

ALUMINTECHNO, JLLC TEST REPORT

SCOPE OF WORK

CITY OF NEW YORK DEPARTMENT OF HEALTH WINDOW FALLS PREVENTION PROGRAM TESTING ON SERIES: ALT W 72 TILT TURN WINDOW

REPORT NUMBER 12284.01-525-44 R1

TEST DATE(S) 05/15/18 - 05/16/18

 ISSUE DATE
 REVISION DATE

 09/12/18
 09/17/18

RECORD RETENTION END DATE 05/16/22

PAGES

22

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TEST REPORT FOR ALUMINTECHNO, JLLC

Report No.: I2284.01-525-44 R1 Date: 09/12/18

REPORT ISSUED TO

ALUMIN TECHNO, JLLC Selitskogo str.12-211 220075 FEZ "Minsk" Minsk Region, Minsk Area

SECTION 1

SCOPE

Intertek Building & Construction (B&C) was contracted by **ALUMINTECHNO**, **JLLC**, 12 Selitskogo St., Minsk, Belarus 220075 to perform testing in accordance with City of New York Department of Health Window Falls Prevention Program, Chapter 12-11, *Specifications for Window Guards for Other Than Double Hung Windows*, on their ALT W 72 Tilt Turn window. Results obtained are tested values and were secured by using the designated test method(s). Testing was conducted at Intertek Building & Construction (B&C) test facility in Farmingdale, NY. This report does not constitute certification of this product nor an opinion or endorsement by this laboratory.

SECTION 2

SUMMARY OF TEST RESULTS

Product Type: Tilt Turn Series/Model: ALT W 72

TITLE	SPECIMEN #1	SPECIMEN #2
Vent opening prior to loading	3-1/2"	3-1/2"
150 lbs applied for 60 seconds at the middle of the top rail	PASS 3-3/4" max. opening	PASS 3-3/4" max. opening
Vent opening after loading	3-1/2"	3-1/2"

For INTERTEK B&C:

COMPLETED BY:	Michael Hendriks	REVIEWED BY:	Joseph A. Reed, P.E.
TITLE:	Senior Technician – B&C	TITLE:	Senior Director
SIGNATURE:		SIGNATURE:	
DATE:	09/17/18	DATE:	09/17/18

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SECTION 3 TEST METHOD(S)

The specimens were evaluated in accordance with the following:

City of New York Department of Health Window Falls Prevention Program, Chapter 12-11, *Specifications for Window Guards for Other Than Double Hung Windows*

SECTION 4

MATERIAL SOURCE/INSTALLATION

Test specimens were provided by the client. Representative samples of the test specimen(s) will be retained by Intertek B&C for a minimum of four years from the test completion date.

The specimen was mounted to Intertek testing wall using steel clamps and blocks.

SECTION 5

EQUIPMENT

WLE 161: 5" diameter rigid sphere WLE 032: Load cell

SECTION 6

LIST OF OFFICIAL OBSERVERS

NAME	COMPANY
Michael Hendriks	Intertek B&C
Craig Ginsberg	Intertek B&C
Freddy Durand	Intertek B&C
Joseph A. Reed, P.E.	Intertek B&C



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SECTION 7

TEST SPECIMEN DESCRIPTION

Product Type: Tilt Turn Series/Model: ALT W 72

Product Size(s):

Test Specimen #1

OVERALL AREA:	WIDTH		HEIGHT	
0.35 m² (3.75 ft²)	millimeters	Inches	millimeters	inches
Overall Size	542	21-3/8	643	25-1/4
Vent Size	454	17-7/8	555	21-3/4

Test Specimen #2

OVERALL AREA:	WIDTH		HEIGHT	
3.83 m² (41.25 ft²)	millimeters	Inches	millimeters	inches
Overall Size	1524	60	2515	99
Vent Size	1436	56-1/2	2427	95-1/2

The following descriptions apply to all specimens.

Frame Construction:

FRAME MEMBER	MATERIAL	DESCRIPTION
Head/Sill/Side jamb	Aluminium	Exterior and interior Extruded profiles thermally broken on top and bottom with I-strut thermal break filled with PU Foam insulation.
	JOINERY TYPE	DETAIL
All Corners	Mitered	Two steel corner keys mechanically fastened.

Sash/Vent/Panel Construction:

SASH MEMBER	MATERIAL	DESCRIPTION
Sash	Aluminium	Exterior and interior extruded profiles thermally broken on top and bottom with I-strut thermal break filled with PU Foam insulation.
	JOINERY TYPE	DETAIL
All Corners	Mitered	Two steel corner keys mechanically fastened.



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Reinforcement: No reinforcement was utilized.

Weather stripping:

DESCRIPTION	QUANTITY	LOCATION
FRK63 goose neck rubber wedge gasket	1 row	Continuous around center of frame
FRK98 wedge gasket	1 row	Interior vent frame edge to frame surface

Glazing: No conclusions of any kind regarding the adequacy or inadequacy of the glass in any glazed test specimen(s) can be made.

GLASS TYPE	SPACER TYPE	INTERIOR LITE	EXTERIOR LITE	GLAZING METHOD
1" IG	1/2" Metal box spacer	1/4" Temp.	1/4" Temp.	Interior glazed compression sealed with exterior wedge gasket (FRK29-01) and interior glazing bead with gasket (FRK67).

