



NATIONAL CERTIFIED TESTING LABORATORIES

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THERMAL TEST SUMMARY REPORT

Acurlite Structural Skylights
AAMA 1503-09

Report No: 26062.03-111-18

Test Specimen: Curtain Wall "Sloped Skylight" measuring 2007 mm (79") wide by 2007 mm (79") high overall; **Thermal Break:** Not applicable; **Glazing:** 32 mm (1.25") nominal overall, (1) lite of 6 mm (0.220") nominal to the exterior and (2) lites of 6 mm (0.219") with a 1.52 mm (0.060") PVB interlayer; **Coating:** A "Solarban 70" sputter-type low emissivity coating (e=0.018 per client) was applied to glazing surface no. 2; **Spacer Type/Size:** Thermoplastic Steel Substrate (TS-D) 13.51 mm (0.532"); **Fill:** Argon - 90% single probe per client; **Glazing System:** Exterior glazed with a flexible PVC gasket back bedding and an aluminum pressure plate with flexible PVC gasket

Procedure: Condensation Resistance Factor (CRF) and Thermal Transmittance (U Factor) were determined in accordance with AAMA 1503-09 with a temperature of 70.0± 0.5°F on the room side of the specimen and 0.0± 0.5°F plus a 15 mph dynamic wind on the weather side of specimen. The test specimen was sealed to produce a net air leakage of 0.0 cfm during the test.

Test Results:

- | | |
|---|---------|
| 1. Average warm side air temperature (t _i): | 70.1 °F |
| 2. Average cold side air temperature (t _e): | -0.1 °F |
| 3. Average weighted frame temperature (FT): | 52.5 °F |
| 4. Average glass temperature (GT): | 56.4 °F |
| 5. Condensation Resistance Factor of Frame (CRF _f): | 75 |
| 6. Condensation Resistance Factor of Glass (CRF _g): | 80 |
| 7. Condensation Resistance Factor of Specimen (CRF): | 75 |

Thermal transmittance (U Factor) @ 15 mph exterior wind velocity: 0.39 BTU/hr/ft²/°F

Reference should be made to thermal performance test report number 26062.03-111-18 dated 12/05/23 for complete specimen description and test data.

National Certified Testing Laboratories

Performed By:

John W. Gordon
Simulation/ Thermal Manager



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THERMAL PERFORMANCE TEST REPORT

Report Number 26062.03-111-18
Client Acurlite Structural Skylight
1017 North Vine St., PO Box 5
Berwick, PA 18603
Starting Test Date 11/15/23
Ending Test Date 11/16/23
Report Date 12/05/23
Revision Date 12/27/23
Specification: AAMA 1503-09, "Voluntary Test Method for Thermal Transmittance and Condensation Resistance of Windows, Doors and Glazed Wall Sections".

Description of Sample Tested

Note: All dimensions are in the order (Width x Height x Thickness) unless otherwise noted.

Model/ Series "Sloped Skylight"
Configuration Curtain Wall
Frame Size Overall
2007 mm x 2007 mm (79" x 79")
Viewing Area (2) 902 mm x 1873 mm (35.5" x 73.75")
Frame Type Extruded aluminum
Joint Construction Frame
Butt type (2) screws
Glazing Components
Overall 32 mm (1.25") nominal
Glass Thickness (1) Lite of 6 mm (0.220") nominal tempered glass
Coating A "Solarban 70" sputter-type low emissivity coating (e=0.018 per client) was applied to glazing surface no. 2.
Laminated Glass (2) Lites of 6 mm (0.219") nominal annealed glass separated by a 1.52 mm (0.060") PVB interlayer
Spacer Type/Size 13.51 mm (0.532") Thermoplastic steel substrate (Type TS-D)
Fill Argon 90% single probe per client
Glazing System Exterior glazed with a flexible PVC gasket back-bedding and a screwed in place pressure plate with flexible PVC gasket. (3) Screws horizontals and (7) screw verticals.
Weatherstrip No weatherseals employed
Operating Hardware No operating hardware employed

Auxiliary	
Type	Anodized aluminum caps
Location	Glazing exterior perimeter
Reinforcement	No reinforcement employed
Weep Description	No apparent weeps employed
Interior Surface Finish	Anodized aluminum
Exterior Surface Finish	Anodized aluminum
Sealant	No apparent sealant applied
Insect Screen	No screen employed
Nail Fin	Not applicable/ No nail fin

SPECIMEN PREPARATION PRIOR TO TEST

The test specimen was pre-conditioned at ambient laboratory conditions prior to the test. The surround panel-to-specimen interfaces were sealed with a non-reflective tape. Per section 9.3.4 the specimen was sealed on the exterior with a caulk sealant resulting in a net air leakage of 0.0 cfm per square foot.

TEST PARAMETERS

Tests to determine the thermal transmittance (U-factor) of the specimen were performed in the guarded hot box apparatus located at the York, PA facility. The thermal performance evaluations were completed in accordance with the referenced test methods using a dynamic wind perpendicular to the specimen on the cold side and simulated natural convection on the warm side. A zero static pressure differential (0.00" ± 0.04" H₂O) was maintained across the specimen during the test by pressurizing the metering box on the room side. Data was collected over a (2) hour evaluation period after (4) hours of steady state conditions as defined in section 9.3.8 of the AAMA 1503-09 test procedure were achieved. The test was considered completed when the data of the 2 hour evaluation period also satisfied the criteria defined in section 9.3.8 of the AAMA 1503-09 test procedure.

Glass Thickness and Glazing Deflection:

	Glass Thicknesses	Glazing Deflection Before Test	Glazing Deflection After Test
Left Section	0.220", 0.498"	0.067"	0.052"
Right Section	0.220", 0.498"	0.099"	0.114"

Projected Frame Dimensions Of Members:

Member:	Left Head	Left Jamb	Left Sill	Meeting Rail	Right Head	Right Jamb	Right Sill
Dimension:	2.25"	2.5"	2.25"	2.5"	2.25"	2.5"	2.25"

Test Duration:

The test chamber environmental systems were initiated at 14:10 on 11/15/23. The test conditions were considered stable for (5) 1-hour test periods from 0011 to 0511 on 11/16/23. The thermal test chamber was shut down 15:14 on 11/16/23.

Areas:

Test Specimen Projected Area (A _s):	43.34	ft ²
Test Specimen Interior Exposed (Wetted) Surface Area (A _{int}):	51.31	ft ²
Test Specimen Exterior Exposed (Wetted) Surface Area (A _{ext}):	44.12	ft ²
Metering Box Opening Area (A _{mb}):	54.39	ft ²

Metering Box Baffle Area (A_{b1}):	46.44	ft ²
Surround Panel Interior Exposed Area (A_{sp}):	11.05	ft ²

Test Conditions:

Average Room Side Air Temperature:	70.1	°F
Average Weather Side Air Temperature:	-.01	°F
Average Guard Box Air Temperature:	70.6	°F
Metering Box Average Relative Humidity:	-15.6	%
Measured Weather Side Wind Velocity:	14.3	mph
Static Pressure Difference Across Specimen:	-6.81	" H ₂ O

Heat Flows:

Heat Input Rate to Metering Box (Q_{total}):	1200.4	BTU/hr
Surround Panel Heat Flow (Q_{sp}):	24.3	BTU/hr
Surround Panel Thickness:	6.500	Inches
Surround Panel Conductance:	0.0649	BTU/hr/ft ² /°F
Metering Box Heat Flow (Q_{mb}):	1.7	BTU/hr
Flanking Loss Heat Flow (Q_{fl}):	1.0	BTU/hr
Net Test Specimen Heat Flow (Q_s):	1173.4	BTU/hr

Surface Temperature Data

Specimen Area-Weighted Room Side Surface Temperature (t_1):	55.9	°F
Specimen Area-Weighted Weather Side Surface Temperature (t_2):	4.8	°F
Area-Weighted Room Side Frame Surface Temperature:	54.6	°F
Area-Weighted Weather Side Frame Surface Temperature:	9.1	°F
Area-Weighted Room Side Edge-of-Glass Surface Temperature:	56.4	°F
Area-Weighted Weather Side Edge-of-Glass Surface Temperature:	3.6	°F
Area-Weighted Room Side Center-of-Glass Surface Temperature:	56.5	°F
Area-Weighted Weather Side Center-of-Glass Surface Temperature:	3.7	°F

Test Results & Calculated Test Data:**Condensation Resistance Factor (CRF)**

Average of Pre-specified Frame Thermocouples (FT_p):	53.8	°F
Average of Cold Point Thermocouples (FT_c):	41.9	°F
Calculated Weighting Factor:	0.108	
Weighted Frame Temperature (FT):	52.5	°F
Average Glazing Temperature, (GT):	56.4	°F
Condensation Resistance Factor of Frame (CRF_f):	75	
Condensation Resistance Factor of Glass (CRF_g):	80	
Condensation Resistance Factor of Specimen (CRF):	75	

Thermal Transmittance (U Factor)

Measured Room Side Surface Conductance (h_i):	1.91	BTU/hr/ft ² /°F
Measured Weather Side Surface Conductance (h_o):	5.59	BTU/hr/ft ² /°F
Test Specimen Thermal Conductance (C_s):	0.53	BTU/hr/ft ² /°F

Test Specimen Standardized Thermal Transmittance (U): **0.39** BTU/hr/ft²/°F

Attachment 1 to this report lists the average measured surface temperatures from the two-hour evaluation period of the test. Attachment 2 to this report is an isometric drawing showing surface thermocouple measurement locations corresponding to the data on Attachment 2.

This test method does not include procedures to determine the heat flow due to either air movement through the specimen or solar radiation effects. As a consequence, the thermal transmittance results obtained do not reflect performances which may be expected from field installations due to not accounting for solar radiation, air leakage effects, and the thermal bridge effects that may occur due to the specific design and construction of the fenestration system opening. Therefore, it should be recognized that the thermal transmittance results obtained from this test method are for ideal laboratory conditions and should only be used for fenestration product comparisons and as input to thermal performance analyses which also include solar, air leakage, and thermal bridge effects.

Detailed drawings were available for laboratory records and compared to the test specimen at the time of this report. A copy of this report along with representative sections of the test specimen will be retained by NCTL for a period of (4) years. The test specimen was supplied to NCTL by the above named client. The results obtained apply only to the specimen tested. This report may not be reproduced, except in full, without the written approval of National Certified Testing Laboratories. NCTL is a testing lab accredited by A2LA to ISO/IEC 17025 and assumes that all information provided by the client is accurate and does not guarantee or warranty any product tested or installed. This report does not constitute certification or approval of the product, which may only be granted by a certification program validator or recognized approval entity. Testing described in this report was conducted in full compliance with AAMA 1503-09 requirements.

National Certified Testing Laboratories

Performed By:



John W. Gordon
Simulation/ Thermal Manager

JWG/ bnr

Attachments

- Attachment 1 - Surface Temperature Measurements
- Attachment 2 - Isometric Drawing
- Appendix A - Revision Log
- Appendix B - Drawings

ATTACHMENT 1

SURFACE TEMPERATURE MEASUREMENTS

Acurlite Structural Skylights

26062.03-111-18

0011-0511

11/16/23

	Thermocouple	Individual Average Surface Temperatures (°F)	
	Location #	Warm Side	Cold Side
FRAME	1	37.4	19.6
	2	51.4	7.5
	3	41.3	14.6
	4	47.8	21.4
	5	61.7	10.9
	6	72.7	11.0
	7	51.2	8.7
	8	55.6	10.0
	9	49.6	5.9
	10	73.3	5.3
	11	44.7	5.7
	12	47.6	5.1
	13	56.9	6.1
	14	61.7	7.2
GLAZING	15	53.3	3.4
	16	55.7	3.8
	17	55.5	3.7
	18	55.3	3.7
	19	57.3	4.0
	20	61.4	4.3
COLD POINTS	21	36.9	
	22	37.3	
	23	42.4	
	24	41.6	

APPENDIX A
REVISION LOG

Section 1:

Component Drawings, with Applicable Part Numbers, Manufacturing and Modeling Details, were reviewed
(as submitted) for Product Verification
(Reference: 26062.03-111-18)

See Attached Documentation;
any deviations noted.

