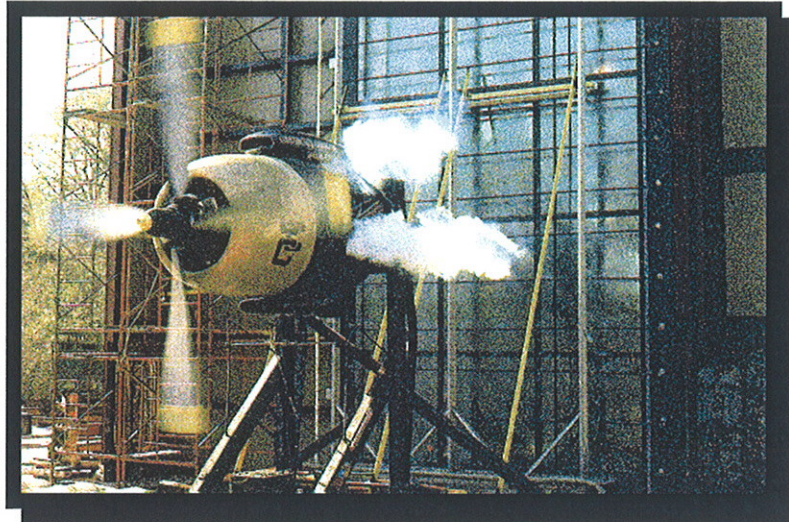




CONSTRUCTION CONSULTING LABORATORY, *INTERNATIONAL*



**TEST REPORT:
UNITED STATES ALUMINUM
SERIES 7600 PROJECT OUT WINDOW
REPORT CCLI #10-159**

**August 6, 2010
Re-issued on September 9, 2010**

Prepared for:

UNITED STATES ALUMINUM
200 Singleton Drive
Waxahachie, TX 75165

1601 Luna Road
Carrollton, Texas 75006

S-UNITED, INC.
A Quality Control Company

Office: (972) 242-0556
FAX: (972) 245-6047




TABLE OF CONTENTS

1. PROJECT DATA 1
 2. SUMMARY 1
 3. TEST SPECIMEN..... 1
 4. PERFORMANCE RESULTS 3
 5. DISCLAIMER..... 4

APPENDIX:

APPENDIX A: UNITED STATES ALUMINUM SERIES 7600 PROJECT OUT IN WINDOW DRAWINGS

Refer to mock-up drawing in **Appendix A**. This report is not complete unless this drawing is stamped and initialed by **CCLI** as illustrated below.

| Drawing | Date | Stamped as Illustrated |
|--|--------|--|
| SERIES 7600 PO BILL OF MATERIALS AND ELEV. | |  CONSTRUCTION CONSULTING LABORATORY, INTERNATIONAL 1601 Luna Road Carrollton, Texas 75006 Phone (972) 242-0556 Report# 10-159, Date 9-9-10 Reviewed BY <u>GW</u> |
| SERIES C7600-22, PAGE 1 OF 4 | 9/3/10 | |
| SERIES C7600-22, PAGE 2 OF 4 | 9/3/10 | |
| SERIES C7600-22, PAGE 3 OF 4 | 9/3/10 | |
| SERIES C7600-22, PAGE 4 OF 4 | 9/3/10 | |

Re-issued on September 9, changed Series to 7600.



1. PROJECT DATA

Project: Series 7600 Project Out Window

Date of Testing: AAMA/WDMA/CSA 101/I.S.2/A440-08
July 21, 2010

Tested For: United States Aluminum
200 Singleton Drive
Waxahachie, TX 75165

Witnessed By: (All or Partial Viewing)
Terry Hopgood
International Aluminum

Chevis Wilson Construction Consulting Laboratory, *International*

2. SUMMARY

| Series | Product Type | Test Size | Positive DP | Negative DP |
|--------|----------------------|---------------|---------------------|---------------------|
| 7600 | Aluminum Project Out | 5'-0" x 2'-8" | 4800 Pa (100.0 psf) | 4800 Pa (100.0 psf) |

