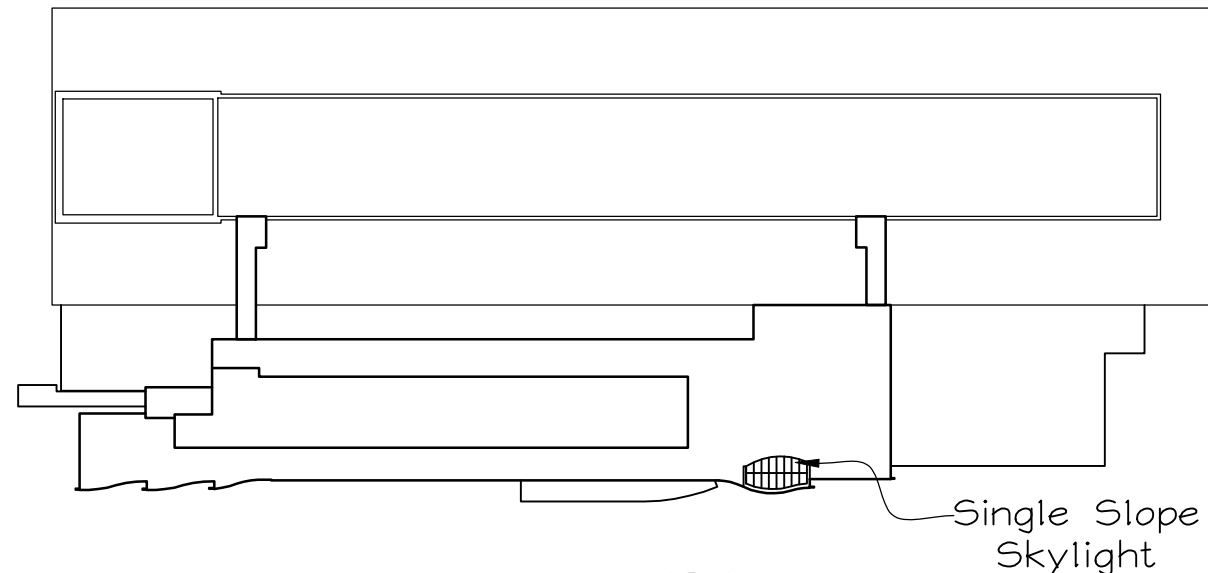


School of Freshwater Sciences, Bid Package 3 - Laboratory Addition  
 University of Wisconsin, Milwaukee, WI  
 Shop Drawings for Section 086300, Custom Skylights



Key Plan  
 NTS 

PRODUCT DATA:

Design Data: DL=16psf, SL=30psf, WL=90mph, Cat. B, max deflection for spans up to 13'-6" = L/175 and for spans over 13'-6" = lesser of either L/240+1/4" or amount that restricts edge deflection of individual glazing lites to 3/4". See attached structural calculations.  
Single Slope Skylight Glazing: 1/4" tempered and Optiblue-tinted outboard lite, with Solarban R100 low-e #2, and 1/2" min. airspace over 9/16" HS clear glass laminated with .060 PVB interlayer and ceramic frit #3 (numbering surfaces from the outside to the inside). Architect to select desired standard pattern from enclosed chart.

Metal Finish: Extruded aluminum members and flashings to have a Duranar XL 3-coat fluoropolymer finish with clear topcoat, UC51131XL "Silver". Confirmation paint samples submitted by mail.

Warranty: Skylight, Finish, and Glass, including leakage, 10 years. State of WI Window Guarantee form. Sample warranty attached.

Product Approval: Wisconsin Solar Design is an approved manufacturer per addendum #5.

Test Reports: Thermal, water and air tests available at [wisconsinsolardesign.com/skylightspecs.html](http://wisconsinsolardesign.com/skylightspecs.html)

Installer Certification: Installers are full-time employees of WSD and are certified by the manufacturer.

LEED: See attached.

NOTES:

- WSD will field measure completed concrete walls and curb.

SHEET INDEX

- Title Page
- Skylight Framing Plan
- Skylight Plan
- Skylight Elevation/Section
- Skylight Cross-Sections
- 6-8 Skylight Details

<u>MANAGING ARCHITECT:</u> Continuum Architects and Planners 228 South 1st St, Ste. 301 Milwaukee, WI 53204	<u>DESIGN ARCHITECT:</u> Bohlin Cywinski Jackson 307 Fourth Avenue Suite 1300 Pittsburgh, PA 15222	<u>GENERAL CONTRACTOR:</u> J.P. Cullen & Sons, Inc. 13040 West Lisbon Rd. Brookfield, WI 53005
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DRAWING APPROVAL:

We have reviewed these drawings and approve their use for construction of the skylights. Any comments or suggestions have been added to the drawings.

Architect:  
Continuum Architects & Planners  
name \_\_\_\_\_  
title \_\_\_\_\_  
General Contractor:  
J.P. Cullen & Sons, Inc.  
name \_\_\_\_\_  
title \_\_\_\_\_



