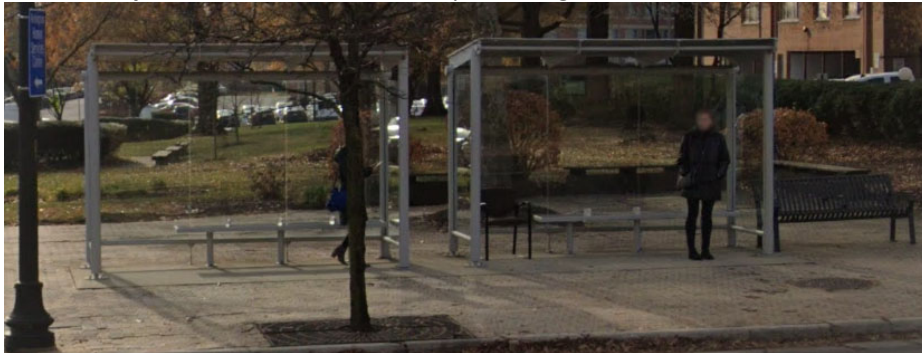


Please see below for the requested information.

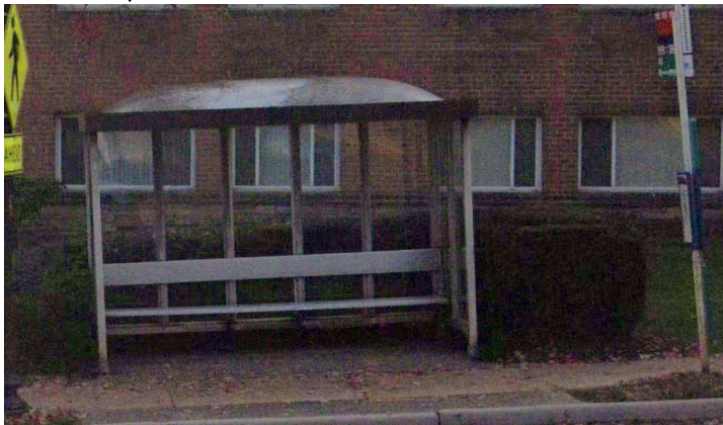
Brasco Slimline 512 (Brown Shelters): See attached shop drawings, these shelters can't be disassembled since all of the side glass panels are put together using rivets. To relocate them we have previously use straps and a backhoe to lift up and transport on a trailer track.



Brasco Eclipse 512- See attached shop drawings, these shelters can be disassemble.



White Dome : We don't have shop drawings for these shelters, relocation would be best perform in a similar way as the slimline shelters.



All salvaged shelters, benches will need to be taken to our warehouse at: 2900 S Eads Street, Arlington, VA.



BRASCO INTERNATIONAL, INC.

INSTALLATION GUIDELINES

Thank you for your order. Enclosed with these guidelines are engineering instructions specific to your order. Please review all pages in full before proceeding with your installation.

Storage

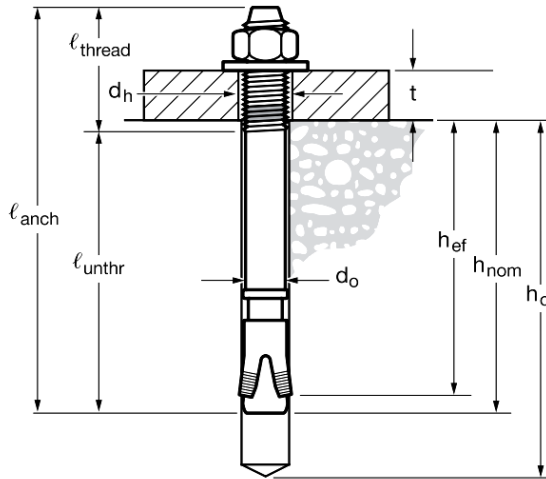
1. Products stored outside must be fully tarped. Wooden crates, cardboard boxes and identifying labels are not weatherproof and will deteriorate in the elements.
2. If your order includes solar lighting, be cautious when handling batteries as they are capable of generating hazardous short-circuit currents. Remove all jewelry (bracelets, metal watches, rings) before attempting to handle or disassemble batteries.
3. Batteries should be stored indoors at a recommended 68 degrees Fahrenheit for max shelf life.
4. Batteries should be installed no later than 3 months rom delivery or battery warranties will be void.

TOOLS NEEDED

<input type="checkbox"/> Drill Motor	<input type="checkbox"/> Cordless Drill	<input type="checkbox"/> Rivet Gun
<input type="checkbox"/> 1/4" Drill Bit	<input type="checkbox"/> Air Compressor	<input type="checkbox"/> Tape Measure
<input type="checkbox"/> #11 Drill Bit	<input type="checkbox"/> Steel Hammer	<input type="checkbox"/> Torque Wrench
<input type="checkbox"/> 8" Long 1/2" Masonry Drill Bits	<input type="checkbox"/> Dead Blow Hammer or Mallet	<input type="checkbox"/> 60" Bar Clamps
<input type="checkbox"/> 5/8" and 3/4" Socket and Wrench	<input type="checkbox"/> Bubble Level, Line / String Level	<input type="checkbox"/> Generator or Other Power Source
<input type="checkbox"/> HD Drill Motor or Hammer Drill	<input type="checkbox"/> Min. 6ft. Step Ladder	<input type="checkbox"/> Shop Vac or Broom for Clean Up

Installing Expansion Anchors

Expansion Anchor Installed



Setting information	Symbol	Units	Nominal anchor diameter d_a																				
			3/8			1/2			5/8			3/4											
Nominal bit diameter	d_{bit}	in.	3/8			1/2			5/8			3/4											
Minimum nominal embedment	h_{nom}	in. (mm)	2-5/16 (59)			2-3/8 (60)			3-5/8 (91)			3-9/16 (91)			4-7/16 (113)			4-5/16 (110)			5-9/16 (142)		
Effective minimum embedment	h_{ef}	in. (mm)	2 (51)			2 (51)			3-1/4 (83)			3-1/8 (79)			4 (102)			3-3/4 (95)			4-3/4 (121)		
Min. hole depth	h_o	in. (mm)	2-5/8 (67)			2-5/8 (67)			4 (102)			3-3/4 (95)			4-3/4 (121)			4-5/8 (117)			5-3/4 (146)		
Min. thickness of fixture ¹	t_{min}	in. (mm)	1/8 (3)			1/8 (3)			n/a			1/8 (3)			n/a			1/8 (3)			n/a		
Max. thickness of fixture	t_{max}	in. (mm)	2-1/4 (57)			4 (101)			2-3/4 (70)			5-5/8 (143)			4-3/4 (121)			4-5/8 (117)			3-5/8 (92)		
Installation torque	T_{inst}	ft-lb (Nm)	25 (34)			40 (54)			60 (81)			110 (149)			110 (149)			110 (149)			110 (149)		
Fixture hole diameter	d_n	in. (mm)	7/16 (11.1)			9/16 (14.3)			11/16 (17.5)			13/16 (20.6)			13/16 (20.6)			13/16 (20.6)			13/16 (20.6)		
Available anchor lengths	l_{anch}	in. (mm)	3 (76)	3-3/4 (95)	5 (127)	3-3/4 (95)	4-1/2 (114)	5-1/2 (140)	7 (178)	4-3/4 (121)	6 (152)	8-1/2 (216)	10 (254)	5-1/2 (140)	8 (203)	10 (254)							
Threaded length including dog point	l_{thread}	in. (mm)	7/8 (22)	1-5/8 (41)	2-7/8 (73)	1-5/8 (41)	2-3/8 (60)	3-3/8 (86)	4-7/8 (178)	1-1/2 (38)	2-3/4 (70)	5-1/4 (133)	6-3/4 (171)	1-1/2 (38)	4 (102)	6 (152)							
Unthreaded length	l_{unthr}	in. (mm)	2-1/8 (54)			2-1/8 (54)			3-1/4 (83)			4 (102)			4 (102)								

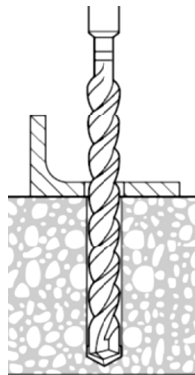
Expansion Anchor Technical Chart

Minimum thickness of fixture is a concern only when the anchor is installed at the minimum nominal embedment. When KWIK Bolt TZ anchors are installed at this embedment, the anchor threading ends near the surface of the concrete. If the fixture is sufficiently thin, it could be possible to run the nut to the bottom of the threading during application of the installation torque. If fixtures are thin, it is recommended that embedment be increased accordingly.

Step 1.

Prepping the Concrete

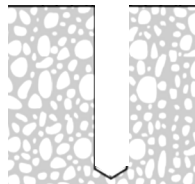
Using anchor boot as a template, mark hole locations and move anchor boot out of the way. Drill a hole the same diameter as the expansion anchor to a minimum depth of 1/2" deeper than the anchor will penetrate to allow debris to fall during installation



Step 2.

Prepping the Hole

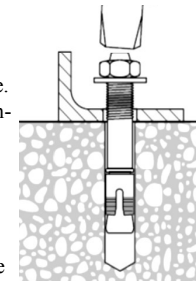
Clean debris from holes using a wire brush, vacuum, or compressed air.



Step 3.

Anchor Installation

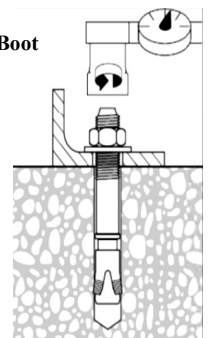
Replace the anchor boot and align with holes in the concrete. Make sure the nut on the expansion anchor is threaded to the top of the threaded rod to prevent damage to the threads. Insert the expansion anchor through the base plate and into the hole in the concrete. Hit the expansion anchor with sharp blows until the washers are snug against the base plates.



Step 4.

Securing the Anchor Boot

Tighten the nut to the recommended installation torque.



Standard Brasco Anchoring Guidelines

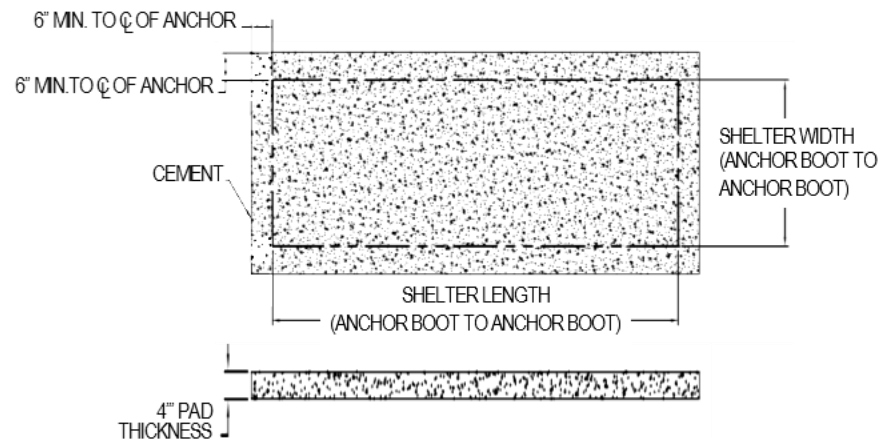
Expansion Anchor Installed

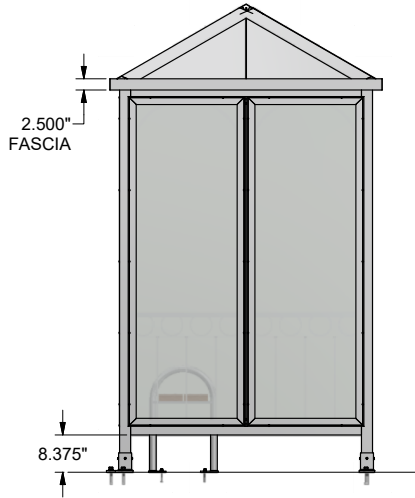
1. Locating proper column locations is critical. Care must be taken to keep columns plumb and walls square to each other.
2. Shelter should be sloped slightly to the rear for proper drainage. Approximately 1/4 inch slope per ft. from front to rear of shelter is recommended. Columns should be shimmed as necessary.
3. Anchors to be installed in conjunction with manufacturers recommendations only. (See Expansion Anchor Technical Chart on previous page.)
4. Anchors need to be installed a minimum of 6 inches from the edge of the concrete pad. See below for reference.

Standard Concrete Pad Overview

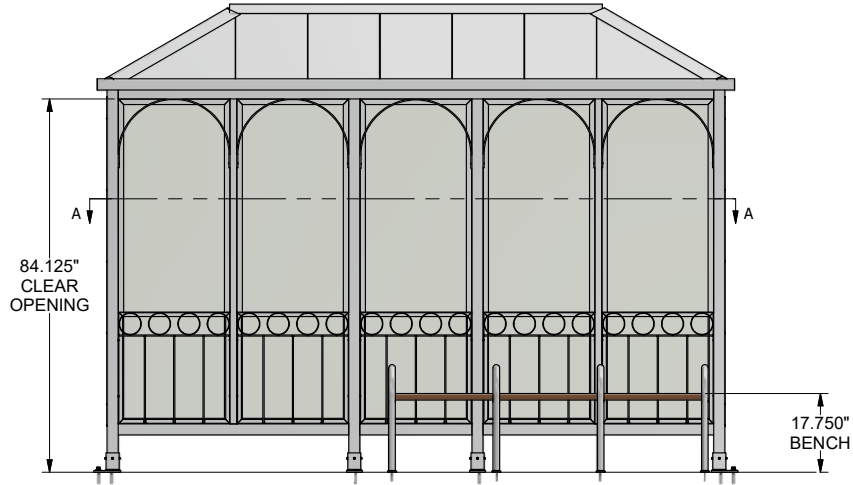
NOTE: This visual is for reference only. Brasco is not liable for concrete installation instructions unless structural concrete calculations are included with an order. Consult your local building codes for specific concrete pad requirements.

