Architectural Testing

ASTM E 90 SOUND TRANSMISSION LOSS TEST REPORT

Rendered to:

INTERNATIONAL ALUMINUM CORPORATION

SERIES/MODEL: 3250

TYPE: Two Lite Curtain Wall System

Summary of Test Results			
ATI Data File No.	**Glazing**	**STC**	**OITC**
54889.01	1" IG (1/4" tempered, 1/2" air space, 1/4" tempered)	31	26

Reference should be made to ATI Report No. 54889.01-113-11 for complete test specimen description. The complete test results are listed in Appendix B.

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Architectural Testing

ACOUSTICAL PERFORMANCE TEST REPORT

Rendered to:

INTERNATIONAL ALUMINUM CORPORATION
767 Monterey Pass Road
Monterey Park, California 91754

Report No:	54889.01-113-11
Test Date:	12/22/04
Report Date:	01/05/05
Expiration Date:	12/22/08

Test Sample Identification:

Series/Model: 3250

Type: Two Lite Curtain Wall System

Overall Size: 80" by 80"

Glazing: 1" IG (1/4" tempered, 1/2" air space, 1/4" tempered)

Project Scope: Architectural Testing, Inc. (ATI) was contracted by International Aluminum Corporation to conduct sound transmission loss tests on a Series/Model 3250, two lite curtain wall system. A summary of the results is listed in the Test Results section and the complete test data is included as Appendix B of this report.

Test Methods: The acoustical tests were conducted in accordance with the following:

ASTM E 90-04, *Standard Test Method for Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions*.

ASTM E 413-04, *Classification for Rating Sound Insulation*.

ASTM E 1332-90 (Re-approved 2003), *Standard Classification for Determination of Outdoor-Indoor Transmission Class*.

ASTM E 2235-04, *Standard Test Method for Determination of Decay Rates for Use in Sound Insulation Test Methods*.

Test Equipment: The equipment used to conduct these tests meets the requirements of ASTM E 90. The microphones were calibrated before conducting sound transmission loss tests. The test equipment and test chamber descriptions are listed in Appendix A.

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Test Procedure:

Sound transmission loss tests were initially performed on a filler wall that was designed to test 40" by 86" and 80" by 86" specimens. The filler wall achieved an STC rating of 69.

A wood frame was placed around the outside perimeter of the curtain wall system. Duct seal was used to seal the perimeter of the curtain wall system to the wood frame. The 80" by 86" plug was removed from the filler wall assembly and the test specimen was installed in the opening. The interior side of the curtain wall, when installed, was approximately 1/4" from being flush with the receiving room side of the filler wall. A dense neoprene gasket and duct seal was used to seal the wood frame to the inside perimeter of the filler wall opening. A stethoscope was used to check for any abnormal air leaks before the test.

One background noise sound pressure level and five sound absorption measurements were conducted at each of the five microphone positions. Two sound pressure level measurements were made simultaneously in both rooms, at each of the five microphone positions. The air temperature and relative humidity conditions were monitored and recorded during the background, absorption, source, and receive room measurements.

Sample Descriptions:

Construction:

		Main Frame
Size		80" by 80"
Thickness		6"
CORNERS		Butted
	Fasteners	Screws
	Seal Method	Sealant
MATERIAL		Aluminum
	Thermal Break Material	None
	Reinforcement	N/A
Daylight Opening Size (x2)		36-1/4" by 75"

Sample Descriptions: (Continued)

Glazing:

Measured Overall Insulation Glass Unit Thickness	0.968"
Spacer Type	Aluminum

	Exterior Sheet	**Gap**	**Interior Sheet**
MEASURED THICKNESS	0.230"	0.508"	0.230"
MUNTIN PATTERN	N/A	N/A	N/A
MATERIAL	Tempered	Air*	Tempered
LAMINATE MATERIAL	N/A	N/A	N/A

The curtain wall system was pressure glazed onto flexible wedge gasket and held-in-place with aluminum glazing beads.

Components:

TYPE	QUANTITY	LOCATION
WEATHERSTRIP		
No weather strip		
HARDWARE		
No hardware		
DRAINAGE		
1-1/2" by 1/4" weep slot	8	Glazing bead
1/4" diameter weep hole	8	Snap covers

** - Stated per Client/Manufacturer N/A-Non Applicable*

Comments: The weight of the test sample was 331 lbs. The design drawings (included in Appendix C) supplied by the client, accurately describe the Series/Model 3250, two lite curtain wall system. The dimensions on the drawings that are circled and/or checked were verified against the test specimen. The curtain wall system was disassembled, and the components will be retained by ATI for four years.

Test Results: The STC (Sound Transmission Class) rating was calculated in accordance with ASTM E 413. The OITC (Outdoor-Indoor Transmission Class) was calculated in accordance with ASTM E 1332. A summary of the sound transmission loss test results on the two lite curtain wall system is listed below.