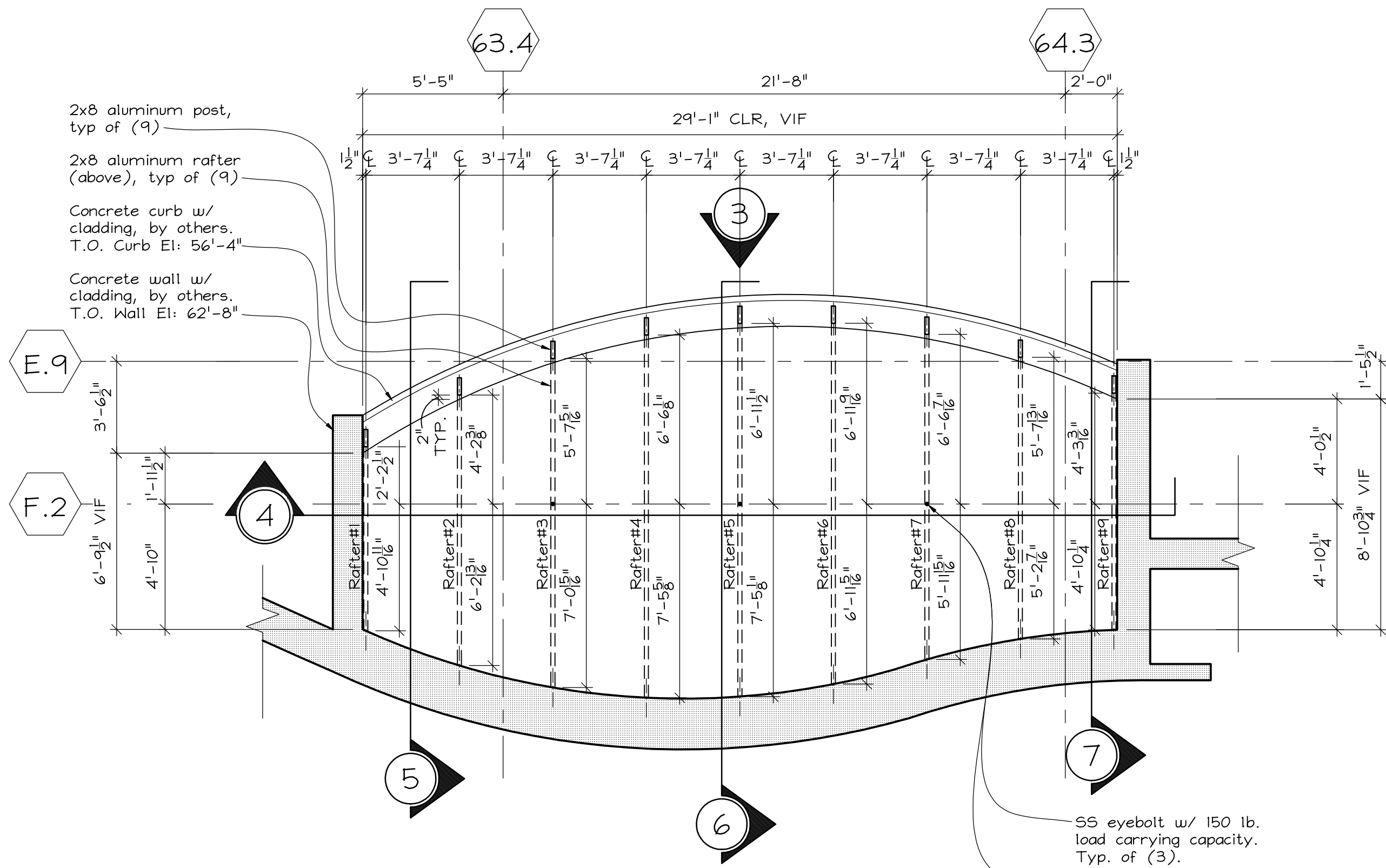
Drawings by:  
James Thomack, WSD

Manufacturer/Installer:  
  
 WISCONSIN SOLAR DESIGN  
 6349 Briarcliff Ln., Middleton, WI 53562

Project:  
 School of Freshwater Sciences  
 UW-Milwaukee, Div Proj #10E3H-03  
 600 E. Greenfield Ave.  
 Milwaukee, WI 53204

Architect:  
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 Issued:  
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- 2x8 aluminum post, typ of (9)
- 2x8 aluminum rafter (above), typ of (9)
- Concrete curb w/ cladding, by others. T.O. Curb El: 56'-4"
- Concrete wall w/ cladding, by others. T.O. Wall El: 62'-8"

E.9  
F.2

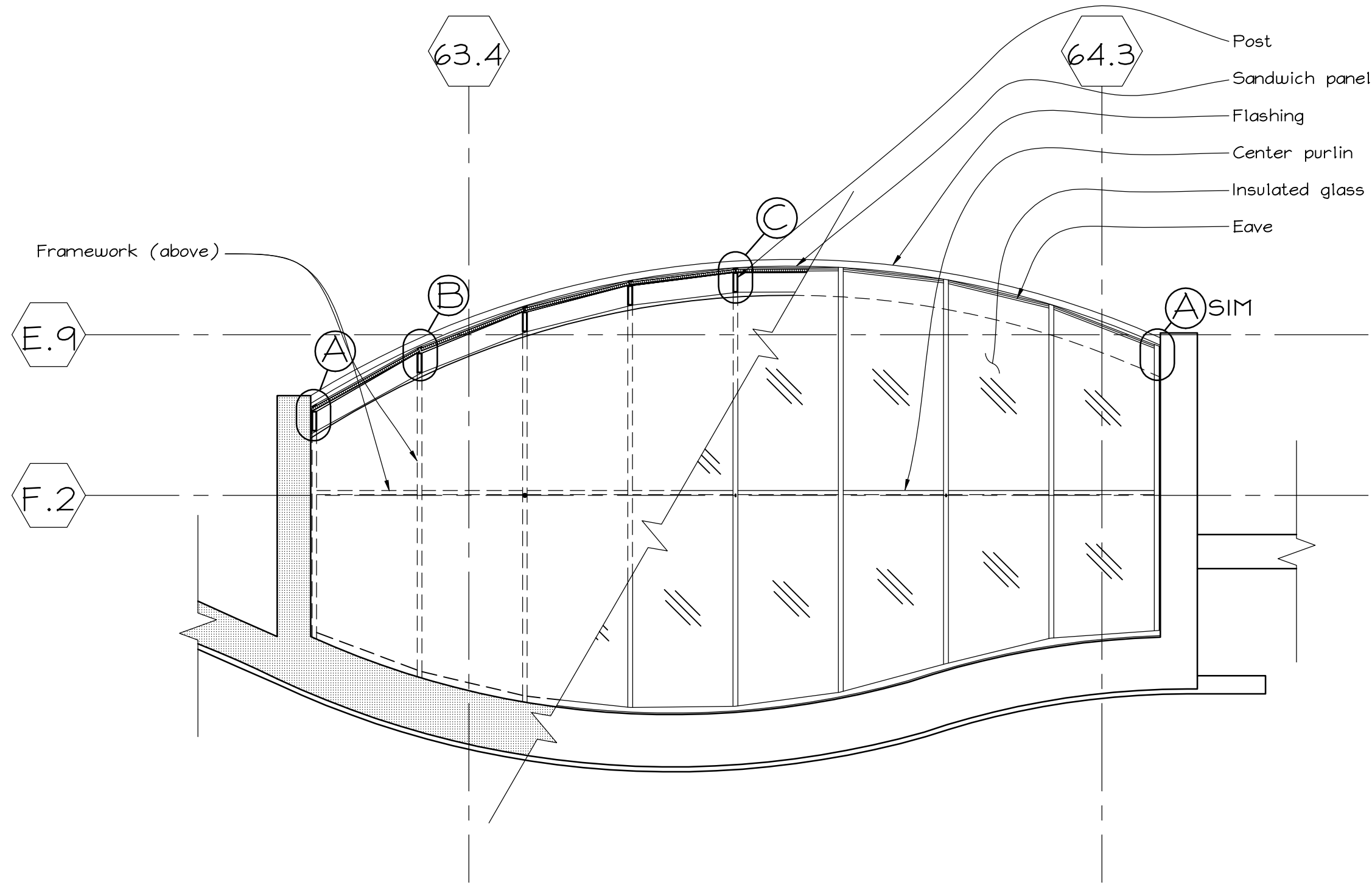
1 Skylight Framing Plan  
 scale: 1/4" = 1'-0"  
 North