LOCATION	QUANTITY	DAYLIGHT OPENING		GLASS BITE
		Millimetres	inches	
Test Specimen 1	1	270 x 371	10-5/8 x 14-5/8	1/2"
Test Specimen 2	1	1252 x 2243	49-5/16 x 88-5/16	1/2"

Drainage:

DRAINAGE METHOD	SIZE	QUANTITY	LOCATION
Weep hole slots	1" X 1/4"	2	5-11/32" off edge of frame on both sides

Hardware:		
DESCRIPTION	QUANTITY	LOCATION
Roto Multi point lock system	1	3 strikes on each vent stile, 1 strike at top rail. 3 keeper plates at each jamb and one at head.
Roto Turn handle	1	Vent stile
Locking element kit – (Art.728804)	1	Lock tumbler on vent rail with strike plate mounted on sill.
Hinge group	1	Lower right-hand corner of sash and frame
Water deflector extrusion (c48.0611)	1	Exterior face of bottom rail



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DESCRIPTION	QUANTITY	LOCATION
Specimen 2 only:		
Reinforcement kit up to 150kg	1	Lower right-hand stile
Opening stop arm	1	Left side of sash top rail attached to ROTO track system and fastened to frame head using (2) #10 x 1/4" SS Torx safety machine screws

Limit Stop Device:

SPECIMEN #1

The device allowed for a 3-1/2" vent opening. limit stop devices were located at the top rail to frame head.

Steel 740852	ss arm 390 -Art.	Attached to Roto rail system on top of sash rail
Kovloc		and attached to frame head using (2) #10 x 1/4" SS Torx safety machine screws
Window Lock Art. 728	king element kit –	Mounted on the bottom rail of sash.

SPECIMEN #2

The device allowed for a 3-1/2" vent opening. limit stop devices were located at the top rail to frame head.

MATERIAL	DESCRIPTION	ATTACHMENT
Steel	Compass arm 390 -Art. 740838/624958	Attached to Roto rail system on top of sash rail and attached to frame head using (2) #10 x 1/4" SS Torx safety machine screws
Window Lock	Key Locking element kit – Art. 728804	Mounted on the bottom rail of sash.



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SECTION 8

TEST RESULTS

The temperature during testing was 16.7°C (62°F). The results are tabulated as follows:

Test Specimen #1: Tilt Mode

TITLE OF TEST	RESULTS	MAXIMUM ALLOWED
Vent opening prior to loading	3-1/2"	4-1/2" max.
150 lbs applied for 60 seconds at the	PASS	4-1/2" max. and no passage
right side of the top rail	3-3/4" max. opening	of a 5" rigid sphere
Vent opening after loading	3-1/2"	4-1/2" max.

Vent opening prior to loading	3-1/4"	4-1/2" max.
150 lbs applied for 60 seconds at the	PASS	4-1/2" max. and no passage
middle of the top rail	3-3/4" max. opening	of a 5" rigid sphere
Vent opening after loading	3-1/2"	4-1/2" max.

Vent opening prior to loading	3-1/2"	4-1/2" max.
150 lbs applied for 60 seconds at the	PASS	4-1/2" max. and no passage
left side of the top rail	3-3/4" max. opening	of a 5" rigid sphere
Vent opening after loading	3-1/2"	4-1/2" max.

Observations: At no time during the test was a 5" rigid sphere able to pass through the opening. Upon completion of testing there was no damage or permanent deformation to the window or limit stops.



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Test Specimen #2: Tilt Mode

TITLE OF TEST	RESULTS	MAXIMUM ALLOWED
Vent opening prior to loading	3-1/2"	4-1/2" max.
150 lbs applied for 60 seconds at the	PASS	4-1/2" max. and no passage
right side of the top rail	4-1/2" max. opening	of a 5" rigid sphere
Vent opening after loading	3-1/2"	4-1/2" max.

Vent opening prior to loading	3-1/2"	4-1/2" max.
150 lbs applied for 60 seconds at the	PASS	4-1/2" max. and no passage
middle of the top rail	3-3/4" max. opening	of a 5" rigid sphere
Vent opening after loading	3-1/2"	4-1/2" max.

Vent opening prior to loading	3-1/2"	4-1/2" max.
150 lbs applied for 60 seconds at the	PASS	4-1/2" max. and no passage
left side of the top rail	3-3/4" max. opening	of a 5" rigid sphere
Vent opening after loading	3-1/2"	4-1/2" max.

Observations: At no time during the test was a 5" rigid sphere able to pass through the opening. Upon completion of testing there was no damage or permanent deformation to the window or limit stops.

SECTION 9

CONCLUSION

The specimens tested successfully met the performance requirements of the City of New York Department of Health Window Falls Prevention Program, Chapter 12-11.



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SECTION 10

PHOTOGRAPHS



Photo No. 1 Specimen #1 in the open position.



Photo No. 2 Specimen #1 under load with 5" rigid sphere test

145 Sherwood Avenue Farmingdale, NY 11735

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Photo No. 3 Specimen #2 limit arm device in the open position.



Photo No. 4 Specimen #2 secondary limit arm device in the open position.