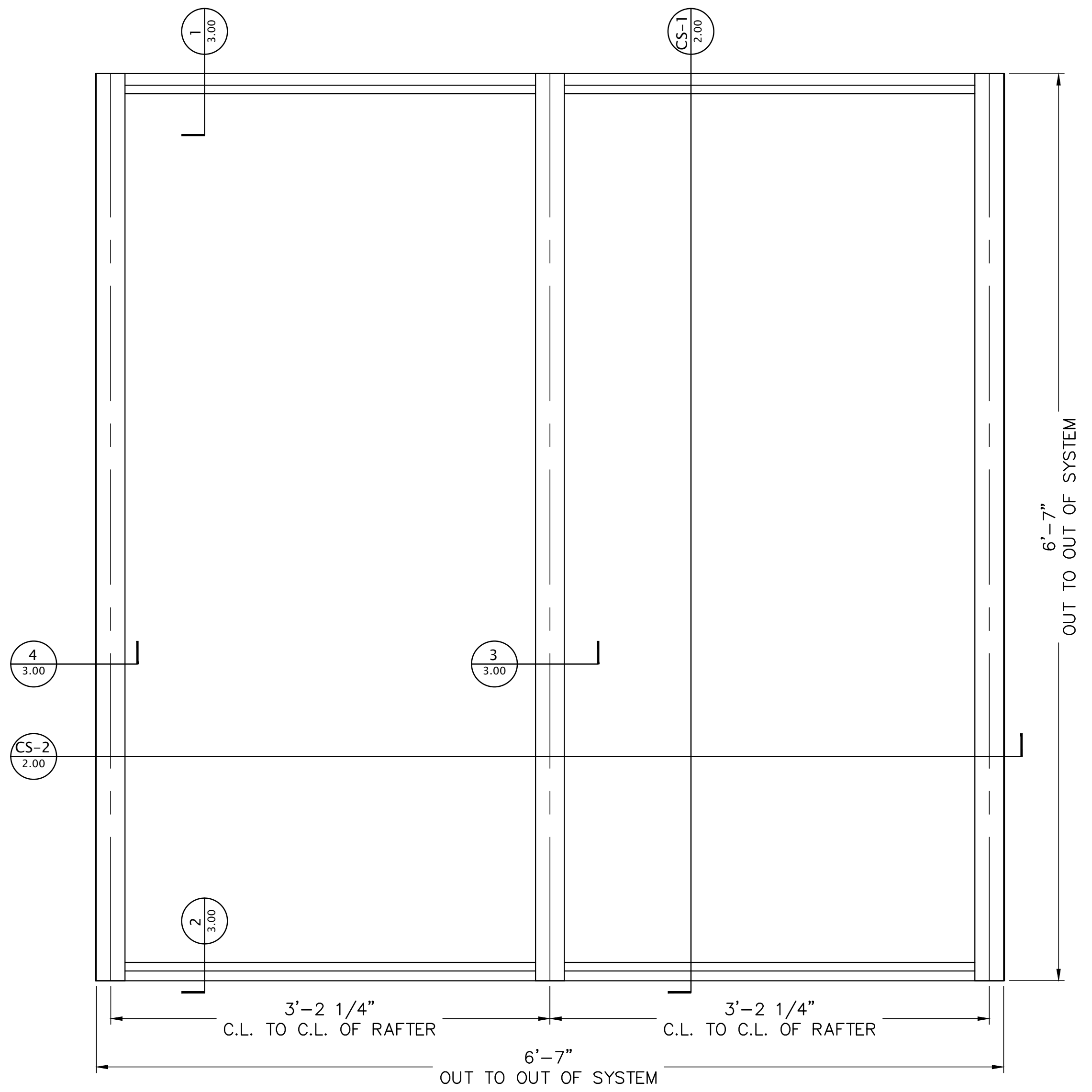
Note: The above referenced component drawings along with representative sections of the test specimen will be retained per procedure by NCTL. This testing facility assumes that all information provided by the client is accurate.

Section 2:

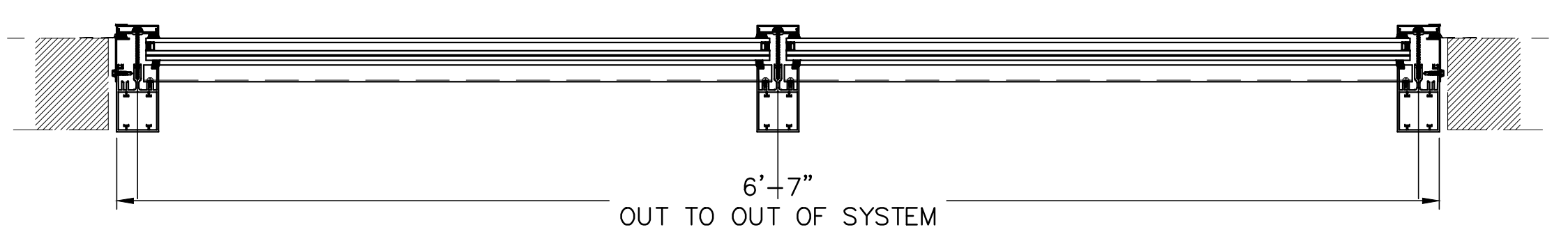
<u>Identification</u>	<u>Date</u>	<u>Page & Revision</u>
Original Issue	12/05/23	Not Applicable
Rev 01	12/27/23	Updated Drawing Packet

APPENDIX B
DRAWINGS

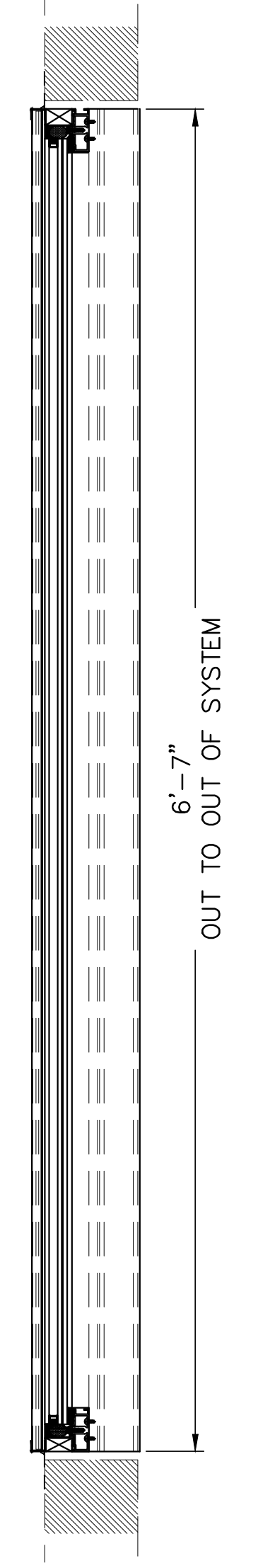
Sloped Glazed Skylight			
Assembly No.	Die No.	Description	Material
1	H-07833	4" Rafter	Painted Aluminum
2	S-31713	Interior Frame	Painted Aluminum
3	S-08545	.562 Snap Cover	Painted Aluminum
4	S-35591	Skylight Pressure Cap	Painted Aluminum
5	S-38970	Structural Seal	Painted Aluminum
6A / 6B /6C		Jamb Cover	Painted Aluminum
7A / 7B / 7C		Closure Flashing	Painted Aluminum
8	9408-02	Gasket 1	Silicone
9	12974-02	Gasket 2	Silicone
10		Thermal Bridge 1	Stainless Steel
11		Thermal Bridge 2	Stainless Steel
12		Backer Rod	Polyethylene Foam
13		Sealant	Silicone



PLAN VIEW
SCALE : 1 1/2" = 1'-0"

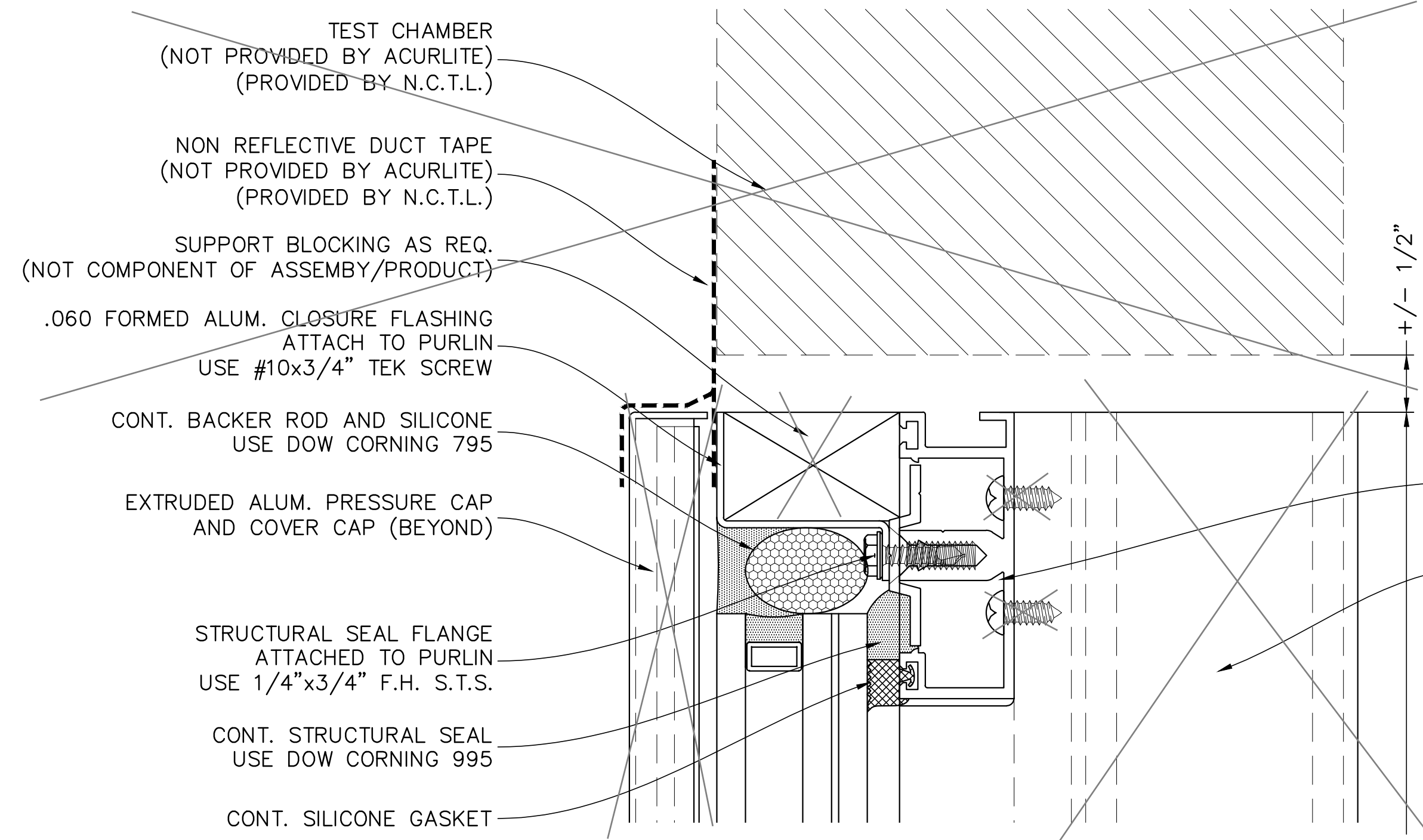


CROSS SECTION CS-2
SCALE : 1 1/2" = 1'-0"

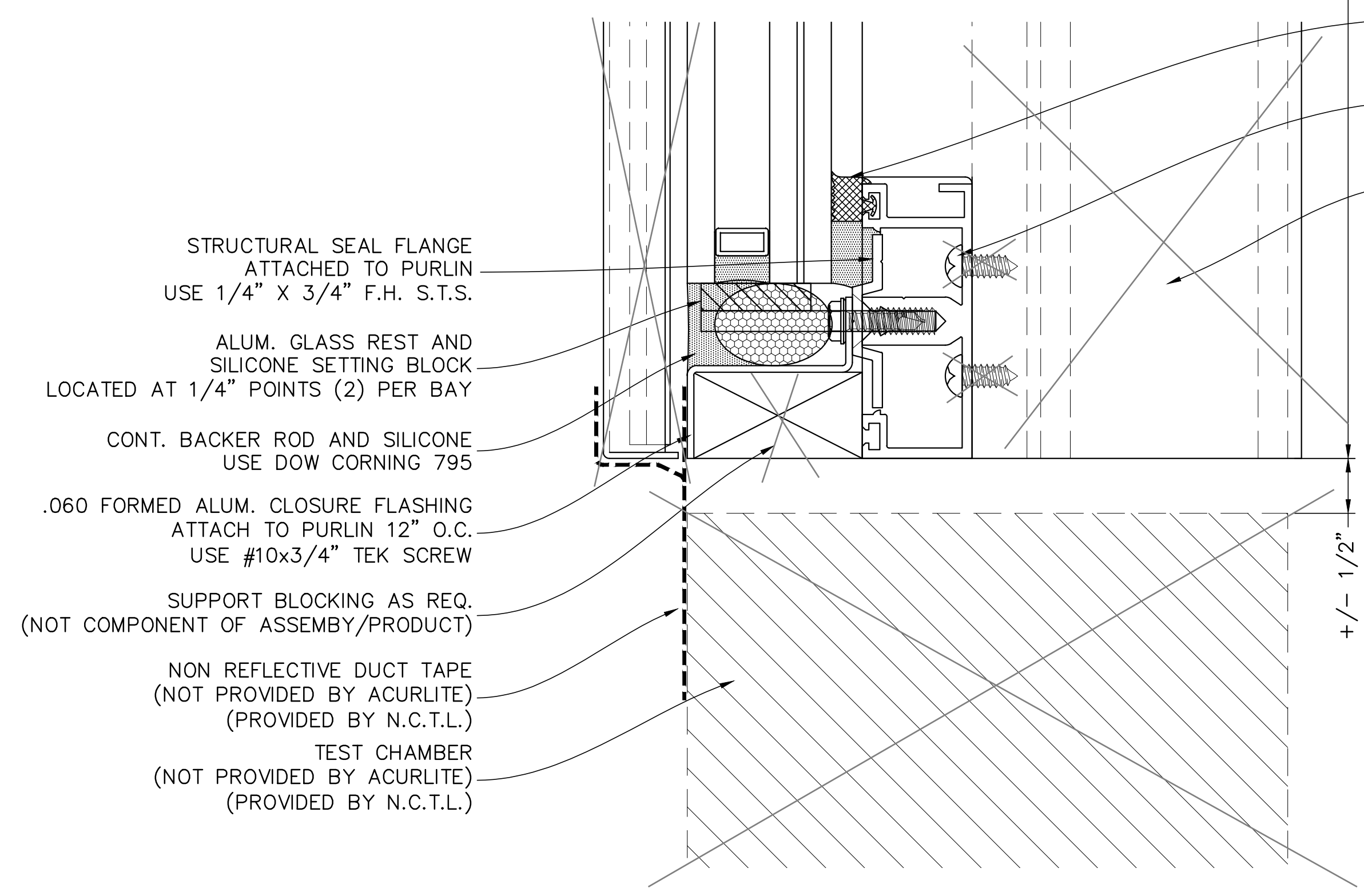


CROSS SECTION CS-1
SCALE : 1 1/2" = 1'-0"