SS eyebolt w/ 150 lb. load carrying capacity. Typ. of (3).  
 Arch: Please provide locations for eyehooks.

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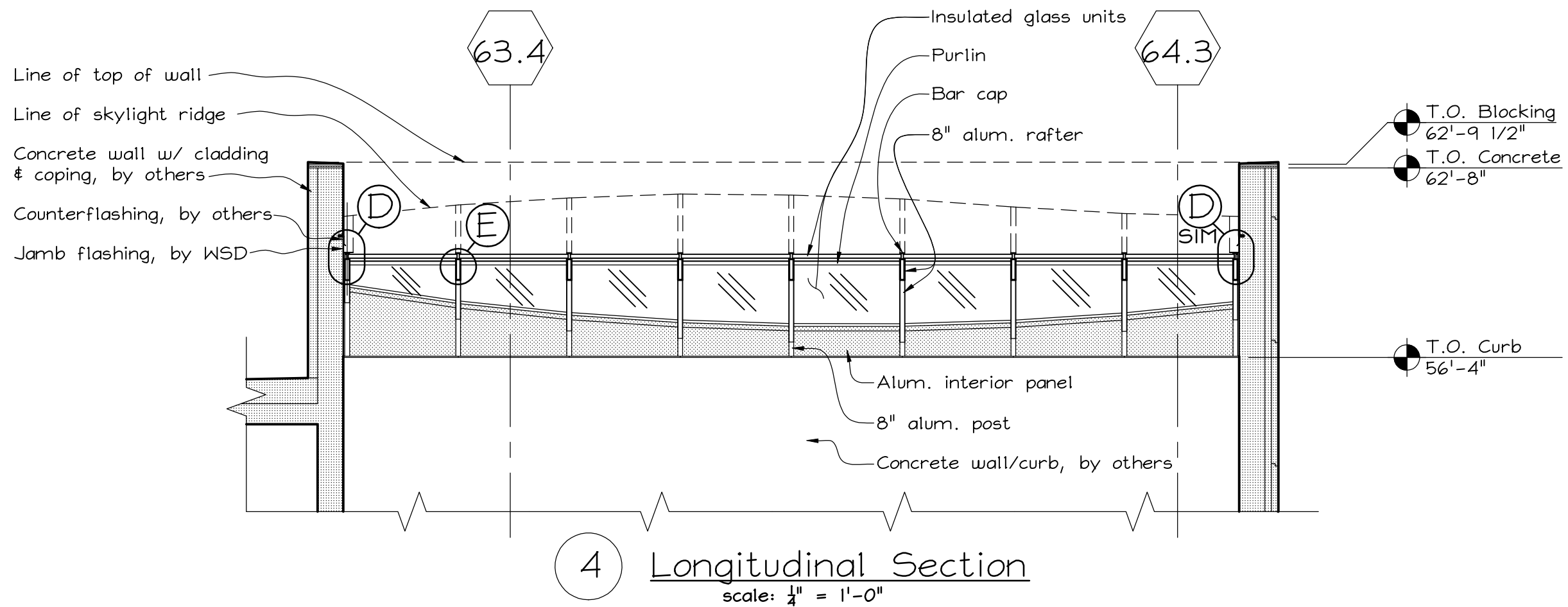
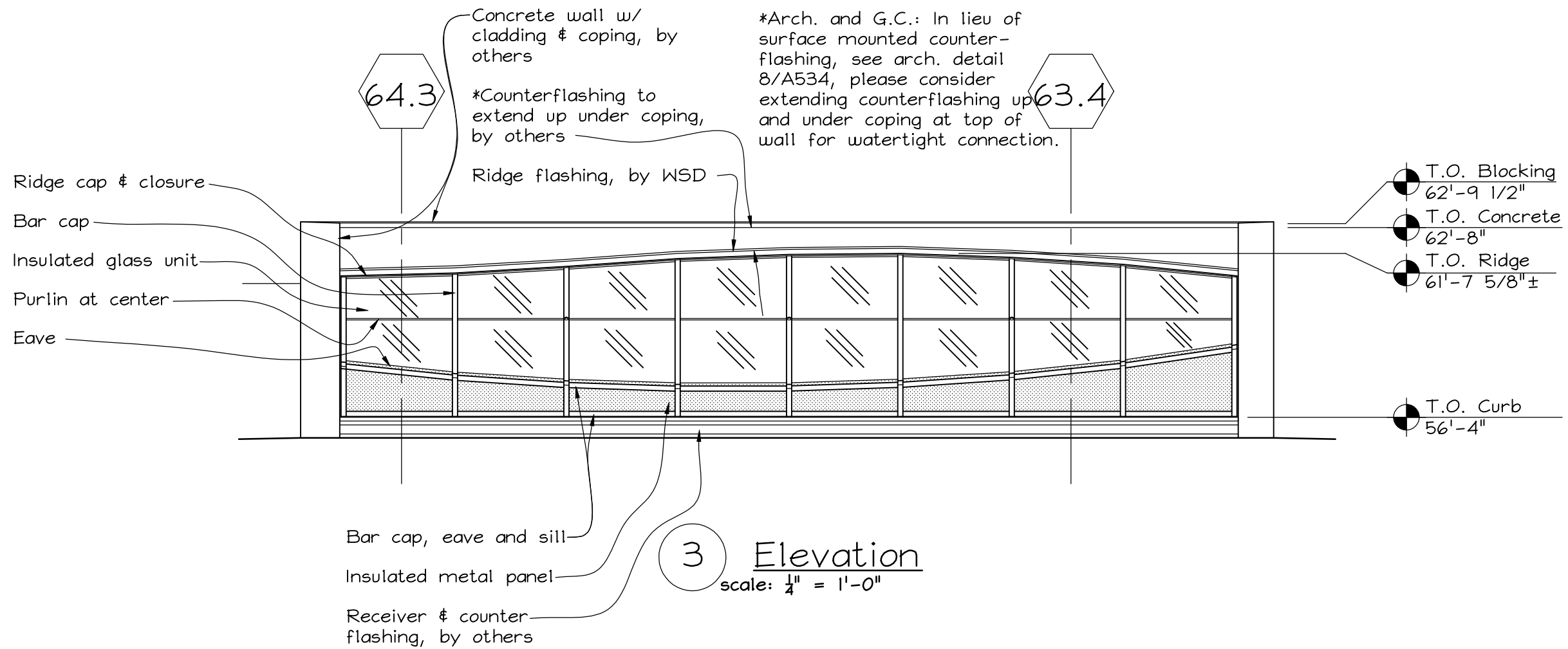
2 Skylight Plan  
 scale: 1/4" = 1'-0"  
 North

