



Oldcastle BuildingEnvelope™

Reliance StormMax Curtain Wall
INSTALLATION AND GLAZING MANUAL

*Note: Installation and Glazing Manuals are product specific. **FOR REVIEW ONLY!***

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GENERAL INFORMATION

PRODUCT USE

The Reliance StormMax curtain wall system is intended for installation by glazing professionals with appropriate experience. Subcontractors without experience should employ a qualified person to provide field instruction and project management.

Oldcastle BuildingEnvelope does not control the application or selection of its product configurations, sealant or glazing material and assumes no responsibility thereof. It is the responsibility of the owner, architect and installer to make these selections in strict compliance with applicable laws and building codes.

Consult sealant manufacturer for review and recommendation of sealant application. Follow sealant manufacturer's recommendations and literature for proper installation.

The air and water performance of the Reliance StormMax curtain wall system is directly related to the completeness and integrity of the installation process both the seal installed at the shear blocks and the glazing gasket installed at the interior side of the glass. All pressure plates must also be installed properly. To insure top performance for this system, particular attention should be given the following procedures:

1. Surfaces to be sealed should be cleaned with isopropyl alcohol or solvent and dried as recommended by sealant manufacturer to remove all dirt and cutting oils. Sealant at shear blocks should be a minimum 3/16" diameter nominal placed completely around the top, face and bottom of the shear block without gaps in the sealant. Exposed surfaces should be cleaned after installing the horizontal. Inspect joint for complete sealant contact, especially where the horizontal meets the face of the vertical member. Repair joint as required.
2. The exterior glazing gasket should be installed so as to avoid stretching, buckles or tears.

Variations on the details shown are inevitable and are not the responsibility of Oldcastle BuildingEnvelope when drawn by others. Oldcastle BuildingEnvelope strongly encourages its customers to use its Engineering department for calculations and shop drawings.

GENERAL INFORMATION

PROTECTION AND STORAGE

Handle all material carefully. Do not drop from the truck. Stack with adequate separation so the material will not rub together. Store material off the ground, protecting against the elements and other construction hazards by using a well ventilated covering. Remove material from package if wet or located in a damp area. For further guidelines consult AAMA publication Care and Handling of Architectural Aluminum From Shop to Site.

CHECK MATERIAL

Check glass dimensions for overall size as well as thickness. Oldcastle BuildingEnvelope cannot be held responsible for gaskets that are not water tight due to extreme glass tolerances. The Reliance curtain wall system is designed to accommodate glass or panels measuring 1-5/16" and 9/16" in thickness. (+/- 1/32")

Check all material upon arrival at job site for quality and to determine any shipping damage.

Using the contract documents, completely check the surrounding conditions that will receive your materials. Notify the general contractor by letter of any discrepancies before proceeding with the work. Failure to do so constitutes acceptance of work by other trades.

Check shop drawings, installation instructions, architectural drawings and shipping lists to become familiar with the project. The shop drawings take precedence and include specific details for the project. The installation instructions are of a general nature and cover the most common conditions. Due to varying job conditions all sealant used must be approved by the sealant manufacturer to insure it will perform per the conditions shown on the instructions and shop drawings. The sealant must be compatible with all surfaces in which adhesion is required, including other sealant surfaces. Use primers where directed by sealant manufacturer. Properly store sealant at the recommended temperatures and check sealant for remainder of shelf life before using.

FIELD CONDITIONS

All material to be installed must be plumb, level and true. Aluminum to be placed in direct contact with masonry or incompatible material should be isolated with a heavy coat of zinc chromate, bituminous paint or non-metallic material.

After sealant is set and a representative amount of the wall has been glazed (250 square feet or more), run a water hose test in accordance with AAMA 501.2 specifications to check installation. On large projects the hose test should be repeated during the glazing operation.

CLEANING MATERIALS

Cement, plaster terrazzo, alkaline and acid based materials used to clean masonry are very harmful to finishes. Any residue should be removed with water and mild soap immediately or permanent staining will occur. A spot test is recommended before any cleaning agent is used. Refer to the Architectural Finish Guide in the Detail Catalog.

FRAME FABRICATION

1.0 Unless otherwise noted, the details shown in these instructions reflect the 7 1/2" system for 1-5/16" glazing. NOTE : Structural silicone glazed vertical mullion is referred to as SSG mullion.

- a. Measure ROUGH OPENING to determine FRAME WIDTH and FRAME HEIGHT dimensions. Allow 1/2" minimum clearance for shimming and caulking around perimeter of frame.
- b. Cut material to size. SEE FIGURE 1 for guide.

Frame Members

Verticals FRAME HEIGHT (ROUGH OPENING minus top & bottom joints)

Vertical pressure plates	FRAME HEIGHT minus 1/4"
Vertical face covers.....	FRAME HEIGHT (vertical covers run through)
Intermediate horizontals (tubular).....	Daylight opening (D.L.O.)
Intermediate horizontals (rollover).....	D.L.O. minus 1/16"
Head and sill.....	D.L.O. minus 1/16"
Horizontal pressure plates.....	D.L.O. minus 1/4"
Horizontal face covers.....	D.L.O. minus 1/16"
Horizontal interior trim (for rollover).....	D.L.O. minus 1/16"

Accessories

Glazing gaskets (Wet Glazed)

Exterior.....	Pressure plate length plus allowance*
Interior at verticals.....	D.L.O. plus 1" plus allowance*
Interior at horizontals.....	D.L.O. plus allowance*
Silicone spacer gaskets.....	D.L.O. plus 1" plus allowance*

*Glazing gaskets should be cut 1/4" longer per foot. Set aside and lay flat until ready to glaze.