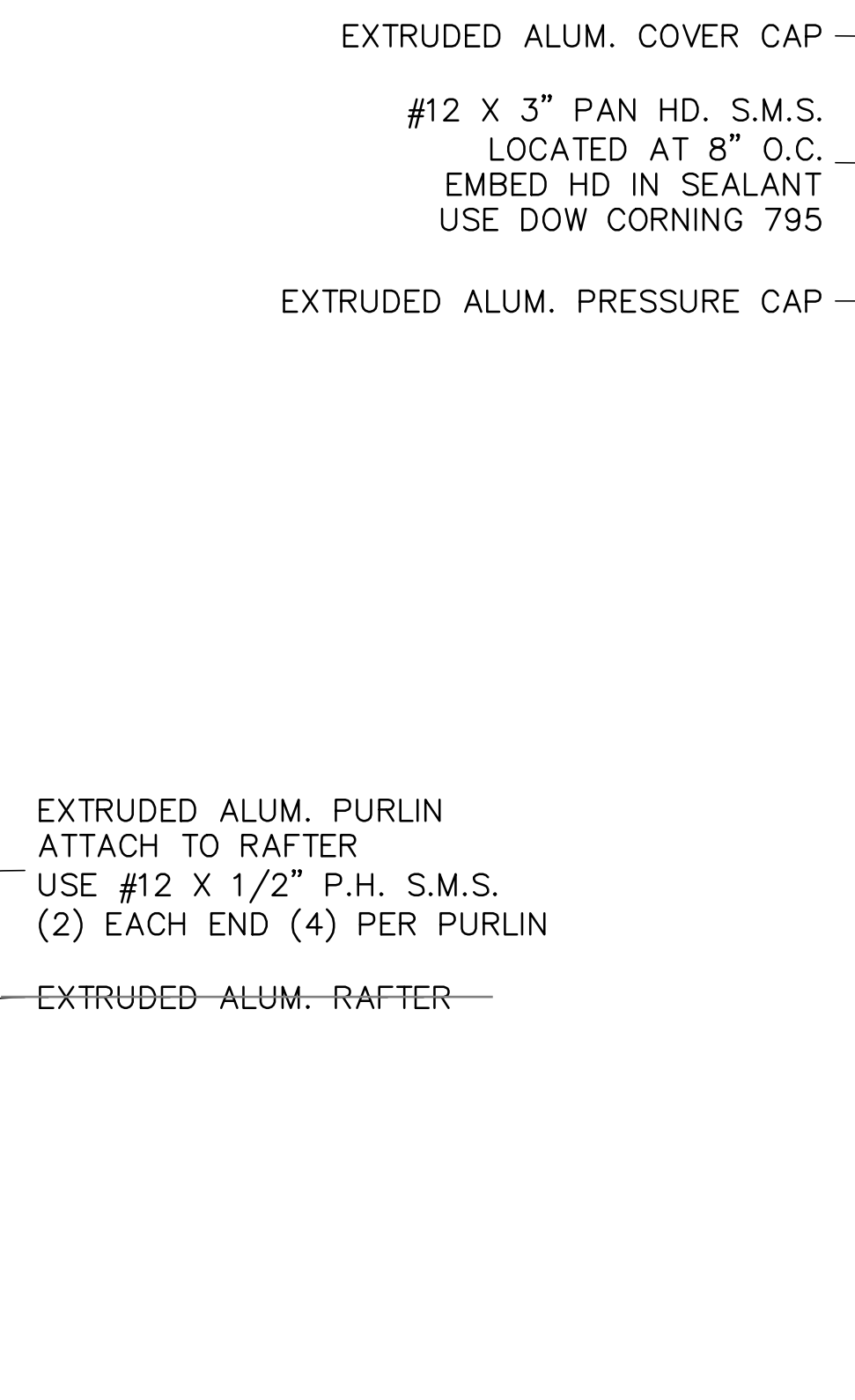
<p style="font-size: small;">CERTIFICATION BLOCK I HEREBY CERTIFY THAT ALL DIMENSIONS, PLANS, SPECIFICATIONS, AND MATERIALS LISTED ON THE ENCLOSED SHOP DRAWINGS, I HEREBY AUTHORIZE FABRICATION OF THE ABOVE INDICATED STRUCTURE (S), AS PER THESE DRAWINGS. PRINT NAME: _____ DATE: _____ SIGNATURE: _____</p>					
 <p>© 6/29/17 570.759.6882 www.acurlite.com sales@acurlite.com</p>					
<p>ACURLITE THERMAL TESTING</p>					
<p>PLANS AND SECTIONS</p>					
<p>DATE: 6/29/17 SCALE: 1 1/2" = 1'-0" DRAWING FILE: *</p>					
<p>SHEET</p>					
<p>2.00</p>					
					<p>REV. BY: DATE: DESCRIPTION</p> <p>Δ CT 5/24/23 ADDED TALL GASKET</p>



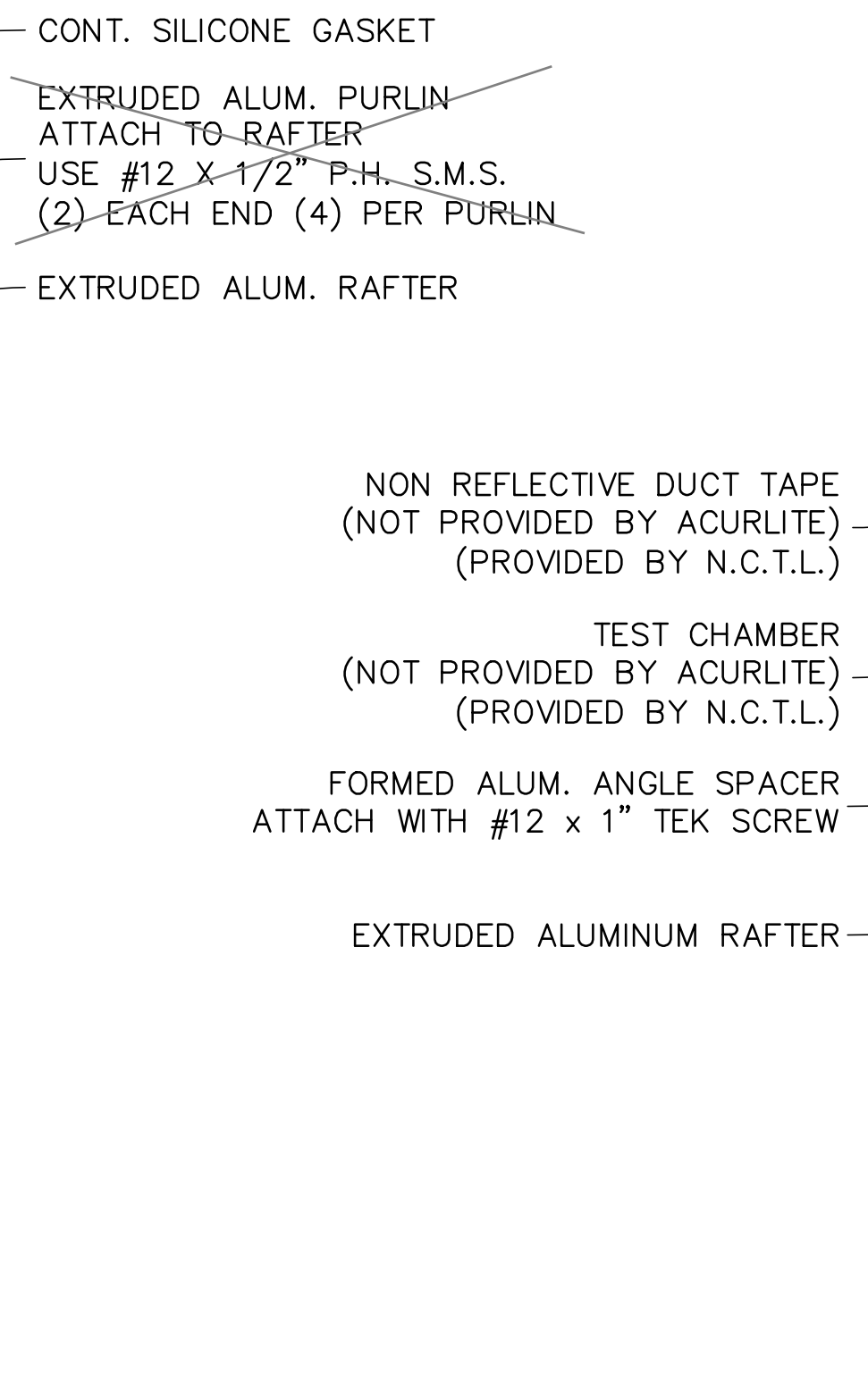
1 HEAD
3.00 DETAIL



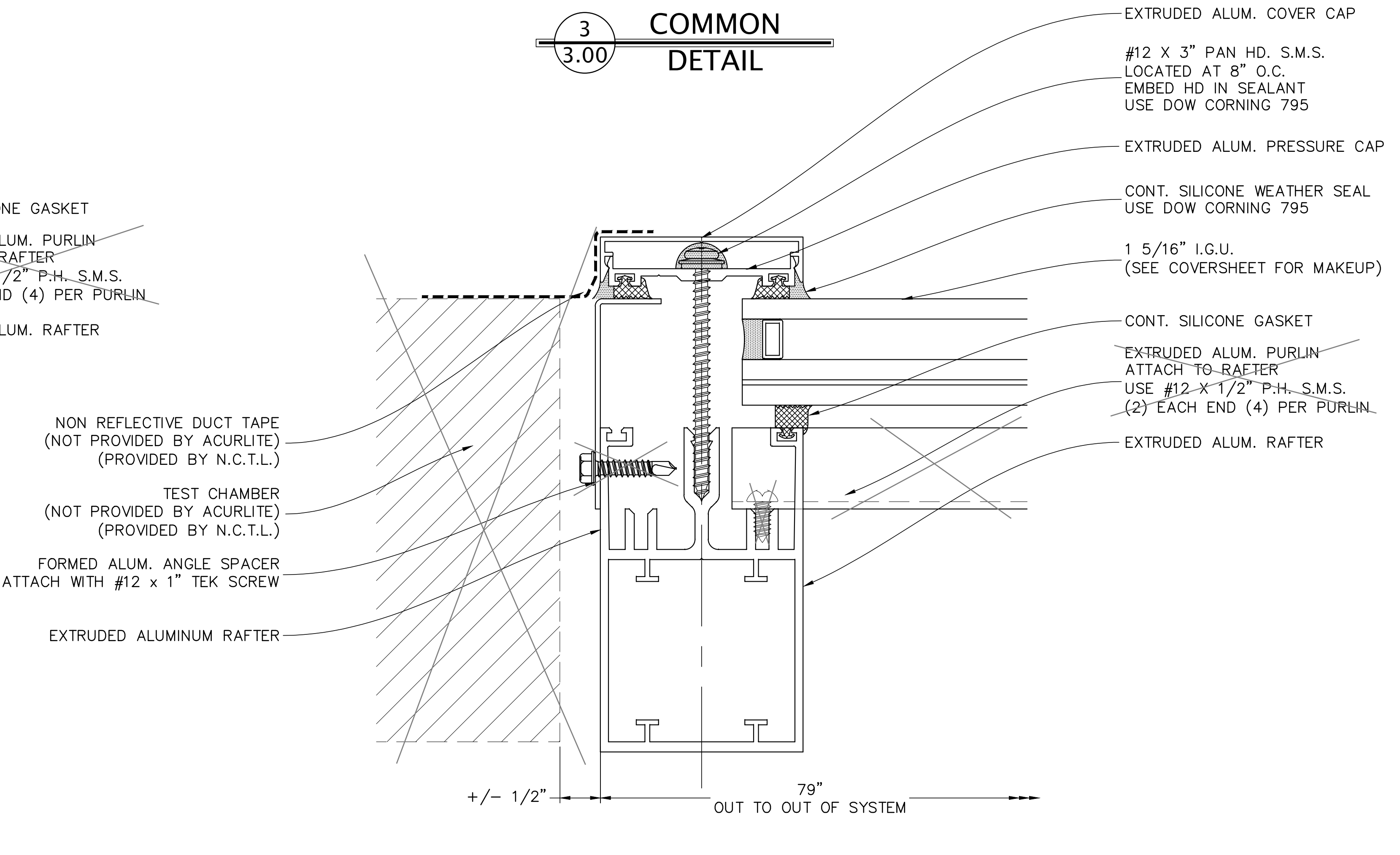
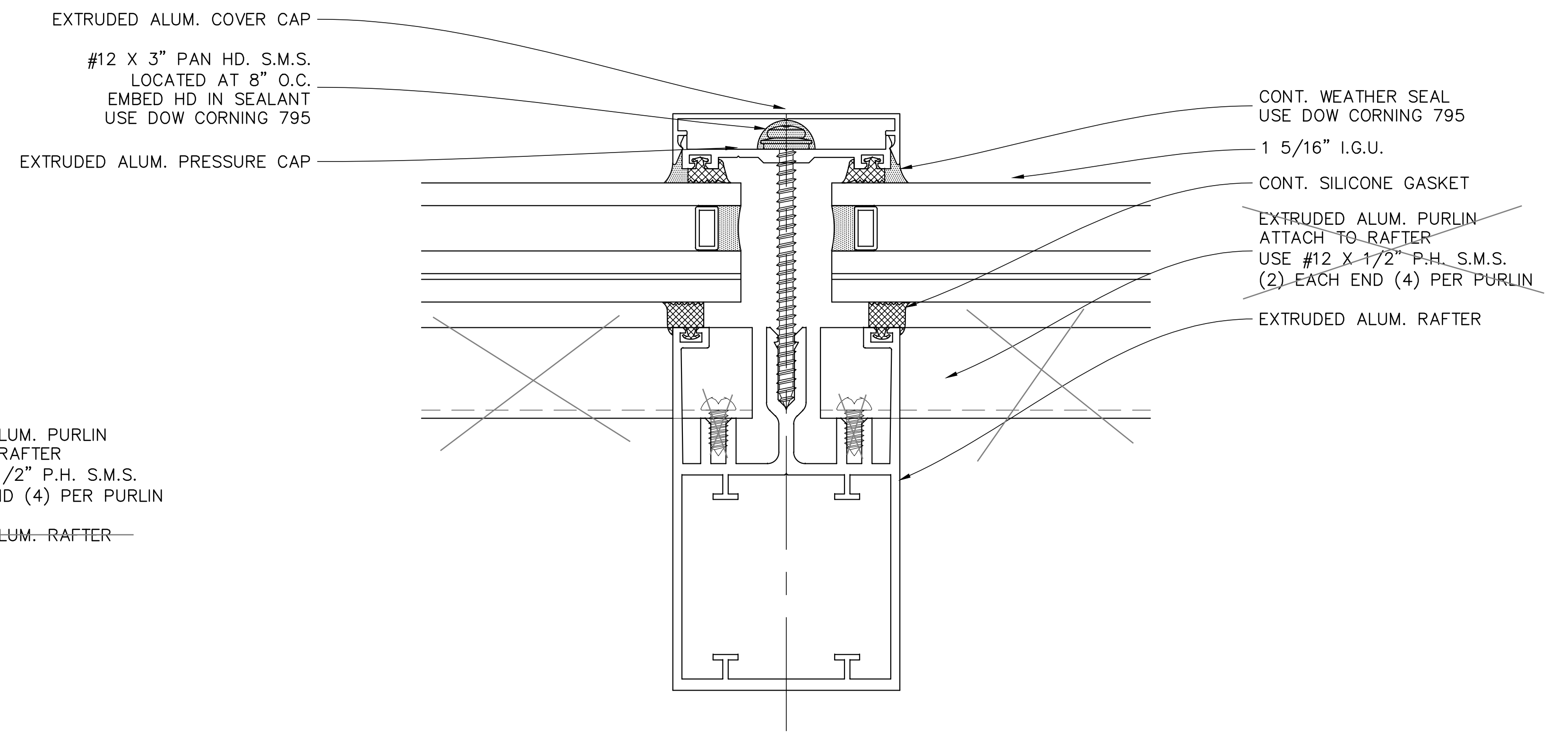
2 SILL
3.00 DETAIL



