



SOUND TRANSMISSION LOSS TEST REPORT NO. TL09-591

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

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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. Any advertising that utilizes this test report or test data must not imply product certification or endorsement by WEAL, NVLAP, NIST or the U.S. Government.

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 the receiving room side, 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 layer used 1-1/4 inch (31.8 mm) #6 drywall screws and the second layer used 1-5/8 inch (41.3 mm) #6 drywall screws. On the source room side, one layer of 5/8 inch (15.9 mm) thick type X gypsum board was screwed to the studs at 8 inches (203 mm) O.C. around the perimeter and 12 inches (305 mm) O.C. in the field with 1-1/4 inch (31.8 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 10-7/8 inches (276 mm) thick. The overall weight of the assembly was estimated to be 476 lbs (216 kg) for a calculated surface density of 7.44 lbs./ft² (36.3 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-59.

Approved:

Gary E. Mange
Laboratory Director

Respectfully submitted,
Western Electro-Acoustic Laboratory

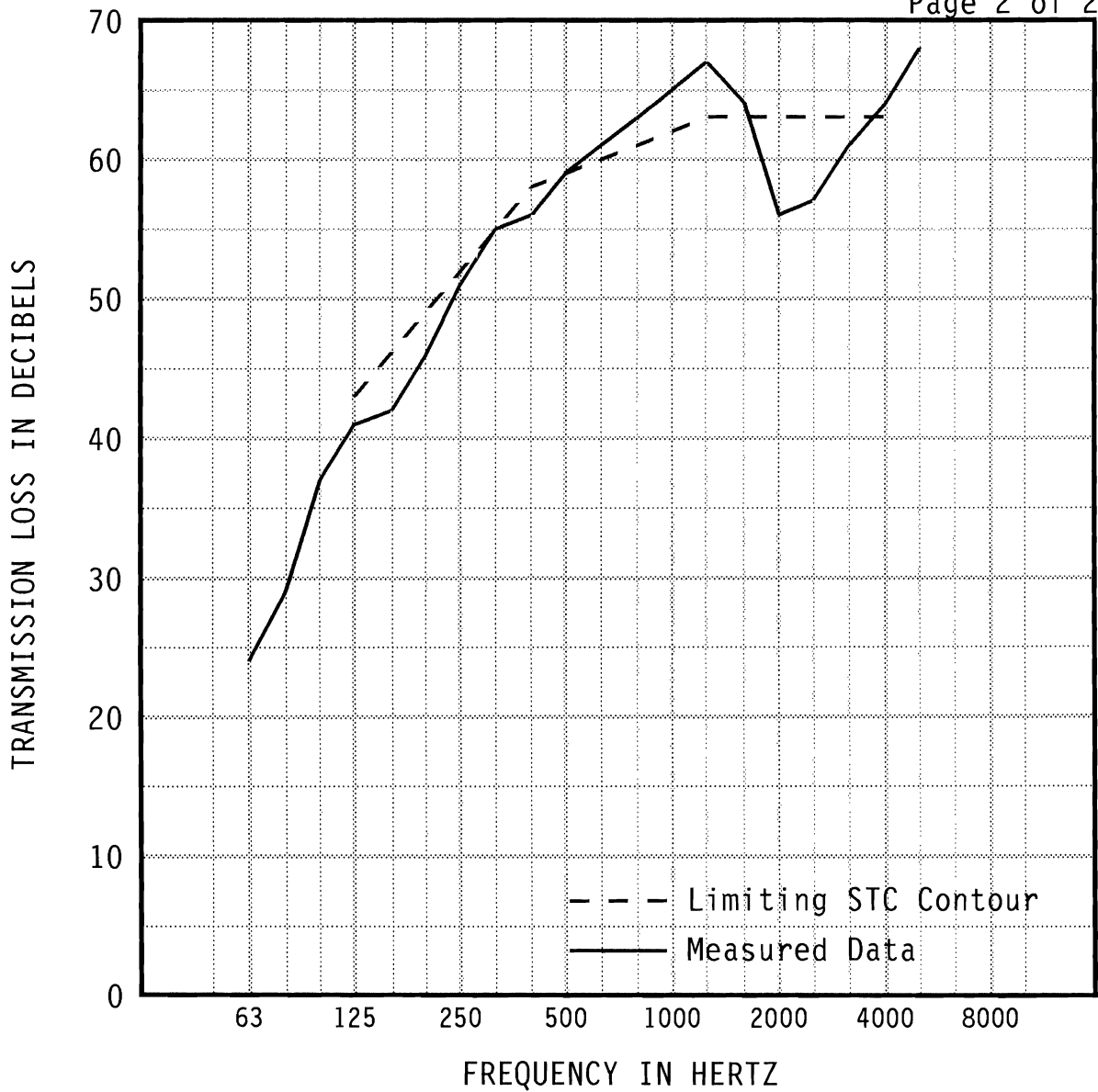
Raul Martinez
Acoustical Test Technician

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# WESTERN ELECTRO-ACOUSTIC LABORATORY

Report No. TL09-591



1/3 OCT BND CNTR	FREQ	63	80	100	125	160	200	250	315	400	500
TL in dB		24	29	37	41	42	46	51	55	56	*59
95% Confidence in dB deficiencies		1.42	1.92	2.07	1.47 (2)	0.89 (4)	0.76 (3)	0.80 (1)	0.52 (0)	0.36 (2)	0.38 (0)
1/3 OCT BND CNTR	FREQ	630	800	1000	1250	1600	2000	2500	3150	4000	5000
TL in dB		61	63	65	67	64	56	57	61	64	68
95% Confidence in dB deficiencies		0.29	0.44	0.38	0.39	0.36	0.56 (7)	0.55 (6)	0.31 (2)	0.32	0.50

EWR	OITC	<p>* Minimum estimate of transmission loss. Measurement limited by filler wall. Actual TL will be equal to or greater than value reported.</p> <p style="margin-left: 20px;">Specimen Area: 64 sq.ft.                      Temperature: 77.7 deg. F                      Relative Humidity: 37 %                      Test Date: 24 September 2009</p>	<div style="border: 1px solid black; padding: 5px;">                         STC                          59                          (27)                     </div>
59	46		

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