Glazing gaskets (Dry Glazed)

Exterior.....	Pressure plate length plus allowance*
Interior at verticals.....	D.L.O. plus 1-1/2"
Interior at horizontals.....	D.L.O. plus 3/16"

Other Members (as required)

Glazing adaptors

Horizontal.....	D.L.O. minus 1/32"
Vertical.....	D.L.O. plus 1"

Door subframe

Jamb.....	DOOR OPENING plus 1"
Header.....	DOOR OPENING minus 1/32"

Flush door pressure plate

Jamb.....	DOOR OPENING plus 3/4"
Header.....	DOOR OPENING minus 1/16"

Flush door face cover

Jamb.....	DOOR OPENING plus 2 1/2"
Header.....	DOOR OPENING minus 1/16"

FRAME FABRICATION

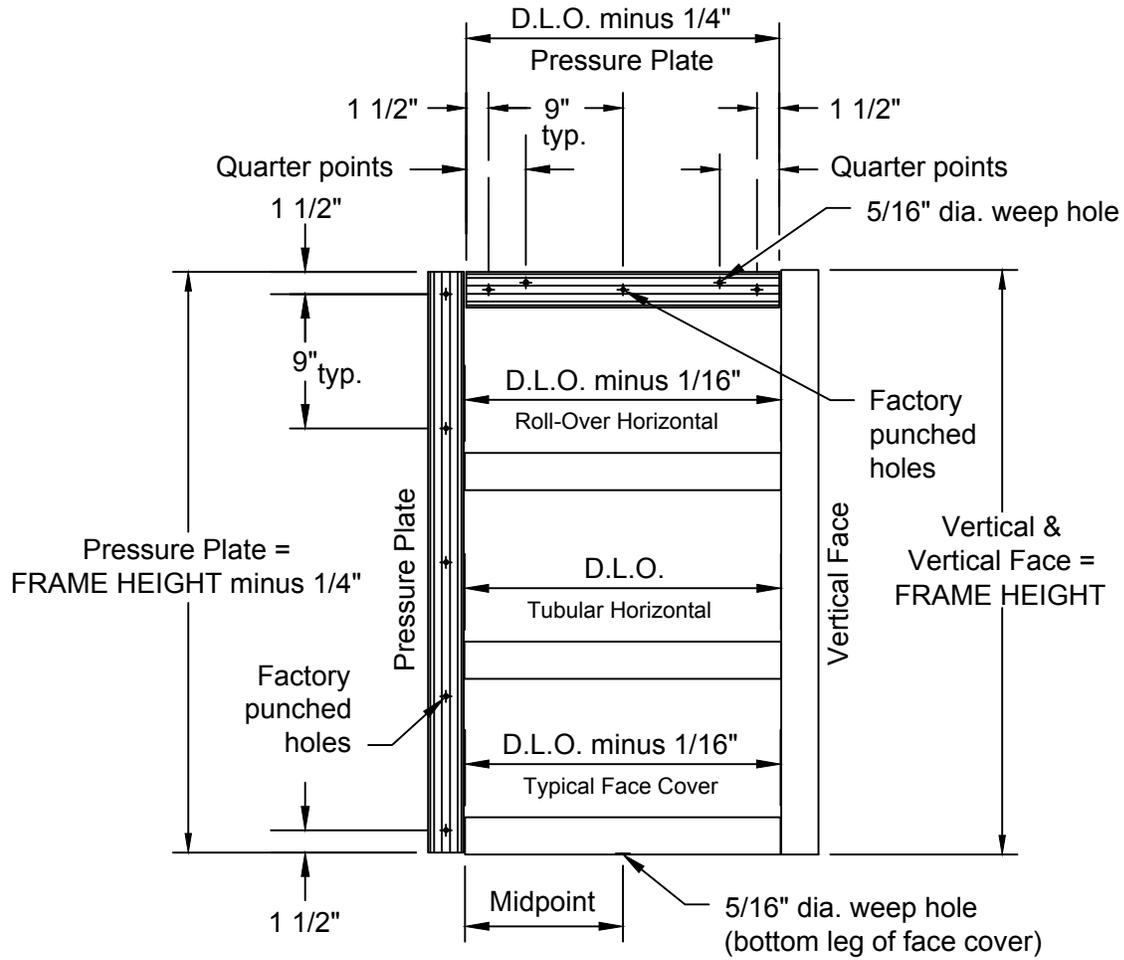


FIGURE 1.1
Material Fabrication Guide

FRAME FABRICATION

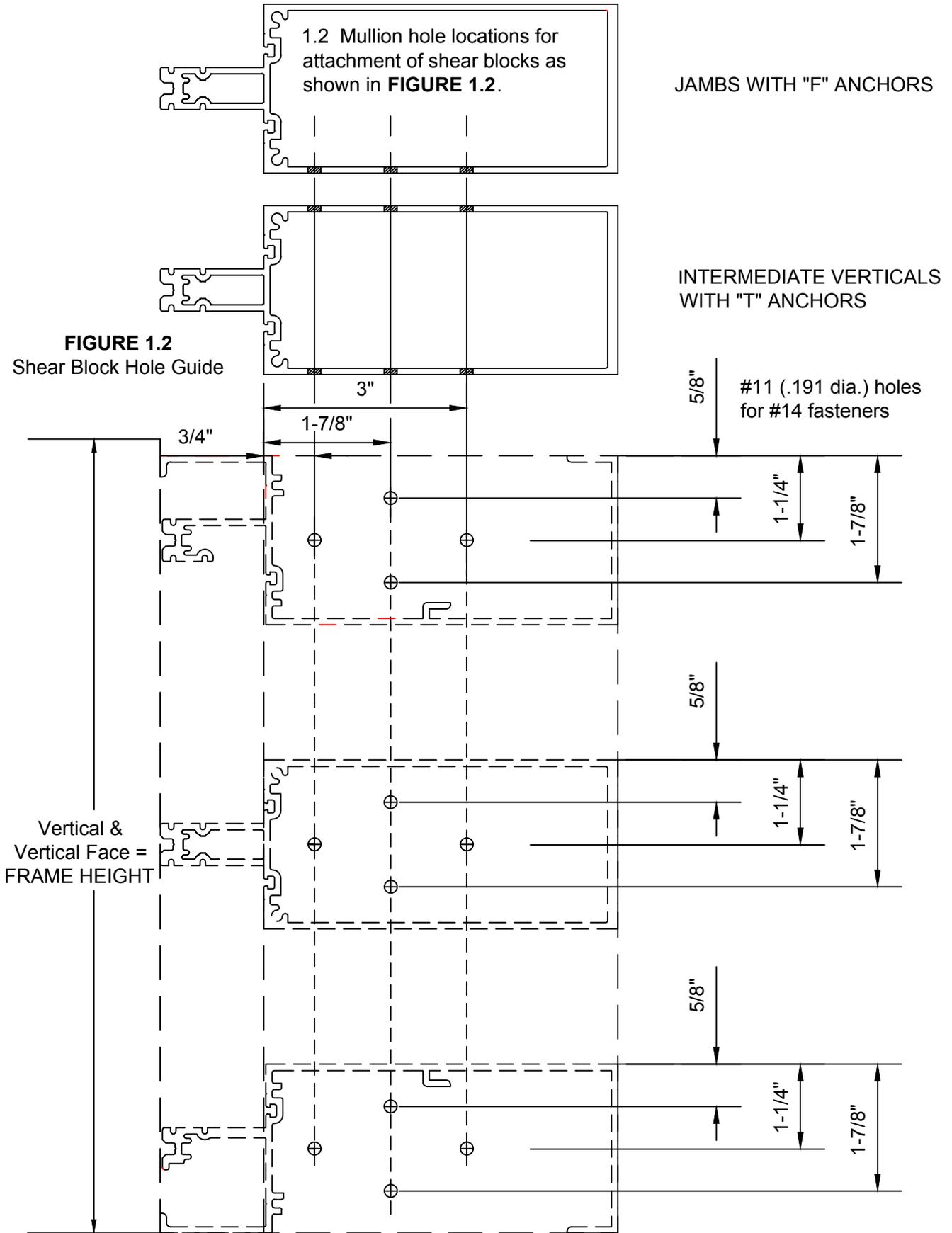
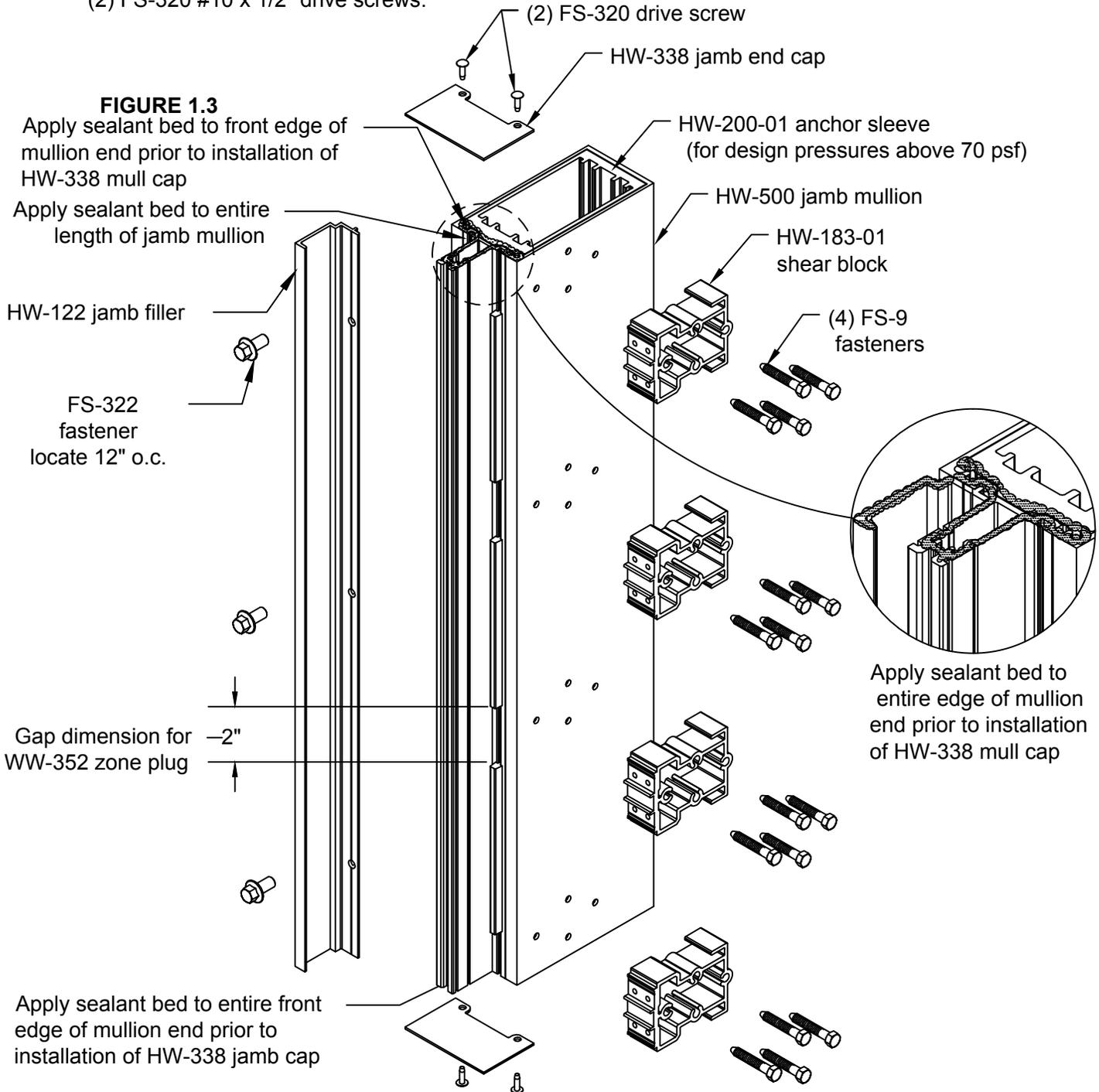