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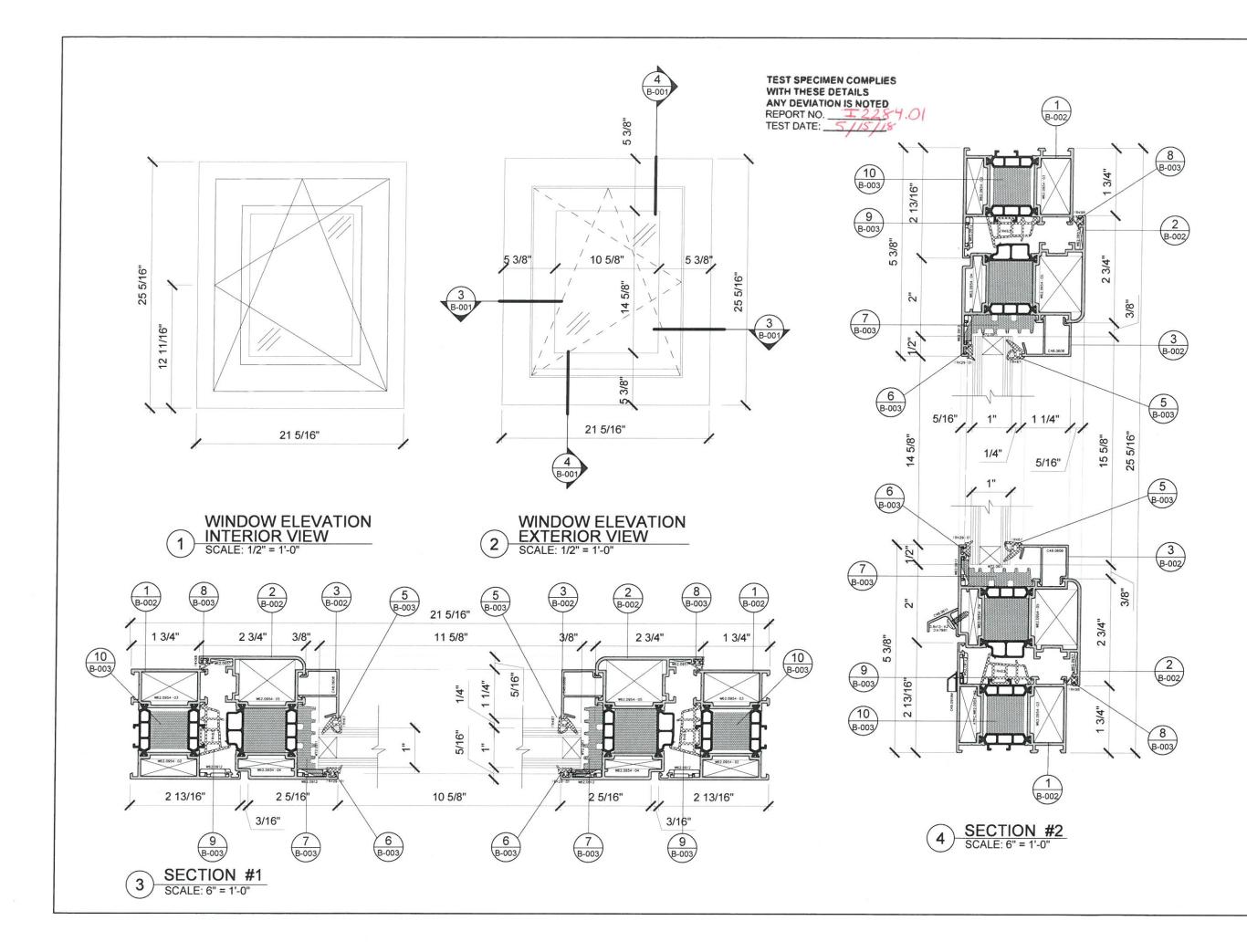
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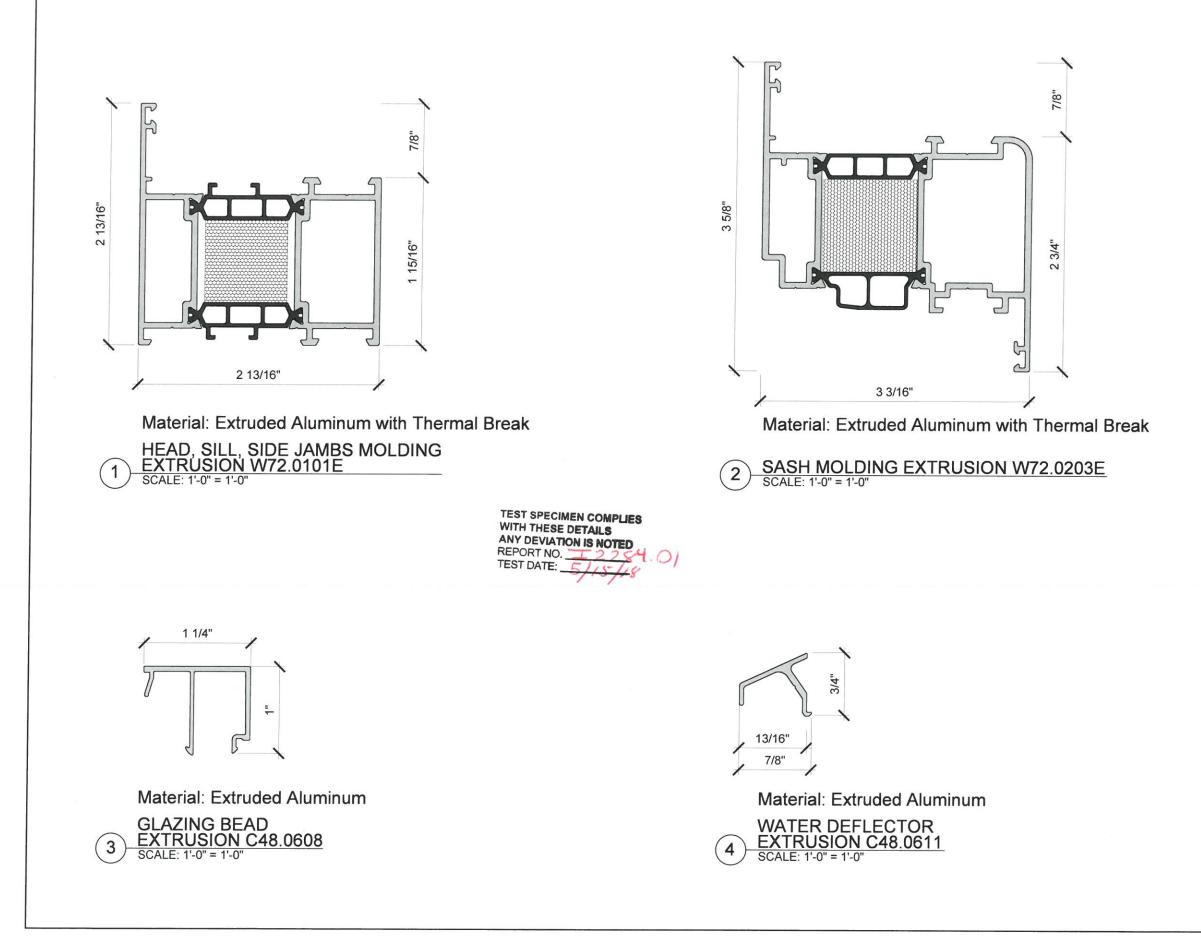
SECTION 11

