Architectural Testing

ASTM E 90 SOUND TRANSMISSION LOSS TEST REPORT

Rendered to:

UNITED STATES ALUMINUM CORPORATION-CAROLINA

SERIES/MODEL: BT 601

TYPE: Two-Lite Storefront System

Summary of Test Results			
Data File No.	**Glazing(Nominal Dimensions)**	**STC**	**OITC**
99331.01	1-1/4" IG (1/4" annealed exterior, 1/2" air space, 1/2" laminated interior), Glass temperature 75°F	38	33

Reference should be made to Architectural Testing, Inc. Report No. 99331.01-113-11 for complete test specimen description. The complete test results are listed in Appendix B.

130 Derry Court
York, PA 17406-8405
phone: 717-764-7700
fax: 717-764-4129
www.archtest.com

Architectural Testing

ACOUSTICAL PERFORMANCE TEST REPORT

Rendered to:

UNITED STATES ALUMINUM CORPORATION-CAROLINA
720 Cel-River Road
Rock Hill, South Carolina 29730

Report No:	99331.01-113-11
Test Date:	05/24/10
Report Date:	06/03/10
Expiration Date:	05/24/14

Test Sample Identification:

Series/Model: BT 601

Type: Two-Lite Storefront System

Overall Size: 78-3/4" by 78-3/4"

Glazing Option (Nominal Dimensions): 1-1/4" IG (1/4" Annealed Exterior, 1/2" Air Space, 1/2" Laminated Interior), Glass Temperature 75°F

Project Scope: Architectural Testing, Inc. was contracted by United States Aluminum Corporation-Carolina to conduct sound transmission loss tests on a Series/Model BT 601, two-lite storefront 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. The sample was provided by the client.

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

ASTM E 90-09, *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*.

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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.

Sample Installation: Sound transmission loss tests were initially performed on a filler wall that was designed to test 40" by 80" and 80" by 80" specimens. The filler wall achieved an STC rating of 67.

The 80" by 80" plug was removed from the filler wall assembly. The storefront system was placed on a foam isolation pad in the test opening. Duct seal was used to seal the perimeter of the test specimen to the test opening on both sides. The interior side of the storefront frame, when installed, was approximately 1/4" from being flush with the receiving room side of the filler wall. A stethoscope was used to check for any abnormal air leaks around the test specimen prior to testing.

Test Procedure: The sound transmission loss test consisted of the following measurements: 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:

Frame Construction:

		Frame
Size		78-3/4" by 78-3/4"
Thickness		5"
Corners		Butted
	Fasteners	Screws
	Seal Method	Sealant
Material		Aluminum
	Thermal Break Material	Urethane
	Reinforcement	N/A
Daylight Opening Size (x2)		35-3/8" by 72-3/4"

N/A-Non Applicable

Sample Descriptions: (Continued)

Glazing:

Measured Overall Insulation Glass Unit Thickness	1.212"
Spacer Type	Aluminum

	Exterior Sheet	**Gap**	**Interior Sheet**
Measured Thickness	0.221"	0.519"	0.221" - 0.030" - 0.221"
Muntin Pattern	N/A	N/A	N/A
Material	Annealed	Air*	Laminated
Laminate Material	N/A	N/A	PVB

Glazing Method	Interior
Glazing Material	Closed cell foam
Glazing Bead Material	Flexible wedge gasket

Components:

	TYPE	**QUANTITY**	**LOCATION**
Weatherstrip			
	No weatherstrip		
Hardware			
	No hardware		
Drainage			
	No drainage		

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

Comments: The weight of the test sample was 438 lbs. The design drawings (included in Appendix C) supplied by the client, accurately describe the Series/Model BT 601, two-lite storefront system. The dimensions on the drawings that are circled and/or checked were verified against the test specimen. The storefront system was disassembled, and the components will be retained by Architectural Testing for four years. Photographs of the test specimen are included in Appendix D.

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 Series/Model BT 601, two-lite storefront system is listed below.

Summary of Test Results			
Data File No.	**Glazing(Nominal Dimensions)**	**STC**	**OITC**
99331.01	1-1/4" IG (1/4" annealed exterior, 1/2" air space, 1/2" laminated interior), Glass temperature 75°F	38	33

***Note**: Transmission loss coefficient differences less than 6 indicate the lower limit of the transmission loss for this specimen. On each data sheet listed in Appendix B, the cells are highlighted red for the transmission loss values limited in this way. Due to the calculations and sample size, transmission loss coefficient differences between 6 and 15 indicate there has been a filler wall correction applied. On each data sheet listed in Appendix B, cells highlighted in green indicate transmission loss values affected in this way.*

The complete test results are listed in Appendix B. Flanking limit tests and reference specimen tests are available upon request.

Detailed drawings, data sheets, representative samples of test specimens, a copy of this report, or other pertinent project documentation will be retained by Architectural Testing for a period of four years from the original test date. At the end of this retention period, such materials shall be discarded without notice and the service life of this report will expire. Results obtained are tested values and were secured by using the designated test methods. This report does not constitute certification of this product nor an opinion or endorsement by this laboratory. It is the exclusive property of the client so named herein and relates only to the specimen tested. This report may not be reproduced, except in full, without the written approval of Architectural Testing.

