sides, two layers of 5/8 inch (15.9 mm) thick type X gypsum board were screwed to the studs at 8 inches (203 mm) O.C. around the perimeter and 12 inches (305 mm) O.C. in the field. The first layers used 1-1/4 inch (31.8 mm) #6 drywall screws and the second layers used 1-5/8 inch (41.3 mm) #6 drywall screws. All gypsum board was oriented vertically and joints were staggered on opposite sides of the wall and between layers. All joints and perimeters were sealed with a bead of caulking and metal foil tape. Screw heads were covered with metal foil tape. The overall dimensions of the wall assembly were 96 inches (2.44 m) wide by 96 inches (2.44 m) high by 11-1/2 inches (292 mm) thick. The overall weight of the assembly was estimated to be 620 lbs (281 kg) for a calculated surface density of 9.69 lbs./ft² (47.3 kg/m²).


RESULTS OF THE MEASUREMENTS

One-third octave band sound transmission loss values are plotted and tabulated on the attached sheet. ASTM minimum volume requirements are met at 80 Hz and above. The Sound Transmission Class rating determined in accordance with ASTM E 413-04 was STC-61.

Approved:

Respectfully submitted,
Western Electro-Acoustic Laboratory


Gary E. Mange
Laboratory Director


Raul Martinez
Acoustical Test Technician

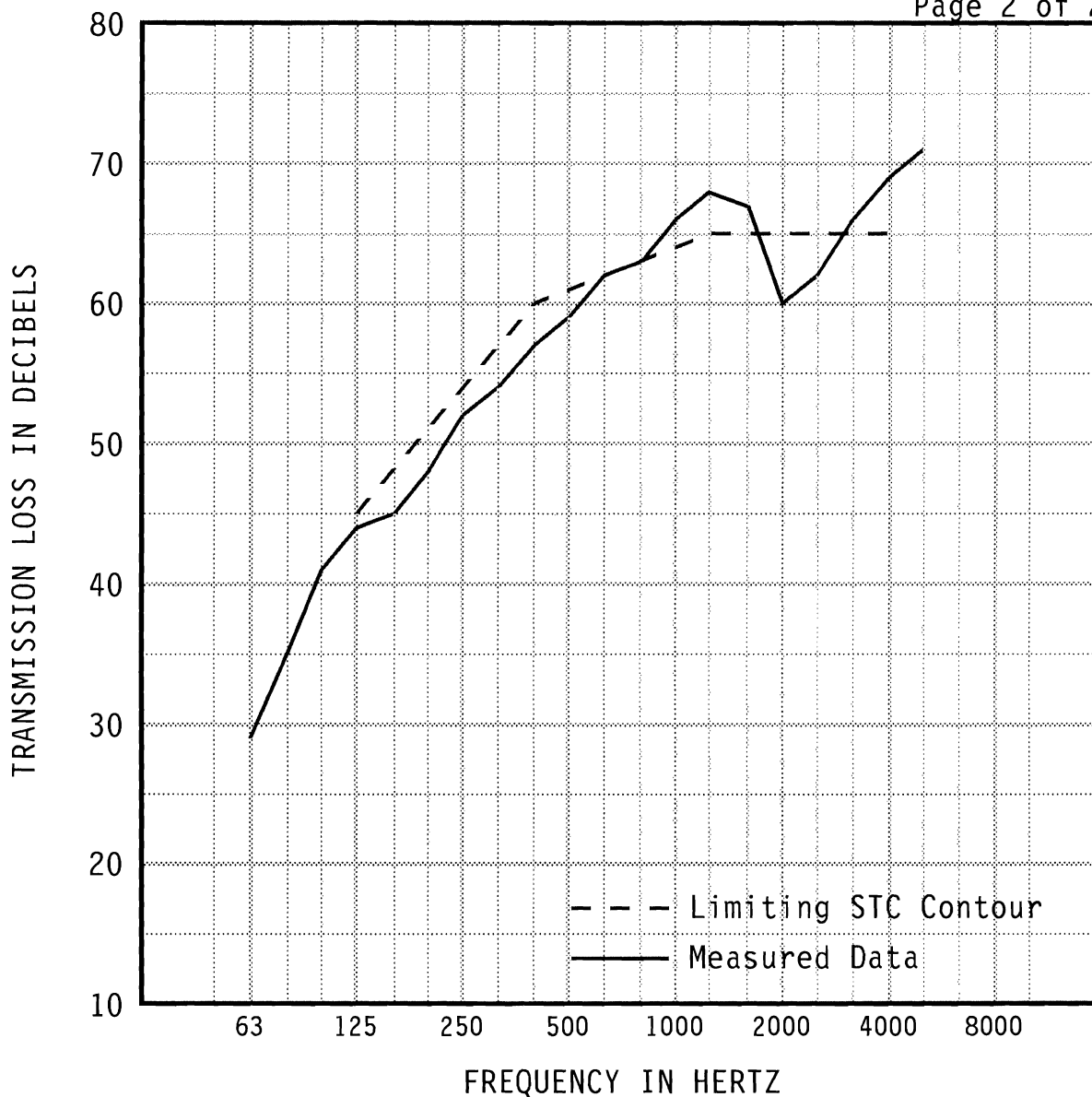
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1/3 OCT BND CNTR	FREQ	63	80	100	125	160	200	250	315	400	500
TL in dB		29	*35	*41	44	45	48	52	54	57	59
95% Confidence in dB		1.42	1.92	2.07	1.47	0.89	0.76	0.80	0.52	0.36	0.38
deficiencies					(1)	(3)	(3)	(2)	(3)	(3)	(2)
1/3 OCT BND CNTR	FREQ	630	800	1000	1250	1600	2000	2500	3150	4000	5000
TL in dB		*62	63	66	68	67	60	62	66	69	71
95% Confidence in dB		0.29	0.44	0.38	0.39	0.36	0.56	0.55	0.31	0.32	0.50
deficiencies		(0)	(0)				(5)	(3)			

EWR	OITC	* Minimum estimate of transmission loss. Measurement limited by filler wall. Actual TL will be equal to or greater than value reported.	Specimen Area: 64 sq.ft. Temperature: 77.9 deg. F Relative Humidity: 36 % Test Date: 24 September 2009	STC
61	51			61 (25)

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