FIGURE 1.2
Shear Block Hole Guide

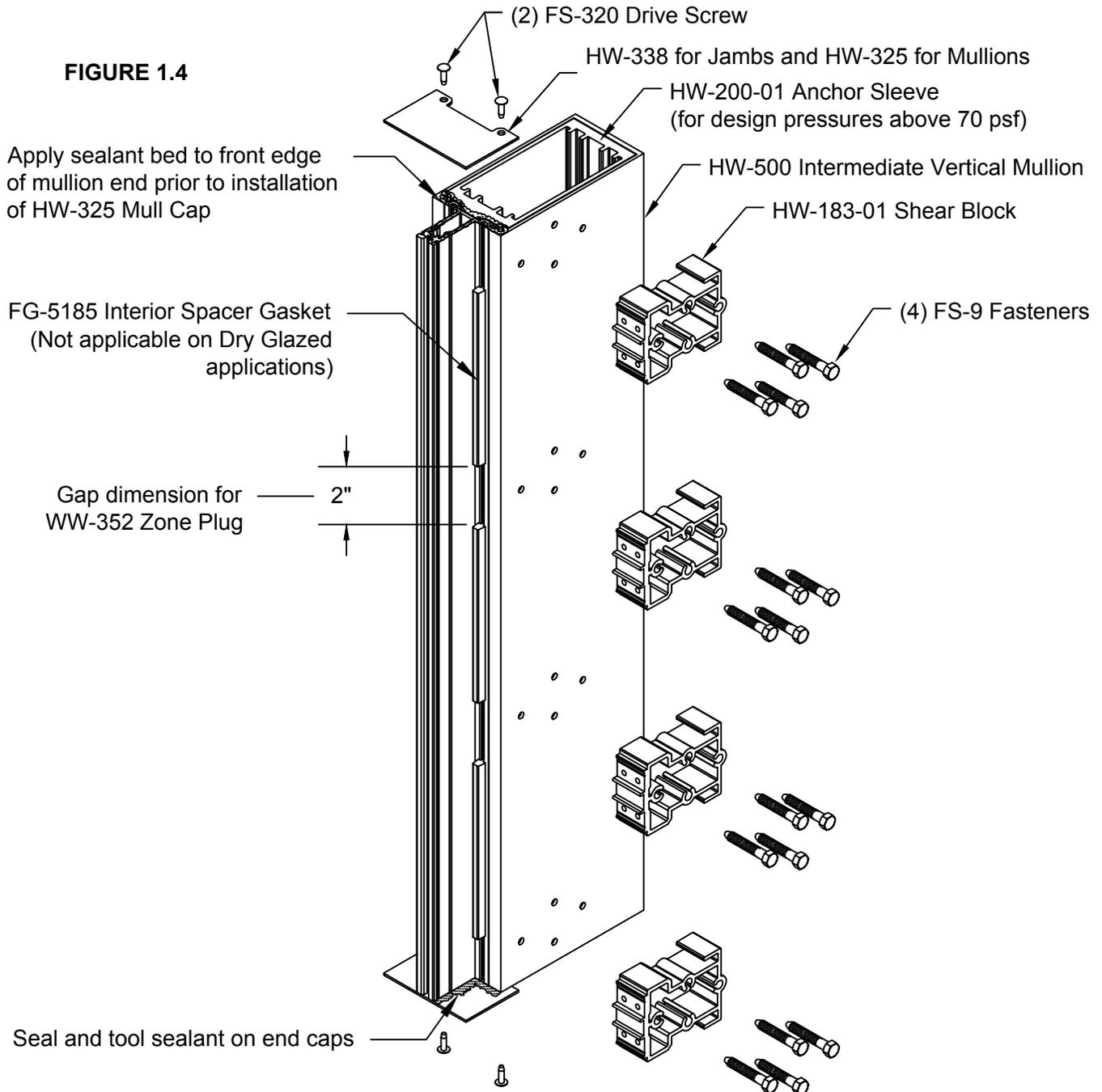
JAMB FABRICATION

- 1.3 a. Prior to HW-183-01 shear block attachment insert HW-200-01 anchor sleeves at jamb ends and match drill .191 dia. hole. (this step is only required for design pressures above 70 psf.)
- b. Attach HW-183-01 shear block to HW-500 jamb with FS-9 fastener.
- c. Attach HW-122 jamb filler to HW-500 jamb using FS-322 fastener locate 12" o.c. (drill #11 - .191" clear hole in HW-122 jamb filler and #25 - .1495" pilot hole in jamb) HW-122 filler should be bed in sealant. tool sealant on gap space between HW-122 filler and jamb mullion.
- d. Install interior FG-5185 spacer gasket cut to 2" from ends and 2" gaps at horizontal to allow for zone plugs.