For ARCHITECTURAL TESTING, INC:

Digitally Signed by: Kurt A. Golden

Kurt A. Golden
Senior Technician - Acoustical Testing

Digitally Signed by: Todd D. Kister

Todd D. Kister
Laboratory Supervisor - Acoustical Testing

KAG:jmcs

Attachments (pages): This report is complete only when all attachments listed are included.

- Appendix-A: Equipment description (1)
- Appendix-B: Complete test results (2)
- Appendix-C: Design drawings (4)
- Appendix-D: Photographs (1)

Revision Log

Rev. #	Date	Page(s)	Revision(s)
0	06/03/10	N/A	Original Report Issue

Appendix A

Instrumentation:

Instrument	Manufacturer	Model	Description	ATI Number	Last Calibrated
Analyzer	Agilent Technologies	35670A	Dynamic signal analyzer	004112	06/08/09*
Data Acquisition Unit	Agilent Technologies	34970A	Data Acquisition Unit	62211	07/29/09
Receive Room Microphone	G.R.A.S.	40AR	1/2", Pressure type, condenser microphone	Y003246	08/18/09
Source Room Microphone	G.R.A.S.	40AR	1/2", Pressure type, condenser microphone	Y003245	08/18/09
Receive Room Preamp	G.R.A.S.	26AK	1/2" Preamplifier	Y003249	08/08/09
Source Room Preamp	G.R.A.S.	26AK	1/2" Preamplifier	Y003248	08/18/09
Microphone Calibrator	Bruel & Kjaer	4228	Pistonphone calibrator	Y002816	02/18/10
Noise Source	Delta Electronics	SNG-1	Two, Uncorrelated "Pink" noise signals	Y002181	N/A
Equalizer	Rane	RPE228	Programmable EQ	Y002180	N/A
Power Amplifiers	Crown	XTi 2000	Two, Amplifiers	005769 005770	N/A
Receive Room Loudspeakers	Renkus-Heinz	Trap Jr/9"	Two, Loudspeakers	Y001784 Y001785	N/A
Source Room Loudspeakers	Renkus-Heinz	Trap Jr/9"	Two, Loudspeakers	Y002649 Y002650	N/A
Receiving Room Environmental Indicator	Vaisala	HMW60Y	Temperature / Humidity Indicator	Y002652	08/23/09
Source Room Environmental Indicator	Vaisala	HMW60Y	Temperature / Humidity Indicator	005066	08/18/09
Weather Station	Davis Instruments	6150C	Laboratory Barometric Pressure, Temperature, and Humidity	Y003257	04/08/10

**- Note: The calibration frequency for this equipment is every two years per the manufacturer's recommendation.*

Test Chamber:

	Volume	Description
Receiving Room	234 m^3 (8291.3 ft^3)	Rotating vane and stationary diffusers Temperature and humidity controlled Isolation pads under the floor
Source Room	206.6 m^3 (7296.3 ft^3)	Stationary diffusers only Temperature and humidity controlled

	Maximum Size	Description
TL Test Opening	4.27 m (14 ft) wide by 3.05 m (10 ft) high	Vibration break between source and receive rooms

N/A-Non Applicable

Appendix B

Complete Test Results

SOUND TRANSMISSION LOSS

ASTM E 90

Architectural Testing

ATI No.	99331.01	**Date**	05/24/10
Client	United States Aluminum Corporation-Carolina		
Specimen	Series/Model: BT 601, two-lite storefront system with 1-1/4" IG (1/4" annealed exterior, 1/2" air space, 1/2" laminated interior), Glass temperature 75°F		
Specimen Area	4.00 Square Meters		
Filler Area	9.00 Square Meters		
Operator	Kurt Golden		

	Bkgrd	Absorp	Source	Receive	Filler	Specimen
Temp C	24.4	24.3	23.3	23.5	23.6	23.9
RH %	40.6	39.6	41.7	41.7	43.6	40.9