3 COMMON
3.00 DETAIL



4 JAMB
3.00 DETAIL



REV.	BY:	DATE:	ADDED	TALL	GASKET	DESCRIPTION
1	CT	5/24/23				

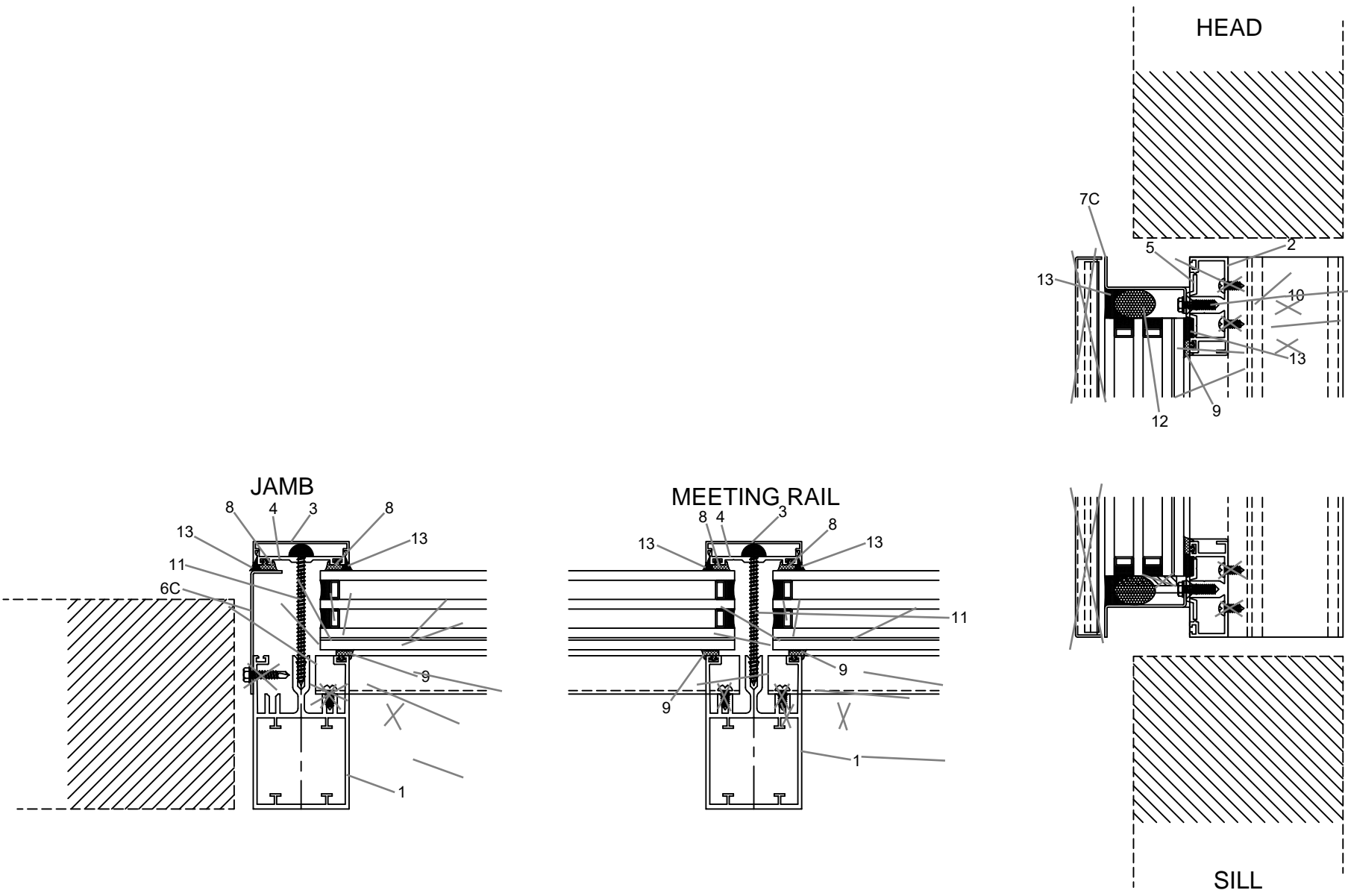
CERTIFICATION BLOCK
I HEREBY CERTIFY THAT ALL DIMENSIONS, PLANS, SPECIFICATIONS, AND MATERIALS LISTED ON THE ENCLOSED SHOP DRAWINGS, I HEREBY AUTHORIZE FABRICATION OF THE ABOVE INDICATED STRUCTURE (S), AS PER THESE DRAWINGS.
PRINT NAME: _____ DATE: _____
SIGNATURE: _____


acurlite
 Structural Skylights, Inc.
 www.acurlite.com sales@acurlite.com
 6/29/17
 © 570.759.6882

PROJECT NAME: **ACURLITE THERMAL TESTING**
 PURCHASED BY: *
 DRAWING TITLE: **DETAILS**
 SALES ORDER NO. _____

DESIGN BY: K. MAYLATH
 CHECKED BY: _____
 DATE: 6/29/17
 SCALE: FULL
 DRAWING FILE: _____

SHEET
3.00



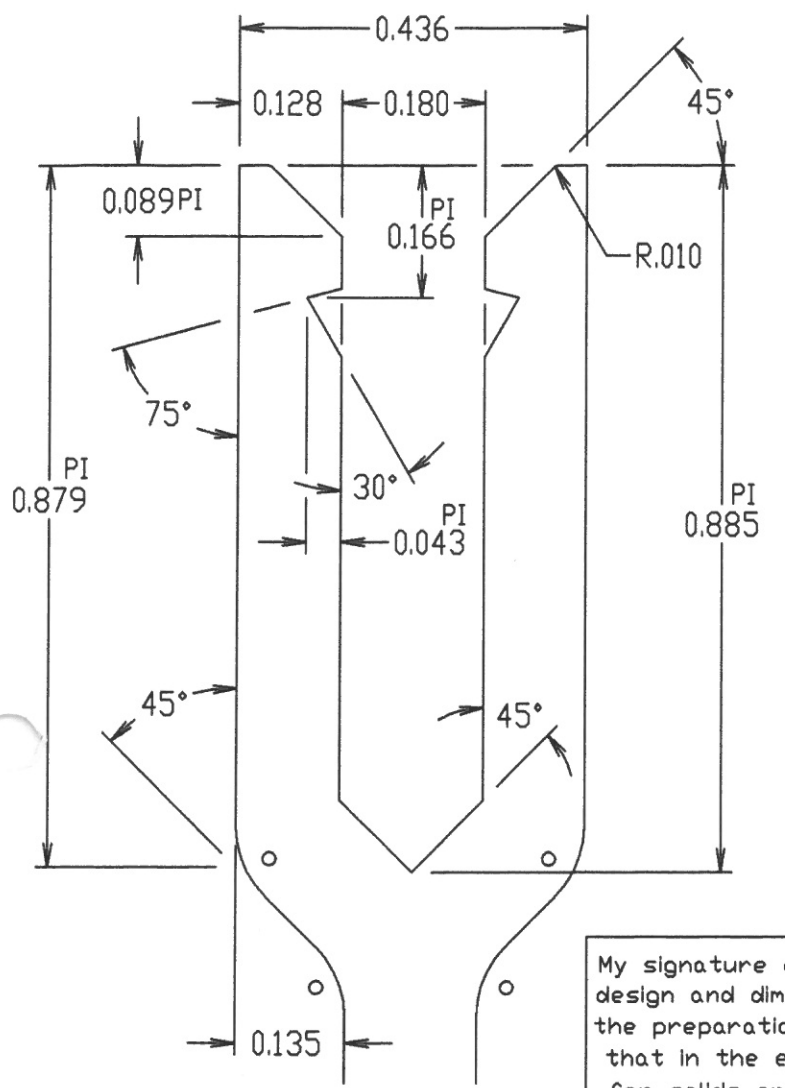
2-1/16" Overall IGU Configuration

STANDARD COMMERCIAL TOLERANCES FOR EXTRUDED PRODUCTS APPLY UNLESS SPECIFIED OTHERWISE

H-07833
 Die Number
 Design Number

* STRUCTURAL STREAKING IS EXPECTED

DETAIL "A"
 SCALE 4:1

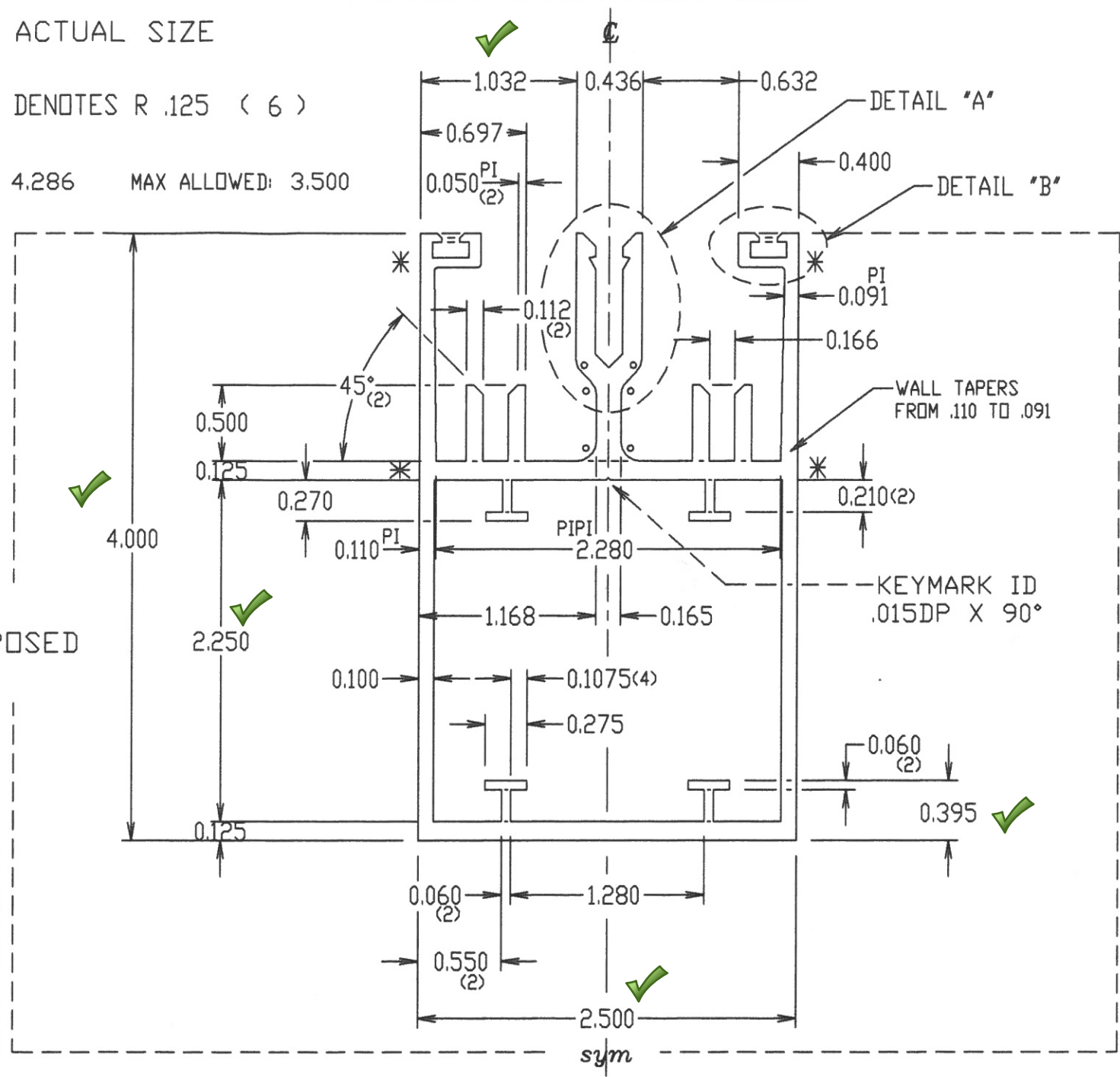


ACTUAL SIZE

{ ° } DENOTES R .125 (6)