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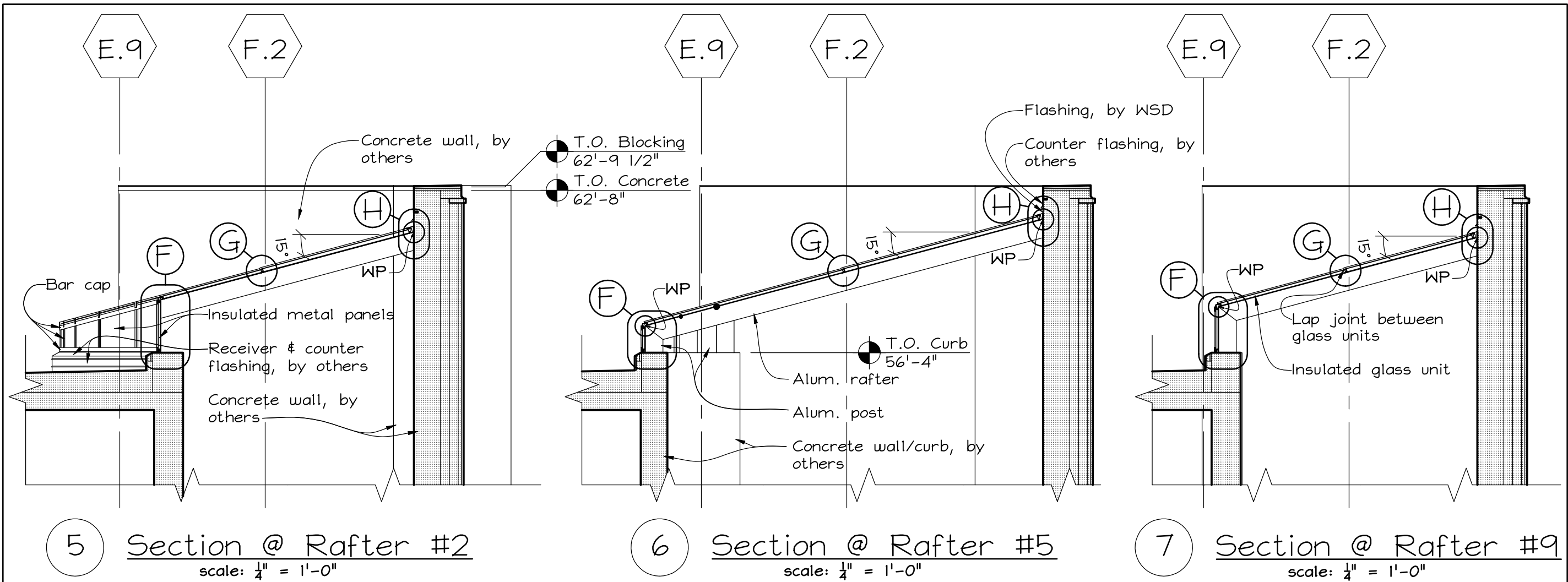


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5 Section @ Rafter #2  
scale: 1/4" = 1'-0"

6 Section @ Rafter #5  
scale: 1/4" = 1'-0"

7 Section @ Rafter #9  
scale: 1/4" = 1'-0"

Single Slope Skylight Working Points				
Rafter # (see plan)	Sill Working Point		Ridge Working Point	
	Overall	From T.O. Curb	Overall	From T.O. Curb
Rafter #1	58'-7 5/16"	2'-3 5/16"	60'-8 1/4"	4'-4 1/4"
Rafter #2	58'-0 7/8"	1'-8 7/8"	61'-0 9/16"	4'-8 9/16"
Rafter #3	57'-8 3/8"	1'-4 3/8"	61'-3 5/16"	4'-11 5/16"
Rafter #4	57'-5 7/16"	1'-1 7/16"	61'-4 9/16"	5'-0 9/16"
Rafter #5	57'-4"	1'-0"	61'-4 7/16"	5'-0 7/16"
Rafter #6	57'-4"	1'-0"	61'-2 7/8"	4'-10 7/8"
Rafter #7	57'-5 3/8"	1'-1 3/8"	60'-11 5/16"	4'-7 5/16"
Rafter #8	57'-8 3/16"	1'-4 3/16"	60'-9 1/4"	4'-5 1/4"
Rafter #9	58'-0 11/16"	1'-8 11/16"	56'-8 1/8"	4'-4 1/8"

Note: Ridge working point is measured at centerline of rafter.