3. TEST SPECIMEN

PRODUCT TYPE: Aluminum Project Out Window, **Product Drawings, Appendix A**

SERIES/MODEL: Series 7600 Project Out Window

SPECIFICATION: AAMA/WDMA/CSA 101/I.S.2/A440-08
CW-PG100-AP 1524 x 813 (60 x 32)

FRAME SIZE: 1524 x 813 (5'-0" x 2'-8")

PROJECT OUT

VENT SIZE: 1514 x 803 (4'-11⁵/₈" x 2'-7⁵/₈")

PROJECT OUT

DAY LIGHT OPENING: 1413 x 702 (4'-7⁵/₈" x 2'-3⁵/₈")

CONFIGURATION: X



AAMA/WDMA/CSA 101/I.S.2/A440-08
UNITED STATES ALUMINUM
SERIES 7600 PROJECT OUT WINDOW
REPORT #CCLI-10-159

August 6, 2010
Page 2 of 4

WEATHER-STRIP: 4.76mm ($\frac{3}{16}$ ") dual durometer located full perimeter at frame interior leg exterior face full perimeter. Dual durometer 4.76mm ($\frac{3}{16}$ ") located at interior face of the interior leg full perimeter of vent. Continuous finger gasket (part #NP810) located at the exterior lateral face of vent perimeter.

GLASS: Sealed insulating glass. 2 pcs. 6.35mm ($\frac{1}{4}$ ") annealed glass, 12.7mm ($\frac{1}{2}$ ") air space with a 25.4mm (1") overall thickness. Air spacer consists of molded aluminum and desiccant.

GLAZING: Exterior glazed with GT 900 glazing tape and silicone at interior and lateral face of glass.

WEEP ARRANGEMENT: Weep holes 9.52mm ($\frac{3}{8}$ "), spaced 152.4mm (6") from each end of frame subsill.

SEALANT: Sealant at all frame corners and vent corners. Attachment screws sealed. Frame members sealed to sub-frame at the interior. Subsill sealed at interior and exterior at frame sill. Sub-frame filler sealed continuous at all sub-frame members.

HARDWARE: One (1) multi-point lock actuated handle located at center of vent bottom rail. Three (3) lock buttons located at lock slide bar. Lock keepers located 63.5mm ($2\frac{1}{2}$ ") from one jamb and 152.4mm (6") from the other jamb with one at center of sill. Keepers attached with two (2) #10-24 x $\frac{3}{8}$ " screws. Three (3) snubbers located 152.4mm (6") from each end and one at center at vent top rail and frame head. Snubbers attached with aluminum adapter and two (2) #10 x $\frac{1}{2}$ " PHL PH SMS. Four bar friction hinge with hinge adapter (part #61585) located at frame jambs attached to each jamb with three (3) #10 x $\frac{1}{2}$ " screws.

OTHER FEATURES: Vent members are thermally broken with polyurethane. Vent corners are mitered and crimped with one aluminum corner key (part #WN524) per connection. Frame members are coped, butted, and attached with two (2) #8 x $\frac{3}{4}$ " PHSMS per connection. Frame members attached to sub frame members with one (1) #14 x $1\frac{1}{2}$ " PHL PH SMS spaced 101.6mm (4") from each end and 304.8mm (12") on center. Frame sill attached to subsill with #12AB x $\frac{3}{4}$ " screws, 101.6mm (4") from each end and 304.8mm (12") O.C. Filler (part #J-175) attached to sub-frame members with #10 x 19.05mm ($\frac{3}{4}$ ") PHL PH SMS, spaced 152.4mm (6") from each end and 304.8mm (12") on center

INSTALLATION FEATURES: Frame members were attached to aluminum sub-frame with #14 x 31.75mm ($1\frac{1}{2}$ ") screws spaced 101.6mm (4") from each end and 304.8mm (12") on center interior frame head, sill, and jambs. Sub-frame attached to SPF, nominal 50.8mm x 203.2mm (2" x 8") test buck with 9.52mm ($\frac{3}{8}$ ") x 114.3 (4 $\frac{1}{2}$ ") lag bolt, 152.4mm (6") from each end and 304.8mm (12") on center.