- e. Install, seal and tool HW-338 end caps to top and bottom of jamb screw boss with (2) FS-320 #10 x 1/2" drive screws.



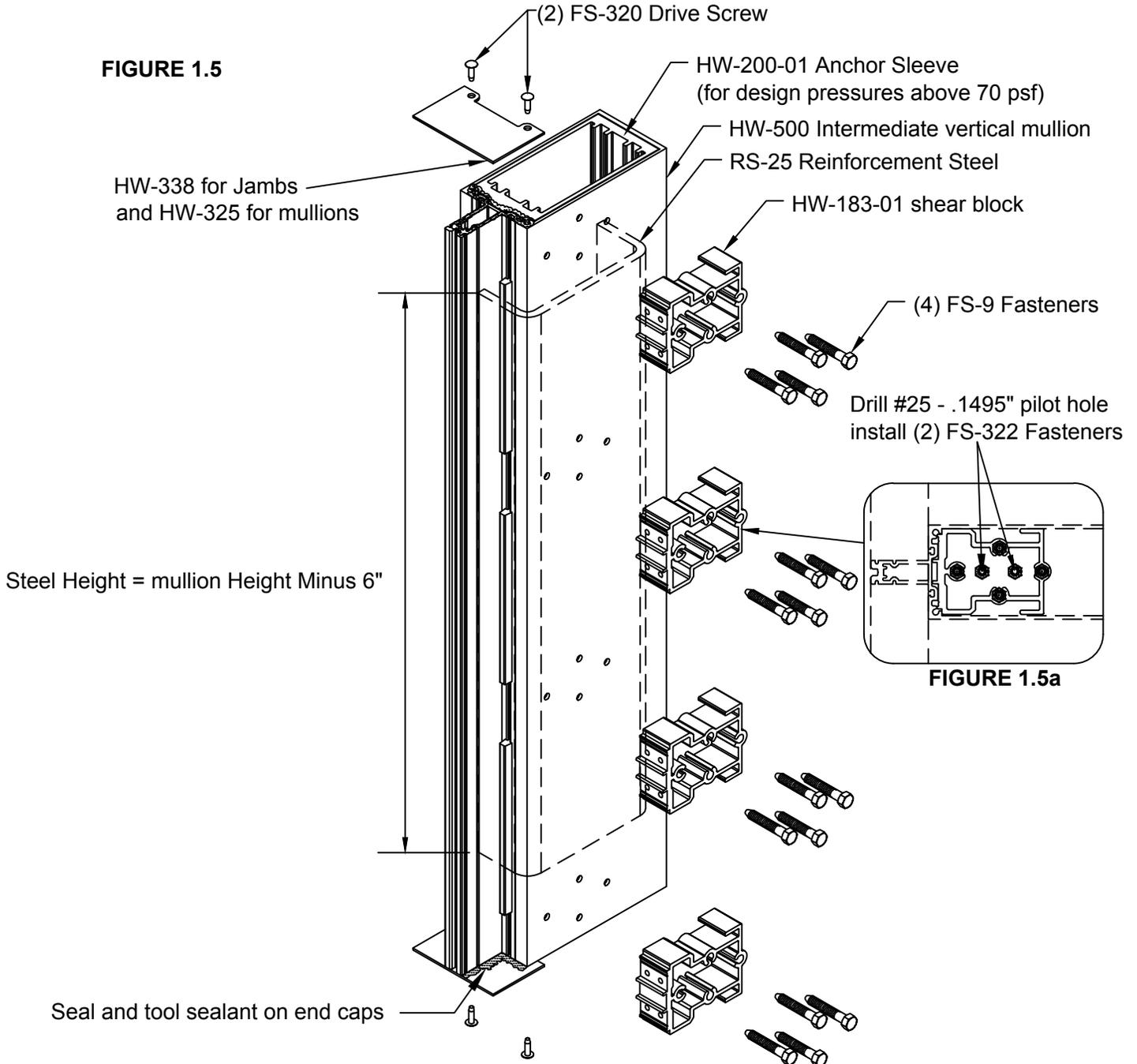
VERTICAL MULLION FABRICATION

- 1.4 a. Prior to HW-183-01 shear block attachment insert HW-200-01 anchor sleeves at HW-500 vertical mullion ends and match drill .191 dia. hole.
(This step is only required for design pressures above 70 psf.)
- b. Attach HW-183-01 shear mlock to HW-500 vertical mullion with FS-9 fastener.
- c. Install FG-5185 interior spacer gasket cut to 2" from ends and 2" gaps at horizontal to allow for WW-352 zone plugs. (Not applicable on Dry Glazed applications)
- d. Install and seal HW-325 end caps to top and bottom of HW-500 vertical mullion screw boss with (2) FS-320 #10 x 1/2" drive screw .