Freq (Hz)	Bkgrd SPL (dB)	Absorp (Square Meters)	Source SPL (dB)	Receive SPL (dB)	Filler TL (dB)	Specimen TL (dB)	95% Conf Limit	No. of Defici-encies	Trans Coef Diff
80	41.6	4.8	89.3	68.5	31.0	21	2.19	0	7.5
100	41.9	5.5	96.5	67.1	35.2	29	3.32	0	3.7
125	41.5	5.1	101.7	74.2	43.7	27	1.88	0	13.8
160	46.1	4.9	104.7	74.3	46.8	30	0.92	0	13.7
200	46.0	4.9	108.2	81.4	55.3	26	1.02	2	25.9
250	45.0	5.1	107.4	78.3	60.2	28	1.25	3	28.7
315	43.6	5.4	103.8	71.7	62.7	31	0.81	3	28.3
400	43.4	5.6	103.0	66.2	62.8	35	0.66	2	23.9
500	42.7	5.5	103.2	64.1	63.2	38	0.40	0	22.0
630	38.4	5.4	107.3	68.4	67.1	38	0.29	1	26.0
800	39.7	5.6	107.8	68.2	67.8	38	0.30	2	26.0
1000	37.3	5.9	107.1	66.7	70.3	39	0.42	2	28.1
1250	36.8	6.6	107.8	66.0	72.1	40	0.24	2	29.0
1600	34.7	6.9	113.1	70.8	75.2	40	0.33	2	31.8
2000	25.7	7.1	104.6	63.5	75.8	39	0.19	3	33.7
2500	18.1	8.3	101.9	58.3	77.1	40	0.29	2	33.2
3150	15.5	10.1	102.8	54.4	78.5	44	0.29	0	30.6
4000	12.6	12.2	100.9	48.6	81.8	47	0.43	0	30.8
5000	10.2	16.5	97.4	40.8	85.1	50	0.41	0	31.2

STC Rating =	**38**	*(Sound Transmission Class)*
Deficiencies =	**24**	*(Number of deficiencies versus contour curve)*
OITC Rating =	**33**	*(Outdoor/Indoor Transmission Class)*

Notes:

1) The acoustical chambers are qualified for measurements down to 80 hertz. Data reported below 80 hertz is for reference only.

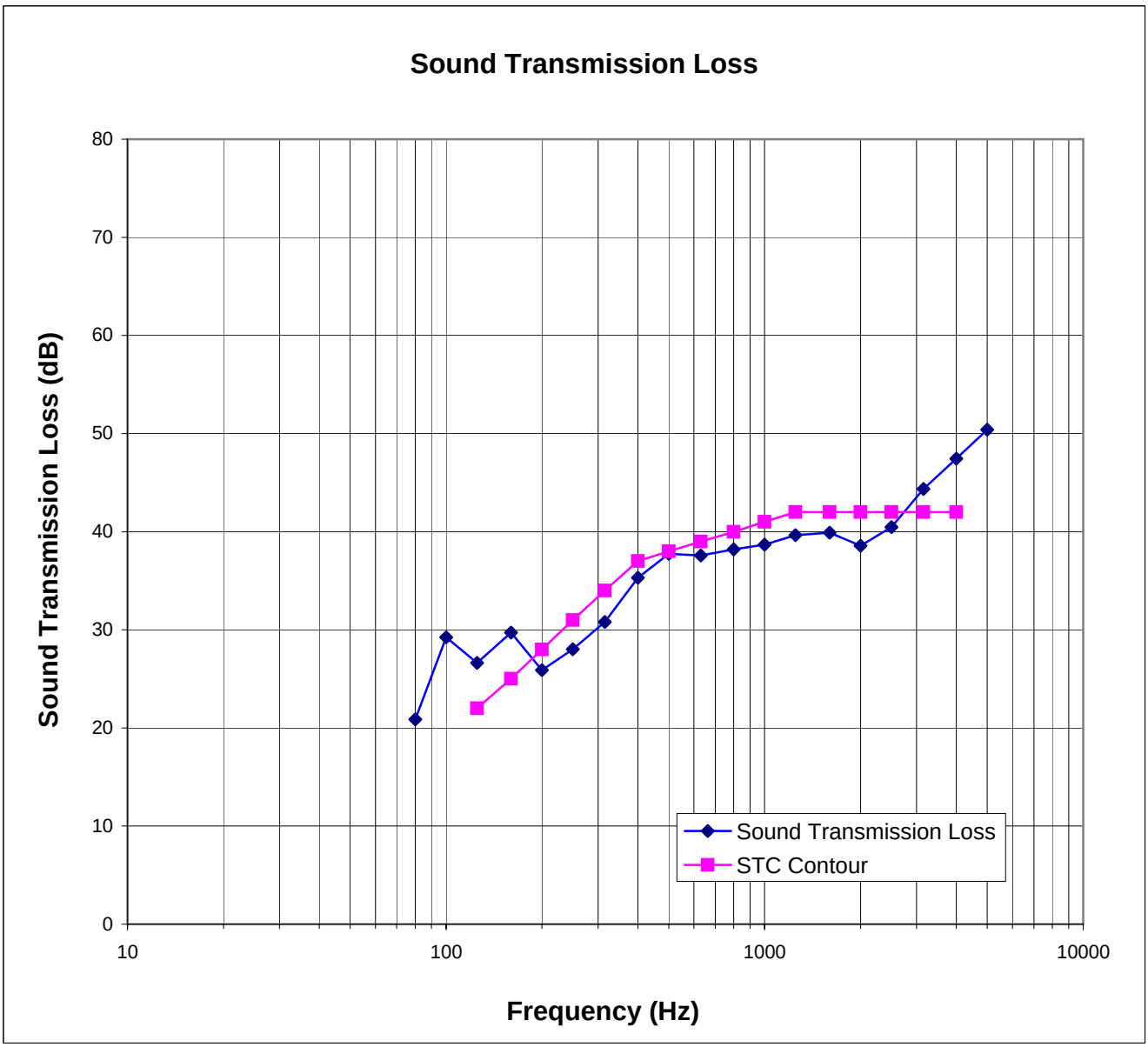
2) Transmission loss coefficient differences less than 6 indicate the lower limit of the transmission loss for this specimen. These cells are highlighted red.