4. PERFORMANCE RESULTS

| <u>Specification Paragraph No.</u> | <u>Title of Test</u> | <u>Test Method</u> | <u>Measured</u> | <u>Allowed</u> |
|------------------------------------|---|---------------------|---|--|
| 5.3.1 | Project Out Operating Force | ASTM E 2068 | Initiated 40N (9 lbs) 31N (7 lbs) | Maintained 135N (30 lbs) 135N (30 lbs) |
| 5.3.2 | Air Infiltration @ 300 Pa (6.24 psf) | ASTM E 283-04 | .15 l/s·m ² (0.03 cfm/sf) | .5 l/s·m ² (0.10 cfm/sf) |
| 5.3.3 | Water Resistance @ 720 Pa (15.00 psf) | ASTM E 547 & 331-00 | No Leakage | No Leakage |
| 5.3.4.1 | Uniform Deflection @ 5400 Pa (112.50 psf) P.O. Stile | ASTM E 330-02 | | |
| | -Positive | | 1.77mm (.07") | 4.57mm (0.180") |
| | -Negative | | 1.016mm (.04") | 4.57mm (0.180") |
| 5.3.4.1 | Uniform Deflection @ 5400 Pa (112.50 psf) P.O. Vent Top Rail | ASTM E 330-02 | | |
| | -Positive | | 5.461mm (.215") | 8.63mm (0.340") |
| | -Negative | | 1.65mm (.065") | 8.63mm (0.340") |
| 5.3.4.2 | Uniform Structural -Positive -7200 Pa (150 psf) | ASTM E 330-02 | No Damage | No Damage |
| | -Negative -7200 Pa (150 psf) | | No Damage | No Damage |
| | -Permanent Set | | None | 4.53mm (.1785") |
| 5.3.6.6.6 | Project Hardware Load Test 135N (30 lbs) | | 22.22mm (.875") No Damage | 5.74mm (2.26") |

Detailed extrusion and assembly drawings indicating measured wall thickness and corner construction are on file and were compared to the test sample submitted. These records will be retained at **CCLI** for a period of four years.



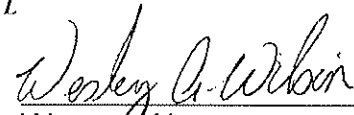
5. DISCLAIMER

The above results were obtained by using the designated test methods indicating compliance with the above specification. This report does not constitute certification of this product, which may only be granted by the program administrator.

Respectfully submitted,

CONSTRUCTION CONSULTING LABORATORY, *INTERNATIONAL*


JEFFREY CRUMP
TESTING MANAGER


WESLEY WILSON
LABORATORY MANAGER



AAMA/WDMA/CSA 101/I.S.2/A440-08
UNITED STATES ALUMINUM
SERIES 7600 PROJECT OUT WINDOW
REPORT #CCL-10-159

August 6, 2010

APPENDIX





APPENDIX A

PROJECT DRAWINGS

| Drawing | Date |
|--|--------|
| SERIES 7600 PO BILL OF MATERIALS AND ELEV. | |
| SERIES C7600-22, PAGE 1 OF 4 | 9/3/10 |
| SERIES C7600-22, PAGE 2 OF 4 | 9/3/10 |
| SERIES C7600-22, PAGE 3 OF 4 | 9/3/10 |
| SERIES C7600-22, PAGE 4 OF 4 | 9/3/10 |