DRAWINGS

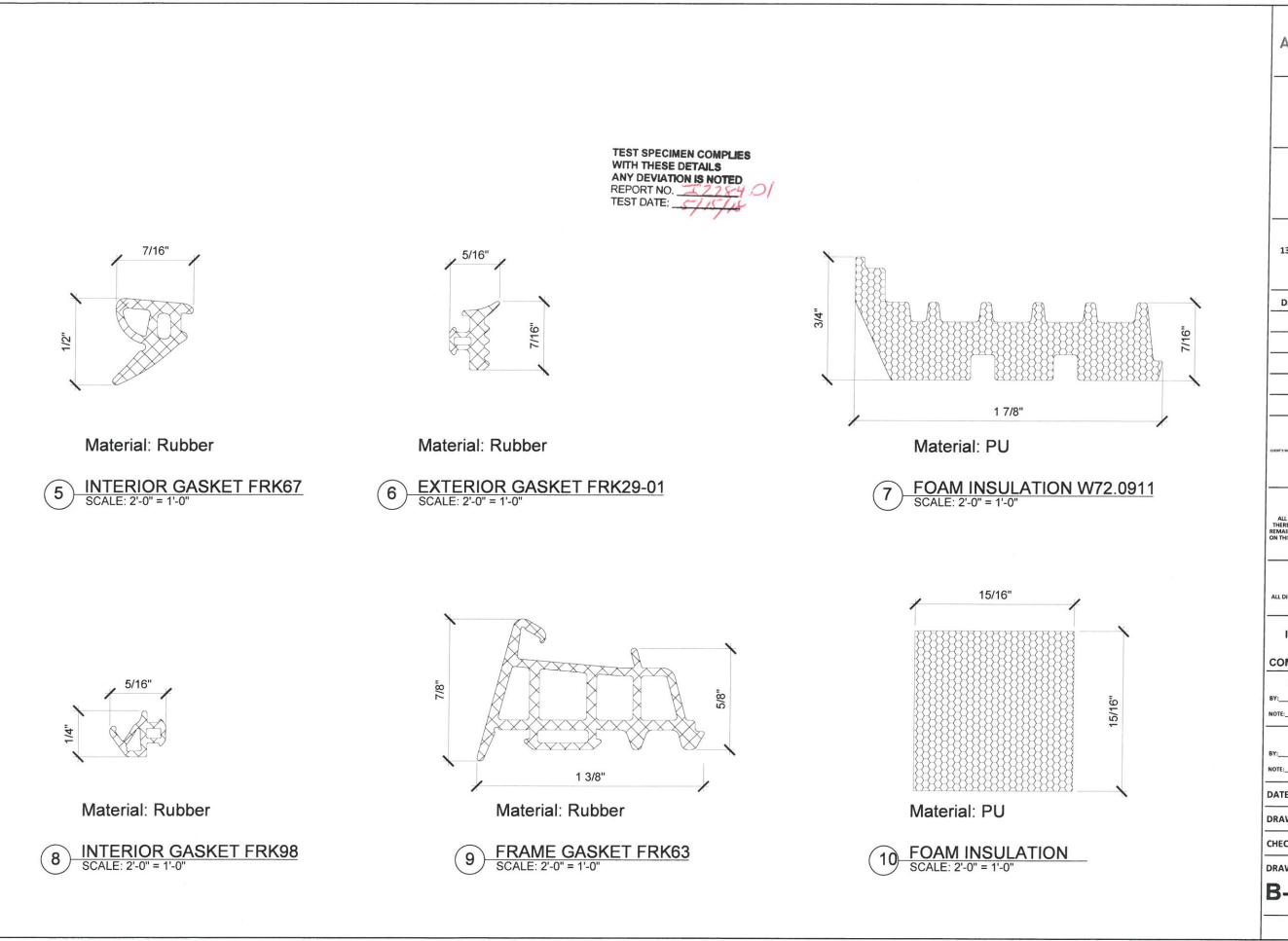
The test specimen drawings have been reviewed by Intertek B&C and are representative of the test specimen(s) reported herein. Test specimen construction was verified by Intertek B&C per the drawings included in this report. Any deviations are documented herein or on the drawings.