RECOMMENDED: Brasco recommends a minimum 4 inch thick, 3000 PSI concrete pad for areas with wind speeds lower than 110 MPH. The concrete pad should allow a minimum of 6 inches around the shelter's perimeter to prevent concrete breakage when anchoring. Concrete may or may not require additional reinforcement.

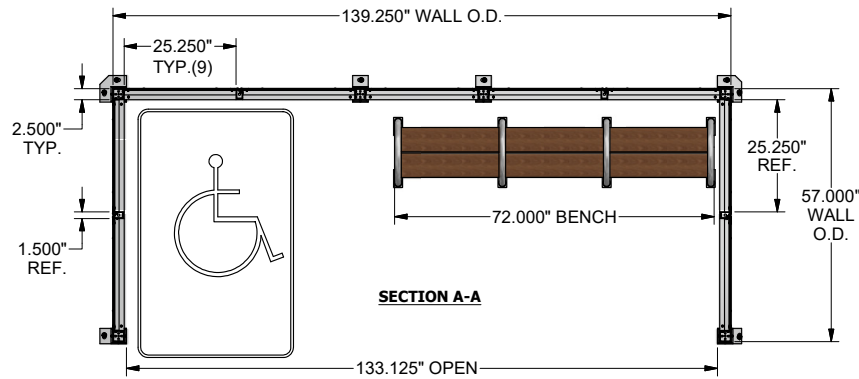
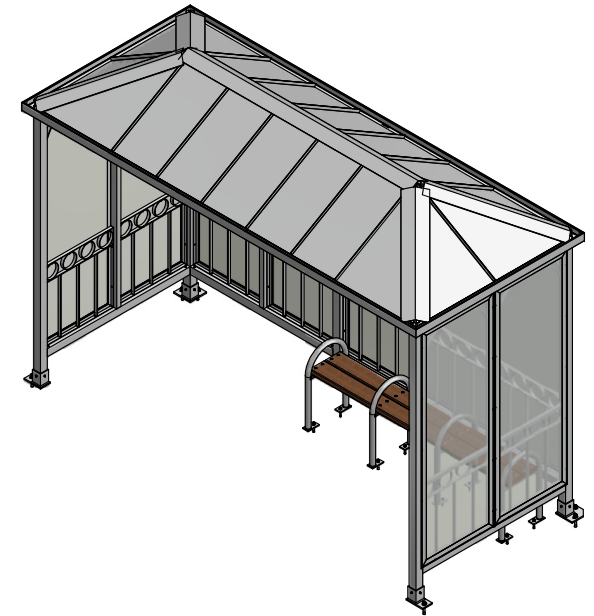




SIDE ELEVATION



FRONT ELEVATION



SECTION A-A

QUANTITY (15) SHELTERS THUS

SPECIFICATIONS:

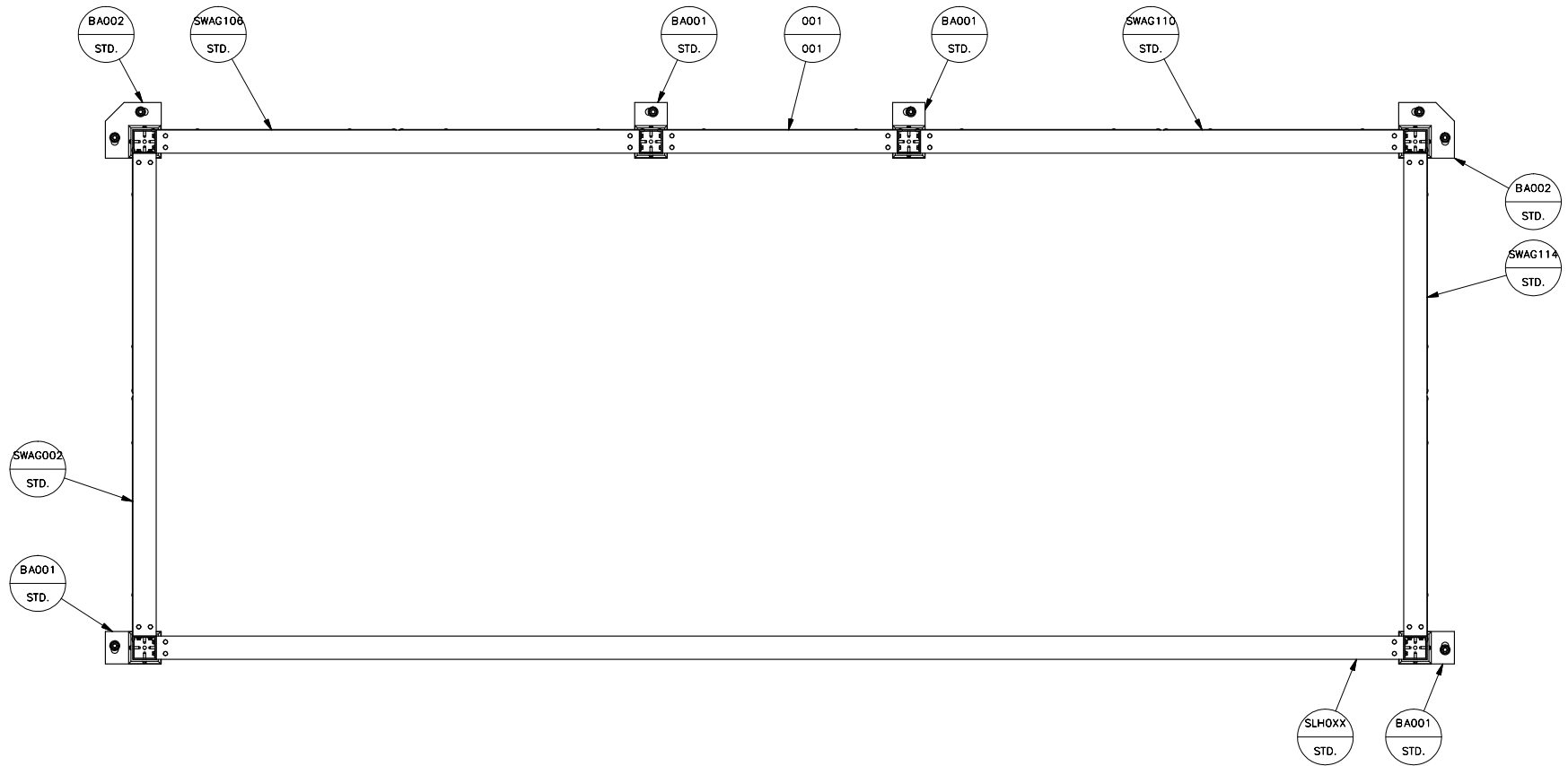
- DARK BRONZE ANODIZED ALUMINUM STRUCTURE
- 1/4" TEMPERED SAFETY GLASS
- LOWER CIRCLE PATTERN GRILLWORK
- UPPER ARCH GRILLWORK
- 6' CURVELINE BENCH WITH CEDAR HDPE BENCH SLATS (BRASCO BRONZE POWDER COAT)
- BRONZE ALUMINUM STANDING SEAM HIP ROOF WITH FASCIA/GUTTER SYSTEM



BRASCO INTERNATIONAL, INC.
 32400 INDUSTRIAL DR.
 MADISON HEIGHTS, MICHIGAN 48071
 1-800-893-3665 WWW.BRASCO.COM

THIS DRAWING IS CONFIDENTIAL AND IS FOR THE SOLE USE OF OUR CUSTOMERS AND MAY NOT BE REPRODUCED OR COPIED WITHOUT WRITTEN PERMISSION FROM BRASCO INTERNATIONAL.

CUSTOMER:	ARLINGTON COUNTY	DESIGNER:	HAUS	CHECKER:	BDH
PROJECT:	SLIMLINE STYLE SHELTER	DATE:	5-17-18	DATE:	5-18-18
MODEL:	SL-05-12-OF-F14-GC-CG-UA-SSHP	JOB #	5425A	SHEET:	S001
		REVISION:			A



BRASCO INTERNATIONAL SUB ASSEMBLY PARTS LIST

ITEM	QTY	SHT	DESCRIPTION	MODEL NUMBER	PART NUMBER	NOTES
SWAG114	1	STD.	WALL "D5"	SL-WA-D-52.000-F14-GC-UA-LC		SEE DWG.
SWAG110	1	STD.	WALL "C5"	SL-WA-C-52.000-F14-GC-UA-LC		SEE DWG.
SWAG106	1	STD.	WALL "B5"	SL-WA-B-52.000-F14-GC-UA-LC		SEE DWG.
SWAG002	1	STD.	WALL "A5"	SL-WA-A-52.000-F14-GC-UA-LC		SEE DWG.
SLH0XX	1	STD.	SLIMLINE HEADER 134.250	SL-H-134.250	AH003	SEE DWG
BA002	2	STD.	CORNER ANCHOR BOOT WELDMENT	BA002	BA002	
BA001	4	STD.	SINGLE FLANGE ANCHOR BOOT	BA001	BA001	
001	1	001	WALL "B5" SINGLE	SL-WA-B-25.250-F14-GC-UA-LC		SEE DWG.



BRASCO INTERNATIONAL, INC.
 32400 INDUSTRIAL DR.
 MADISON HEIGHTS, MICHIGAN 48071
 1-800-893-3665 WWW.BRASCO.COM

THIS DRAWING IS CONFIDENTIAL AND IS FOR THE SOLE USE OF OUR CUSTOMERS AND MAY NOT BE REPRODUCED OR COPIED WITHOUT WRITTEN PERMISSION FROM BRASCO INTERNATIONAL.

CUSTOMER: BRASCO	DESIGNER: HAUS	CHECKER:
PROJECT: SHELTER DETAILS	DATE:	DATE: X
MODEL: ARL-05-12-OF-F14-GC	JOB #	SHEET: A