| QTY | MARK | | CW7500 | WINDOW | | WINDOW | | | | |
|-----|----------------|-------|--------------------|---------|----|----------------------|-------------------------------------|--|--|--|
| | | | AAMA | WIDTH | X | HEIGHT | | | | |
| 1 | A | | | 60.0000 | X | 32.0000 | | | | |
| | | | | GLASS | X | GLASS | | | | |
| | | | 1" INS | 58.5000 | X | 30.5000 | | | | |
| QTY | PART | DIE | DESCRIPTION | LENGTH | | | | | | |
| | | | HORIZONTALS | | | OPERATION | | | | |
| 1 | WN521 | 61582 | HEAD | 59.0000 | | CW7500-11 | | | | |
| 1 | WN521 | 61582 | SILL | 59.0000 | | CW7500-11 | CW7500-18 | | | |
| 1 | WN520 | 61581 | VENT HEAD | 59.6250 | | CW7500-10 | CW7500-13 | | | |
| 1 | WN520 | 61581 | VENT SILL | 59.6250 | | CW7500-10 | CW7500-17 | | | |
| | | | VERTICALS | | | | | | | |
| 1 | WN523 | 61583 | RIGHT JAMB | 32.0000 | | CW7500-12 | | | | |
| 1 | WN523 | 61583 | LEFT JAMB | 32.0000 | | CW7500-12 | | | | |
| 1 | WN520 | 61581 | RIGHT VENT | 31.6250 | | CW7500-13 | CW7500-16 | | | |
| 1 | WN520 | 61581 | LEFT VENT | 31.6250 | | CW7500-13 | CW7500-16 | | | |
| | | | ACCESSORIES | | | | | | | |
| 4 | WN524 | 61584 | CORNER ANGLE | 1.2300 | | CW7500-21 | | | | |
| 2 | WN526 | 61585 | HINGE ADAPTER | 8.0000 | | CW7500-16 | <OR> NOTE: AMC PART# 1402-16 L or R | | | |
| 1 | WN526 | 61585 | SNUBBER SHIM | 4.0000 | | | | | | |
| 1 | WH342 | | WEATHERSTRIP | 15.3333 | FT | TREMCO | | | | |
| 1 | NP810 | | WEATHER SWEEP | 15.3333 | FT | TREMCO | | | | |
| 10 | RG750 | | TEMP GLAZING CLIPS | | | | | | | |
| 1 | GT900 | | SHIM TAPE | 15.3333 | FT | TREMCO | | | | |
| | | | HARDWARE | | | | | | | |
| 2 | WH641 | | HYBRID HINGE | 14"-16" | | AMC | | | | |
| 1 | 1248 | | HANDLE | | | AMC | | | | |
| 1 | 8021 (OR) 8020 | | HANDLE CONNECTOR | | | AMC | | | | |
| 1 | 1326 | | DRIVE ARM | | | AMC | | | | |
| 1 | 1324 | | DRIVE PLATE | | | AMC | | | | |
| 3 | 1315 | | LOCK PLATE | | | AMC | | | | |
| 3 | 1355 | | KEEPER | | | AMC | | | | |
| 3 | 1356 | | KEEPER SHIM | | | AMC | | | | |
| 2 | WN526 | 61585 | SLIDE BARS | | | <OR> AMC 6/6 OR ALUM | | | | |
| | | | FASTENERS | | | | | | | |
| 2 | | | SHCS @ HANDLE | | | AMC | | | | |
| 2 | 1336 | | SHFH @ HNDL CONC | | | AMC | | | | |
| 2 | | | SH SET @ SHIM | | | AMC | | | | |
| 8 | ST241 | | ASSEMBLY SCREWS | | | | | | | |
| 6 | | | ARM SCREWS | | | | | | | |
| 10 | ST361 | | TEMP CLIP SCREWS | | | | | | | |
| | | | PERIMETER FRAMING | | | | | | | |
| 2 | IG626 | | | 60.3750 | | | | | | |
| 2 | IG626 | | | 37.3750 | | | | | | |
| 2 | IG100 | | | 60.3750 | | | | | | |
| 2 | IG100 | | | 37.3750 | | | | | | |
| 2 | J-175 | | | 60.3750 | | | | | | |
| 2 | J-175 | | | 37.3750 | | | | | | |
| 1 | IG570 | | | 60.6250 | | | | | | |


CONSTRUCTION CONSULTING LABORATORY INTERNATIONAL
 1801 Lune Road
 Carrollton, Texas 75006
 Phone (972) 242-6556
 Report # 0159 Date 8/3/0
 Reviewed By 