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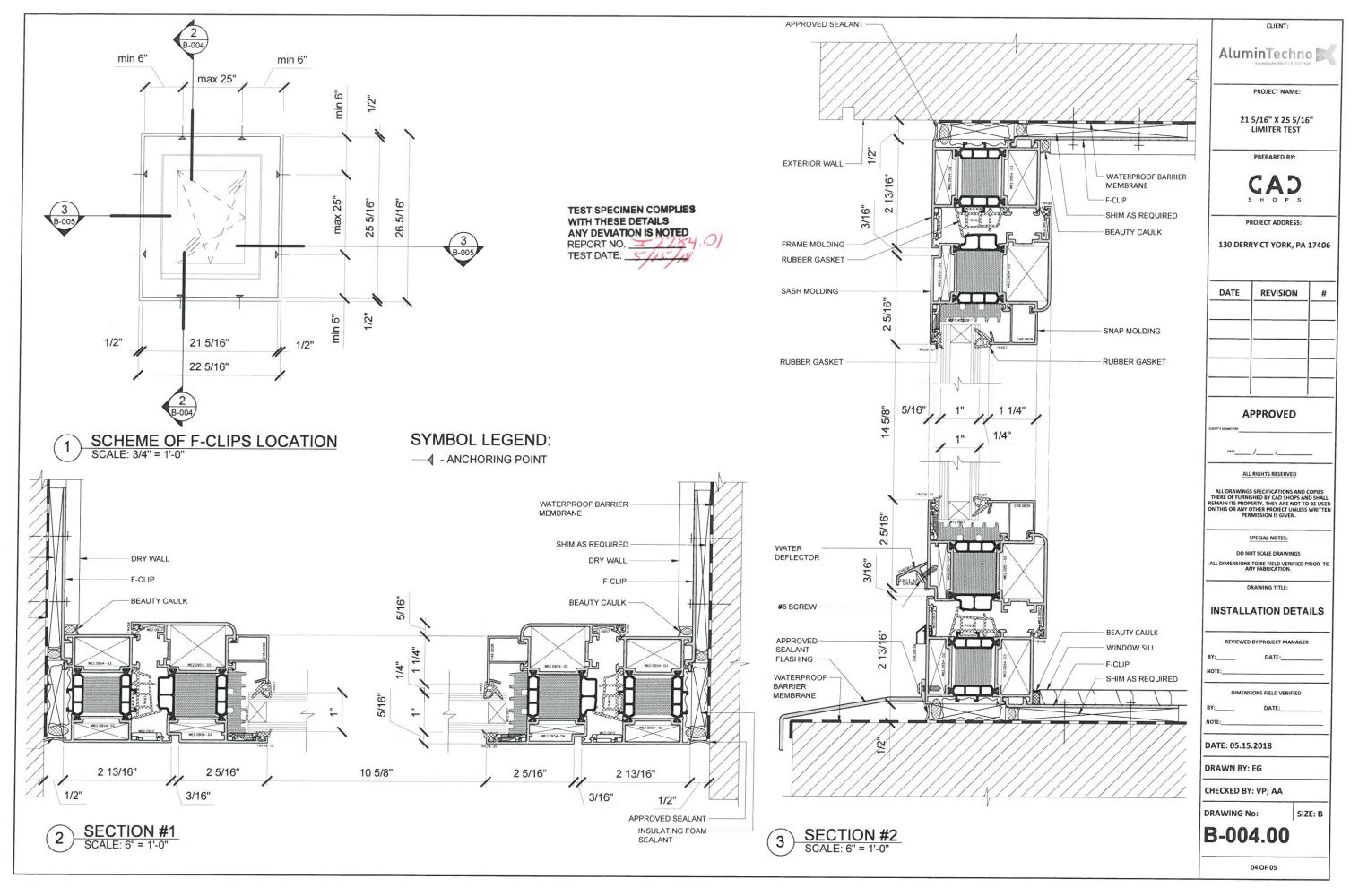


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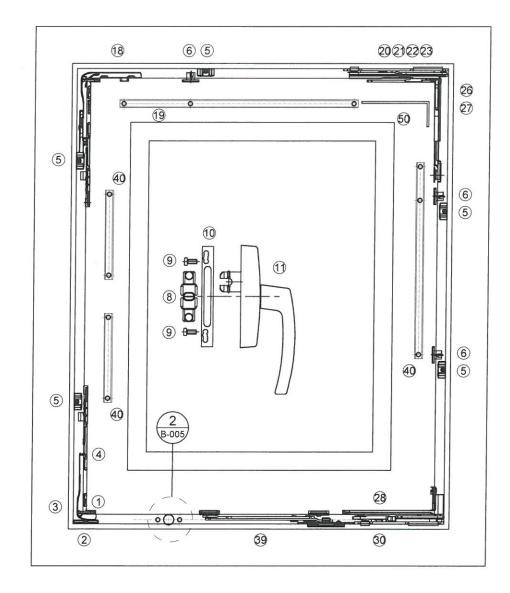


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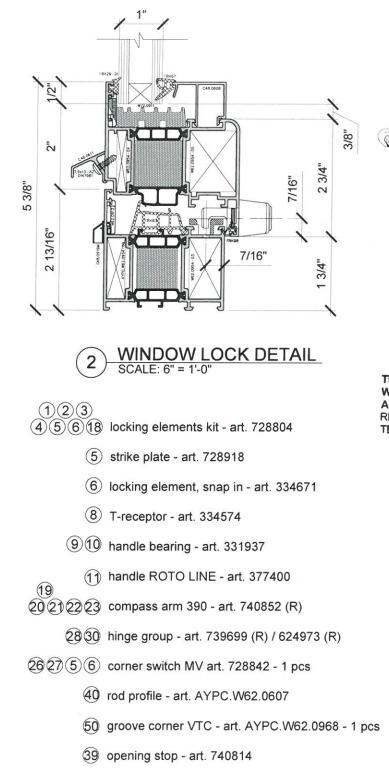
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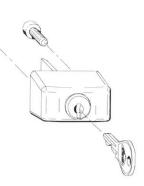