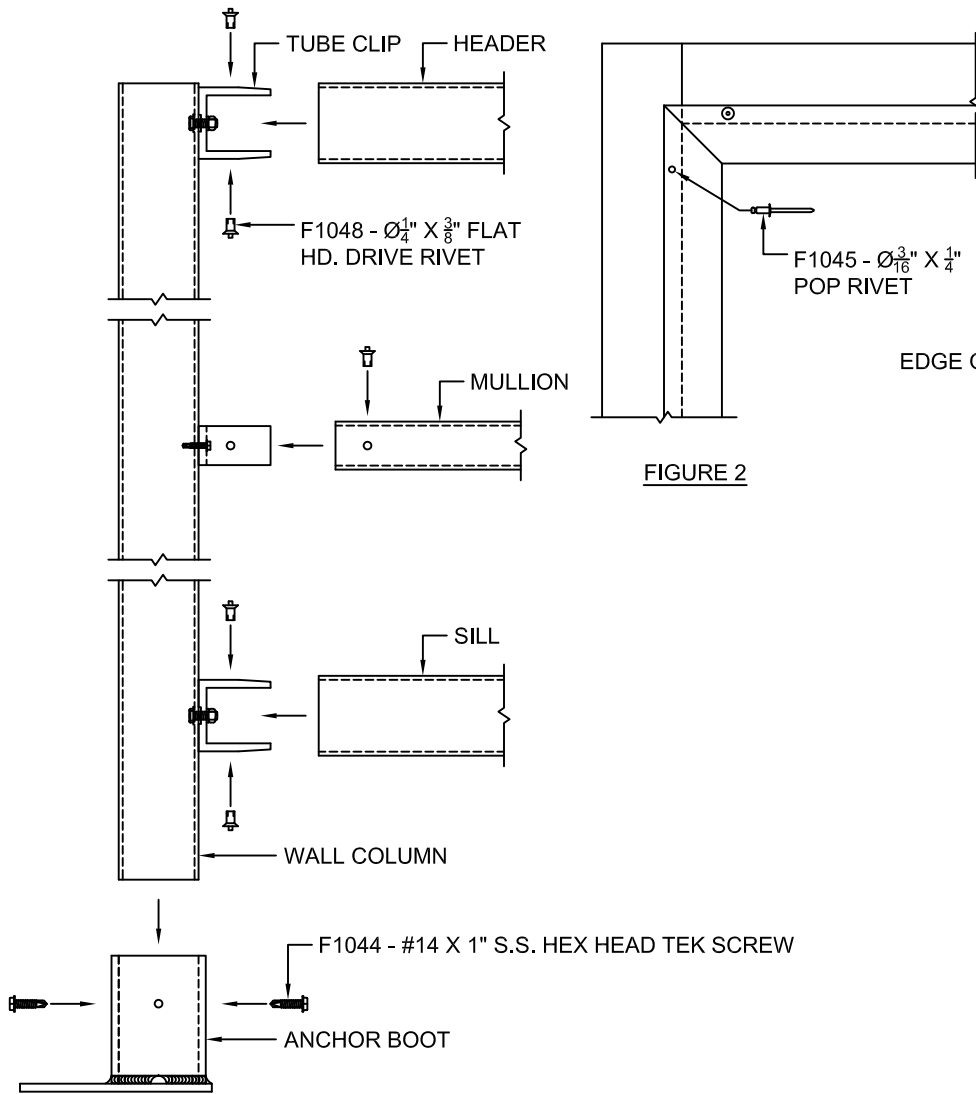


FIGURE 1

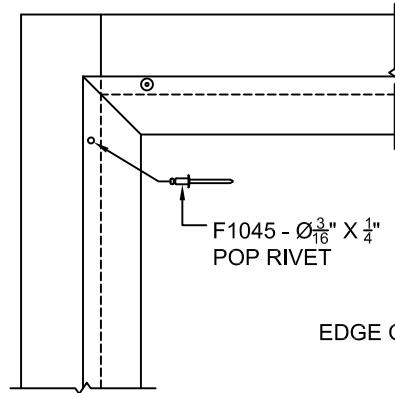


FIGURE 2

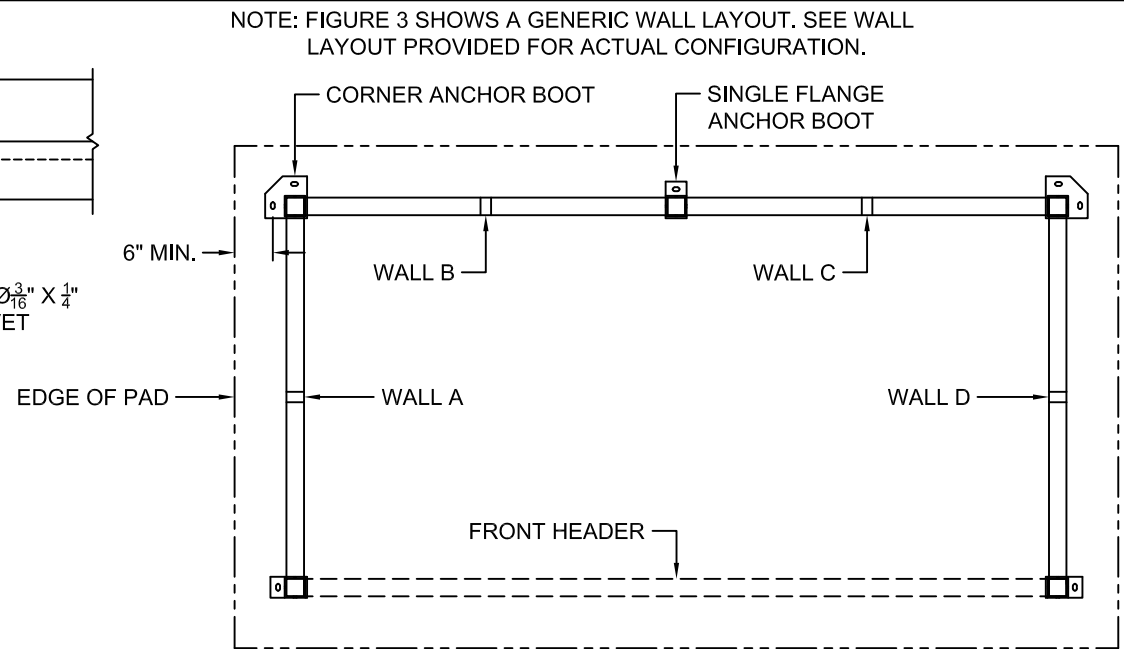


FIGURE 3

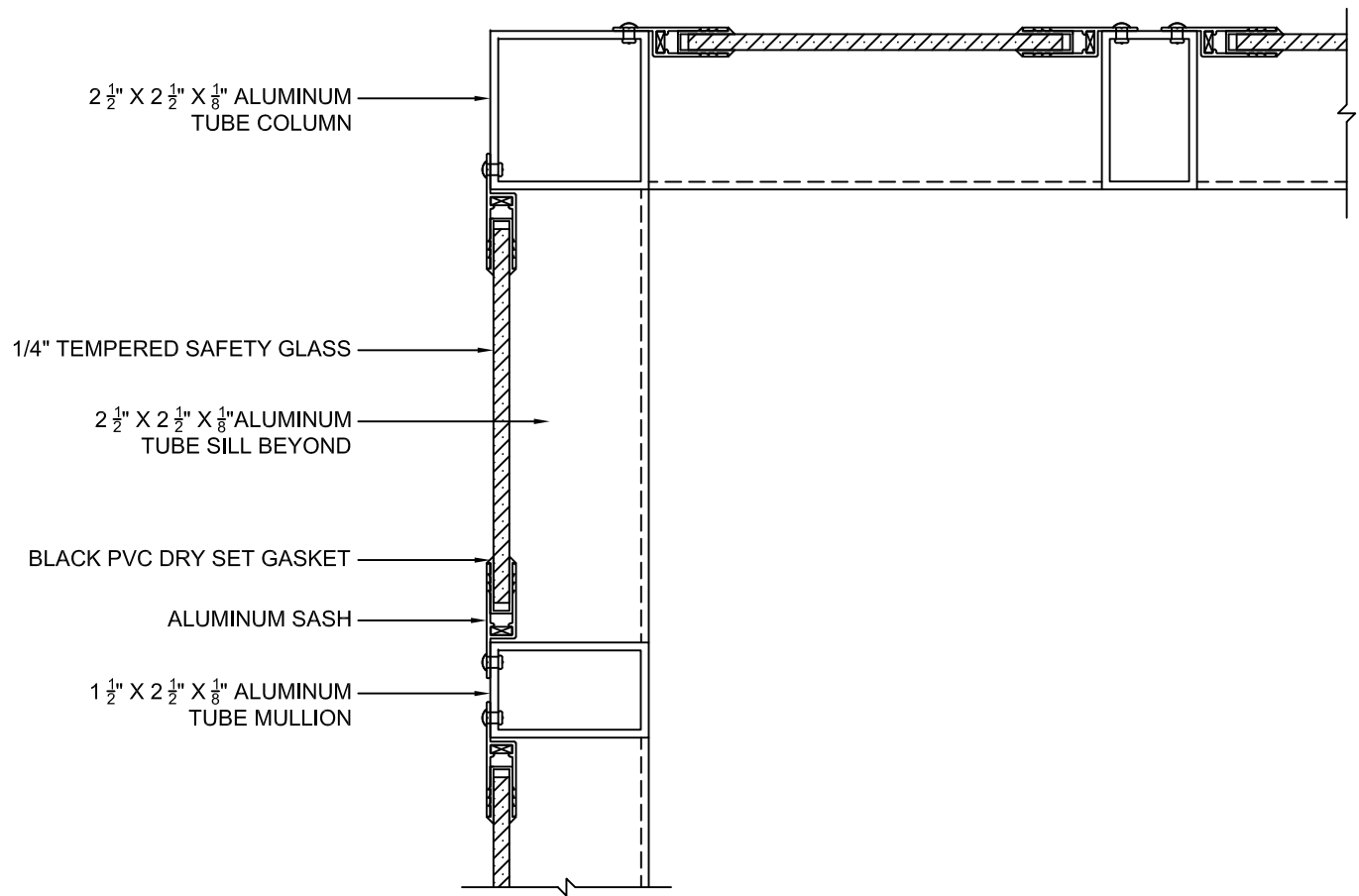
- 1) START WITH THE LEFT SIDE WALL AND LEFT BACK WALL. SET COLUMNS IN ANCHOR BOOTS. (ANCHOR BOOTS CAN BE ALIGNED UNDER SILLS OR TO OUTSIDE OF SHELTER AS SHOWN IN FIGURE 3) SLIDE HEADER AND SILL TUBES ONTO CORRESPONDING TUBE CLIPS UNTIL FULLY ENGAGED. USING THE DRIVE RIVET TOOL, ATTACH TO CLIPS WITH F1048 - $\varnothing\frac{1}{4}$ " X $\frac{3}{8}$ " FLAT HEAD DRIVE RIVETS.
- 2) REPEAT STEP 1 FOR REMAINING WALL SECTIONS, FRONT HEADER AND CROSS BRACE(S) CONNECTIONS.
- 3) WHERE WALL SECTIONS WERE CONNECTED, USE #11 ($\varnothing.191$ ") DRILL BIT TO TRANSFER HOLES IN GLAZING SASH TO COLUMNS. SECURE SASH TO COLUMN WITH F1045 - $\varnothing\frac{3}{16}$ " X $\frac{1}{4}$ " POP RIVET (FIGURE 2).
- 4) WITH THE SHELTER IN THE PROPER LOCATION, SQUARE AND PLUMB WALL SECTIONS. USING THE SHIMS PROVIDED, PITCH SHELTER TO THE REAR FOR DRAINAGE. TRANSFER $\varnothing\frac{1}{4}$ " HOLES THRU ANCHOR BOOTS INTO COLUMNS. ATTACH COLUMNS TO ANCHOR BOOTS USING F1044 #14 X 1" S.S. HEX HEAD TEK SCREW.
- 5) DRILL A $\varnothing\frac{1}{2}$ " HOLE 4" DP. MINIMUM IN CONCRETE FOR F1022 - WEDGE ANCHORS. CLEAN DUST AND DEBRIS FROM HOLES. TAP WEDGE ANCHORS INTO HOLES LEAVING $\frac{1}{2}$ " MIN. EXPOSED ABOVE BOOT FLANGE. APPLY FLAT WASHER, LOCK WASHER AND NUT ONTO ANCHOR AND TIGHTEN SECURELY.

BRASCO INTERNATIONAL, INC.
 32400 INDUSTRIAL DRIVE
 MADISON HEIGHTS, MICHIGAN 48071
 1-800-893-3665 WWW.BRASCO.COM

THIS DRAWING IS CONFIDENTIAL AND IS FOR THE SOLE USE OF OUR CUSTOMERS AND MAY NOT BE REPRODUCED OR COPIED WITHOUT WRITTEN PERMISSION FROM BRASCO INTERNATIONAL.
LEAD TIME BEGINS UPON RECEIPT OF SIGNED APPROVAL.

SIGNED: _____ DATE: _____

CUSTOMER:	INSTALLATION INSTRUCTIONS	ENGINEER:	SJT
PROJECT:	SLIMLINE STYLE TRANSIT SHELTER	DATE:	11-10-11
MODEL:	SLIMLINE SERIES	CHECKER:	BDH
	JOB #	DATE:	11-18-11
		SHEET #:	2



BRASCO INTERNATIONAL, INC.

32400 INDUSTRIAL DRIVE
 MADISON HEIGHTS, MI 48071
 1-800-893-3665 WWW.BRASCO.COM

THIS DRAWING IS CONFIDENTIAL AND IS FOR THE SOLE USE OF OUR CUSTOMERS AND MAY NOT BE REPRODUCED OR COPIED WITHOUT WRITTEN PERMISSION FROM BRASCO INTERNATIONAL.
LEAD TIME BEGINS UPON RECEIPT OF SIGNED APPROVAL.

SIGNED: _____ DATE: _____

CUSTOMER:		ENGINEER:	BDH	
PROJECT:	WINDOW GLAZING DETAILS - 1/4" GLASS - FACE MOUNT		DATE:	5-12-11
MODEL:	SLIMLINE SERIES	JOB #	SHEET #:	

2 1/2" X 2 1/2" X 1/8" ALUMINUM
HEADER TUBE

2 1/2" CLIP

2 1/2" X 2 1/2" X 1/8" ALUMINUM
TUBE COLUMN

1 1/2" X 2 1/2" X 1/8" ALUMINUM
TUBE MULLION

1/4" X 3/8" G.R. ALUM.
FLAT DRIVE RIVET
TYP.(4) PER CONNECTION

1/4" THICK INTERNAL CLIP - TYP.

2 1/2" X 2 1/2" X 1/8" ALUMINUM
SILL TUBE

8.000"

.375"

BRASCO INTERNATIONAL, INC.

32400 INDUSTRIAL DRIVE
MADISON HEIGHTS, MI 48071
1-800-893-3665 WWW.BRASCO.COM

THIS DRAWING IS CONFIDENTIAL AND IS FOR THE SOLE USE OF
OUR CUSTOMERS AND MAY NOT BE REPRODUCED OR COPIED
WITHOUT WRITTEN PERMISSION FROM BRASCO INTERNATIONAL.
LEAD TIME BEGINS UPON RECEIPT OF SIGNED APPROVAL.