| QTY | MARK | | CW7500 | WINDOW | | WINDOW | | | | |
|-----|----------------|-------|--------------------|---------|----|-----------|-----------|--|--|-------------------------------------|
| 1 | A | | AAMA | WIDTH | X | HEIGHT | | | | |
| | | | | 60.0000 | X | 32.0000 | | | | |
| | | | | GLASS | X | GLASS | | | | |
| | | | 1" INS | 58.5000 | X | 30.5000 | | | | |
| QTY | PART | DIE | DESCRIPTION | LENGTH | | | | | | |
| | | | HORIZONTALS | | | OPERATION | | | | |
| 1 | WN521 | 61582 | HEAD | 59.0000 | | CW7500-11 | | | | |
| 1 | WN521 | 61582 | SILL | 59.0000 | | CW7500-11 | CW7500-18 | | | |
| 1 | WN520 | 61581 | VENT HEAD | 59.6250 | | CW7500-10 | CW7500-13 | | | |
| 1 | WN520 | 61581 | VENT SILL | 59.6250 | | CW7500-10 | CW7500-17 | | | |
| | | | VERTICALS | | | | | | | |
| 1 | WN523 | 61583 | RIGHT JAMB | 32.0000 | | CW7500-12 | | | | |
| 1 | WN523 | 61583 | LEFT JAMB | 32.0000 | | CW7500-12 | | | | |
| 1 | WN520 | 61581 | RIGHT VENT | 31.6250 | | CW7500-13 | CW7500-16 | | | |
| 1 | WN520 | 61581 | LEFT VENT | 31.6250 | | CW7500-13 | CW7500-16 | | | |
| | | | ACCESSORIES | | | | | | | |
| 4 | WN524 | 61584 | CORNER ANGLE | 1.2300 | | CW7500-21 | | | | |
| 2 | WN526 | 61585 | HINGE ADAPTER | 8.0000 | | CW7500-16 | | | | |
| 3 | WN526 | 61585 | SNUBBER SHIM | 4.0000 | | | | | | <OR> NOTE: AMC PART# 1402-16 L or R |
| 1 | WH342 | | WEATHERSTRIP | 15.3333 | FT | TREMCO | | | | |
| 1 | NP810 | | WEATHER SWEEP | 15.3333 | FT | TREMCO | | | | |
| 10 | RG750 | | TEMP GLAZING CLIPS | | | | | | | |
| 1 | GT900 | | SHIM TAPE | 15.3333 | FT | TREMCO | | | | |
| | | | HARDWARE | | | | | | | |
| 2 | WH641 | | HYBRID HINGE | 14"-16" | | AMC | | | | |
| 1 | 1248 | | HANDLE | | | AMC | | | | |
| 1 | 8021 (OR) 8020 | | HANDLE CONNECTOR | | | AMC | | | | |
| 1 | 1326 | | DRIVE ARM | | | AMC | | | | |
| 1 | 1324 | | DRIVE PLATE | | | AMC | | | | |
| 3 | 1315 | | LOCK PLATE | | | AMC | | | | |
| 3 | 1355 | | KEEPER | | | AMC | | | | |
| 3 | 1356 | | KEEPER SHIM | | | AMC | | | | |
| 3 | WH765 | | SNUBBER DRIVER | | | AMC | | | | |
| 3 | WH766 | | SNUBBER RECEIVER | | | AMC | | | | |
| 2 | WN526 | 61585 | SLIDE BARS | | | | | | | <OR> AMC 6/6 OR ALUM |
| | | | FASTENERS | | | | | | | |
| 2 | | | SHCS @ HANDLE | | | AMC | | | | |
| 2 | 1336 | | SHFH @ HNDL CONC | | | AMC | | | | |
| 2 | | | SH SET @ SHIM | | | AMC | | | | |
| 8 | ST241 | | ASSEMBLY SCREWS | | | VARIES | | | | |
| 12 | ST242 | | ARM SCREWS | | | VARIES | | | | |
| 10 | ST361 | | TEMP CLIP SCREWS | | | VARIES | | | | |
| 6 | ST242 | | SNUBBER SCREWS | | | VARIES | | | | |
| | | | PERIMETER FRAMING | | | | | | | |
| 2 | IG626 | | | 60.3750 | | INTEX | | | | |
| 2 | IG626 | | | 37.3750 | | INTEX | | | | |
| 2 | IG100 | | | 60.3750 | | INTEX | | | | |
| 2 | IG100 | | | 37.3750 | | INTEX | | | | |
| 2 | J-175 | | | 60.3750 | | INTEX | | | | |
| 2 | J-175 | | | 37.3750 | | INTEX | | | | |
| 1 | IG570 | | | 60.6250 | | INTEX | | | | |

| SYM | REVISION | DATE | BY |
|-----|----------|------|----|
| | | | |
| | | | |
| | | | |

3/8" X 4 1/2" LAG BOLT
6" from end 12" OC

ST260 #10 X 3/4" PHL FH SMS
6" from end 12" OC

NOTE: IG600 STOREFRONT TO
REPRESENT ANY APPROVED
TUBE FRAMING.