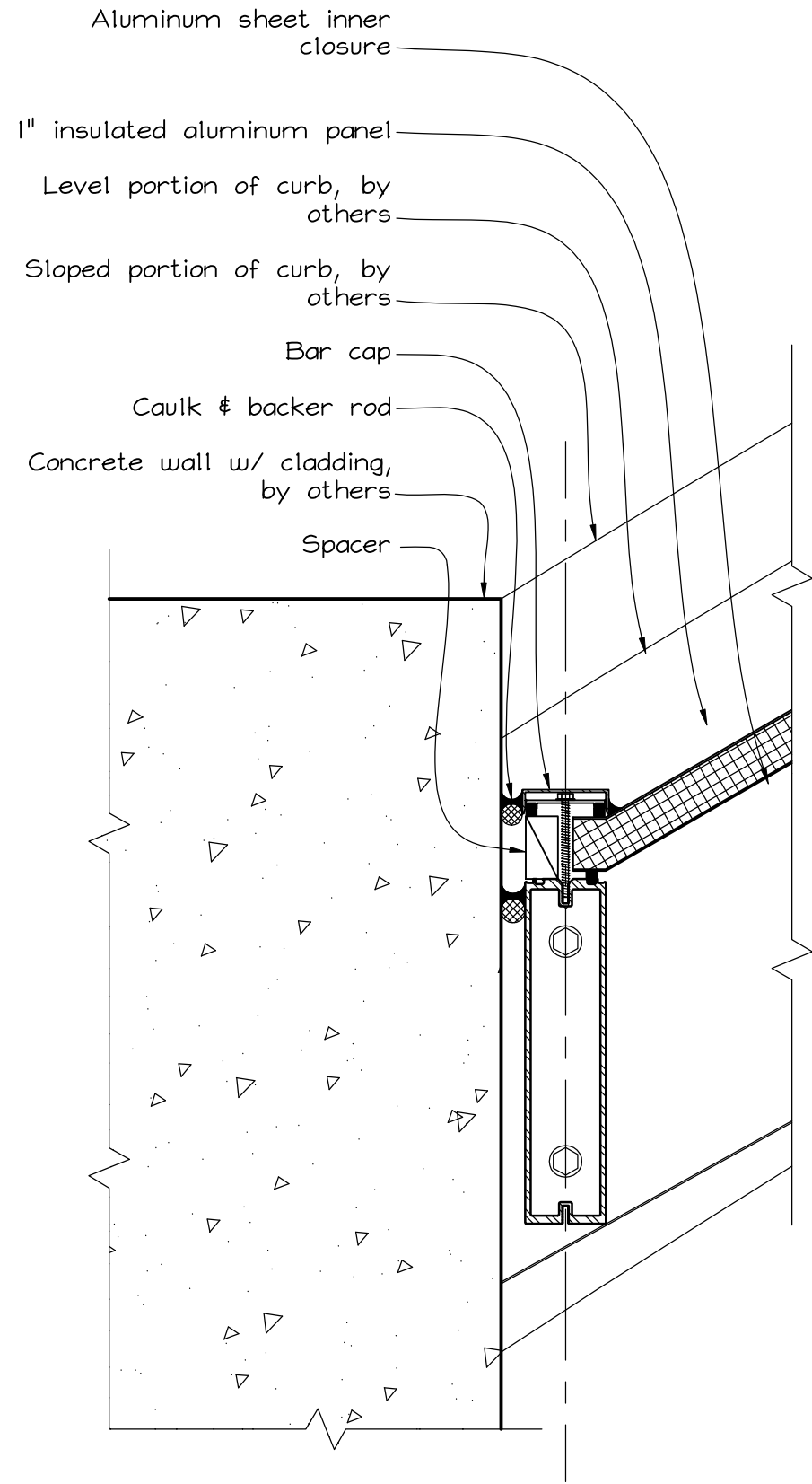
Overall Rafter Lengths	
Working Point-to-Working Point	
Rafter #1	8'-0 7/16"
Rafter #2	11'-5 7/8"
Rafter #3	13'-9 7/8"
Rafter #4	15'-2"
Rafter #5	15'-7"
Rafter #6	15'-1 1/8"
Rafter #7	13'-8"
Rafter #8	11'-11 1/8"
Rafter #9	10'-1 5/8"

Note: Ridge working point is measured at centerline of rafter.