SIGNED: _____ DATE: _____

CUSTOMER:		ENGINEER:	BDH	
PROJECT:	STANDARD WALL CONNECTION DETAILS		DATE:	1-7-11
MODEL:	SLIMLINE SERIES	JOB #	SHEET #:	

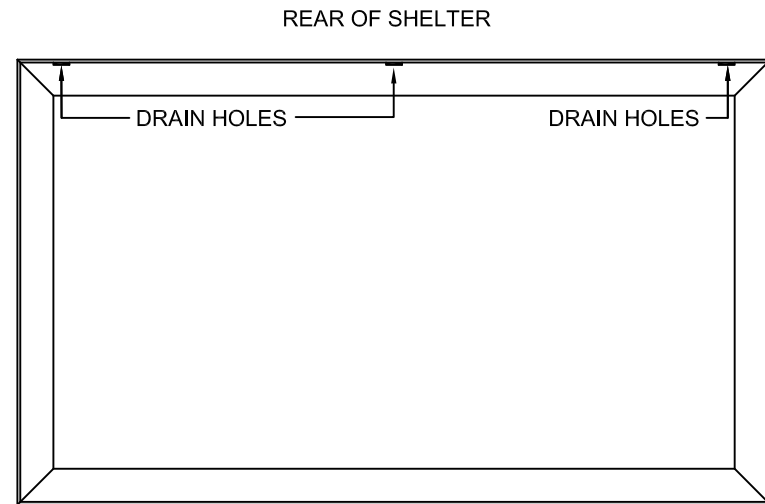
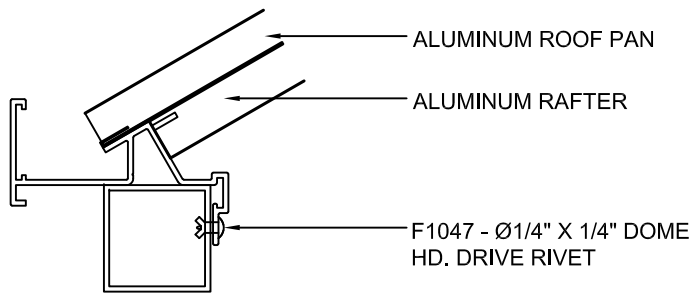


FIGURE 4

- 6) MAKE SURE TOP OF HEADER BEAMS ARE CLEAN AND CLEAR OF DEBRIS. WITH DRAIN HOLES TO REAR OF SHELTER SET THE ROOF MODULE ONTO SHELTER WALL SECTIONS (FIGURE 4).
- 7) TRANSFER MOUNTING HOLES IN FASCIA ALIGNMENT LIP TO HEADERS WITH Ø1/4" DRILL BIT.
- 8) ATTACH ROOF MODULE AROUND ENTIRE PERIMETER WITH F1047 - Ø1/4" X 1/4" DOME HD. DRIVE RIVETS.

BRASCO INTERNATIONAL, INC.

32400 INDUSTRIAL DRIVE
 MADISON HEIGHTS, MICHIGAN 48071
 1-800-893-3665 WWW.BRASCO.COM

THIS DRAWING IS CONFIDENTIAL AND IS FOR THE SOLE USE OF OUR CUSTOMERS AND MAY NOT BE REPRODUCED OR COPIED WITHOUT WRITTEN PERMISSION FROM BRASCO INTERNATIONAL.
LEAD TIME BEGINS UPON RECEIPT OF SIGNED APPROVAL.

SIGNED: _____ DATE: _____

CUSTOMER:	INSTALLATION INSTRUCTIONS	ENGINEER:	
		DATE:	
PROJECT:	SLIMLINE STYLE TRANSIT SHELTER	CHECKER:	
		DATE:	
MODEL:	SLIMLINE SERIES	JOB #	
		SHEET #:	3

HDPE CURVELINE BENCH (DOUBLE BENCH SLAT)

ASSEMBLY/INSTALLATION INSTRUCTIONS

BEGIN BY LAYING OUT BENCH BRACKETS (INTERMEDIATE AND ENDS).

LOCATE BENCH SLATS.

USE 5/16" DRILL TO DRILL HOLES IN SLATS, USE BENCH BRACKET AS TEMPLATE FOR HOLE PATTERN.

INSERT CARRIAGE BOLT INTO BENCH SLAT AND ALIGN WITH BENCH BRACKET. INSERT FLAT WASHER, AND LOCKWASHER AND NUT FROM BELOW.

REPEAT STEPS FOR EACH BRACKET.

ONCE ALL BENCH CARRIAGE BOLTS ARE ATTACHED, HAND TIGHTEN AND MAKE NECESSARY ADJUSTMENTS FOR ALIGNMENT.

ONCE ALIGNMENT IS COMPLETE, TIGHTEN ALL CARRIAGE BOLTS.

INSERT CURVELINE ANCHOR BOOT IN BOTTOM OF EACH BENCH BRACKET.

MOVE BENCH ASSEMBLY INTO DESIRED POSITION. IT IS ADVISED TO LEAVE 4" TO 6" OF SPACE BETWEEN THE BENCH AND WALL UNITS FOR CLEANING ACCESS.

LEVEL THE BENCH.

ROTATE ANCHOR BOOTS UNDERNEATH THE BENCH. APPLY #10 x 1" S.S. HEX HEAD TEK SCREWS THROUGH EACH BRACKET AND CURVELINE ANCHOR BOOT.

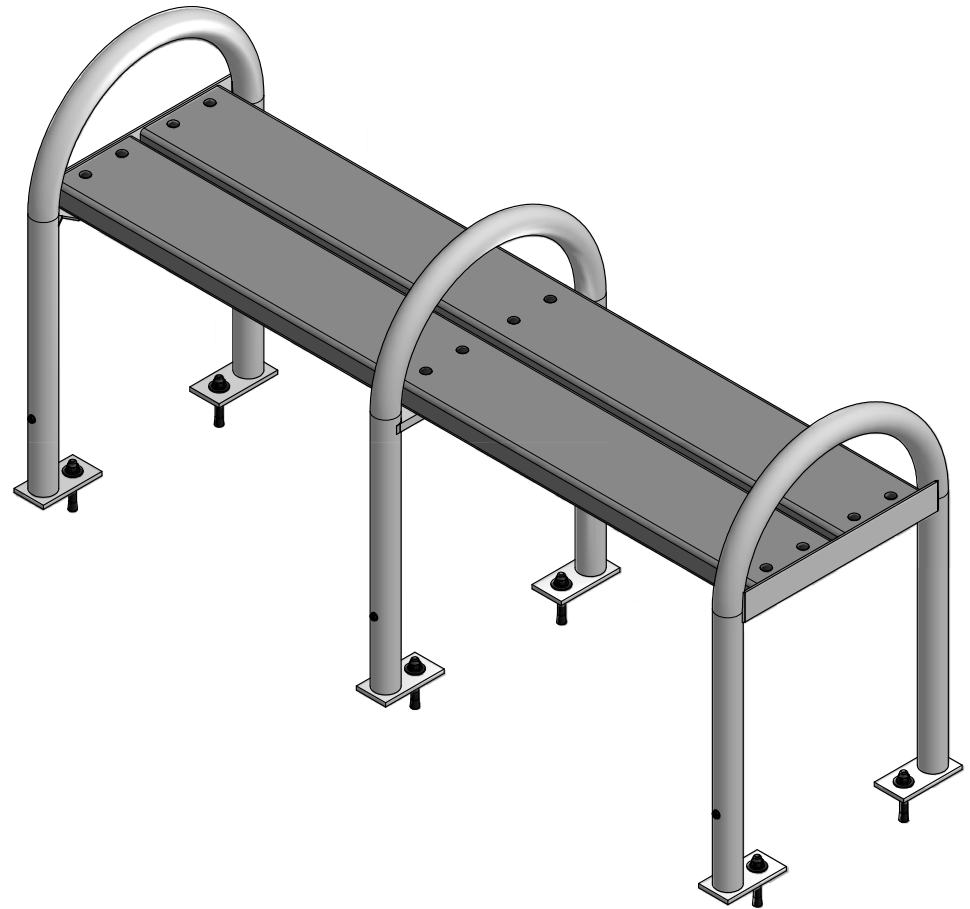
MARK ONTO CONCRETE THE HOLE PLACEMENT FOR EXPANSION ANCHOR BOLTS.


MOVE BENCH.

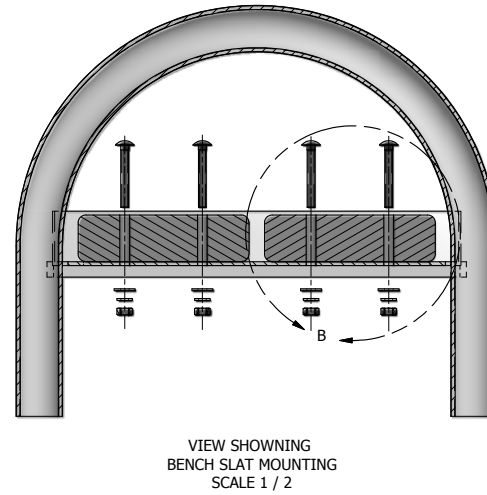
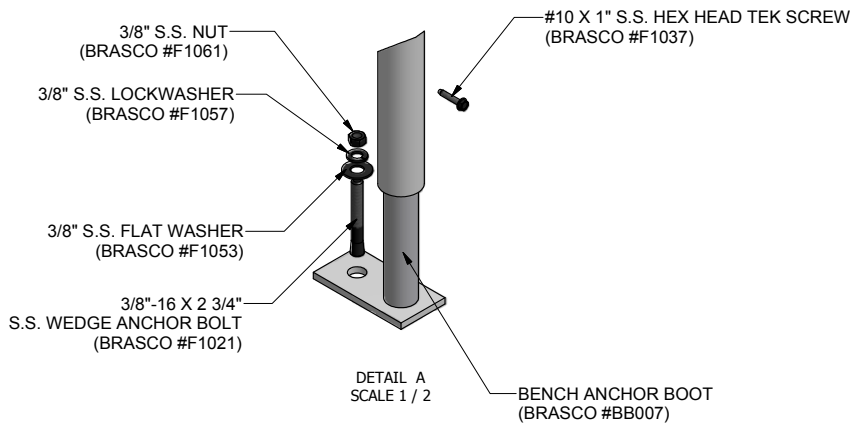
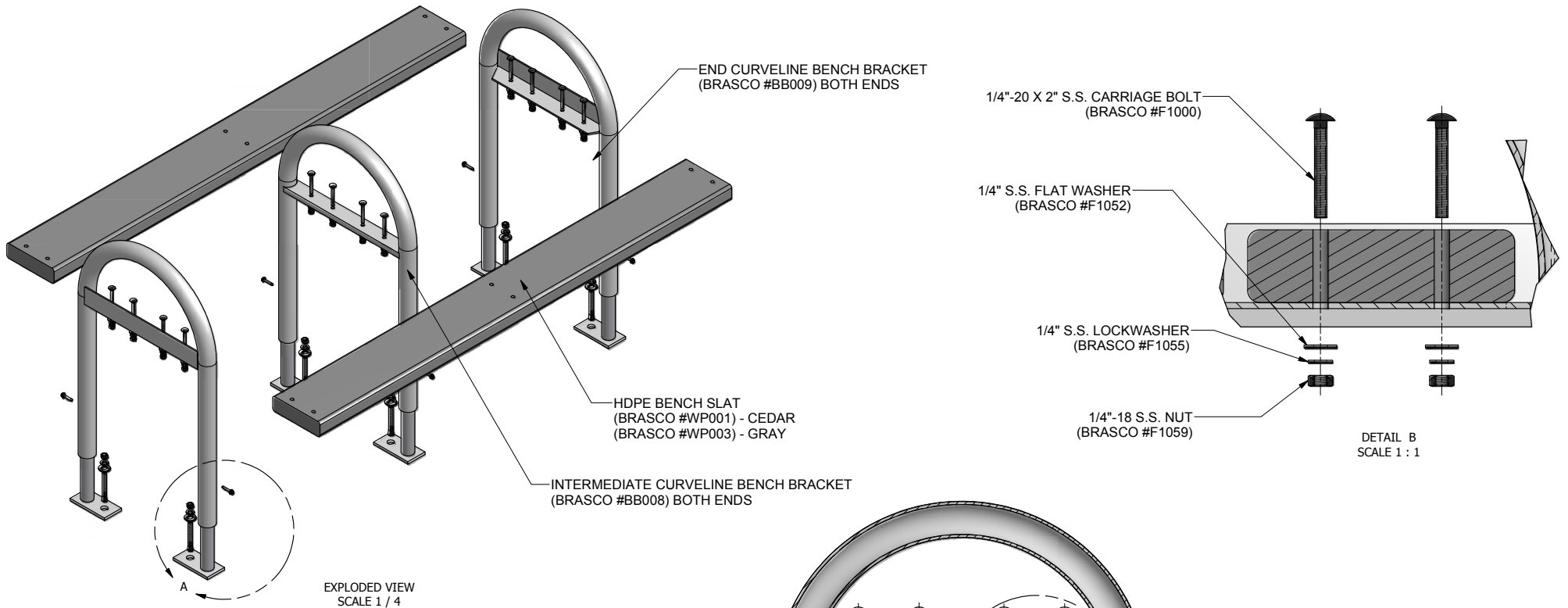
DRILL HOLES WITH 3/8" MASONRY BIT, 3 1/2" DEEP OR GREATER.


INSERT WEDGE ANCHORS LEAVING 1" OF THREAD ABOVE CONCRETE.

LOCATE BENCH OVER THREADED PORTION OF ANCHOR, INSTALL WASHER, LOCKWASHER, NUT AND TIGHTEN.