3) Transmission loss coefficient differences between 6 and 15 indicate there has been a filler wall correction applied. These cells are highlighted green.

4) Receive Room levels less than 5dB above the Background levels are highlighted in yellow.

Architectural Testing

ATI No.	99331.01	**Date**	05/24/10
Client	United States Aluminum Corporation-Carolina		
Specimen	Series/Model: BT 601, two-lite storefront system with 1-1/4" IG (1/4" annealed exterior, 1/2" air space, 1/2" laminated interior), Glass temperature 75°F		
Specimen Area	4.00 Square Meters		
Filler Area	9.00 Square Meters		
Operator	Kurt Golden		



ACCREDITED

Architectural Testing, Inc. is accredited by the International Accreditation Service, Inc. (IAS) under the specific test methods listed under lab code TL-144, in accordance with the recognized International Standard ISO/IEC 17025:2005. The laboratory's accreditation or test report in no way constitutes or implies product certification, approval, or endorsement by IAS. This test report applies only to the specimen that was tested.

Appendix C

Design Drawings

SYMBOLS

DETAIL NO. / SYMBOL USED ON ELEVATIONS / SHEET NO.

DETAIL NO. / SYMBOL USED ON DETAILS / ARCHITECTURAL SHEET NO. / ARCHITECTURAL DETAIL NO.

SYSTEM:
SCALE:
QTY:
ARCH REF:
ELEVATION REFERENCE

WL — WINDLOAD/EXPANSION ANCHOR

DL — WINDLOAD/DEADLOAD ANCHOR

PERIMETER FASTENER REFERENCE

REVISION SYMBOL

SPLICE LOCATION

REVISED ITEMS

DENOTES MULLION REINFORCEMENT

ANCHOR DIMENSION REFERENCE

WORKING POINT REFERENCE

GLAZING SCHEDULE

SYMBOL	DESCRIPTION
A	1 5/16" INSULATED GLASS

MATERIALS AVAILABLE WHEN DRAWN

☐ YES ARCHITECTURALS ☒ NO ☐ YES SPECIFICATIONS ☒ NO

LATEST DATE: _____ ALUM. ENTRANCES & STOREFRONTS — FINISH HARDWARE — GLASS & GLAZING —

☐ YES STRUCTURALS ☒ NO ☐ YES ADDENDUMS ☒ NO

LATEST DATE: _____ NUMBERS: _____

DESIGN CRITERIA

Wind Pressure

FRAMING SYSTEM PROVIDED MEETS ANTI-TERRORISM STANDARDS REQUIRED BY UFC 4-010-01 JANUARY 2007

1 PSI DEFLECTION
82" STANDOFF DISTANCE
CHARGE WEIGHT N
70 PSF WINDLOAD

Notes: _____

SETTING BLOCKS @ 1/4 pts
Unless drawings are noted otherwise

FINISH SPECS.

- ☐ #99 MILL
- ☒ #11 CLEAR (CLASS II)
- ☐ #22 DARK BRONZE
- ☐ _____
- ☐ _____

GLASS SIZES

See installation instructions for Glass Size formulas
A copy of these instructions are available online (www.usalum.com)
(Note: See shop drawings to determine if deviations occur)

ABBREVIATIONS

O.D.	= OPENING DIMENSION	HRSO	= HINGE RIGHT SWING OUT
R.O.	= ROUGH OPENING	HLSO	= HINGE LEFT SWING OUT
F.D.	= FRAME DIMENSION	PRSO	= PAIR RIGHT SWING OUT
R.L.	= RAFTER LENGTH	PLSO	= PAIR LEFT SWING OUT
REF.	= REFERENCE DIMENSION	HRSI	= HINGE RIGHT SWING IN
D.L.O.	= DAYLIGHT OPENING	HLSI	= HINGE LEFT SWING IN
D.O.	= DOOR OPENING	PRSI	= PAIR RIGHT SWING IN
W.P.	= WORKING POINT	PLSI	= PAIR LEFT SWING IN
A.R.	= ARCHITECTURAL REFERENCE		
C.T.S.	= CUT TO SIZE	PHSMS	= PANHEAD SHEET METAL SCREW
S/L	= STOCK LENGTH		
NBUSA	= NOT BY U.S. ALUMINUM	FHSMS	= FLATHEAD SHEET METAL SCREW
M.L.	= MULLION LENGTH		
A.D.	= ANCHOR DIMENSION	W.D.	= WINDOW DIMENSION

SPECIAL NOTES

1. MATERIAL TO BE 6063-T5 AT VERTICALS ALL OTHER MATERIAL TO BE 6063-T5 UNLESS NOTED OTHERWISE
2. SILICONE SEALANTS AT CAULK JOINTS CAPABLE OF 50% COMPRESSION & TENSION IS ANTICIPATED. (VERIFY IF THIS CHANGES.)
3. ALL ROUGH OPENING DIMENSIONS TO BE FIELD VERIFIED PRIOR TO INSTALLATION

BT601 STC TEST AND ANCHOR TEST

Architectural Testing

Test sample complies with these details.
Deviations are noted.