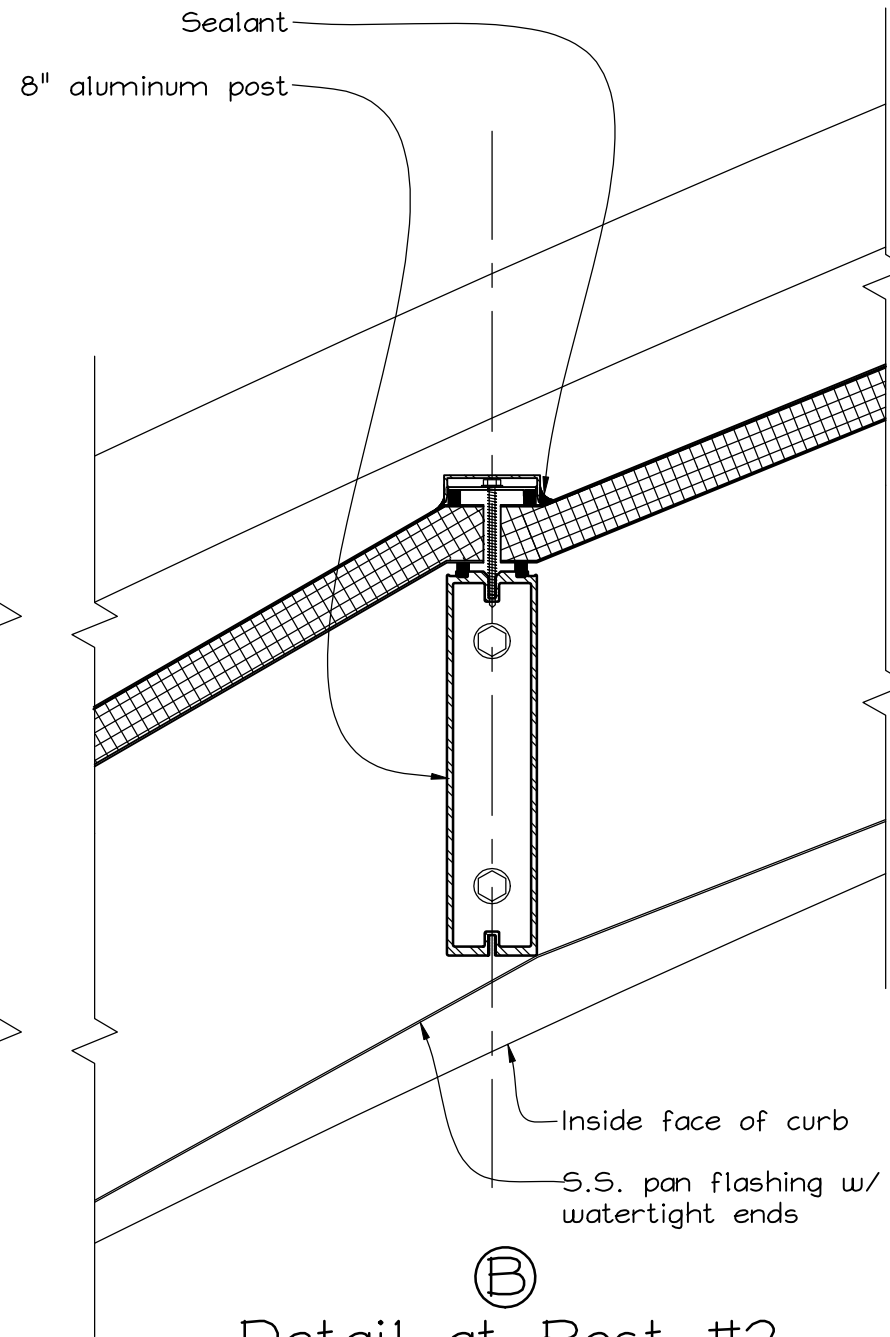
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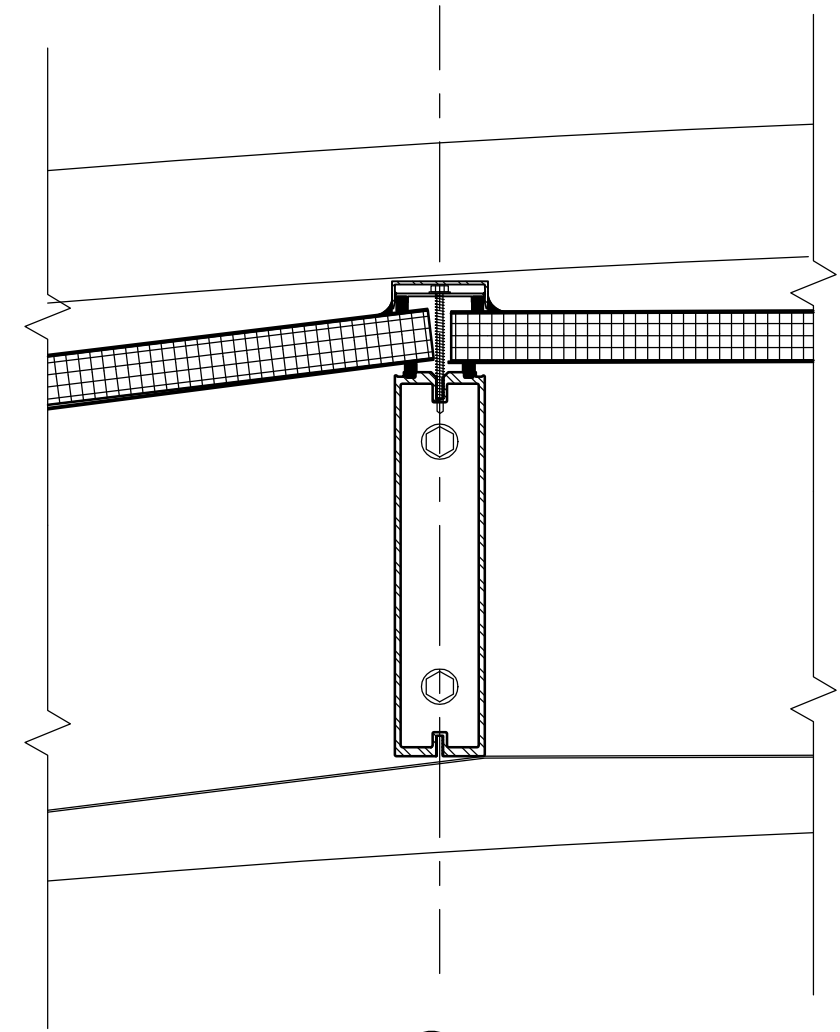
Architect:  
 Continuum Architects + Planners  
 228 South 1st St, Ste. 301  
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(A)  
Detail at Post #1  
 Scale: 3"=1'-0"



(B)  
Detail at Post #2  
 Scale: 3"=1'-0"