	BRASCO INTERNATIONAL, INC. 1000 MT. ELLIOTT DETROIT, MICHIGAN 48207 1-800-893-3665 WWW.BRASCO.COM		CUSTOMER: BRASCO INTERNATIONAL	DESIGNER: BMB
	<small>THIS DRAWING IS PROPRIETARY AND IS FOR THE SOLE USE OF OUR CUSTOMERS AND MAY NOT BE REPRODUCED OR COPIED WITHOUT WRITTEN PERMISSION FROM BRASCO INTERNATIONAL.</small>		PROJECT: HDPE CURVELINE BENCH	DATE: 2/17/10
			MODEL: -	JOB #



	BRASCO INTERNATIONAL, INC. 1000 MT. ELLIOTT DETROIT, MICHIGAN 48207 1-800-893-3665 WWW.BRASCO.COM		CUSTOMER: BRASCO INTERNATIONAL	DESIGNER: BMB
			PROJECT: HDPE CURVELINE BENCH	DATE: 2/17/10
			MODEL: -	JOB #

THIS DRAWING IS PROPRIETARY AND IS FOR THE SOLE USE OF OUR CUSTOMERS AND MAY NOT BE REPRODUCED OR COPIED WITHOUT WRITTEN PERMISSION FROM BRASCO INTERNATIONAL.

BRASCO INTERNATIONAL HARDWARE BOX

JOB # 5425APROJECT: ARLINGTON 5' x 12' SHELTERDATE: 11/9/18QUANTITY: 15 FINISH: BRZ Anod

Carefully read and check the below list against the shipment upon receipt. If there is a discrepancy please notify the Brasco International Inc. shipping department immediately. Thank You.

ITEM	PART NUMBER	MODEL NUMBER	DESCRIPTION	QTY (PER)	QTY (TOTAL)	X	BACK ORDER
	BA001		SINGLE FLANGE ANCHOR BOOT	4	60		
	BA002		CORNER ANCHOR BOOT WELDMENT	2	30		
	F1022		1/2-13 X 3 3/4" S.S. WEDGE ANCHOR	8	120		
	F1044-BZ		#14 X 1" S.S. HEX HEAD TEK SCREW	24	360		
	F1045-BZ		3/16" X 1/4" ALUM. POP RIVET	32	480		
	F1047-BZ		1/4" x 1/4" ALUMINUM D.H.D.R.	26	390		
	F1048-BZ		1/4" x 3/8" FLAT HEAD DRIVE RIVET	40	600		
	F1058		1/2" S.S. LOCK WASHER	8	120		
	MS005		DRIVE RIVET SETTING TOOL	1	15		
			ASSORTED SHIMS	6	90		
			INSTALLATION INSTRUCTIONS	1	1		
			TOUCH-UP PAINT	3	3		

COMPLETED BY: _____

DATE: _____

CHECKED BY: _____

BRASCO INTERNATIONAL, INC. - (313) 393-0393

BRASCO INTERNATIONAL WALLS/LINEALS PACKING LIST

JOB # 5425APROJECT: ARLINGTON 5' x 12' SHELTERDATE: 11/9/18QUANTITY: 15 FINISH: BRZ Anod

This shipment includes your Brasco International, Inc., shelter(s). The total number of wall sections and accessories (if any) are listed below. Each shelter will be accompanied by an individual hardware & packing list. Carefully read and check the below list against the shipment upon receipt. If there is a discrepancy please notify the Brasco International, Inc., shipping department immediately. Thank You.

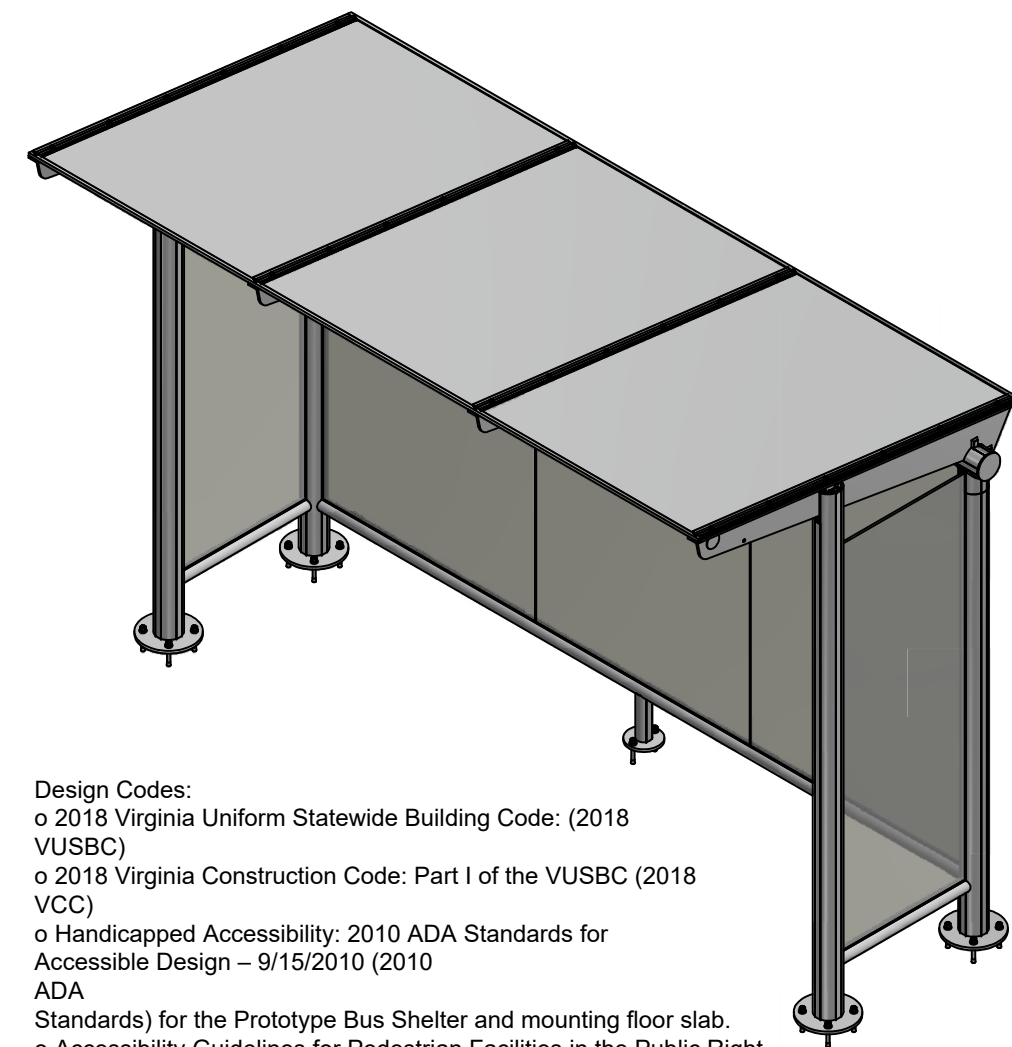
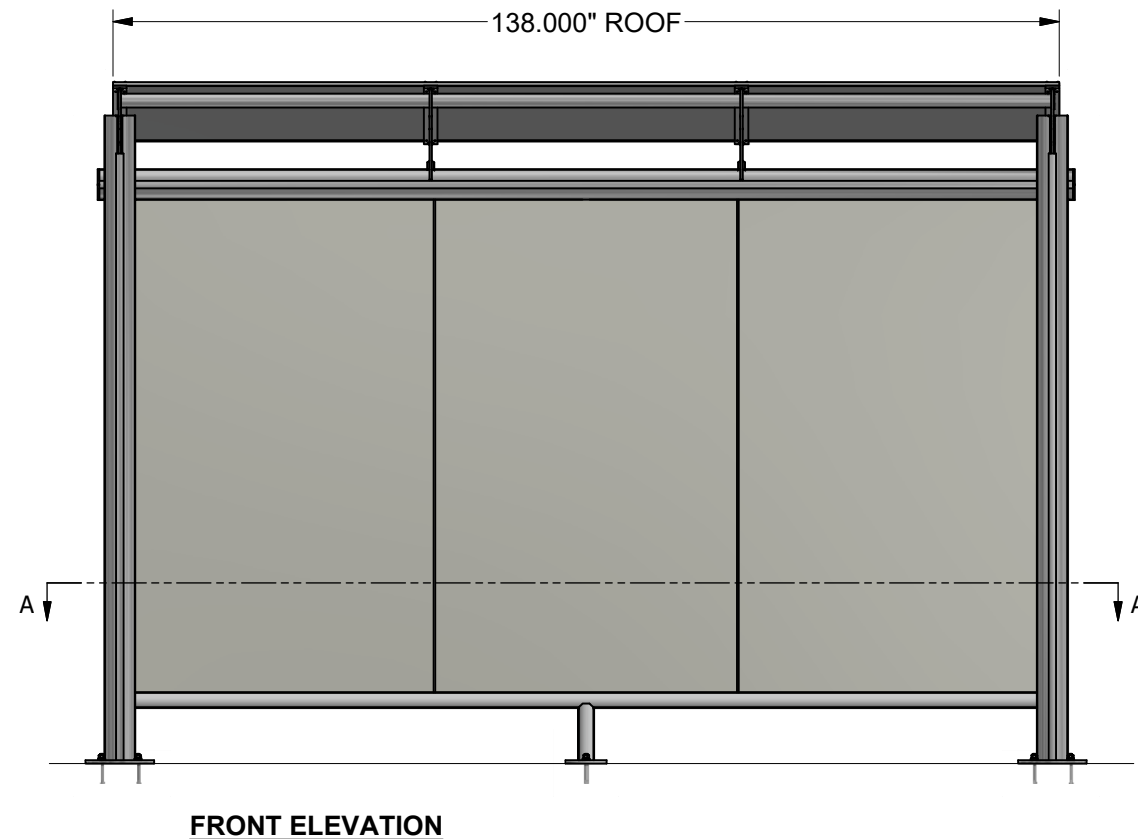
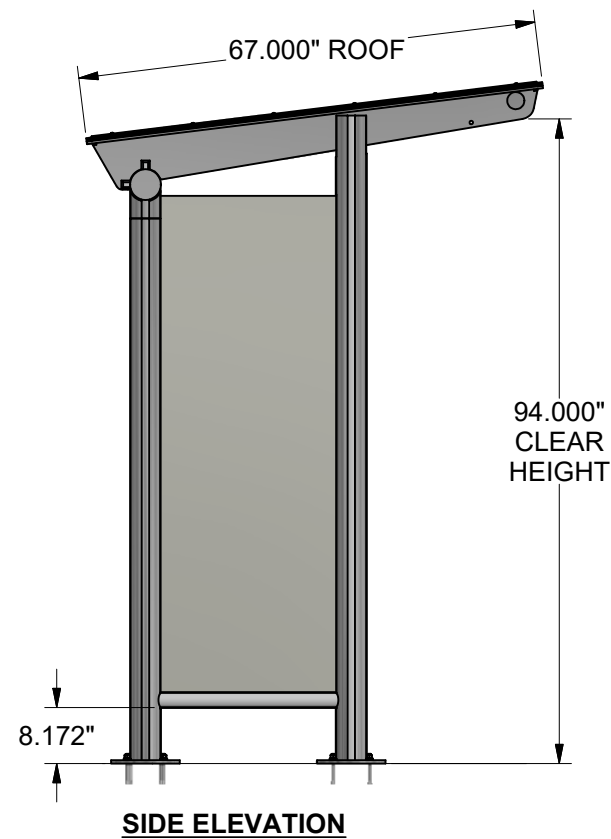
ITEM	PART NUMBER	MODEL NUMBER	DESCRIPTION	QTY (PER)	QTY (TOTAL)	CRATE	BACK ORDER	x
001		SL-WA-B-25.250-F14-GC-UA-LC	WALL "B5" SINGLE	1	15			
512SSHRA		ARL-05-12-SS-H-AP-04	5' x 12' SS HIP ROOF ASSEMBLY	1	15			
SHS015		SL-H-134.250	SLIMLINE HEADER 134.250	1	15			
SWAG002		SL-WA-A-52.000-F14-GC-UA-LC	WALL "A5"	1	15			
SWAG106		SL-WA-B-52.000-F14-GC-UA-LC	WALL "B5"	1	15			
SWAG110		SL-WA-C-52.000-F14-GC-UA-LC	WALL "C5"	1	15			
SWAG114		SL-WA-D-52.000-F14-GC-UA-LC	WALL "D5"	1	15			
			HARDWARE BOX	1	1			

COMPLETED BY: _____

DATE: _____

CHECKED BY: _____

BRASCO INTERNATIONAL, INC. - (313) 393-0393



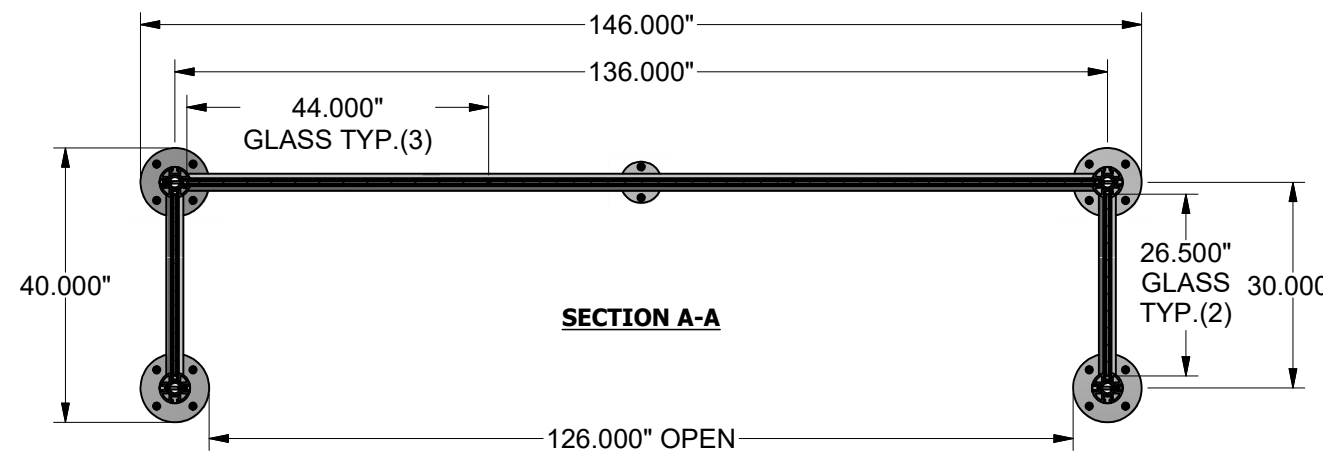
Design Codes:

- o 2018 Virginia Uniform Statewide Building Code: (2018 VUSBC)
- o 2018 Virginia Construction Code: Part I of the VUSBC (2018 VCC)
- o Handicapped Accessibility: 2010 ADA Standards for Accessible Design – 9/15/2010 (2010 ADA Standards) for the Prototype Bus Shelter and mounting floor slab.
- o Accessibility Guidelines for Pedestrian Facilities in the Public Right of Way: Public Rights-of-Way Accessibility Guidelines – 7/26/2011 (PROWAG). Required for the site adaptation approaches to the Prototype Bus Shelter.
- Per CPSM 4.2.2, including 4.2.2.8: accessible facilities must be provided at the completion of construction. Additionally, per CPSM 4.2.2.8; all areas and spaces normally occupied by employees or the public in state-owned buildings, individually or shared, shall be fully accessible.