Report# 99331.01-113-11

Date 5/24/10 Tech KG.

GENERAL NOTES

1. LIMITATIONS: THESE DRAWINGS REPRESENT AN INTERPRETATION OF ARCHITECTURAL INFORMATION MADE AVAILABLE TO UNITED STATES ALUMINUM CORPORATION ("USAC"), AND THE PLACEMENT OF USAC SYSTEMS WITHIN THE PROJECT. USAC MAKES NO REPRESENTATION OR WARRANTY AS TO THE PERFORMANCE OR COMPLETENESS OF THE ARCHITECTURAL DETAILS SURROUNDING ITS SYSTEMS AND DOES NOT ACCOUNT FOR ARCHITECTURAL INFORMATION NOT PROVIDED TO USAC.

2. CONFIRMATION: ANY USAC SUGGESTED DIMENSIONS, TOLERANCES, DEFLECTION, ANCHORAGES, REFERENCES, AND FUNCTIONAL PERFORMANCE REQUIREMENTS SHALL BE CONFIRMED WITH ARCHITECT BY INSTALLER, AND VALIDATED BY FIELD MEASURES TO ENSURE PERFORMANCE COMPLIANCE AND ARCHITECTURAL INTENT.

3. ACCEPTANCE: FINAL APPROVAL OF THESE DRAWINGS CONSTITUTES ACCEPTANCE OF ALL STEEL, CONCRETE OR ANY OTHER DISSIMILAR MATERIALS.

4. GLAZING: USAC RECOMMENDS DELAYING ORDER OF GLASS AND/OR GLAZING MATERIALS UNTIL FINAL APPROVAL OF ERECTION DRAWINGS.

5. PRODUCT RATINGS: USAC PRODUCTS ARE TESTED TO RATED PERFORMANCE MEASURES. INFORMATION REGARDING SPECIFIC PERFORMANCE RATINGS FOR THE DEPICTED SYSTEMS IS AVAILABLE FROM USAC, ON REQUEST. MODIFICATION OF DEPICTED PRODUCTS OR DEVIATING FROM USAC SHOP DRAWINGS, INSTALLATION RECOMMENDATIONS, AND/OR GOOD BUILDING PRACTICES CAN IMPACT THE ABILITY OF FIELD INSTALLATIONS TO ACHIEVE TESTED RATING(S).

6. INSTALLER: IN PROVIDING THESE DRAWINGS, USAC DOES NOT VALIDATE, ENDORSE, REPRESENT, OR OTHERWISE WARRANT THE COMPETENCY OR ABILITY OF THE INSTALLING CONTRACTOR(S) TO ASSEMBLE/ADDRESS USAC SYSTEMS IN A MANNER SUFFICIENT TO ENSURE COMPLIANCE WITH DESIRED/APPLICABLE DESIGN, ENERGY, RATING, BUILDING AND/OR SAFETY CODES.

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9. PROTECTION: CARE SHOULD BE TAKEN TO ENSURE USAC SUPPLIED PRODUCTS ARE PROTECTED BEFORE INSTALLATION AND ISOLATED IN INSTALLATION, WHERE APPROPRIATE, FROM CONTACT WITH STEEL, CONCRETE OR OTHER DISSIMILAR MATERIALS.

10. COMPLIANCE: OWNER, ARCHITECT AND DEALER ARE RESPONSIBLE FOR SELECTION, INSTALLATION, AND ADJUSTMENT OF SYSTEMS TO ENSURE COMPLIANCE WITH ALL APPLICABLE DESIGN, ENERGY, RATING, BUILDING AND/OR SAFETY CODES.

11. INSTALLATION: USAC OFFERS GENERALLY APPLICABLE INSTALLATION RECOMMENDATIONS FOR THE SYSTEMS DEPICTED HEREIN. INSTALLATION CONTRACTOR MUST ENSURE COMPLIANCE WITH USAC DESIGN INTENT AND INSTALLATION RECOMMENDATIONS IN ADDITION TO ANY PROJECT SPECIFIC INSTALLATION RECOMMENDATIONS REQUESTED OF USAC. USAC MAKES/ISSUES NO WARRANTY OR COMMITMENT RELATIVE TO INSTALLED SYSTEMS THAT DO NOT COMPLY WITH, OR ARCHITECTURALLY DEVIATE FROM, USAC RECOMMENDATIONS UNLESS EXPRESSLY APPROVED BY USAC BEFORE INSTALLATION.