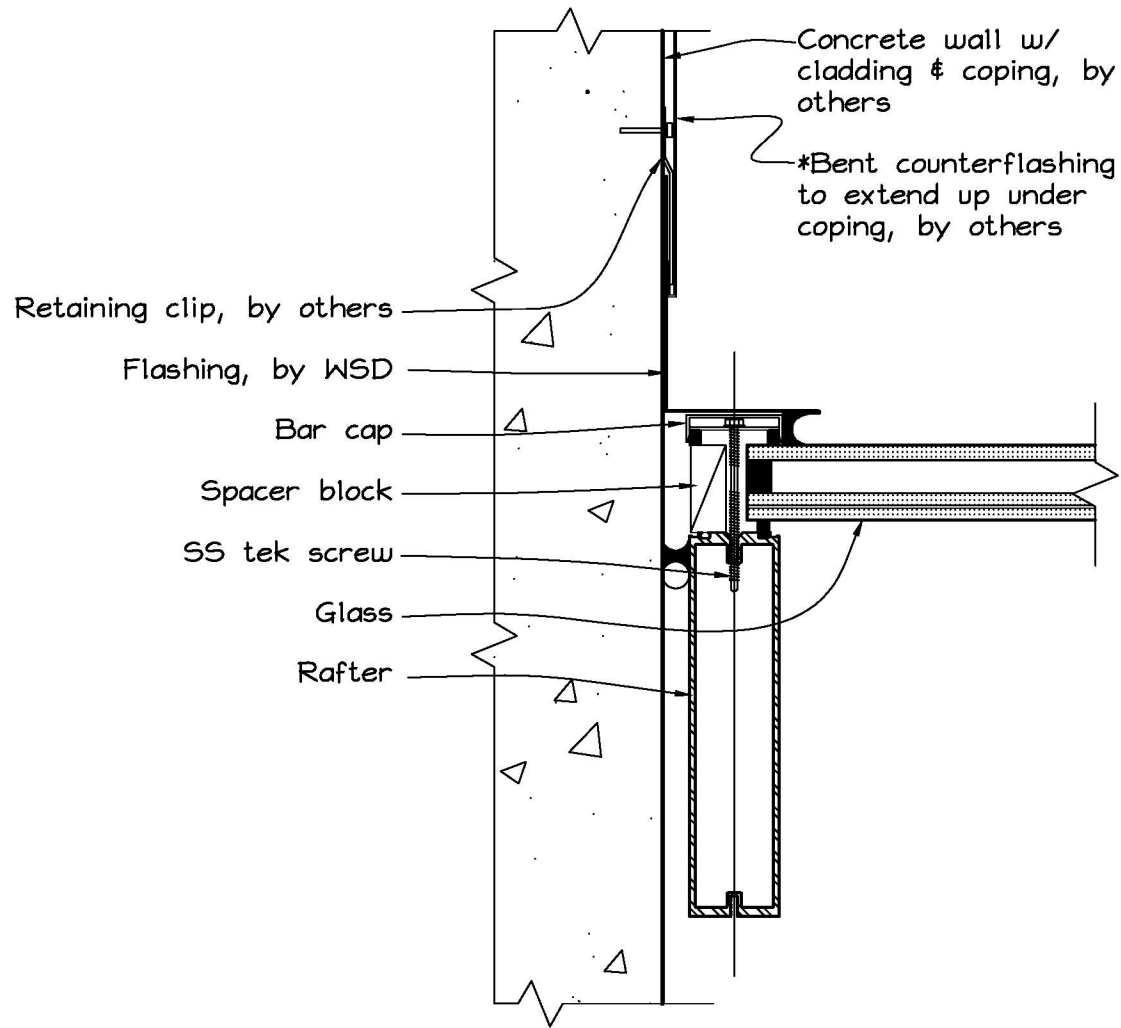
(C)  
Detail at Post #5  
 Scale: 3"=1'-0"

Manufacturer/Installer:  
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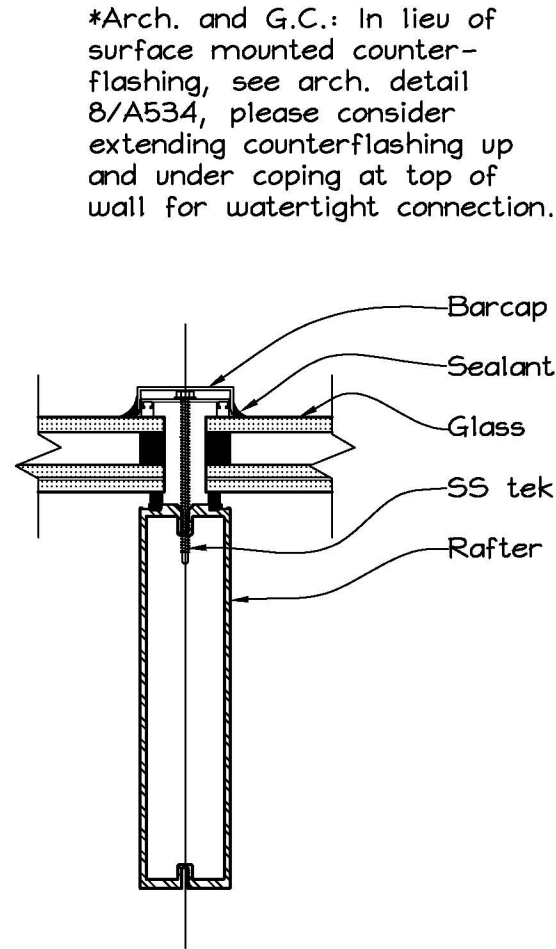
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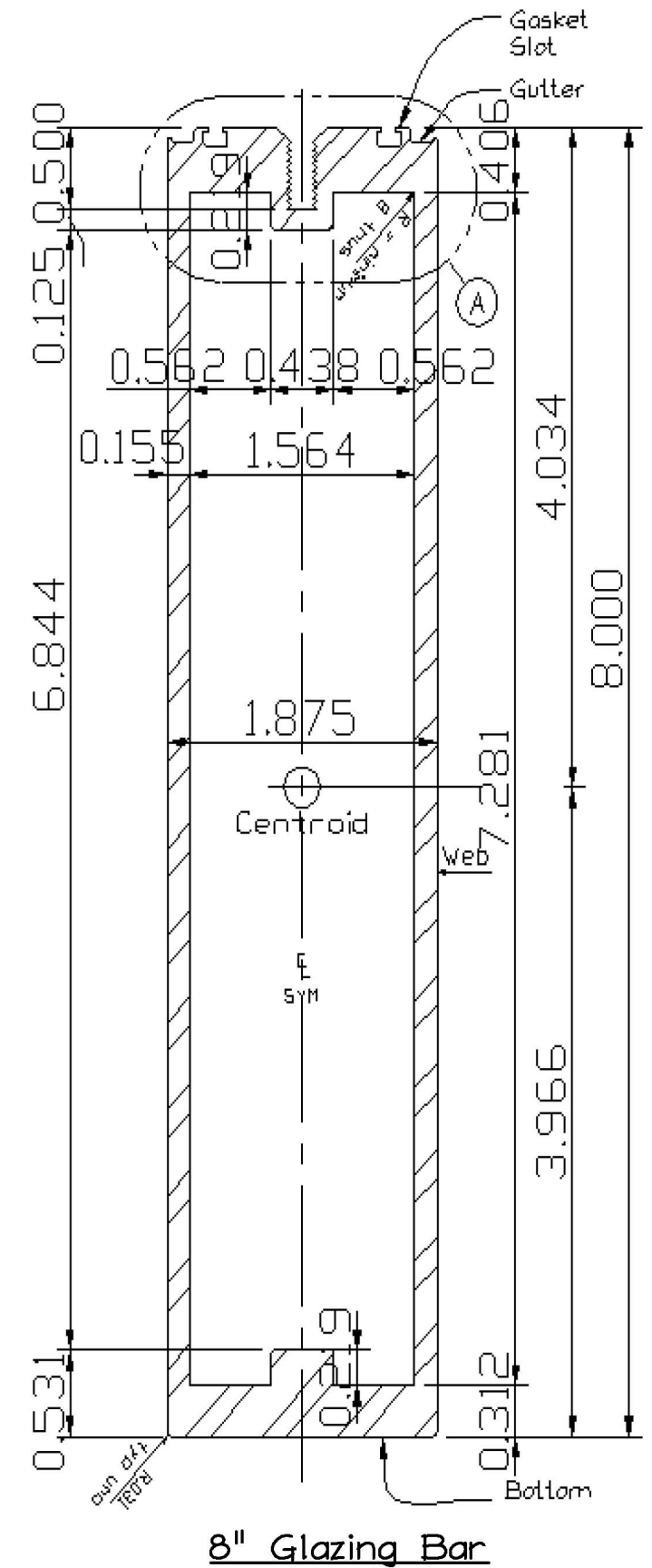
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(E)  
**Jamb**  
Scale: 3"=1'-0"