S/H RATIO: 4.286 MAX ALLOWED: 3.500

EXPOSED

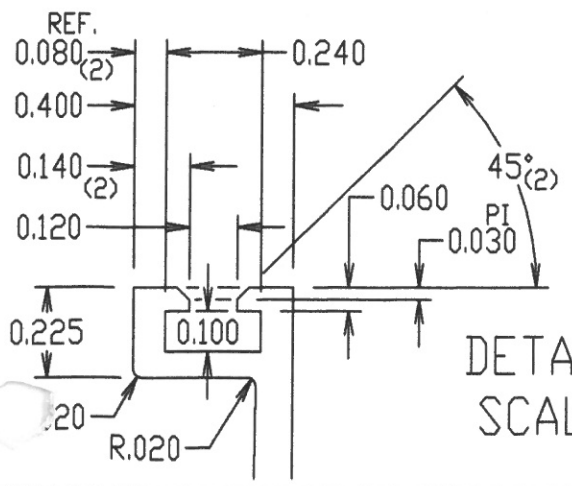


My signature on this print indicates approval of design and dimensions as shown and I authorize the preparation of extrusion die and acknowledge that in the event I do not purchase 25,000 lbs. for solids or 30,000 lbs. for hollows of material within a period of 18 months, that I will pay the cost of making the die, which shall be

\$ _____

Date _____

Signature _____



DETAIL "B"
 SCALE 2:1

INITIAL HERE FOR ID TYPE/LOCATION APPROVAL

KEYMARK CORPORATION
 FONDA, NEW YORK

FAX ENG.(518)853-3435 SALES(518)853-3130
 TEL. (518) 853-3421 E-MAIL engny@keymarkcorp.com

Unspecified Wall Thickness: .100
 .015 Break All Corners Radius or as Noted

Customer ACURLITE SKYLIGHTS		Customer's Part Number	
Job Name		Scale 1:1	
Part Title 4" RAFTER		Date 03-23-04	
Alloy 6063	Est. Area 2.127 In ²	Finish Perimeter 10.500 In	Drawn D.S.S.
Temper T-5	Est. Wt./Ft. 2.552 Lbs	Est. Perimeter 39.961 In	Checked
Cavity Size	Circle Size 4.7 In	Exterior Perimeter 26.969 In	

Sym.	Revisions	Date
	PRINT CORRECTION	

Estimated For Reference Only	I _x =	I _y =	Alodine <input type="checkbox"/>	Type: 00
	S _x =	S _y =	Crimp	Factor 16

Mill Ano. Drnr. Drcn. Solid Semi-hollow Class Hollow Class 2

* STRUCTURAL STREAKING IS EXPECTED

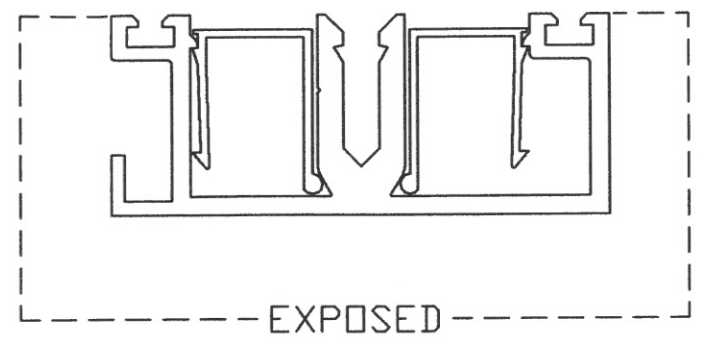
S-31713 MATES WITH:
S-31712

STANDARD COMMERCIAL TOLERANCES FOR EXTRUDED PRODUCTS APPLY UNLESS SPECIFIED OTHERWISE

SEMI-HOLLOW

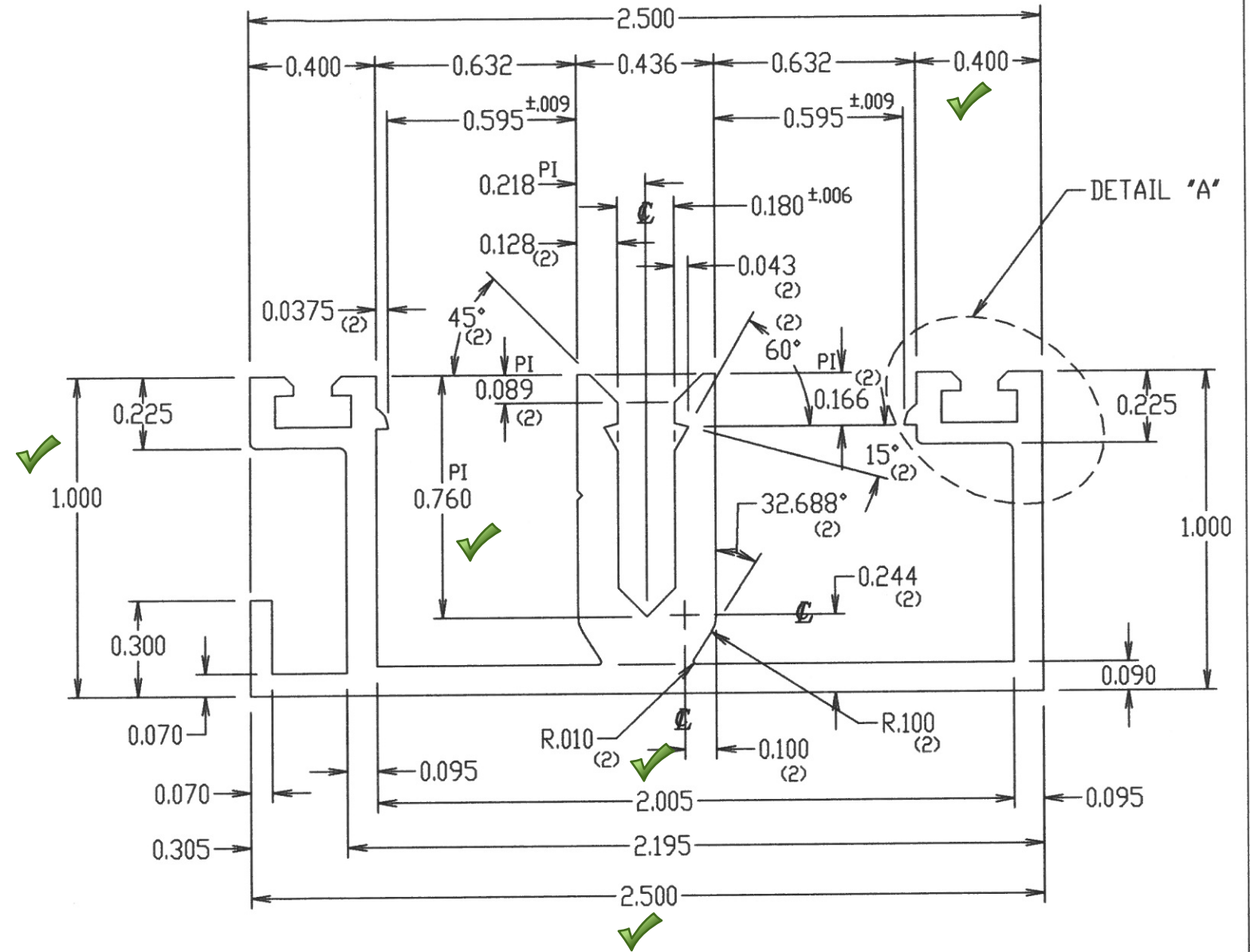
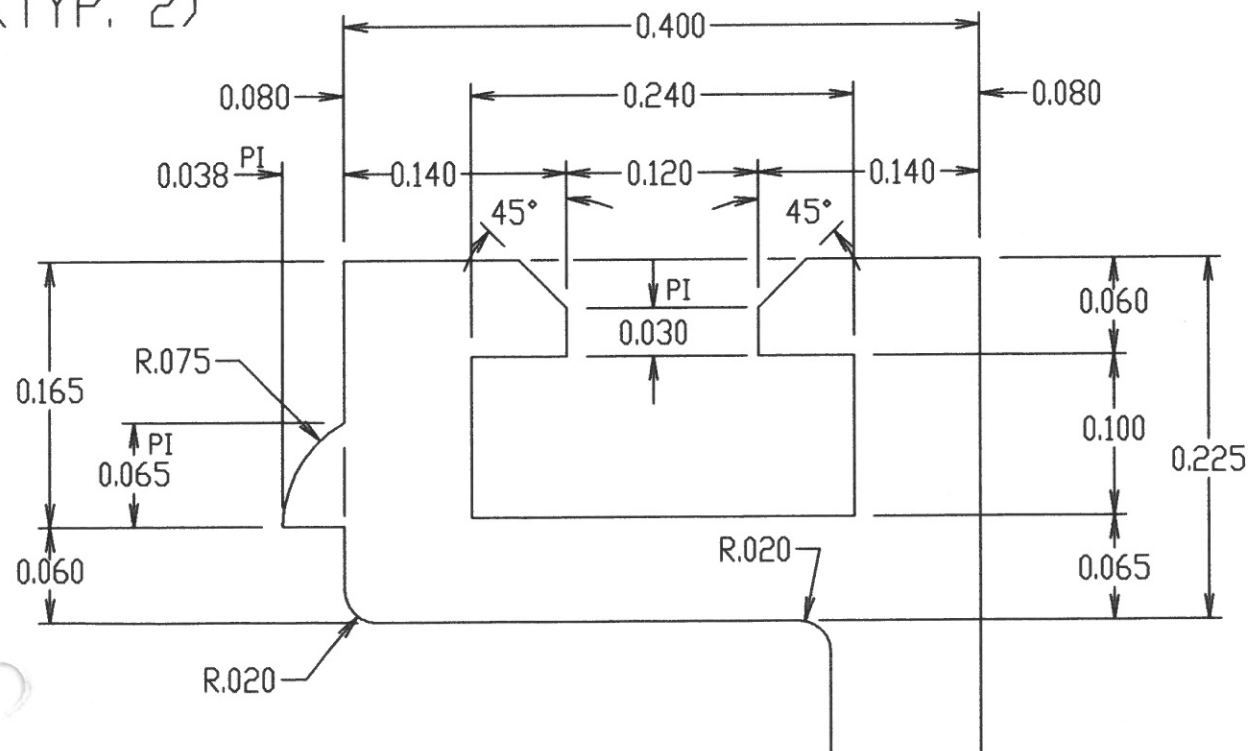
S-31713
Die Number

ACTUAL SIZE



S/H RATIO: 3.589 MAX ALLOWED: 3.500

DETAIL "A"
SCALE 8:1
(TYP. 2)



KEYMARK CORPORATION
FONDA, NEW YORK

FAX ENG. (518) 853-3435 SALES (518) 853-3130
TEL. (518) 853-3421 E-MAIL keyeng@keymarkcorp.com

Unspecified Wall Thickness: AS NOTED		Break All Corners .015 Radius or as Noted	
Customer: ACURLITE SKYLIGHTS		Customer's Part Number	
Job Name		Part Title	
Part Title		Scale 2:1	
Alloy: 6063	Est. Area: 0.731 In ²	Finish Perimeter: 5.093 In	Date: 07-11-01
Temper: T-5	Est. Wt./Ft.: 0.877 Lbs	Est. Perimeter: 15.021 In	Drawn: M.F.W.
Cavity Size	Circle Size: 2-3 In	Exterior Perimeter: 15.021 In	Checked: S.J.S.