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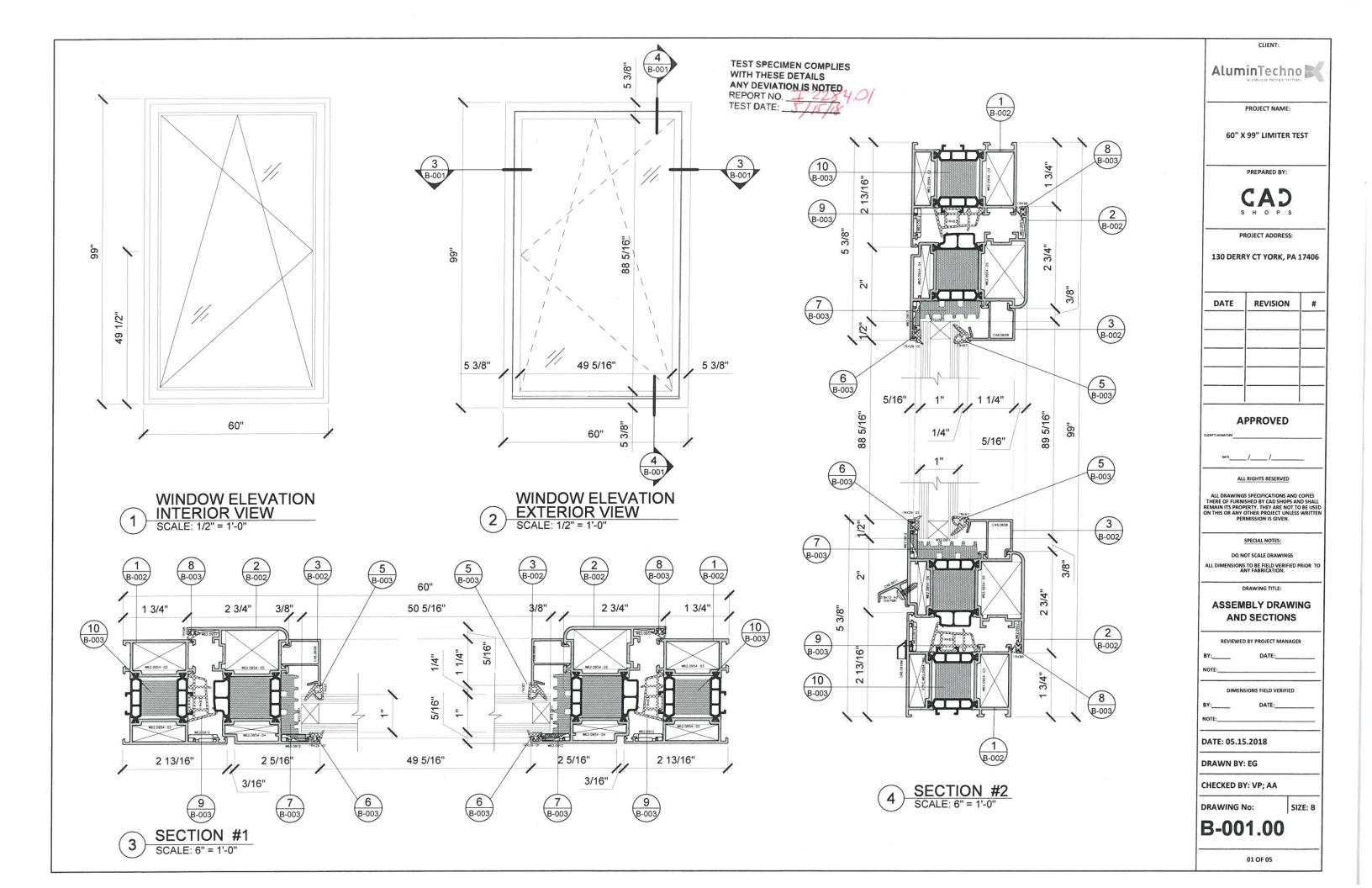
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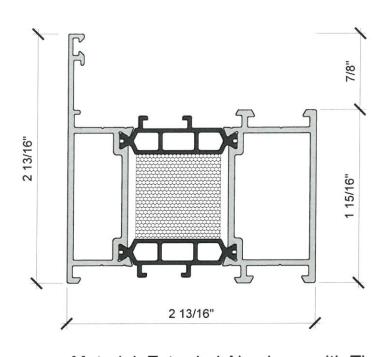




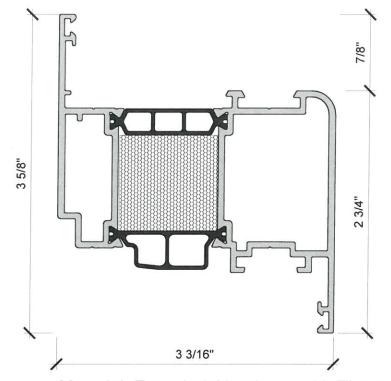
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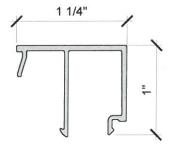


Material: Extruded Aluminum with Thermal Break HEAD, SILL, SIDE JAMBS MOLDING EXTRUSION W72.0103E SCALE: 1'-0" = 1'-0"



Material: Extruded Aluminum with Thermal Break

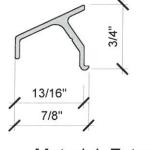
2 SASH MOLDING EXTRUSION W72.0203E SCALE: 1'-0" = 1'-0"



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Material: Extruded Aluminum GLAZING BEAD EXTRUSION C48.0608 SCALE: 1'-0" = 1'-0"



Material: Extruded Aluminum

4 WATER DEFLECTOR EXTRUSION C48.0611 SCALE: 1'-0" = 1'-0" AluminTechno 📄

PROJECT NAME:

60" X 99" LIMITER TEST

PREPARED BY:



PROJECT ADDRESS:

130 DERRY CT YORK, PA 17406

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CLIENT'S SIGNATURE

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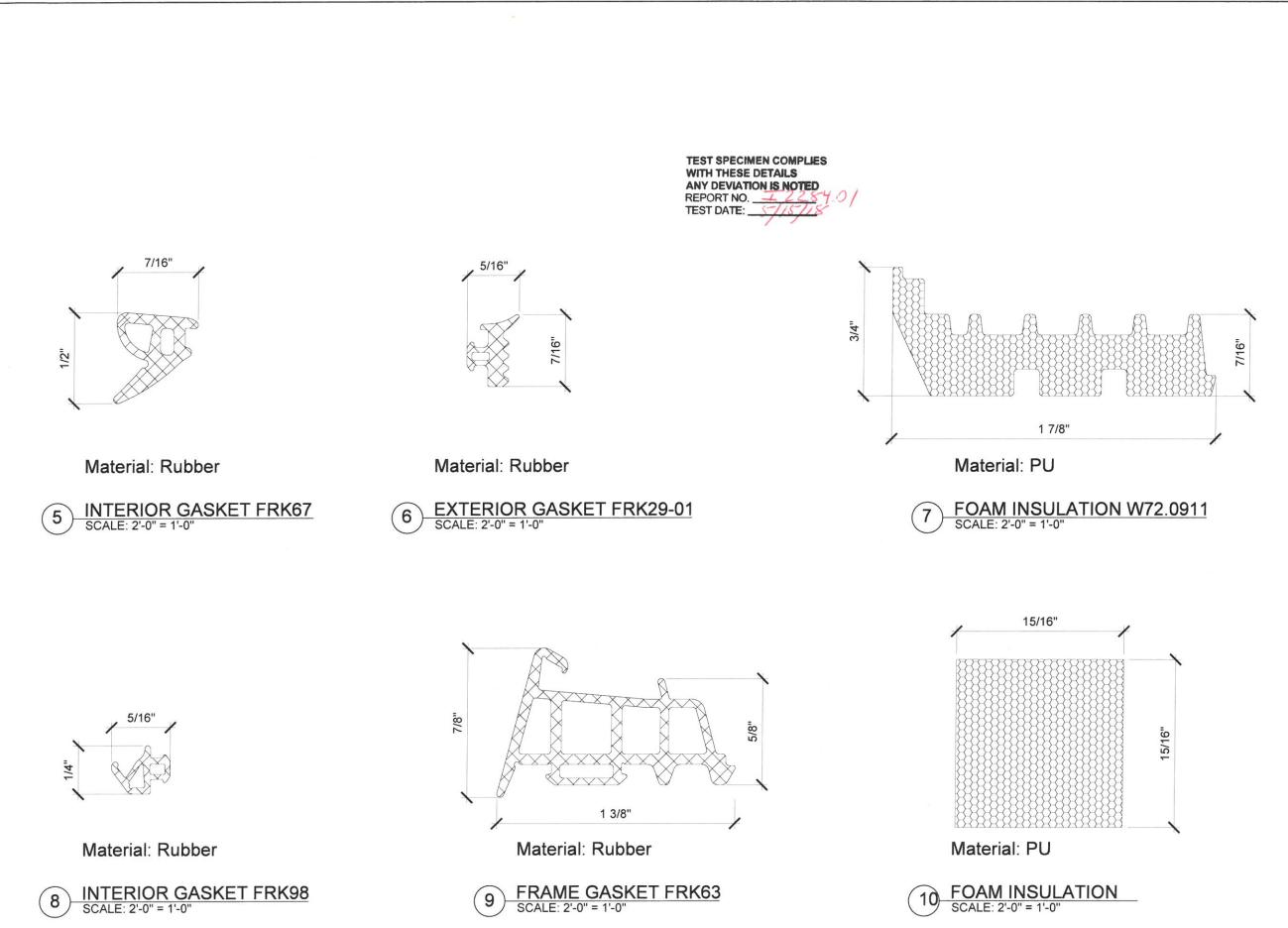
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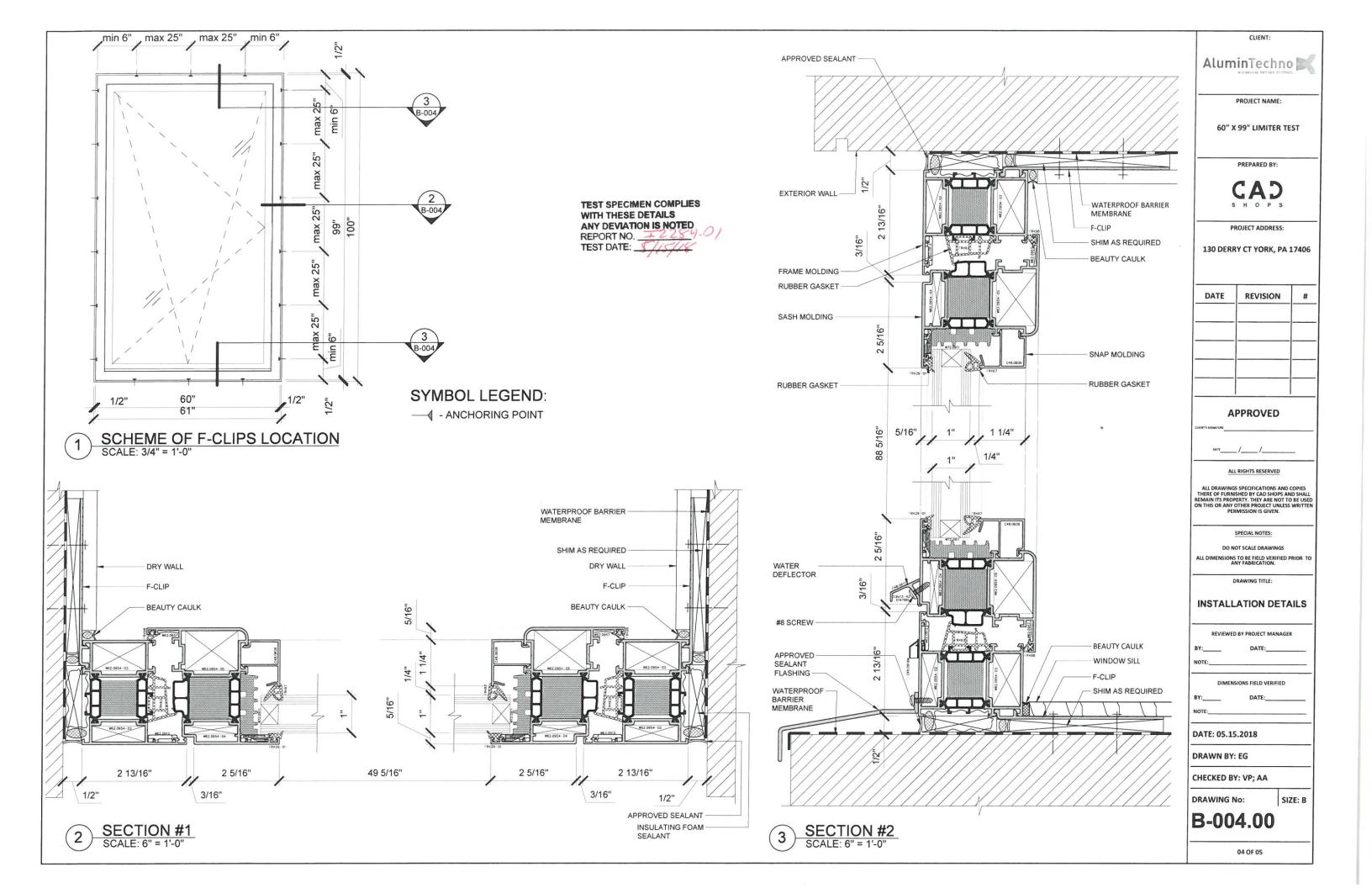
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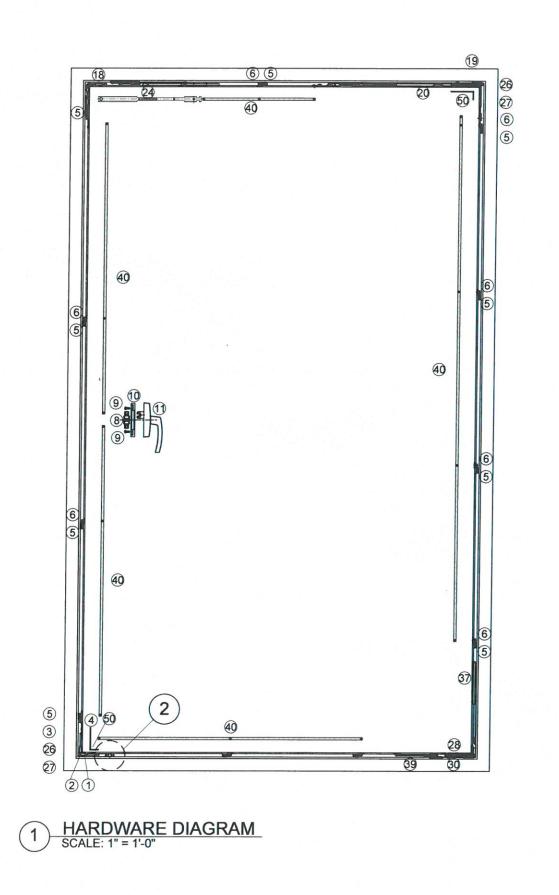