ATI Data File No.	Sample Description	STC	OITC
54889.01	Series/Model: 3250, two lite curtain wall system with 1" IG (1/4" tempered, 1/2" air space, 1/4" tempered)	31	26

The complete test results are listed in Appendix B.

This report is prepared for the convenience of our customer and endeavors to provide accurate and timely project information. It contains a summary of observations made by a qualified representative of Architectural Testing, Inc. The results of this report apply only to the specimen that was tested. The statements made herein do not constitute approval, disapproval, certification or acceptance of performance or materials.

A copy of this report will be retained by ATI for a period of four years from the original test date. This report is the exclusive property of the client so named herein. This report shall not be reproduced, except in full, without written approval by Architectural Testing, Inc.

For ARCHITECTURAL TESTING, INC:

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Kurt A. Golden
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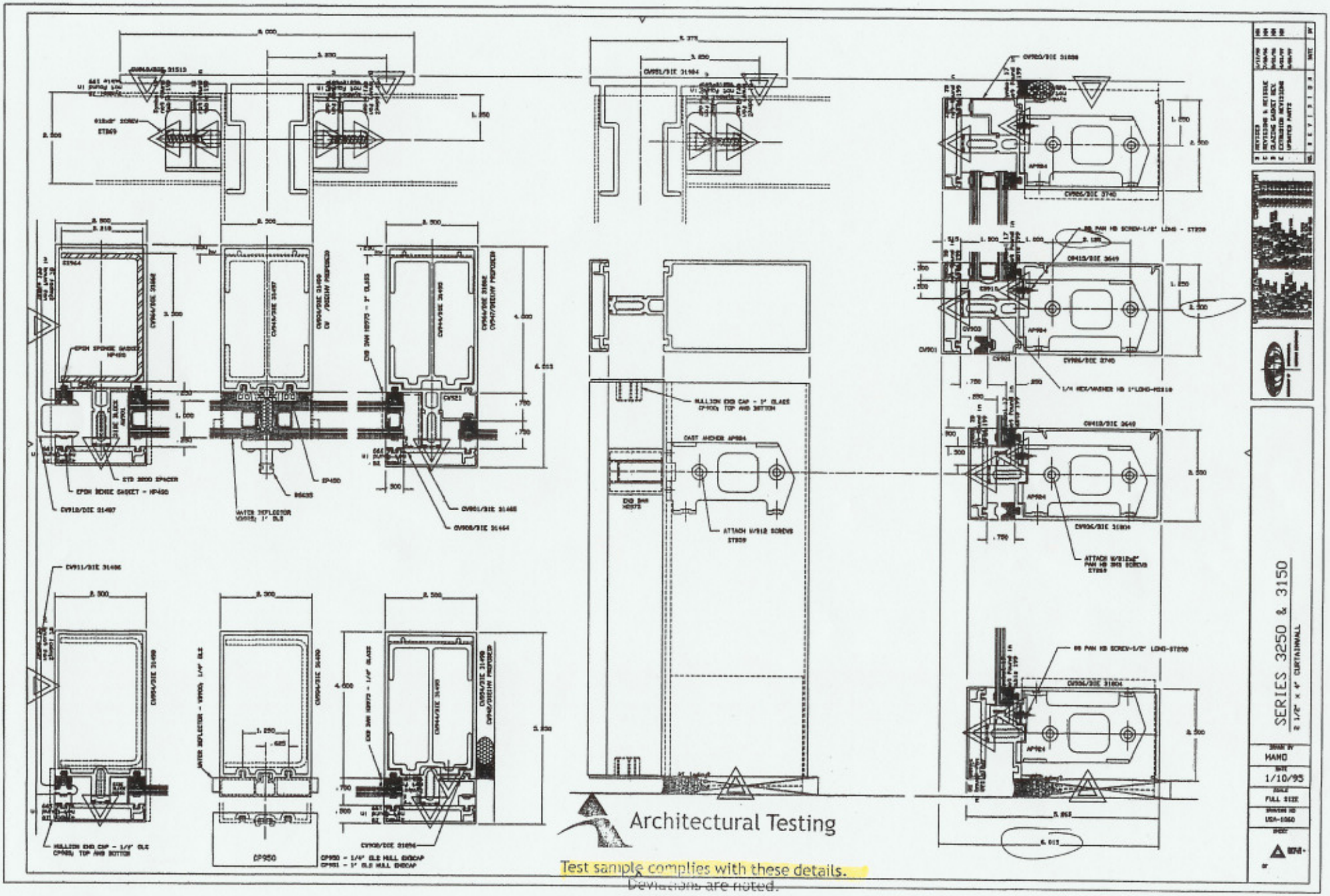
KAG:dnb

Attachments (pages):
Appendix-A: Equipment description (1)
Appendix-B: Complete test results (2)
Appendix-C: Drawings (1)



Report# 54889.01

Date 12/22/04 Tech KG.