Structural Design Data :

- o Roof Live Load, per VUSBC 1603.1.2; 20 psf
- o Floor Live Load, per VUSBC 1603.1.1; 100 psf
- o Roof Snow Load Data, per VUSBC 1603.1.3; 25 psf
- o Wind Design Data, per VUSBC 1603.1.4 – Wind Speed (mph); (Ultimate Wind Speed) 115
- o mph Wind Exposure Category; C
- o Risk Category, per VUSBC 1604.5; II
- o Seismic Design Category B Seismic Site Class D
- o Soil bearing requirements 1500 psf
- o VUSBC Construction Type; IIB
- o (Use) Group(s) per VUSBC; U
- o Building Gross Floor Area 40 SF
- o Building Area (per VUSBC definition) 40 SF
- o Height of Building; 8 ft
- o Number of Stories; 1 Story

PAD THICKNESS: 6"
PAD WIDTH: 7'-0"
PAD LENGTH: 14'-0"



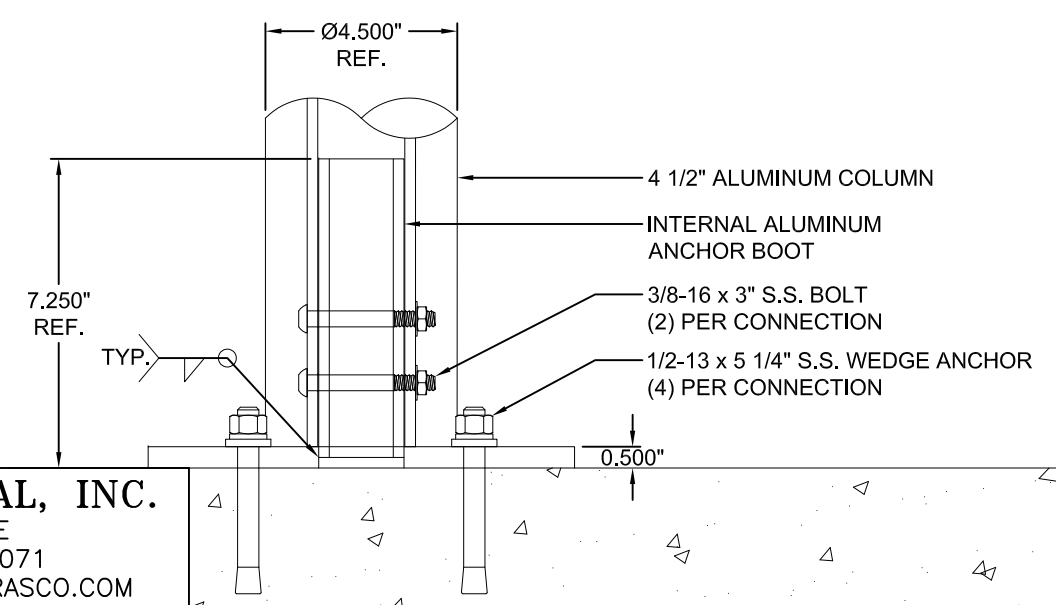
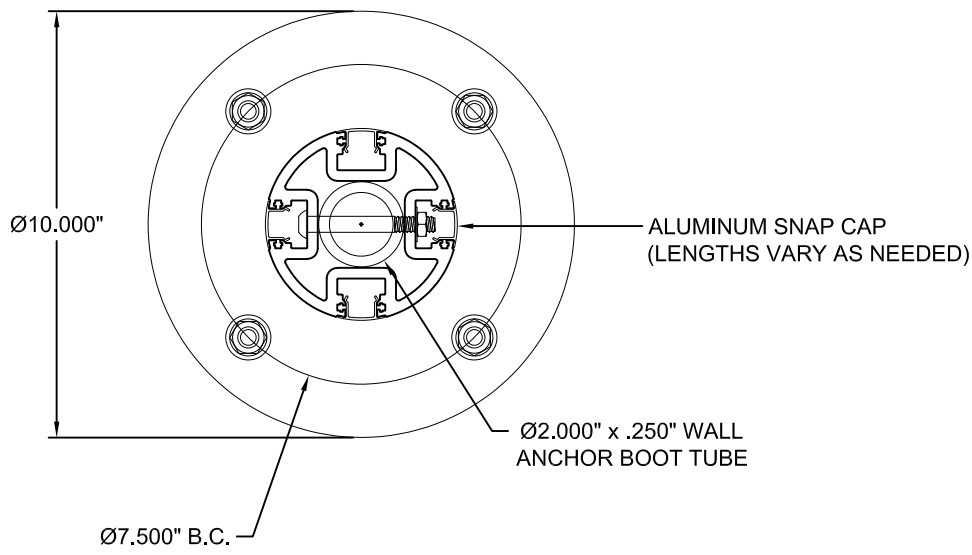
SPECIFICATIONS:
 - POWDER COATED ALUMINUM STRUCTURE
 - 3/8" CLEAR TEMPERED SAFETY GLASS
 - 1/8" ALUMINUM SLOPED ROOF



BRASCO INTERNATIONAL, INC.
 32400 INDUSTRIAL DR.
 MADISON HEIGHTS, MICHIGAN 48071
 1-800-893-3665 WWW.BRASCO.COM

THIS DRAWING IS CONFIDENTIAL AND IS FOR THE SOLE USE OF OUR CUSTOMERS AND MAY NOT BE REPRODUCED OR COPIED WITHOUT WRITTEN PERMISSION FROM BRASCO INTERNATIONAL.

CUSTOMER:	ARLINGTON	DESIGNER:	HAUS	CHECKER:	BDH
PROJECT:	ECLIPSE STYLE TRANSIT SHELTER	DATE:	11/26/21	DATE:	11/26/21
MODEL:	EC-0512-C-0-FL-AL-TG-0-0-0	JOB #	6754	SHEET:	001
				REVISION:	A

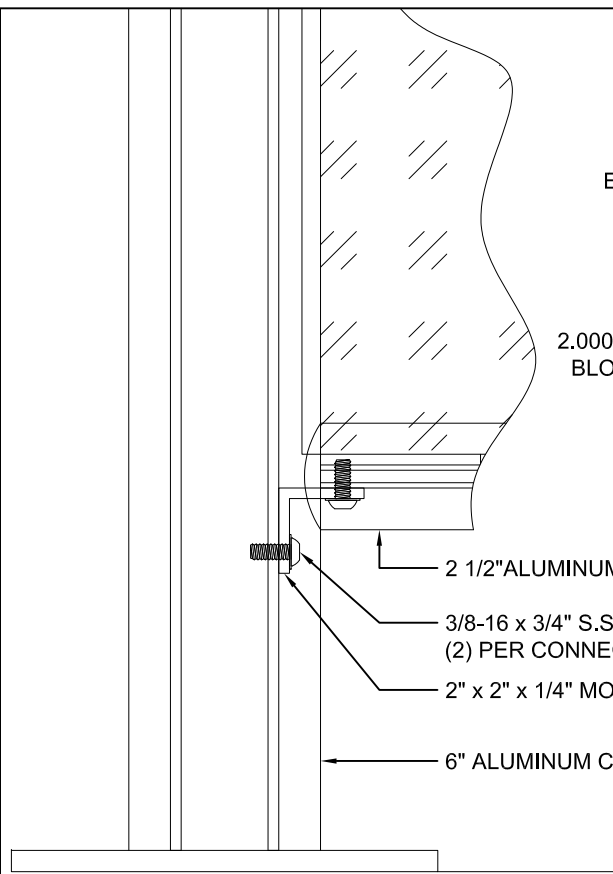


BRASCO INTERNATIONAL, INC.
 32400 INDUSTRIAL DRIVE
 MADISON HEIGHTS, MI 48071
 1-800-893-3665 WWW.BRASCO.COM

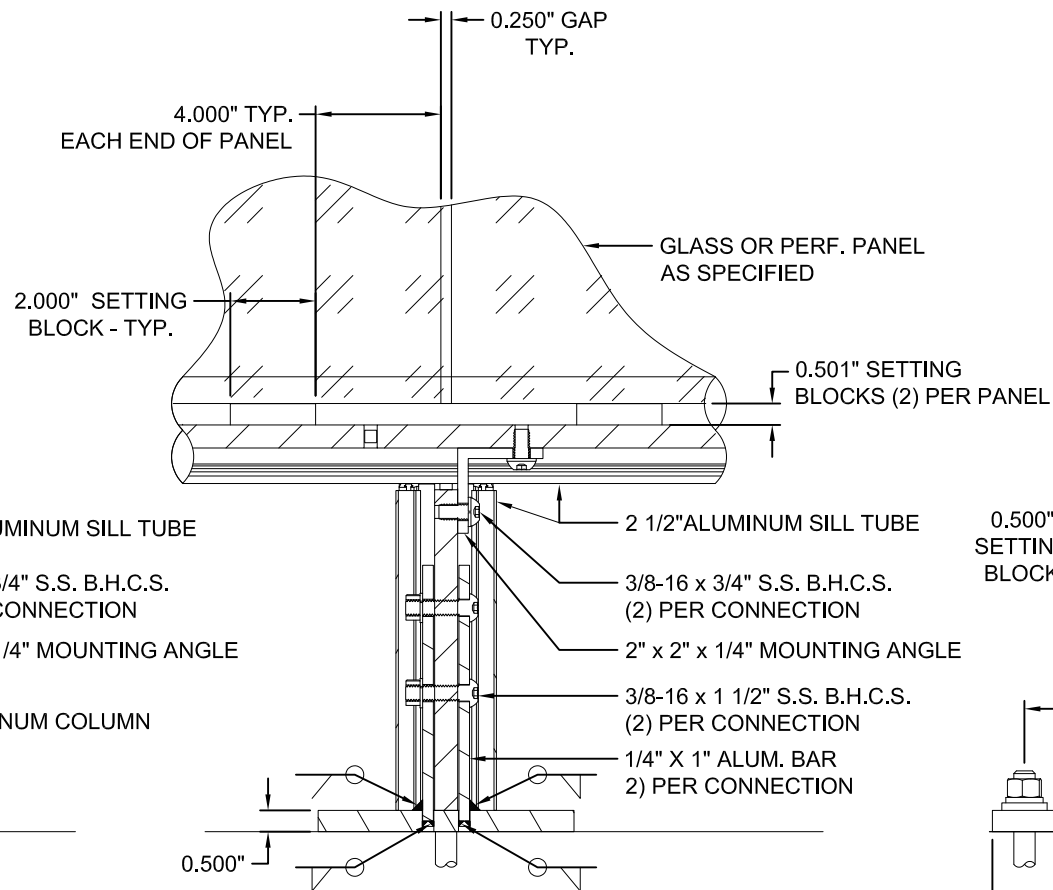
THIS DRAWING IS CONFIDENTIAL AND IS FOR THE SOLE USE OF OUR CUSTOMERS AND MAY NOT BE REPRODUCED OR COPIED WITHOUT WRITTEN PERMISSION FROM BRASCO INTERNATIONAL.
LEAD TIME BEGINS UPON RECEIPT OF SIGNED APPROVAL.