#14 X 1 1/2" PHL PH SMS
4" FROM END 12" OC

J-175
(MODIFIED)

TREMCO
SPECTRUM 2

1

NP810 GASKET

TREMCO SPECTRUM 2

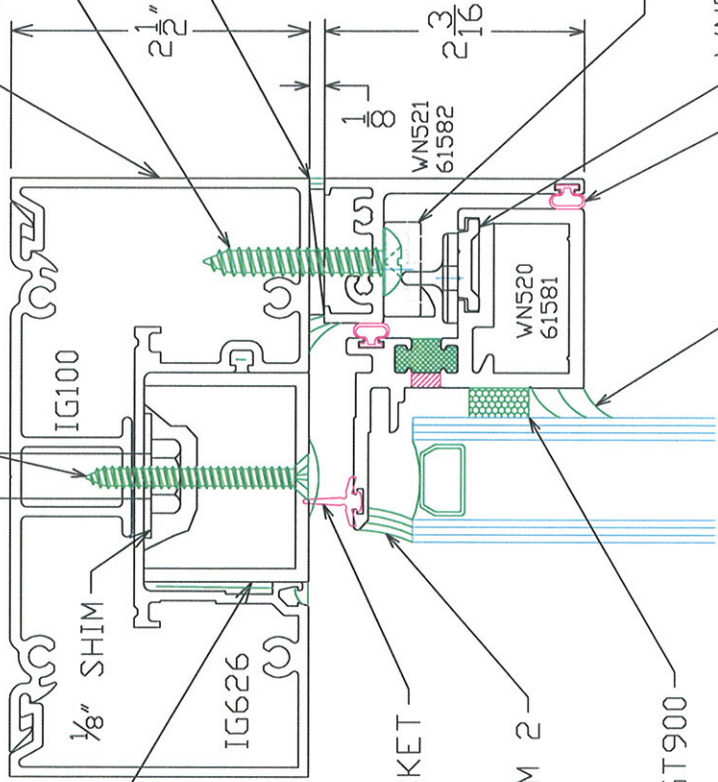
GT900

SNUBBERS:

WH765 DRIVER
WH766 RECEIVER

WN526 / 61585
WH342 BULB GASKET

TREMCO PROGLAZE SSG



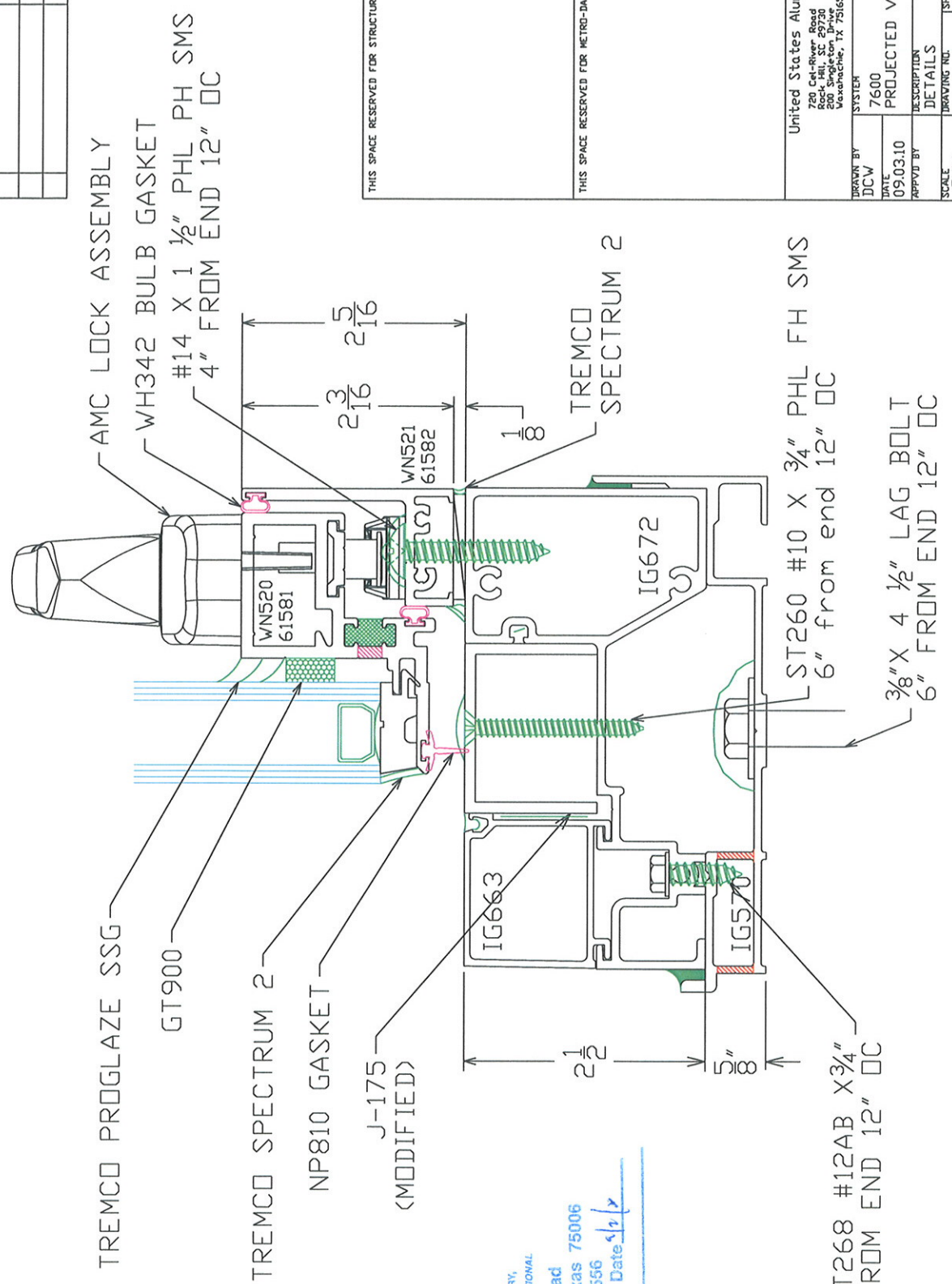
1601 Luna Road
Carrilton, Texas 75006
Phone (972) 242-0556
Report# 2-135 Date 1/13
Reviewed By: [Signature]

THIS SPACE RESERVED FOR STRUCTURAL ENGINEER

THIS SPACE RESERVED FOR METRO-DADE USE ONLY

| | |
|---|----------|
| United States Aluminum 260 Cell-River Road P.O. Box 200 200 S. State St. Mesa, AZ 85201 Mesa, AZ 85201 | |
| SYSTEM | 7600 |
| DATE | 09.03.10 |
| PROJECTED VENT | DETAILS |
| DESCRIPTION | DETAILS |
| DRAWING NO. | C7600-22 |
| SHEET | 2 OF 4 |

| SYM | REVISION | DATE | BY |
|-----|----------|------|----|
| | | | |
| | | | |
| | | | |



2

CONSTRUCTION CONSULTING LABORATORY INTERNATIONAL
 1601 Luna Road
 Carrollton, Texas 75006
 Phone (972) 242-0556
 Report# D-11A, Date 1/1/12
 Reviewed BY [Signature]

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THIS SPACE RESERVED FOR METRO-DARE USE ONLY

| | |
|---|----------------|
| United States Aluminum | |
| 720 Cat-River Road Rock Hill, SC 29730 Phone: 803-781-1111 Fax: 803-781-7516 | |
| DESIGN BY | SYSTEM |
| DCV | 7600 |
| DATE | PROJECTED VENT |
| 09.03.10 | DETAILS |
| APPROV BY | DESCRIPTION |
| SCALE | DRAWING NO. |
| FULL | C7600-22 |
| SHEET | 3 DF 4 |

| SYM | REVISION | DATE | BY |
|-----|----------|------|----|
| | | | |
| | | | |
| | | | |

NOTE: IG600 STOREFRONT TO REPRESENT ANY APPROVED TUBE FRAMING.