(F)  
**Rafter**  
Scale: 3"=1'-0"



**Properties**

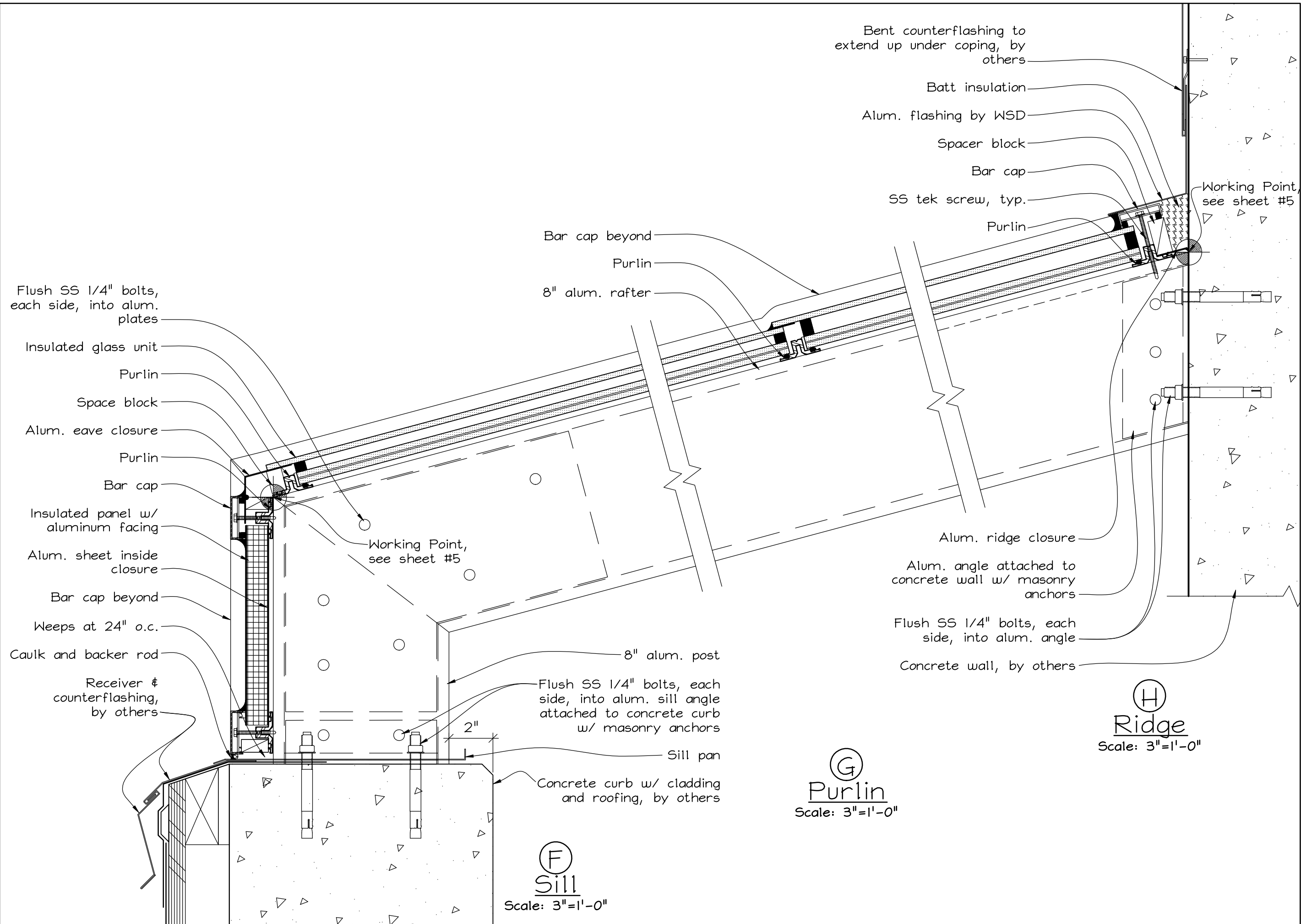
Shape	Weight per foot lb	Area in <sup>2</sup>	Axis X-X				Axis Y-Y			
			I	S	r	y	I	S	r	x
28 Glazing bar	4.328	3.6448	29,590	7,348	2,850	3,967	2,045	2,182	0,749	0,98

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Flush SS 1/4" bolts, each side, into alum. plates

Insulated glass unit

Purlin

Space block

Alum. eave closure

Purlin

Bar cap

Insulated panel w/ aluminum facing

Alum. sheet inside closure

Bar cap beyond

Weeps at 24" o.c.

Caulk and backer rod

Receiver & counterflashing, by others

Bent counterflashing to extend up under coping, by others

Batt insulation

Alum. flashing by WSD

Spacer block

Bar cap

SS tek screw, typ.

Purlin

Bar cap beyond

Purlin

8" alum. rafter

Alum. ridge closure

Alum. angle attached to concrete wall w/ masonry anchors

Flush SS 1/4" bolts, each side, into alum. angle

Concrete wall, by others

8" alum. post

Flush SS 1/4" bolts, each side, into alum. sill angle attached to concrete curb w/ masonry anchors

Sill pan

Concrete curb w/ cladding and roofing, by others

**(F)**  
Sill  
Scale: 3"=1'-0"

**(G)**  
Purlin  
Scale: 3"=1'-0"

**(H)**  
Ridge  
Scale: 3"=1'-0"

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