SIGNED: _____ DATE: _____

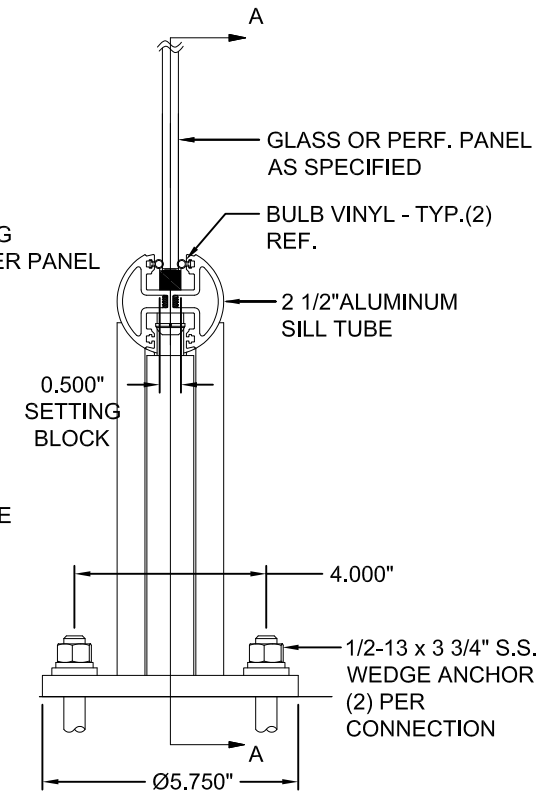
CUSTOMER:		ENGINEER:	HAUS
DETAIL:	SHELTER ANCHORING	DATE:	11/26/21
MODEL:	ECLIPSE SERIES	JOB #	6754
		SHEET #:	002



VIEW AT COLUMN CONNECTION



FRONT VIEW AT SILL SUPPORT



SIDE VIEW AT SILL SUPPORT

BRASCO INTERNATIONAL, INC.

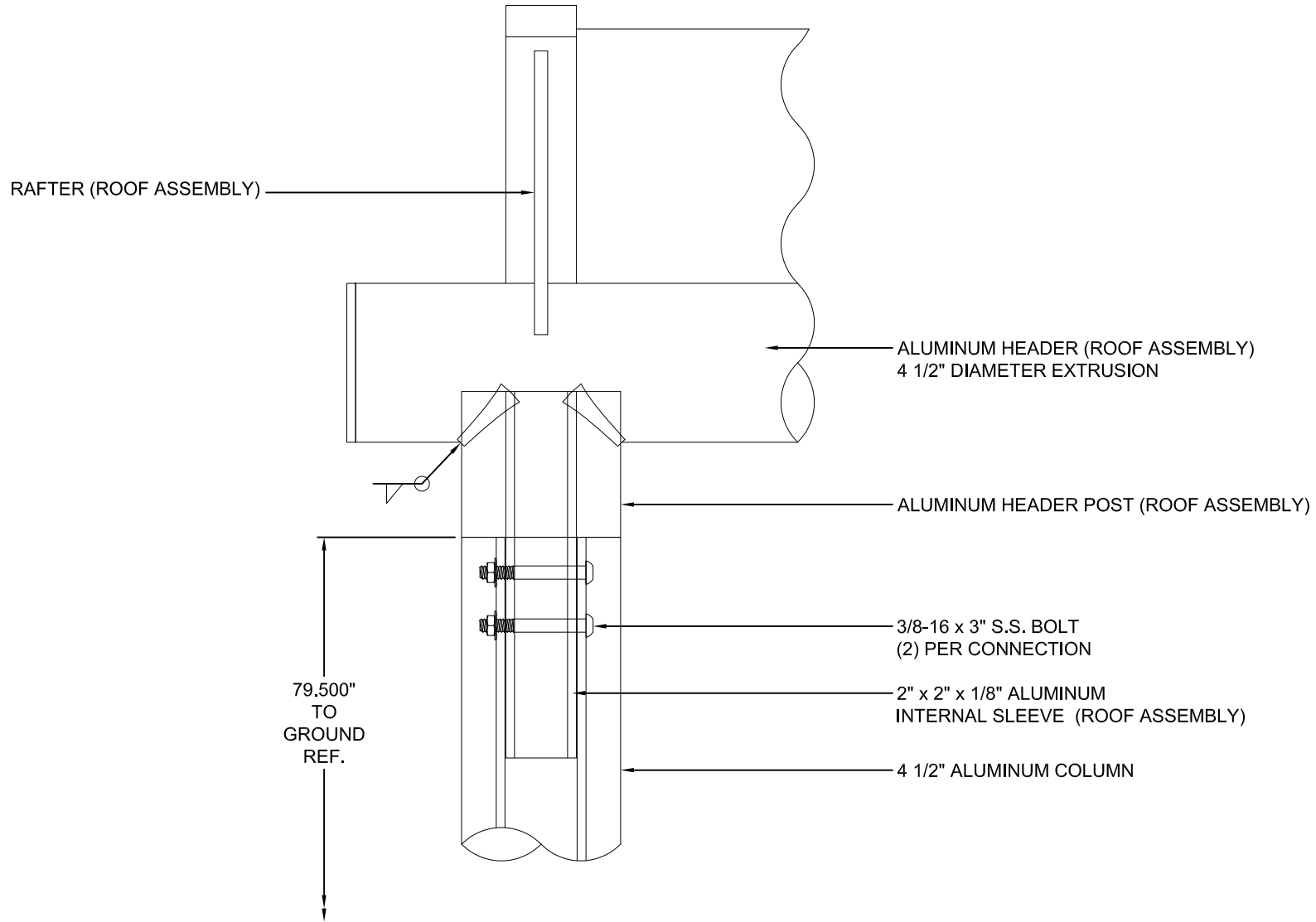
32400 INDUSTRIAL DRIVE
 MADISON HEIGHTS, MI 48071
 1-800-893-3665 WWW.BRASCO.COM

THIS DRAWING IS CONFIDENTIAL AND IS FOR THE SOLE USE OF OUR CUSTOMERS AND MAY NOT BE REPRODUCED OR COPIED WITHOUT WRITTEN PERMISSION FROM BRASCO INTERNATIONAL.
LEAD TIME BEGINS UPON RECEIPT OF SIGNED APPROVAL.

SIGNED: _____ DATE: _____

CUSTOMER:		ENGINEER:	HAUS		
DETAIL:	SILL ATTACHMENT AND CONNECTIONS		DATE:	11/26/21	
MODEL:	ECLIPSE SERIES	JOB #	6754	SHEET #:	003

NOTE: ROOF ARRIVES FULLY ASSEMBLED



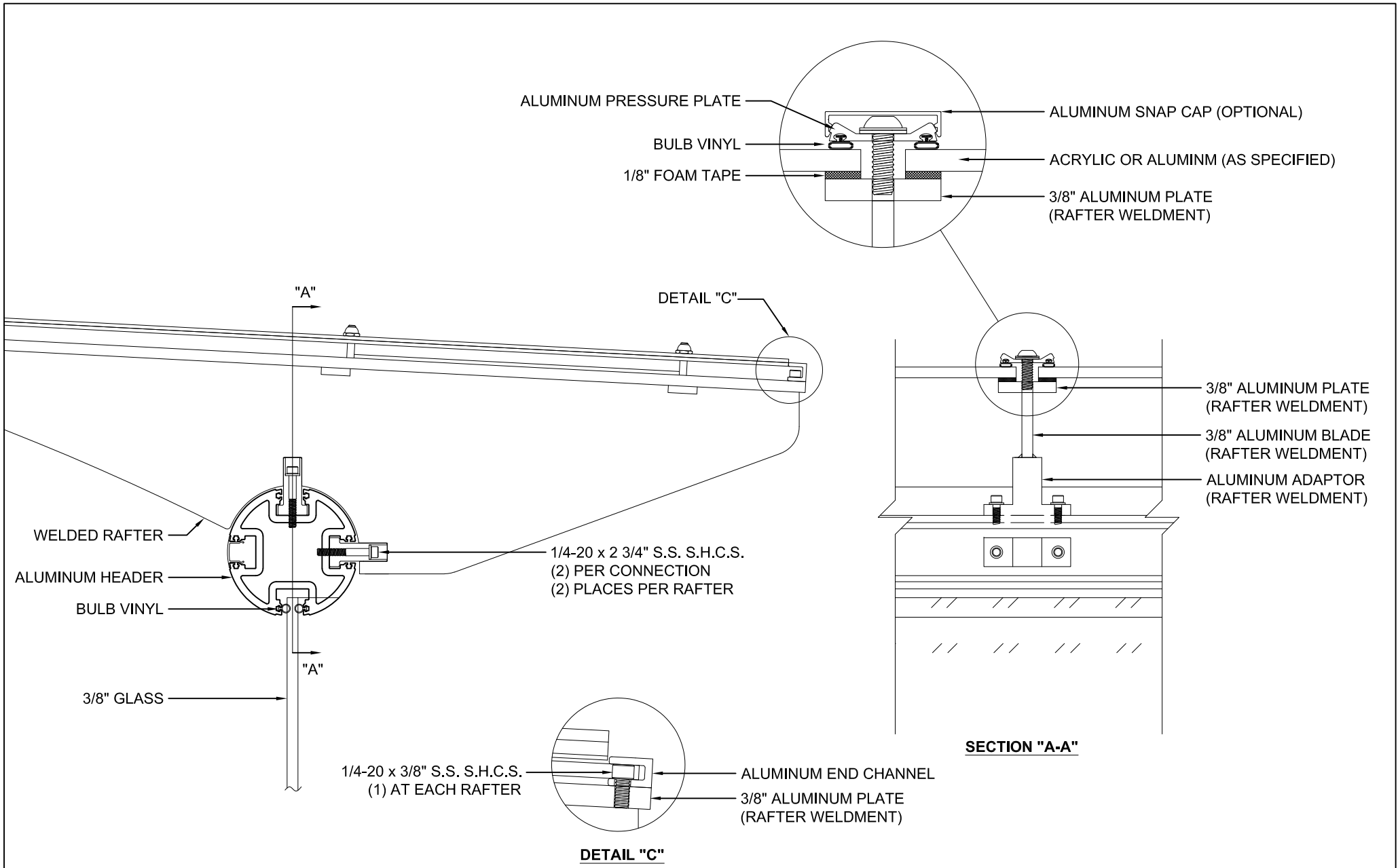
BRASCO INTERNATIONAL, INC.

32400 INDUSTRIAL DRIVE
MADISON HEIGHTS, MI 48071
1-800-893-3665 WWW.BRASCO.COM

THIS DRAWING IS CONFIDENTIAL AND IS FOR THE SOLE USE OF OUR CUSTOMERS AND MAY NOT BE REPRODUCED OR COPIED WITHOUT WRITTEN PERMISSION FROM BRASCO INTERNATIONAL.
LEAD TIME BEGINS UPON RECEIPT OF SIGNED APPROVAL.

SIGNED: _____ DATE: _____

CUSTOMER:		ENGINEER:	HAUS		
DETAIL:	HEADER ATTACHMENT TO COLUMN		DATE:	11/26/21	
MODEL:	ECLIPSE SERIES	JOB #	6754	SHEET #:	004



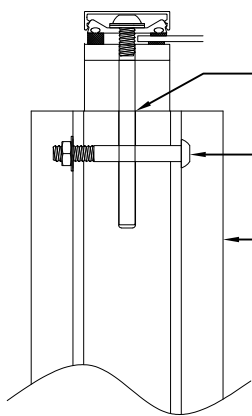
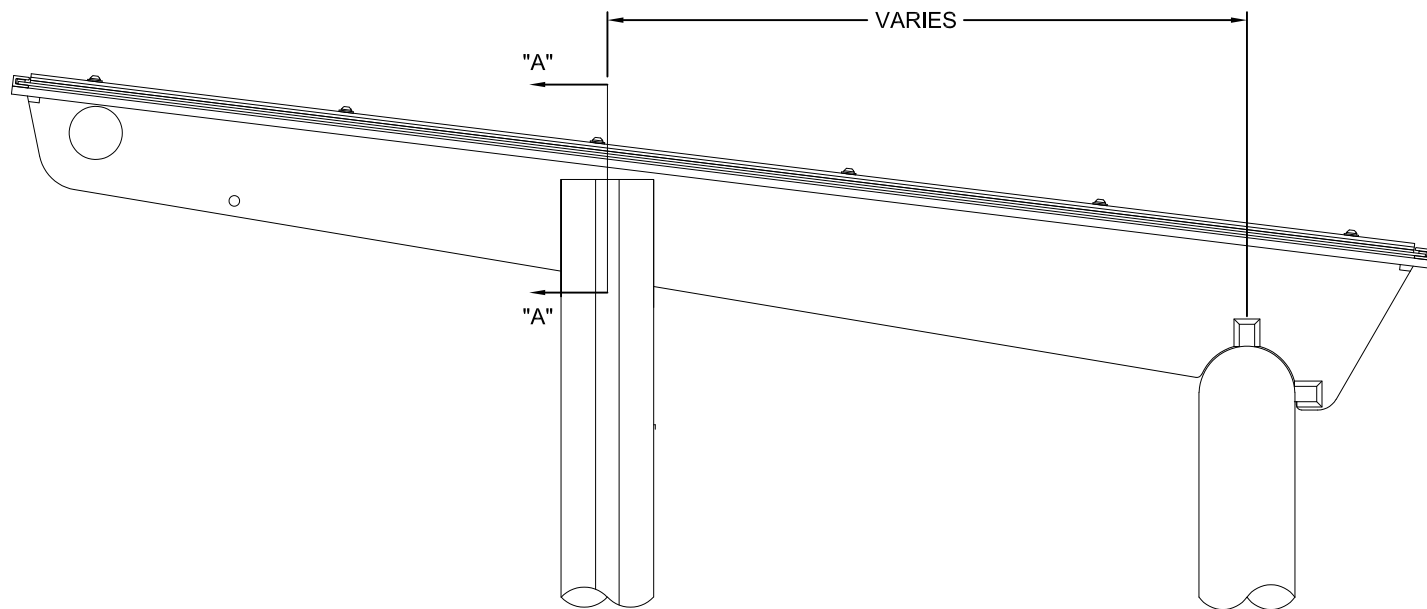
BRASCO INTERNATIONAL, INC.