Estimated For Reference Only	$I_x = 0.080$	$I_y = 0.418$	Factor: 17	Type Of Finish			
	$S_x = 0.134$	$S_y = 0.332$		Mill <input type="checkbox"/>	Ano. <input checked="" type="checkbox"/>	Drnr. <input checked="" type="checkbox"/>	Drcn. <input checked="" type="checkbox"/>

Syn.	Revisions	Date
2	PRINT CORRECTION	04-21-02
Solid <input type="checkbox"/> Semi-hollow <input checked="" type="checkbox"/> Class 1 <input type="checkbox"/> Hollow <input type="checkbox"/> Class		

*** STRUCTURAL STREAKING IS EXPECTED**

STANDARD COMMERCIAL TOLERANCES FOR EXTRUDED PRODUCTS APPLY UNLESS SPECIFIED OTHERWISE

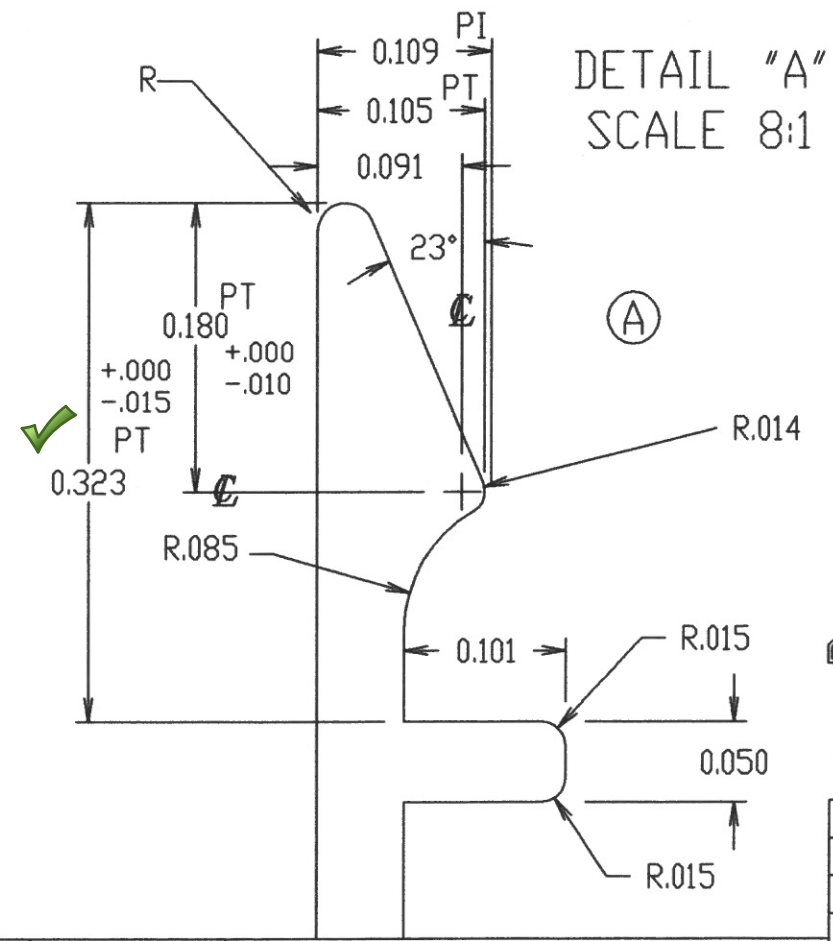
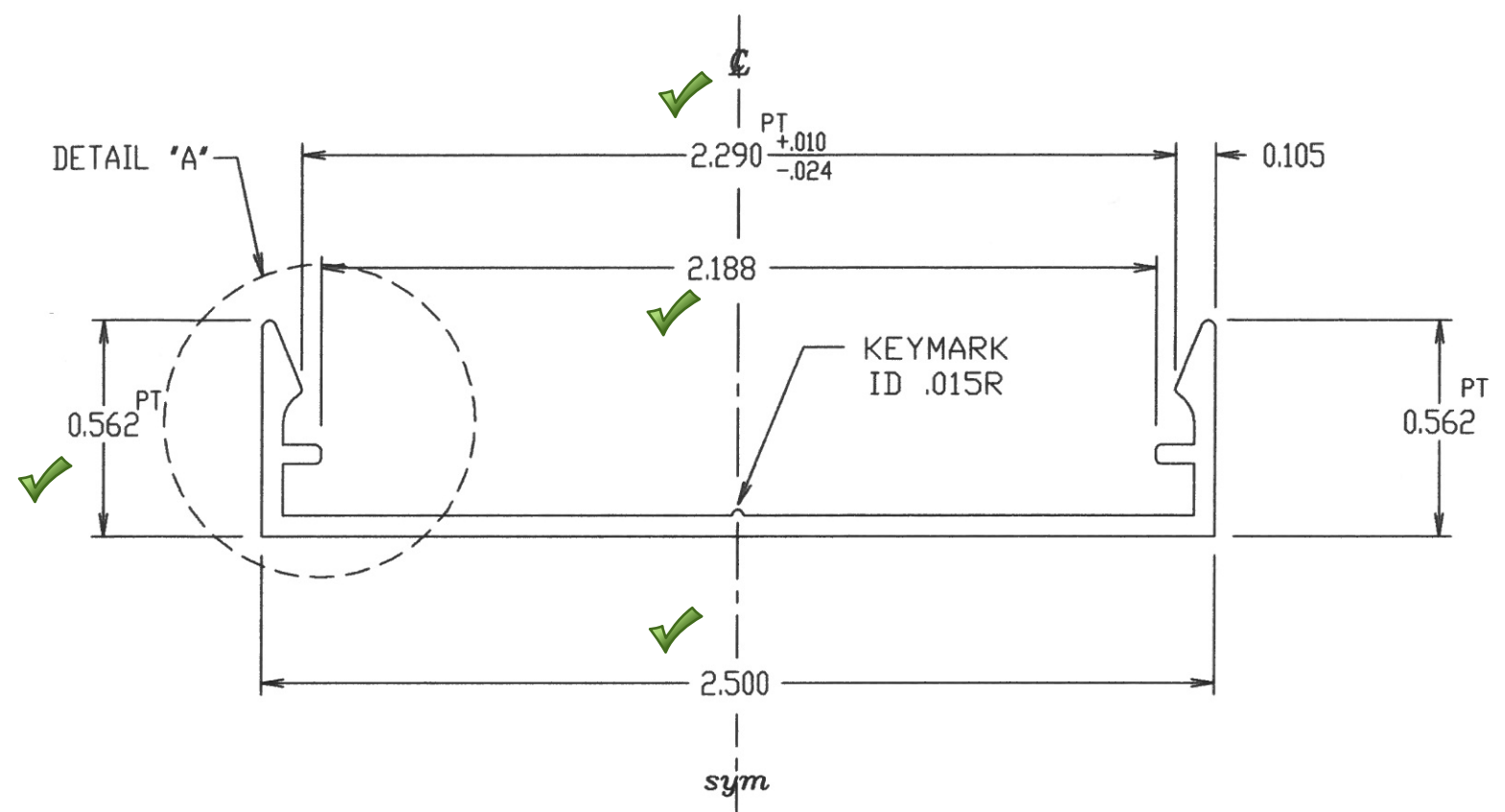
S-08545
Die Number

ACTUAL SIZE

MATES WITH:
 S-08547
 S-08548
 S-14747



FOR ASSEMBLY REFER TO S-08547



KEYMARK CORPORATION
 FONDA, NEW YORK

FAX ENG.(518)853-3435 SALES(518)853-3130
 TEL. (518) 853-3421 E-MAIL keyeng@keymarkcorp.com

Unspecified Wall Thickness: .055 Break All Corners .015 Radius or as Noted

Customer KEYMARK CORPORATION			Customer's Part Number 252102
Job Name PW-252			Scale 2:1
Part Title .562 SNAP COVER			Date 06-04-85
Alloy 6063	Est. Area 0.211 In²	Finish Perimeter 3.520 In	Drawn B.J.M.
Temper T-5	Est. Wt./Ft. 0.253 Lbs	Est. Perimeter 7.529 In	Checked S.J.S.
Cavity Size	Circle Size 2-3 In	Exterior Perimeter 7.529 In	

Sym.	Revisions	Date
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A	SNAP DETAIL REVISED	05-01-91

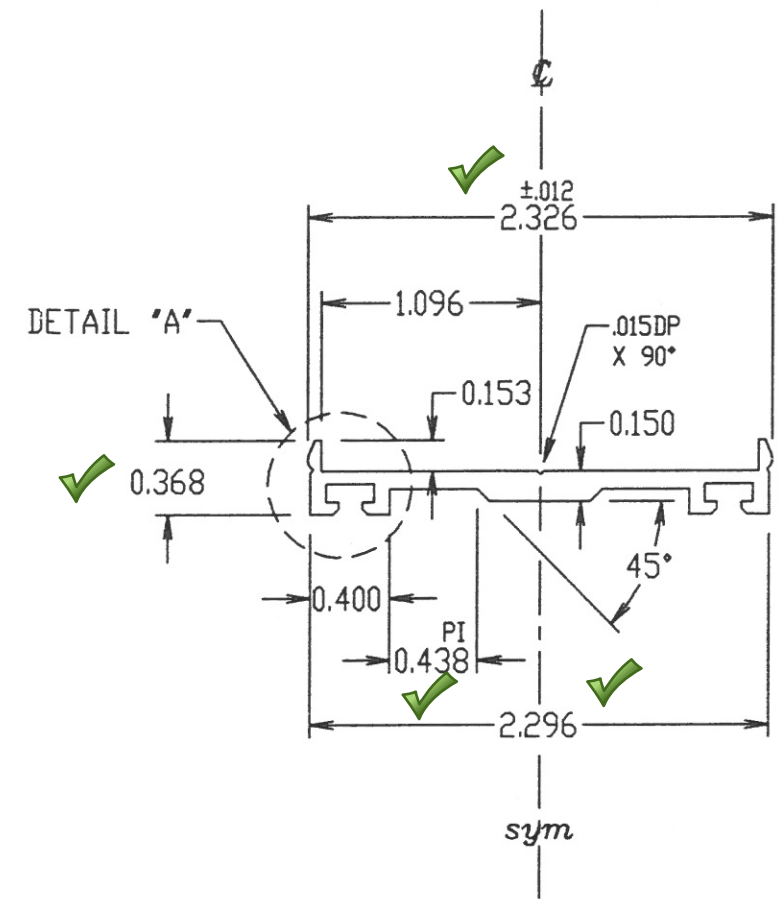
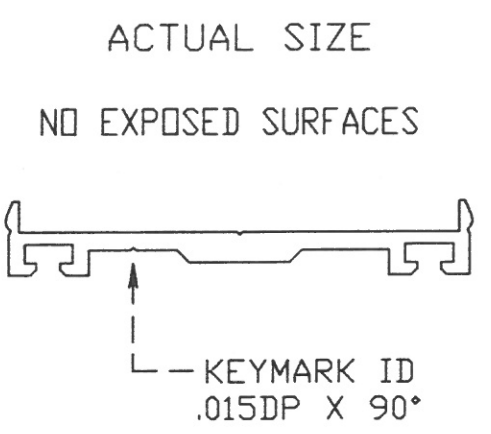
Solid Semi-hollow Class Hollow Class

Estimated For Reference Only	$I_x = 0.005$	$I_y = 0.178$	Factor	Type Of Finish			
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*** STRUCTURAL STREAKING IS EXPECTED**

STANDARD COMMERCIAL TOLERANCES FOR EXTRUDED PRODUCTS APPLY UNLESS SPECIFIED OTHERWISE

S-35591
 Die Number
 Design Number



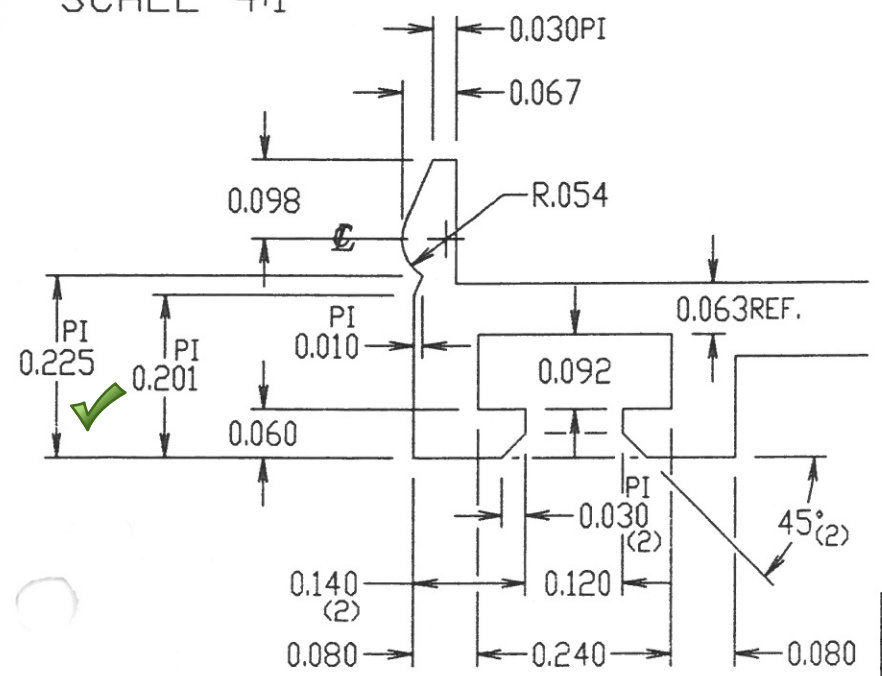
My signature on this print indicates approval of design and dimensions as shown and I authorize the preparation of extrusion die at the cost of:

\$ 389.00

Date _____

Signature _____

DETAIL "A"
 SCALE 4:1



KEYMARK CORPORATION
 FONDA, NEW YORK

FAX ENG.(518)853-3435 SALES(518)853-3130
 TEL. (518) 853-3421 E-MAIL engny@keymarkcorp.com

Unspecified Wall Thickness: .090		Break All Corners .015 Radius or as Noted	
Customer ACURLITE SKYLIGHTS		Customer's Part Number	
Job Name		Scale 1:1	
Part Title SKYLIGHT PRESSURE CAP		Date 01-14-04	
Alloy 6063	Est. Area 0.295 In ²	Finish Perimeter 0.000 In	Drawn D.S.S.
Temper T-6	Est. Wt./Ft. 0.354 Lbs	Est. Perimeter 6.969 In	Checked
Cavity Size	Circle Size 2.3 In	Exterior Perimeter 6.969 In	

Sym.	Revisions	Date
	PRINT CORRECTION	

INITIAL HERE FOR ID TYPE/LOCATION APPROVAL

Estimated For Reference Only

$I_x =$ _____ $I_y =$ _____ $S_x =$ _____ $S_y =$ _____

Alodine Type: 00
 Crimp _____ Factor 20
 Mill Ano. Drnr. Drcn.