ALTERNATIVE REINFORCEMENT STEEL CHANNEL

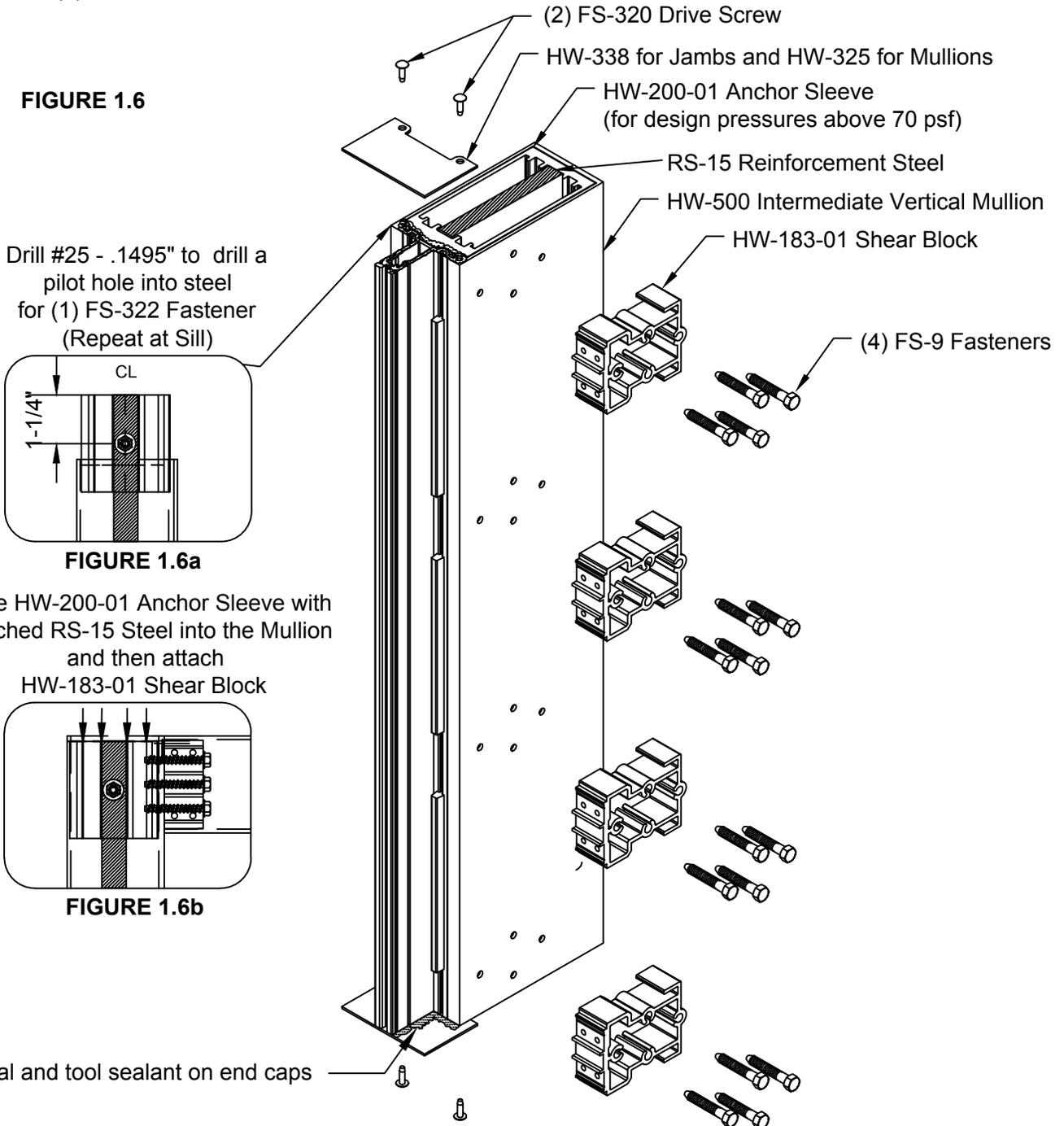
- 1.5 a. Insert RS-25 reinforcement steel into HW-500 jamb or mullion
(Steel Height = mullion Height Minus 6")
- b. Prior to HW-183-01 shear block attachment insert HW-200-01 anchor sleeves at HW-500 vertical mullion ends and match drill .191 dia. hole.
- c. Attach HW-183-01 shear block to HW-500 vertical mullion with FS-9 fastener
- d. Attach RS-25 reinforcement steel to HW-500 Jamb or mullion with (2) FS-322 fasteners to be located within the intermediate horizontal shear block as show in FIGURE 1.5a
- e. Install FG-5185 interior spacer gasket cut to 2" from ends and 2" gaps at horizontal to allow for WW-352 zone plugs.
- f. Install and seal HW-325 end caps to top and bottom of HW-500 vertical mullion screw boss with (2) FS-320 #10 x 1/2" drive screw.