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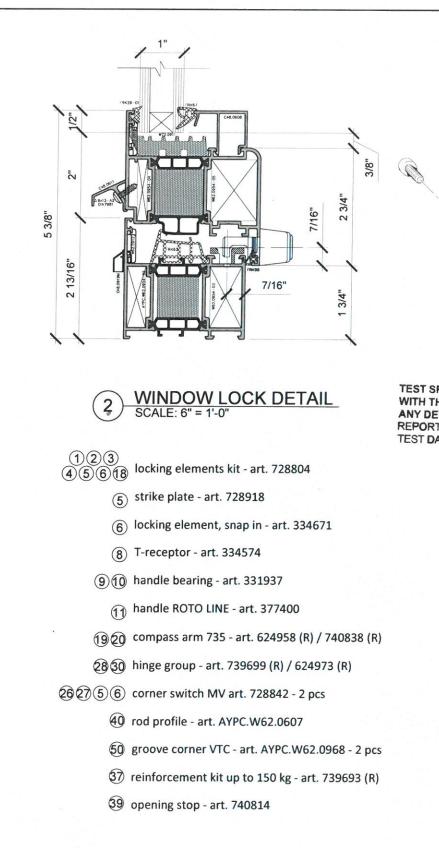
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SECTION 12

REVISION LOG

REVISION #	DATE	PAGES	REVISION
0	09/12/18	N/A	Original Report Issue
1	09/17/18	2	Client address
		4	Product size; numerical conversions
		5	Day light opening; numerical conversions
		6	Limit stop device; revised serial # per specimen