Solid Semi-hollow Class _____ Hollow Class _____

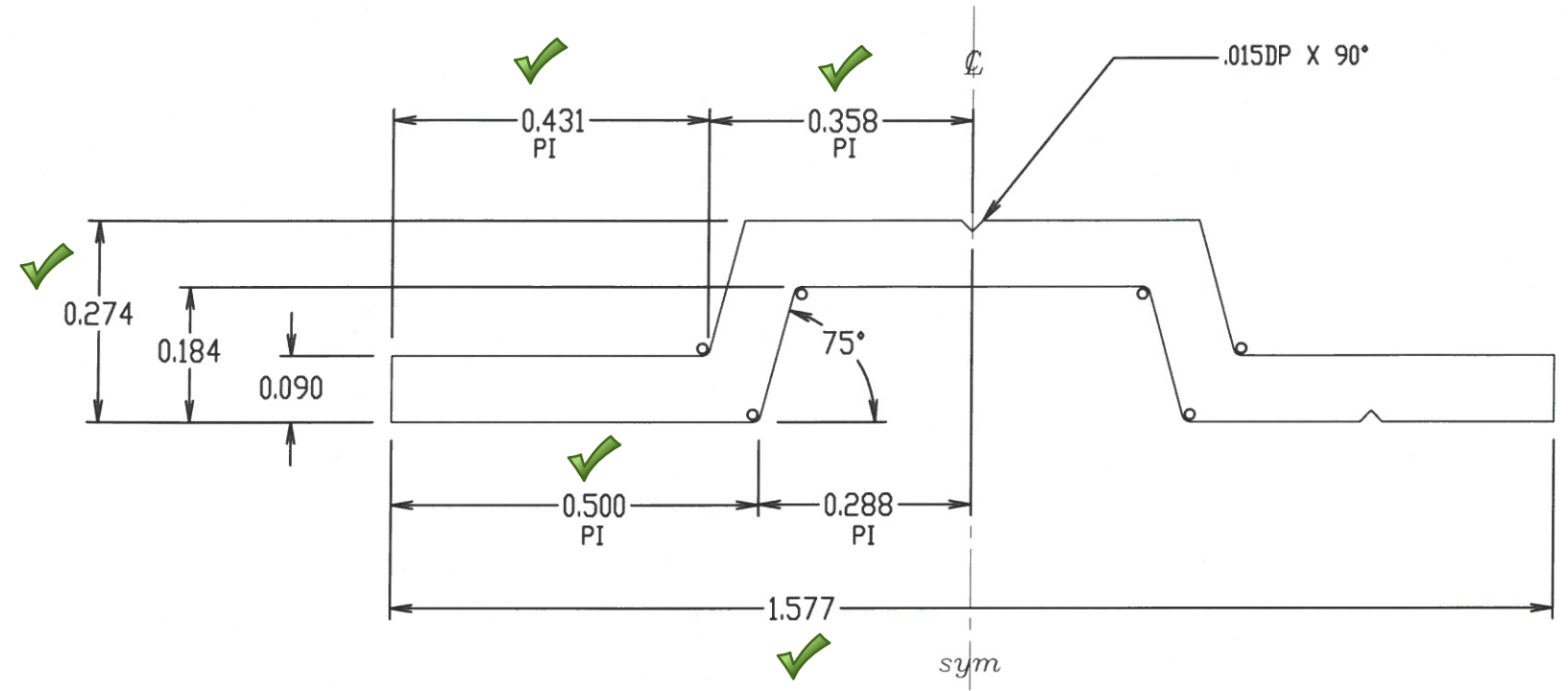
Customer signature on this print indicates approval of design and dimensions shown, and customer agrees to accept all legal responsibilities for patent and or trade mark infringement related to this shape and hold (save) Keymark harmless from any claims, suits, actions or demands arising there from. This drawing is the property of Keymark Corporation and may not be redistributed without written consent

*** STRUCTURAL STREAKING IS EXPECTED**

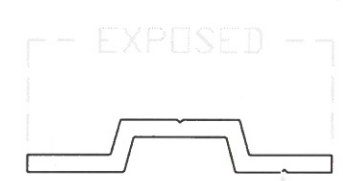
UNIFORM PAINT COVERAGE NOT EXPECTED IN THIS AREA 

STANDARD COMMERCIAL TOLERANCES FOR EXTRUDED PRODUCTS APPLY UNLESS SPECIFIED OTHERWISE

S-38970
Die Number
Design Number



ACTUAL SIZE



KEYMARK ID
.015DP X 90°

{ ° } DENOTES R .010 (6)

My signature on this print indicates approval of design and dimensions as shown and I authorize the preparation of extrusion die at the cost of:

\$ 775.90

Date 10-17-05

Signature *hamm*

KEYMARK CORPORATION
FONDA, NEW YORK

FAX ENG.(518)853-3435 SALES(518)853-3130
TEL. (518) 853-3421 E-MAIL engny@keymarkcorp.com



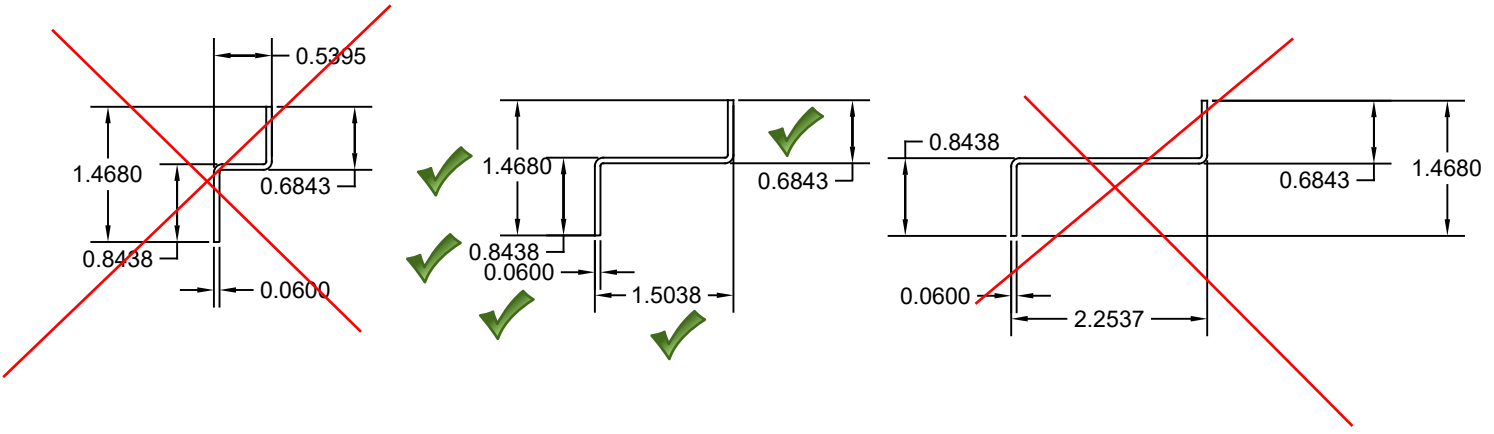
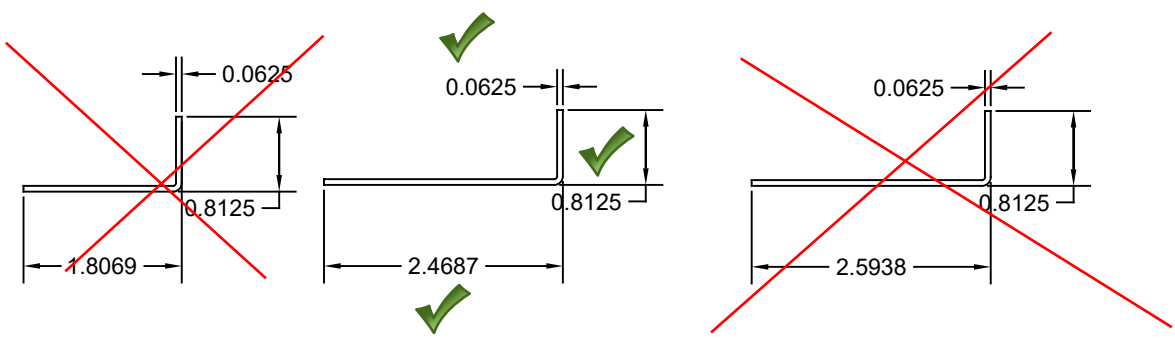
Unspecified Wall Thickness: **.090** Break Ext. Corners Radius or as Noted **.010**

Customer ACURLITE SKYLIGHTS			Customer's Part Number
Job Name			
Part Title STRUCTURAL SEAL			Scale 4:1
Alloy 6063	Est. Area 0.167 In ²	Finish Perimeter 3.500 In	Date 10-14-05
Temper T-5	Est. Wt./Ft. 0.200 Lbs	Est. Perimeter 3.910 In	Drawn A.D.
Cavity Size	Circle Size 1.6 In	Exterior Perimeter 3.910 In	Checked

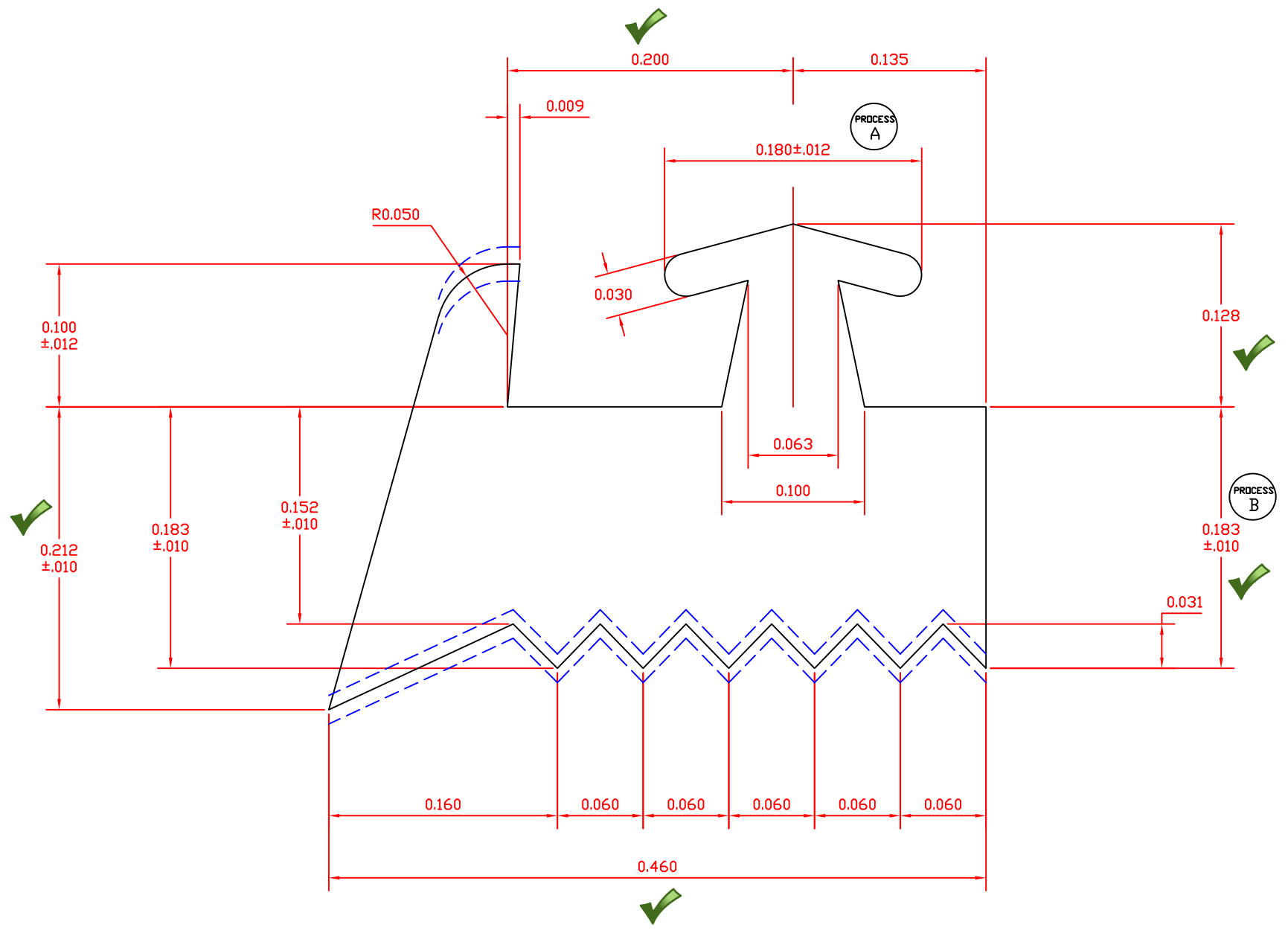
INITIAL HERE FOR ID TYPE/LOCATION APPROVAL

Sym.	Revisions	Date
	PRINT CORRECTION	

Estimated For Reference Only	I _x =	I _y =	Alodine <input type="checkbox"/>	Type: 00
	S _x =	S _y =	Crimp	Factor 20
			Mill <input type="checkbox"/>	Ano. <input type="checkbox"/>
			Drnr. <input type="checkbox"/>	Drcn. <input checked="" type="checkbox"/>
			Solid <input checked="" type="checkbox"/>	Semi-hollow <input type="checkbox"/>
			Class	Hollow <input type="checkbox"/>
			Class	

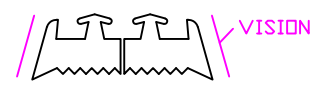


CUSTOMER APPROVAL:
 DATE:



9408-02-01 360200
 9408-02-02 360100

 3589-04-00 260555



ACTUAL SIZE PACKAGE TWO STRAND KNIT



TRELLEBORG PART NUMBER	9408-02-00
CUSTOMER PART NUMBER	
COMPOUND NUMBER	360555
COMPOUND DESCRIPTION	60 DURO BLACK SILICONE