ALTERNATIVE REINFORCEMENT STEEL BAR

- 1.6 a. Insert and attach RS-15 reinforcement steel into HW-500 jamb or mullion (Steel Height = Mullion Height) Attach RS-15 steel to HW-200-01 anchor sleeve using FS-322 at head and sill. See Figures 1.6a & b
- b. Prior to HW-183-01 shear block attachment insert HW-200-01 anchor sleeves at HW-500 vertical mullion ends and match drill .191 dia. hole.
- c. Attach HW-183-01 shear block to HW-500 vertical mullion with FS-9 fastener.
- d. Install FG-5185 interior spacer gasket cut to 2" from ends and 2" gaps at horizontal to allow for WW-352 zone plugs.
- e. Install and seal HW-325 end caps to top and bottom of HW-500 vertical mullion screw boss with (2) FS-320 #10 x 1/2" drive screw .

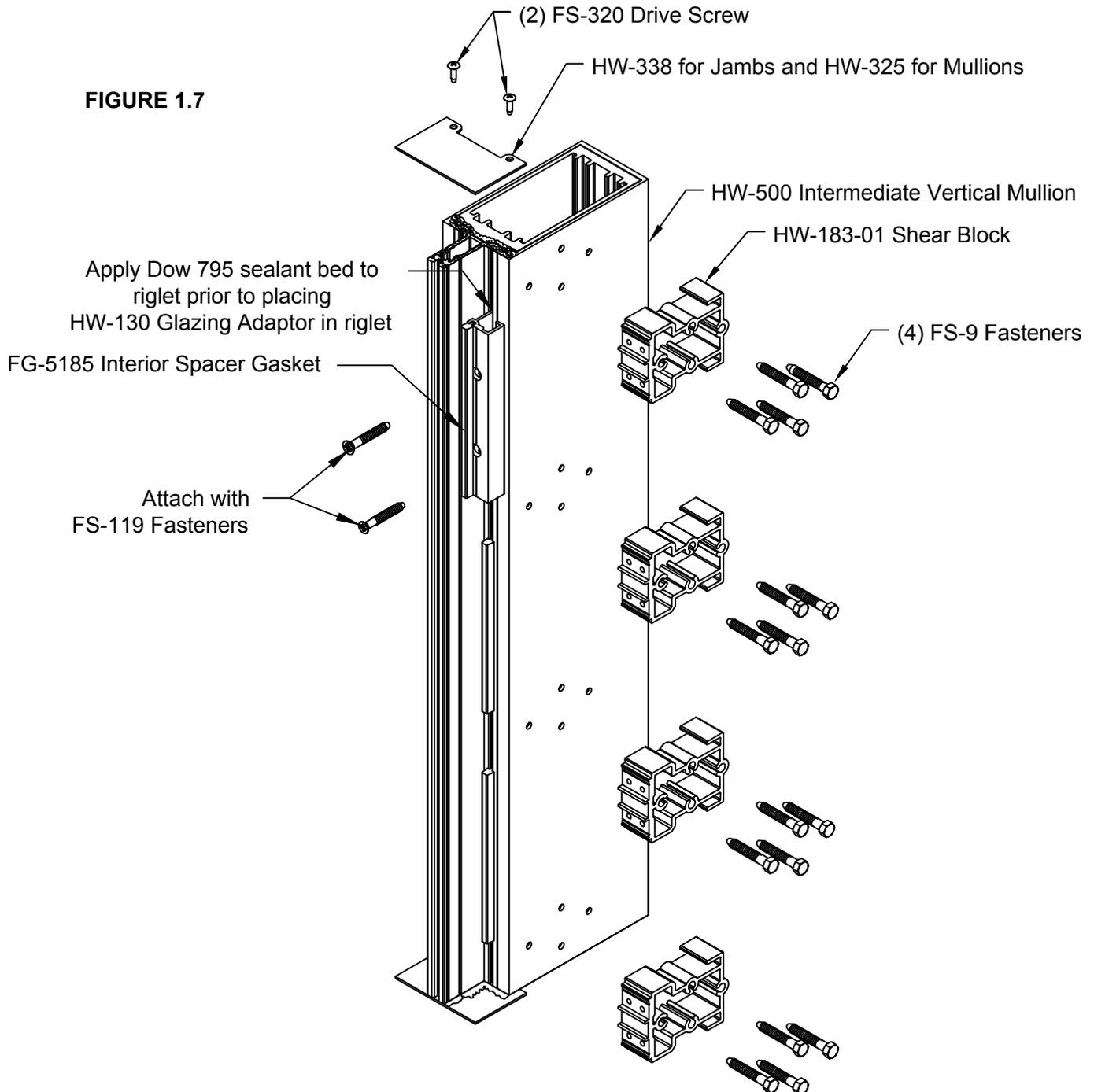