32400 INDUSTRIAL DRIVE
 MADISON HEIGHTS, MI 48071
 1-800-893-3665 WWW.BRASCO.COM

THIS DRAWING IS CONFIDENTIAL AND IS FOR THE SOLE USE OF OUR CUSTOMERS AND MAY NOT BE REPRODUCED OR COPIED WITHOUT WRITTEN PERMISSION FROM BRASCO INTERNATIONAL.
LEAD TIME BEGINS UPON RECEIPT OF SIGNED APPROVAL.

SIGNED: _____ DATE: _____

CUSTOMER:		ENGINEER:	HAUS
DETAIL:	RAFTER AND ROOF ATTACHMENTS	DATE:	11/26/21
MODEL:	ECLIPSE SERIES	JOB #	6754
		SHEET #:	005



COLUMN SLOTTED FOR RAFTER BLADE

3/8-16 x 3" S.S. BOLT (1) PER CONNECTION

ALUMINUM COLUMN

SECTION "A-A"

BRASCO INTERNATIONAL, INC.

32400 INDUSTRIAL DRIVE
 MADISON HEIGHTS, MI 48071
 1-800-893-3665 WWW.BRASCO.COM

THIS DRAWING IS CONFIDENTIAL AND IS FOR THE SOLE USE OF OUR CUSTOMERS AND MAY NOT BE REPRODUCED OR COPIED WITHOUT WRITTEN PERMISSION FROM BRASCO INTERNATIONAL.
LEAD TIME BEGINS UPON RECEIPT OF SIGNED APPROVAL.

SIGNED: _____ DATE: _____

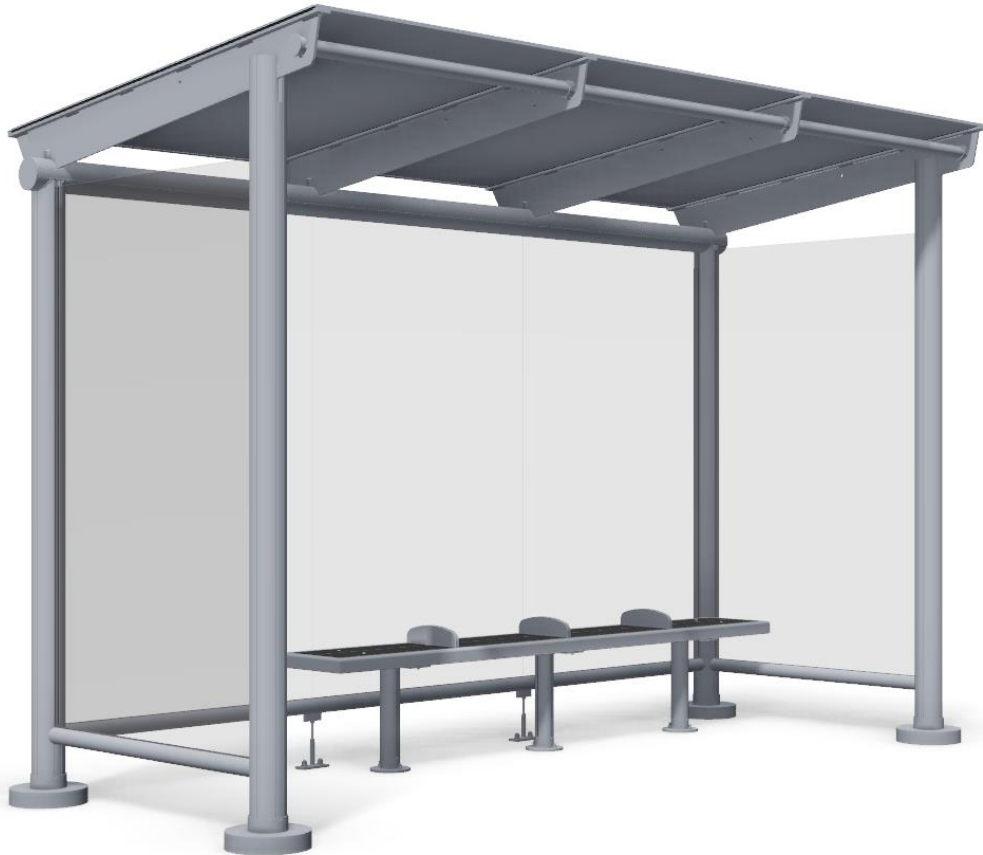
CUSTOMER:		ENGINEER:	HAUS		
DETAIL:	FRONT COLUMN TO ROOF ATTACHMENT		DATE:	11/26/21	
MODEL:	ECLIPSE SERIES	JOB #	6754	SHEET #:	006



Brasco International, Inc.

32400 Industrial Dr., Madison Heights MI, 48071

p 800.893.3665 | f 313.393.0499 | sales@brasco.com | www.brasco.com



ECLIPSE

Transit Shelter | EC-Series

BRASCO

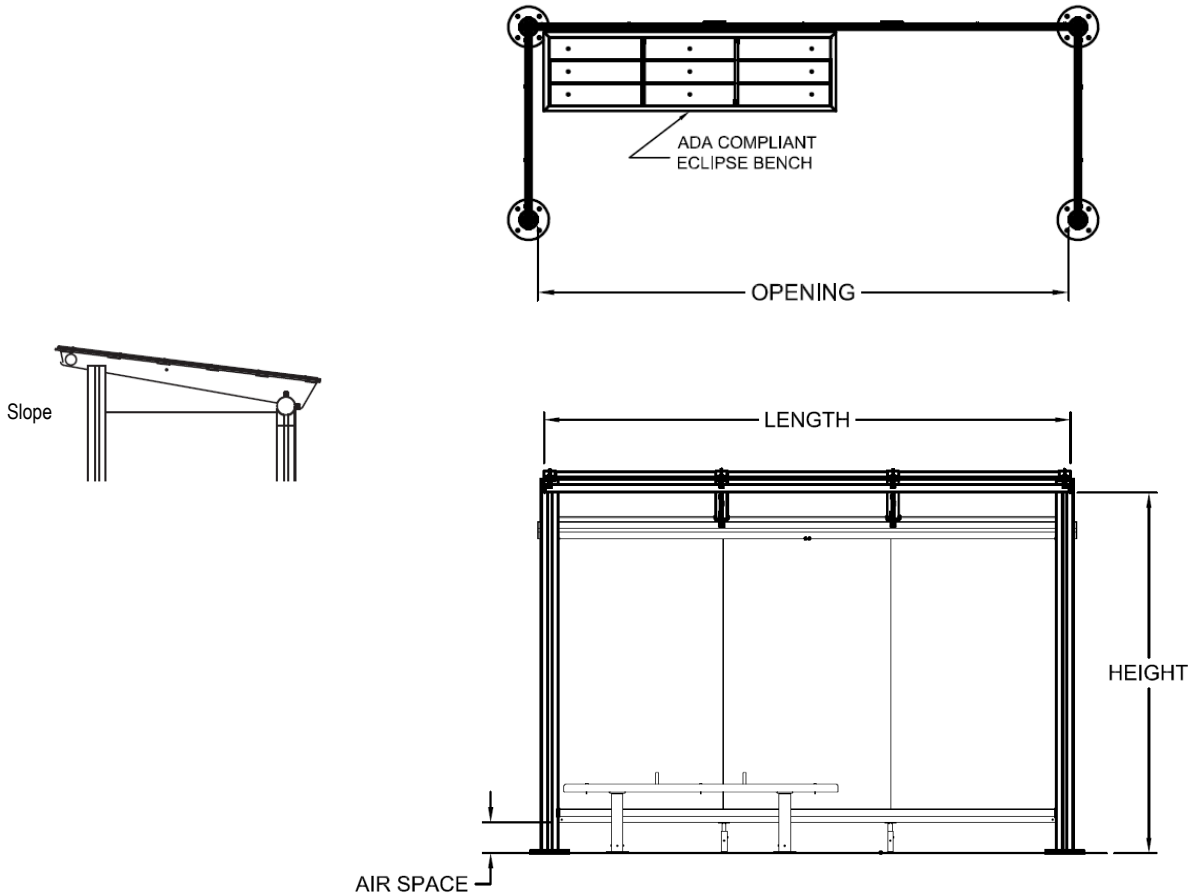
USA Metal Fabrications

ECLIPSE

Transit Shelter | EC-Series | Product Specifications



Buy America Compliant



Configuration

- Three sides with open front

Available Accessories

- Ad box (lit or unlit)
- Display case for schedule or map
- Security lighting (A/C or solar-powered)
- Graphics
- Trash receptacle
- Bench
- Leaning rail
- Bike rack

Standard Sizes

Depth	Lengths	Roof Type
5'	12', 16', 18'	Slope



ECLIPSE

Transit Shelter | EC-Series | Product Specifications



Buy America Compliant

PART 1. GENERAL

1.01 SECTION INCLUDES

- A. Design and fabrication of Bus Passenger Waiting Shelters, and related Site Furnishings.

1.02 RELATED WORK

- A. Concrete (by others)

1.03 REFERENCES

- The Aluminum Association – Aluminum Design Manual 2010
- American Welding Society – AWS D1.2/D1.2M: 2008
- ASCE 7 2010 Minimum Design Loads for Buildings and Other Structures
- ASTM B 209 Specification for Aluminum and Aluminum Alloy - Sheet and Plate
- ASTM B221 Specification for Aluminum and Aluminum Alloy – Extruded Bars, Rods, Wire, Profiles, and Tubes
- Florida Building Code 2010 (175 MPH Wind Speed)
- ANSI Z97.1-1975 Safety Glazing Materials Used in Buildings
- Americans with Disabilities Act of 1990 (ADA)

1.04 SUBMITTALS

- A. Product Data - Manufacturers' brochures, specifications, and installation instructions.
- B. Shop drawings of the complete shelter layout, includes cut section and connection details.
- C. Submit structural engineering design documents bearing the seal of a structural engineer registered in the state of the project.
- D. Manufacturer's statement of certification that materials meet or exceed all applicable loadings (wind load, live load, dead load, snow load) for the project location in accordance with IBC 2006, and ASCE 7-05.
- E. Samples of shelter finish.

1.05 QUALITY ASSURANCE

- A. Shelter shall be designed to comply with local building codes.
- B. Shelter manufacturer shall have a minimum of 10 years' experience in designing, fabrication, and installing the specified shelter.
- C. The shelter installation shall be performed by the manufacturer or by a qualified installer.

1.06 DELIVERY AND STORAGE

- A. Deliver shelter with roof fully assembled. Walls and other components shall be assembled to the maximum extent possible in clearly labeled crates and cartons.
- B. Store Materials in clean, dry area in accordance with manufacturer's instructions. Keep materials in original, unopened containers and packaging until installation. Do not store in direct contact with the sun or rain.

1.07 WARRANTY

- Manufacturer warrants that shelter shall be free from defect in parts and manufacture for a period of one year.
- Manufacturer shall maintain inventory of replacement parts for ten years after delivery of shelter.

ECLIPSE

Transit Shelter | EC-Series | Product Specifications



Buy America Compliant

PART 2. PRODUCTS

2.01 – MANUFACTURER

Shelters shall be models(s): EC0512-C, EC0516, EC0518 as manufactured by Brasco International, Inc.

2.02 MATERIALS

- A. All extruded aluminum components shall be 6063T5 Custom aluminum extrusion, with recessed pockets to accept glazing and concealed connections.
- B. Components shall be sized to comply with the load requirement for the project and shall not be less than the dimensions shown on the plan.

2.03 COLUMNS

- A. Rear columns shall be minimum 4.5" dia. X .250" wall thickness.
- B. Front columns shall be minimum 4.5" dia. X .250" wall thickness.
- C. Columns contain integral glazing pocket for gasket and 3/8" wall glazing. The columns are trimmed with flush snap-in covers to conceal structural fasteners where glazing isn't captured.

2.04 HORIZONTAL BEAMS

- A. Horizontal header beam shall be minimum 4.5" dia. x .250 wall thickness with integral glazing pockets.
- B. Horizontal lower sill beams shall be minimum 2.5" dia. x .125 wall thickness with integral glazing pockets.
- C. Beams shall be continuous welded to attachment sleeves.

2.05 ROOF

- A. Roof shall be fully factory assembled.
- C. Roof assembly will be field attached to columns with concealed fasteners.
- D. Rafters shall be Flat Slope Design, minimum 3/8" thick aluminum with welded keyway for attachment to Beam.
- E. Roof Glazing shall be 1/8" Aluminum Sheet with a matching powder coat painted finish.

2.06 FASTENERS

- A. All fasteners shall be stainless steel, aluminum, or a combination of both. Zinc plated fasteners shall not be accepted.
- B. Ground attachment anchors shall be sized to meet wind load requirements, and shall be Stainless Steel.

2.07 WALL PANELS

- A. Wall panels shall be 3/8" Clear Tempered Safety Glass. Glass shall be contained in to the gasketed integral pockets of the columns, header beam and sill beams.

2.08 FINISHES

All aluminum surfaces shall be Powder Coat Painted White Aluminum – RAL 9006.

2.09 OPTIONS

- A. Eclipse Bench – see bench specification
- B. Display Case – see display case specification
- C. Solar Lighting Package – see separate specification
- D. Lean Rail – see lean rail specification