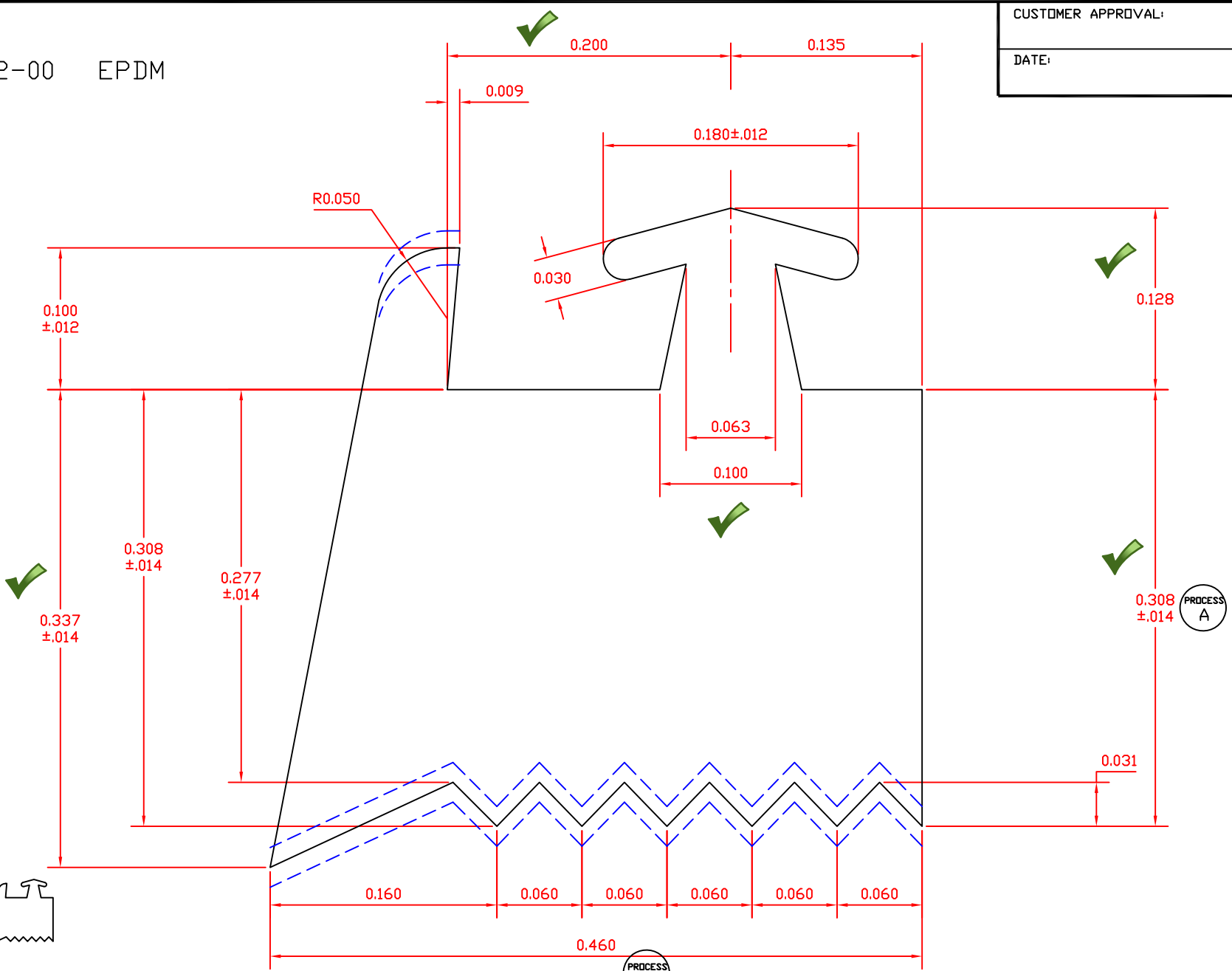
ISSUE DATE	7-15-11
DRAWN BY	MRG
SCALE	10X
AREA	.091

REV.	REVISION DESCRIPTION	REV. DATE	BY

Tolerances are RMA Class II unless otherwise noted.
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8299-02-00 EPDM

CUSTOMER APPROVAL:
DATE:



ACTUAL SIZE

REV.	REVISION DESCRIPTION	REV. DATE	BY

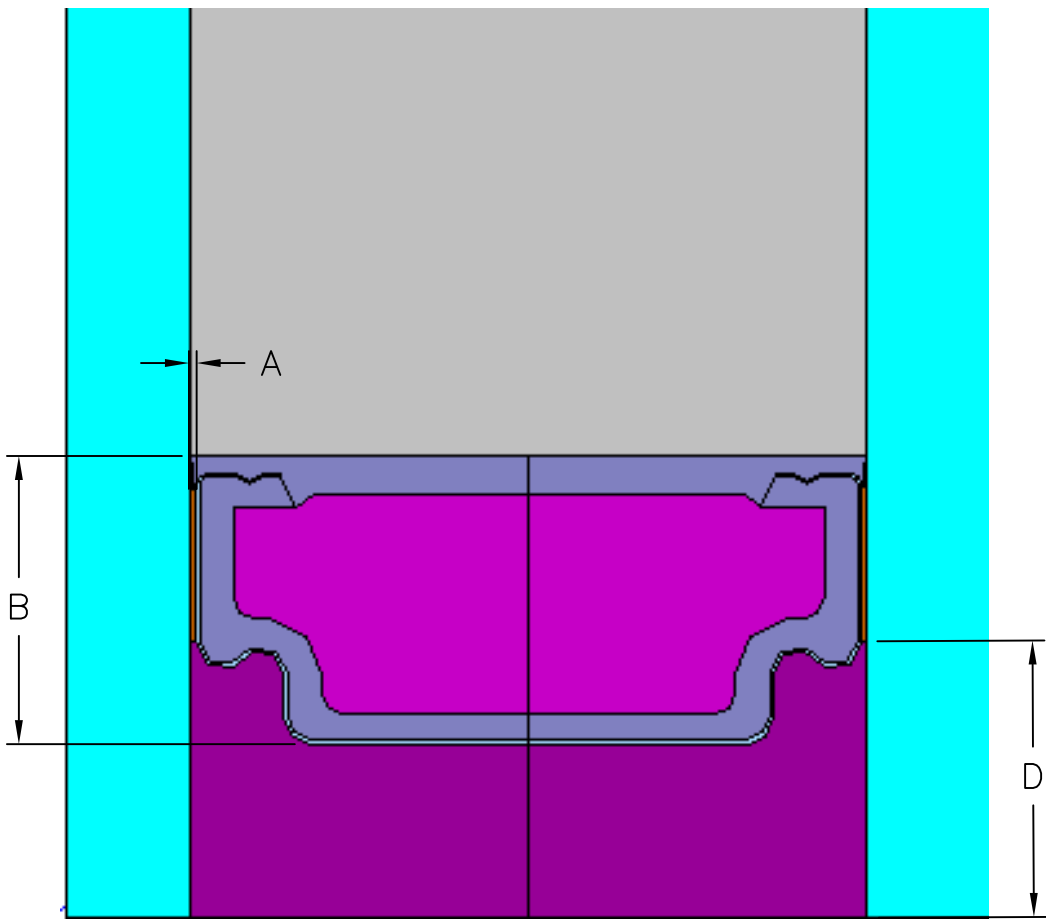


TRELLEBORG PART NUMBER	12974-02-00
CUSTOMER PART NUMBER	
COMPOUND NUMBER	360555
COMPOUND DESCRIPTION	60 DURO BLACK SILICONE

ISSUE DATE	12-15-16
DRAWN BY	MRG
SCALE	10X
AREA	.144

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MANUFACTURER:		TECHNOFORM		SPACER:		TECHNOFORM (TS-D)	
SHEET:	REV:	GAS & PERCENTAGE:					
1/1	00	ARGON: 90%					
GAP WIDTHS:							
0.603", 0559"							



SPACER MATERIAL: THERMO-PLASTIC & STAINLESS STEEL

PRIMARY SEALANT: POLYISOBUTYLENE (PIB)

SECONDARY SEALANT: SILICONE

A) THICKNESS OF SEALANT BETWEEN GLASS : .0039"

B) SPACER HEIGHT: .2717"

D) SECONDARY SEALANT HEIGHT: .2623"

TECHNOFORM GLASSINSULATION



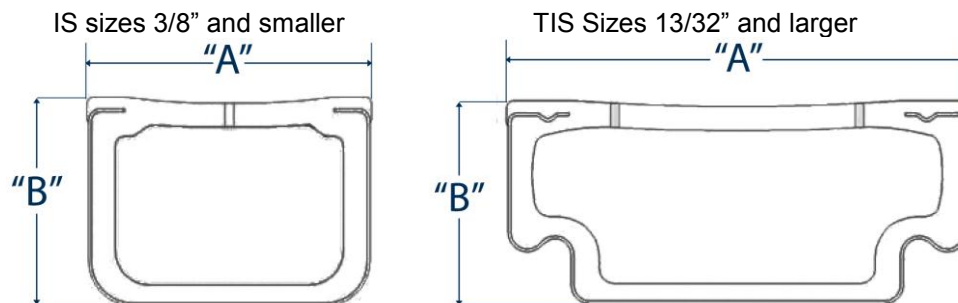
SPACER WIDTHS AND ACCESSORIES

Size (Inches/MM)	TGI Spacer Part Number	Inches "A" width decimal	Millimeters "A" width decimal	90° Fixed Corner Key	Folding Locking Corner Key	Gas Filling Corner Key	Flexible Corner Key	Steel Straight Connector
1/4	IS0104	0.2441	6.20	√	NA	√	√	√
9/32	IS0932	0.2791	7.09	√	NA	NA	√	√
5/16	IS0516	0.3067	7.79	√	NA	√	√	√
3/8	IS0308	0.3693	9.38	√	NA	√	NA	√
13/32	TIS1332	0.4004	10.17	√	√	√	NA	√
7/16	TIS0716	0.4315	10.96	√	NA	√	NA	√
12MM	TIS115MM	0.4508	11.45	NA	NA	NA	NA	√
15/32	TIS1532	0.4669	11.86	√	√	√	√	√
1/2	TIS0102	0.4941	12.55	√	NA	√	NA	√
17/32	TIS1732	0.5291	13.44	√	√	√	√	√
9/16	TIS0916	0.5567	14.14	√	NA	√	NA	√
19/32	TIS1932	0.5917	15.03	√	√	√	√	√
16MM	TIS155MM	0.6083	15.45	NA	NA	NA	NA	√
5/8	TIS0508	0.6228	15.82	√	NA	√	NA	√
21/32	TIS2132	0.6543	16.62	√	√	√	√	√
17/25	TIS1725	0.6740	17.12	√	NA	√	NA	√
23/32	TIS2332	0.7169	18.21	√	√	√	NA	√
3/4	TIS0304	0.7441	18.90	√	NA	√	NA	√
1	TIS255MM	1.0020	25.45	√	NA	NA	NA	√

- Standard spacer colors: white, black, bronze, light gray, champagne (custom colors available)
- NA – Not Available
- √ - Available
- It is necessary to indicate a color abbreviation at the end of Spacer and Gas Filling Corner Key part numbers due to their visibility.

SPACER WIDTH MEASUREMENT:

Spacer width is the actual width measured across the top of the thermoplastic blend as indicated below.



Dimension "B" Standard Height: 6.85 mm / 0.27 inches (all sizes)

TECHNOFORM GLASSINSULATION



SPACER WIDTHS AND ACCESSORIES - page 2

ABBREVIATIONS

Spacer	Corner Keys	Straight Connectors	Colors
IS-Box	CK-Corner Key	SC-Straight connector	W-White
TIS-Wave	F-90° Fixed	S-Steel	B-Black
	LK-90° Folding Locking		LG-Light Gray
	FAH-90° Gas Filling with hole		BR-Bronze
	FNH-90° Gas Filling without hole		CH-Champagne
	FLX-Flexible		

PART NUMBER STRUCTURE METHODOLOGY:

Part Build:	Product +	Size +	Type +	Color =	Product ID
Examples:					
Spacer	TIS	0716	--	LG	TIS0716LG
Corner Key	CK	0716	F	--	CK0716F
Corner Key	CK	0716	FAH	LG	CK0716FAHLG
Straight Connector	SC	0716	S	--	SC0716S
Plug (For Gas-filling keys)	P	0716	--	LG	P0716LG

STANDARD PACKAGING

TGI®-SPACER (17 spacer pieces/bundle-all sizes)
(13' is standard length)

KEYS AND CONNECTORS

Size	TGI Spacer	Spacer per Box	13' (156") Length Feet/Box	16.42' (197") Length Feet/Box	19' (228") Length Feet/box	Connector	Per Box
1/4	IS0104	323	4,199	5,303	6,137	CK...F	5,000
9/32	IS0932	289	3,757	4,745	5,491	CK0304F	2,500
5/16	IS0516	255	3,315	4,187	4,845	CK255MMF	2,500
3/8	IS0308	204	2,652	3,349	3,876	CK...LK	2,500
13/32	TIS1332	204	2,652	3,349	3,876	CK...FAH	2,500
7/16	TIS0716	170	2,210	2,791	3,230	CK...FNH	2,500
15/32	TIS1532	153	1,989	2,512	2,907	Plugs	5000
1/2	TIS0102	153	1,989	2,512	2,907	SC...S	2,500
12mm	TIS115MM	153	1,989	2512	2,907	CK...FLX	2,500
17/32	TIS1732	153	1,989	2,512	2,907		
9/16	TIS0916	136	1,768	2,233	2,584		
19/32	TIS1932	136	1,768	2,233	2,584		
16mm	TIS155MM	119	1,547	1,953	2,261		
5/8	TIS0508	119	1,547	1,953	2,261		
21/32	TIS2132	119	1,547	1,953	2,261		
17/25	TIS1725	119	1,547	1,953	2,281		
23/32	TIS2332	102	1,326	1,674	1,938		
3/4	TIS0304	102	1,326	1,674	1,938		
1	TIS255MM	85	1,105	1,396	1,615		

2012-08-13