SEALANT NOTES

1. SELECTION AND SPECIFICATION: USAC IS NOT RESPONSIBLE FOR SPECIFICATION, SELECTION OR USE OF SEALANTS AND/OR CAULKING NECESSARY FOR THE ASSEMBLY DEPICTED IN THESE DRAWINGS. OWNER, ARCHITECT, INSTALLER, AND SEALANT MANUFACTURER MUST CONFER TO ENSURE SPECIFICATION, SELECTION AND USE OF SEALANTS/CAULKING ON THIS PROJECT THAT ARE APPROPRIATE AND IN COMPLIANCE WITH USAC SHOP DRAWINGS, INSTALLATION RECOMMENDATIONS, AND GOOD BUILDING PRACTICES.

2. WATERTIGHT APPLICATION: REGARDLESS OF WHAT IS DEPICTED HEREIN, ALL GASKET JOINTS, BUTT JOINTS, LAP JOINTS, HEEL BEADS, TOE BEADS, AND CAP BEADS SHOULD BE SEALED WATERTIGHT FOLLOWING SEALANT MANUFACTURER RECOMMENDATIONS AS TO SIZE, METHOD OF APPLICATION AND COMPATIBILITY WITH ADJOINING MATERIAL. ANY QUESTIONS REGARDING THE PLACEMENT OF SEALANT IN RELATION TO THE SYSTEM DEPICTED SHOULD BE DIRECTED TO USAC BEFORE APPLICATION OF THE QUESTIONED SEALANT.

3. MANUFACTURER'S WARRANTY: ADHESION TESTING WILL BE REQUIRED BY THE SEALANT MANUFACTURER TO SECURE MANUFACTURER WARRANTIES FOR THIS PROJECT. INSTALLER MUST ASSUME FULL RESPONSIBILITY FOR COORDINATING THE SUBMITTAL OF ALL REQUIRED SAMPLES FOR TESTING AND ENSURE FIELD PERSONNEL FOLLOW SEALANT MANUFACTURER'S GUIDELINES FOR STRUCTURAL GLAZING.

MODIFICATION/CORRECTIVE PROCEDURE

IF ANY CORRECTIVE WORK IS REQUIRED ON THIS JOB, THE FOLLOWING PROCEDURE MUST BE ADHERED TO:
USAC MUST BE CONTACTED BEFORE ANY MODIFICATION, REPAIR, OR CORRECTIVE ACTION IS UNDERTAKEN TO THE SYSTEMS DEPICTED HEREIN. USAC WILL NOT ACCEPT OR WARRANT PRODUCTS THAT HAVE BEEN MODIFIED, REPAIRED, OR OTHERWISE ALTERED WITHOUT ITS EXPRESS WRITTEN CONSENT. ABSENT SUCH CONSENT USAC WILL NOT ACCEPT CHARGES, DEMANDS, CLAIMS, OR OFFSETS IN RELATION TO THE PERFORMANCE OF ITS SYSTEMS EITHER BEFORE OR AFTER INSTALLATION.

TABLE OF CONTENTS

FIRST APPROVAL
APRIL 28, 2010

PRODUCTS USED

PRODUCT DESCRIPTION

PRODUCT	FAB S/L	WIDTH	DEPTH	COMMENTS
BT601 DEFENDER	S/L	2 1/2"	5"	

CUSTOM DIES

PART NO.	DESCRIPTION

STAMP AREA

ARCHITECT	GEN. CONTRACTOR	CUSTOMER

DRAFTING DEPARTMENT LOCATIONS

- ☐ 3663 BANDINI BOULEVARD – VERNON, CALIFORNIA 90023 TELEPHONE (213) 268-4230
- ☐ 200 SINGLETON DRIVE – WAXAHACHIE, TEXAS 75165 TELEPHONE (972) 937-9651
- ☐ 6969 WEST 73RD STREET – CHICAGO, ILLINOIS 60638 TELEPHONE (708) 458-9070
- ☒ 720 CEL-RIVER ROAD – ROCK HILL, SOUTH CAROLINA 29730 TELEPHONE (803) 366-8326

NO.	REVISIONS	DATE	BY

United States ALUMINUM COMMERCIAL PRODUCTS GROUP

CUSTOMER: ATI, 100 DERRY COURT, YORK, PA 17406

ARCHITECT:

PROJECT: BT601 STC TEST AND ANCHOR TEST

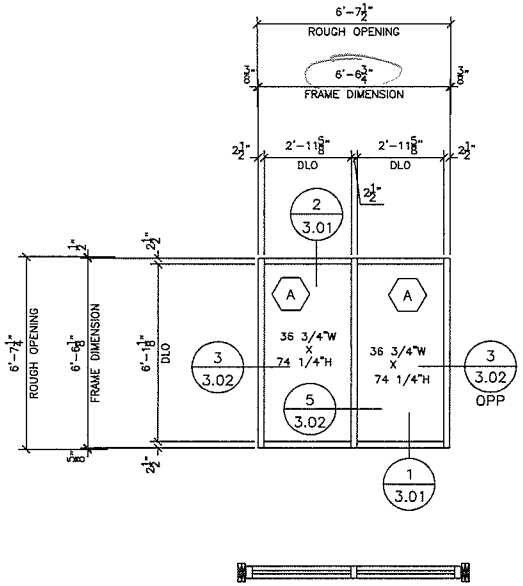
DRAWN BY: JC|DS

PROJECT MANAGER: USAC-SC

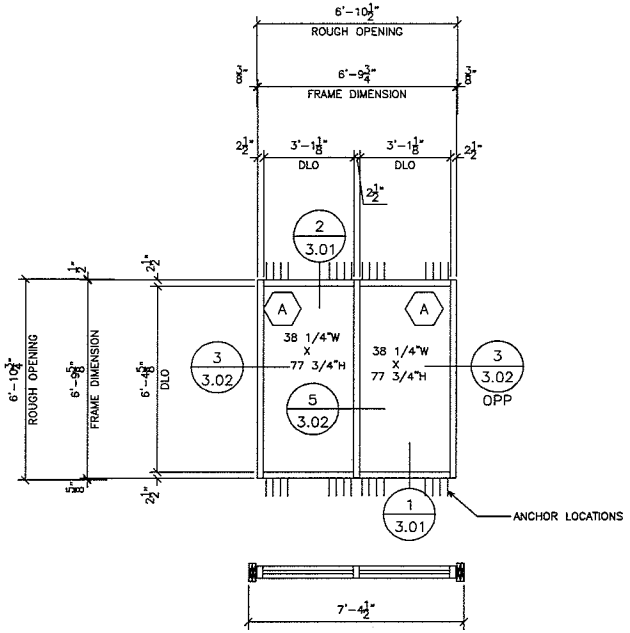
DATE: 4/28/10

PROJECT NO.: 2010-24

SHEET: 1.01



1 SYSTEM: BT601 (2 1/2" X 5")
SCALE: 1/2" = 1'-0"
QTY: 1
ARCH REF: STC TEST ELEVATION



2 SYSTEM: BT601 (2 1/2" X 5")
SCALE: 1/2" = 1'-0"
QTY: 4
ARCH REF: 1PSI RATING

Architectural Testing

Test sample complies with these details.
Deviations are noted.