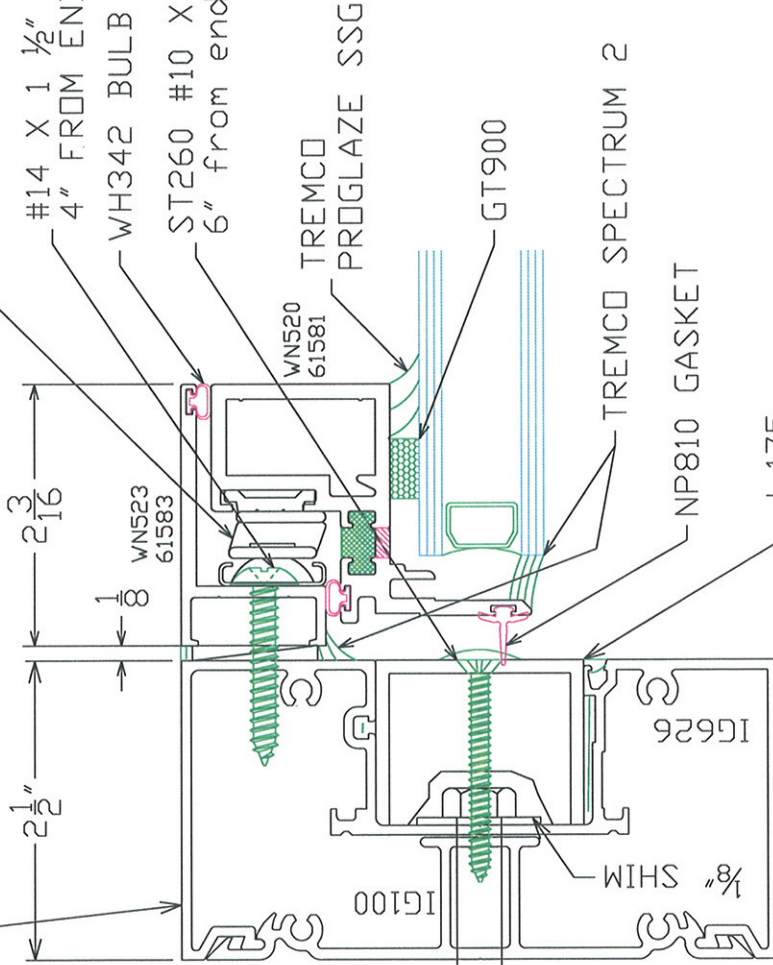
3/8" X 4 1/2" LAG BOLT
6" from end 12" DC

4 BAR PROJECTED ARM

#14 X 1 1/2" PHL PH SMS
4" FROM END 12" DC

WH342 BULB GASKET

ST260 #10 X 3/4" PHL FH SMS
6" from end 12" DC



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THIS SPACE RESERVED FOR METRO-DADE USE ONLY

United States Aluminum
700 East New Road
Rock Hill, SC 29730
200 Singleton Drive
Vero Beach, FL 32980

| DRAWN BY | SYSTEM | DATE | DESCRIPTION | SCALE | DRAWING NO. | SHEET |
|----------|--------|----------|----------------|-------|-------------|--------|
| DCW | 7600 | 09.03.10 | PROJECTED VENT | FULL | C7600-22 | 4 DF 4 |
| | | | | | | |
| | | | | | | |



 CONSTRUCTION CONSULTING LABORATORY INTERNATIONAL
 1601 Luna Road
 Carrollton, Texas 75006
 Phone (972) 242-0556
 Report# 12-134, Date 9/1/11
 Reviewed By 



AAMA/WDMA/CSA 101/I.S.2/A440-08
UNITED STATES ALUMINUM
SERIES 7600 PROJECT OUT WINDOW
REPORT #CCLI-10-159

August 6, 2010

- END OF REPORT -