

RIVERBANK ACOUSTICAL LABORATORIES

1512 S. BATAVIA AVENUE
GENEVA, ILLINOIS 60134

OF
IIT RESEARCH INSTITUTE

630/232-0104
FOUNDED 1918 BY
WALLACE CLEMENT SABINE

TEST REPORT

FOR: Troy Acoustics Corporation

Sound Absorption Test
RAL™-A01-81

ON: Troy Highway Noise Barrier 6 Inch

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CONDUCTED: 4 April 2001

TEST METHOD

The test method conformed explicitly with the requirements of the ASTM Standard Test Method for Sound Absorption and Sound Absorption Coefficients by the Reverberation Room Method: ASTM C423-90a and E795-00. Riverbank Acoustical Laboratories has been accredited by the U.S. Department of Commerce, National Institute of Standards and Technology (NIST) under the National Voluntary Laboratory Accreditation Program (NVLAP) for this test procedure. A description of the measuring technique is available separately.

MOUNTING A

The test specimen was laid directly against the test surface. The perimeter was sealed using wood and metal framing.

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TEST RESULTS

1/3 Octave Center Frequency (Hz)	Absorption Coefficient	Total Absorption In Sabins	% Of Uncertainty With 95% Confidence Limit With Specimen
100	0.61	43.57	3.23
** 125	1.00	72.06	2.51
160	0.97	69.67	2.43
200	1.19	86.02	1.93
** 250	1.14	82.16	1.82
315	1.07	77.33	1.23
400	1.01	72.98	1.20
** 500	0.91	65.74	0.87
630	0.84	60.72	0.82
800	0.83	59.64	0.69
** 1000	0.82	58.96	0.74
1250	0.82	59.39	0.58
1600	0.92	66.21	0.56
** 2000	1.00	72.00	0.49
2500	0.97	70.08	0.49
3150	0.89	63.77	0.45
** 4000	0.93	67.04	0.44
5000	0.96	69.03	0.45

NRC= 0.95

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TEST RESULTS (Continued)

The percentage of uncertainty for the required 95% confidence limits indicated above must fall within the prescribed limits designated in par. 13.2 of ASTM C423-90a. It states that for the absorption of the reverberation room containing the specimen the testing laboratory shall obtain data with less than 4% uncertainty at 125 (hertz) and 2% uncertainty at 250, 500, 1000, 2000, and 4000 (hertz). The method of calculation is described in ASTM STP 15D and outlined in section 13 of the standard.

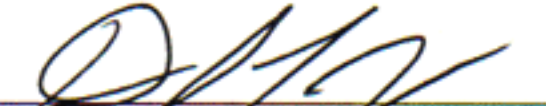
The noise reduction coefficient (NRC) is the average of the coefficients at 250, 500, 1000, and 2000 Hz, expressed to the nearest integral multiple of 0.05.

Tested by



Dean Victor
Senior Experimentalist

Approved by



David L. Moyer
Laboratory Manager

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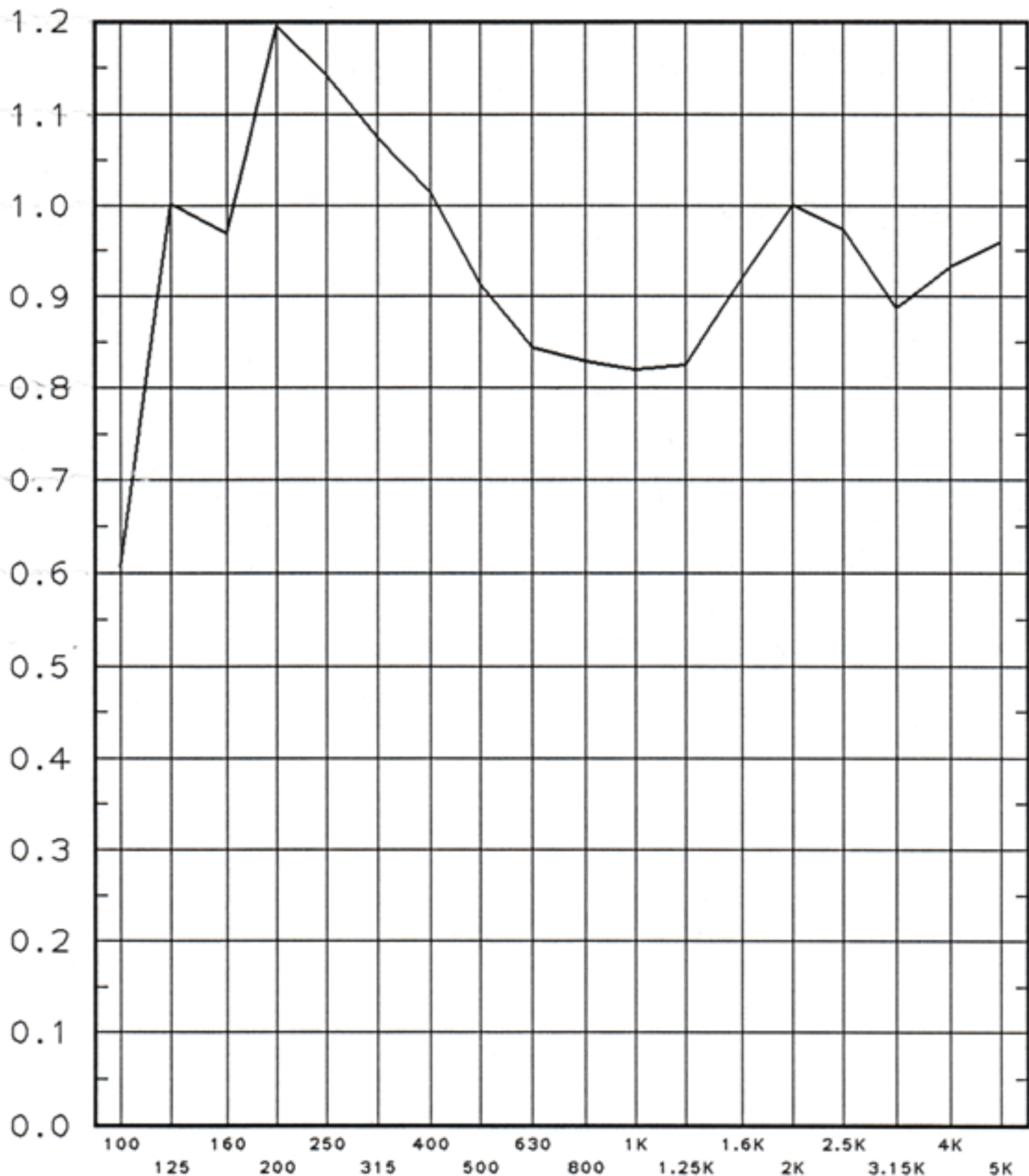
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SOUND ABSORPTION REPORT

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SOUND ABSORPTION COEFFICIENT



FREQUENCY (Hz)

NRC = 0.95

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