Report# 99331.01-113-11

Date 5/29/10 Tech KG

NO.	REVISIONS	DATE	BY

United States ALUMINUM COMMERCIAL PRODUCTS GROUP

CUSTOMER
ATI
130 DERRY COURT
YORK, PA 17406

ARCHITECT

PROJECT
BT601 STC TEST
AND ANCHOR TEST

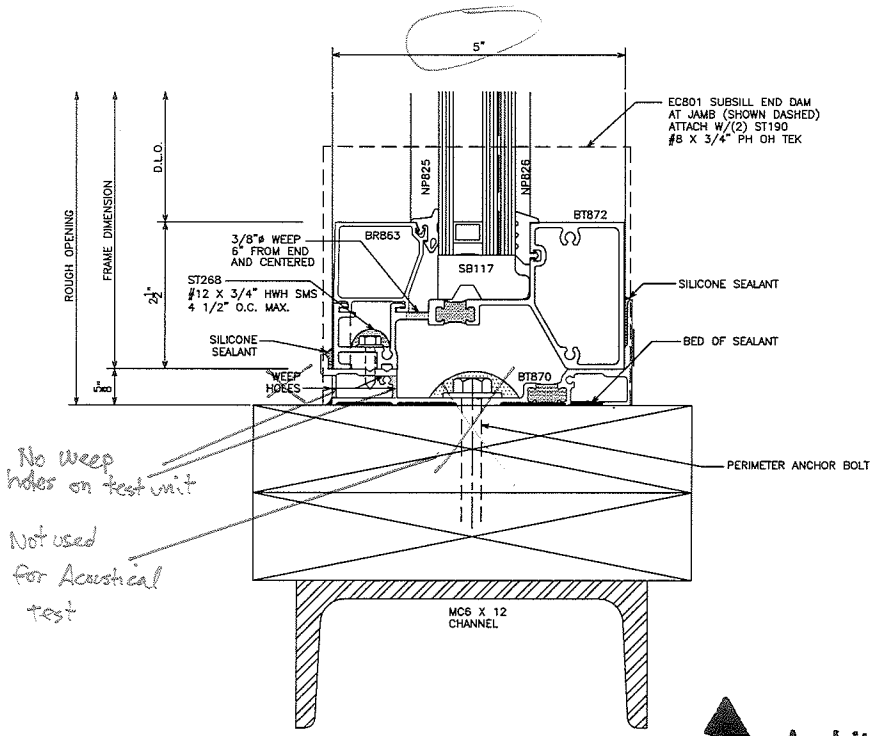
DRAWN BY
JC|DS

PROJECT MANAGER
USAC-SC

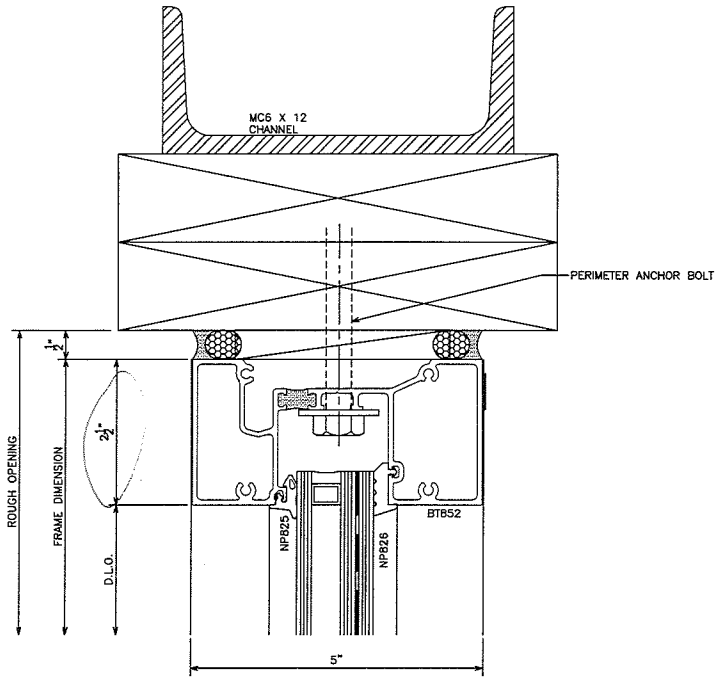
DATE
4/28/10

PROJECT NO.
2010-24

SHEET
2.01



1 SILL DETAIL
BT601 (DEFENDER SERIES)
DRY GLAZE



2 HEAD DETAIL
BT601 (DEFENDER SERIES)
DRY GLAZE

Architectural Testing

Test sample complies with these details.
Deviations are noted.

Report# 99331.01-113-11

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NO.	REVISIONS	DATE	BY

United States ALUMINUM
COMMERCIAL PRODUCTS GROUP

CUSTOMER
ATI
130 DERRY COURT
YORK, PA 17406

ARCHITECT

PROJECT
BT601 STC TEST
AND ANCHOR TEST

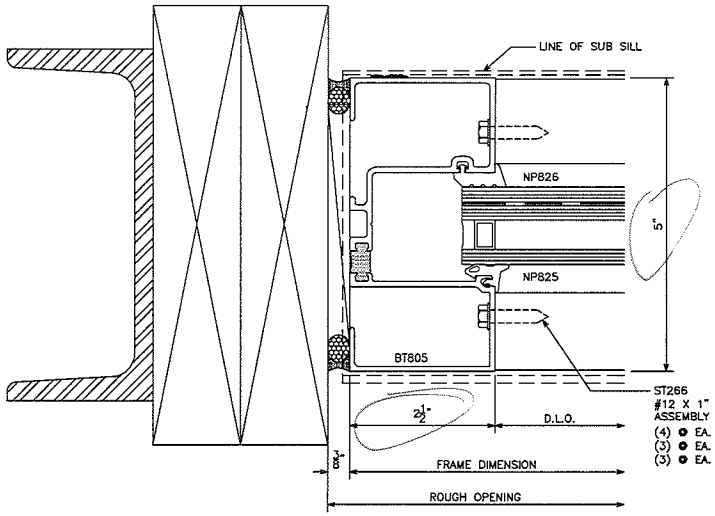
DRAWN BY
JC|DS

PROJECT MANAGER
USAC-SC

DATE
4/28/10

PROJECT NO.
2010-24

SHEET
3.01



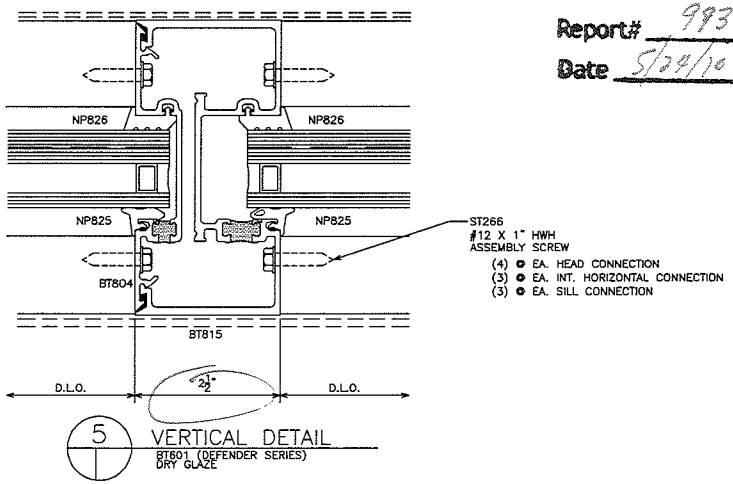
3 JAMB DETAIL
BT601 (DEFENDER SERIES)
DRY GLAZE

Architectural Testing

Test sample complies with these details.
Deviations are noted.

Report# 99331.01-113-11

Date 5/24/10 Tech KG.



5 VERTICAL DETAIL
BT601 (DEFENDER SERIES)
DRY GLAZE

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SHEET
3.02

Appendix D

Photographs

Receive Room View of Installed Specimen

Source Room View of Installed Specimen