FIGURE 1.6



9/16" OPTIONAL GLAZING ADAPTOR FABRICATION

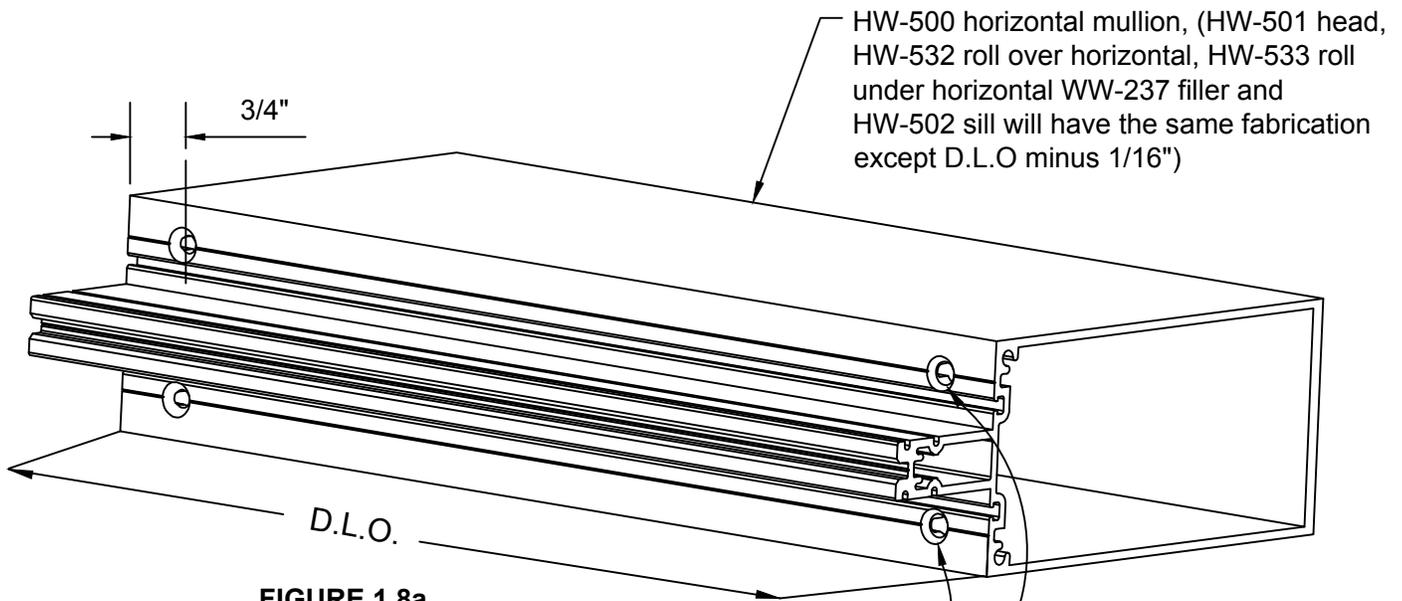
- 1.7 a. Cut HW-130 glazing adaptor to D.L.O. plus 1 5/8".
- b. Drill #9 (.1960") fastener hole 12" O.C. 1" off ends.
- c. Bed glazing reglet with Dow Corning 795 Sealant.
- d. Drill a hole and attach HW-130 glazing adaptor with FS-119 fastener.
- e. Install FG-5185 interior spacer gasket cut to same length as HW-130 glazing adaptor.
- f. HW-130 glazing adaptors for horizontal members are cut to D.L.O.

FIGURE 1.7

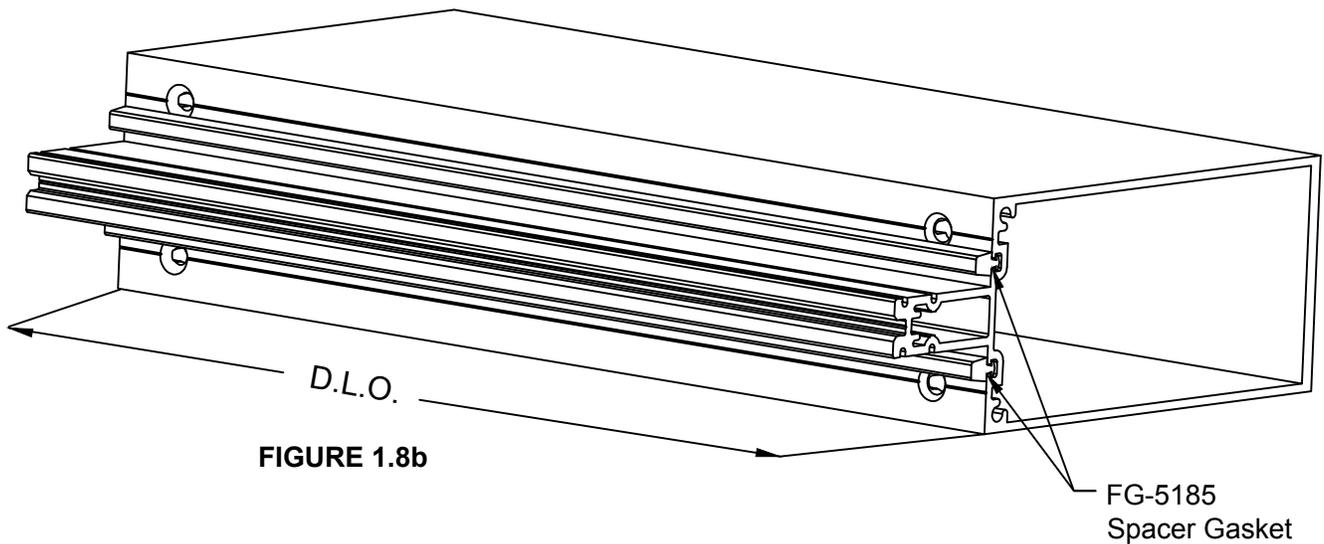


HORIZONTAL MEMBER FABRICATION

- 1.8 a. Cut all horizontal members as follows:
 - HW-500 horizontal to D.L.O.
 - HW-501 head, HW-502 Sill, HW-532 roll over horizontal, HW-533 roll under horizontal, WW-237 filler to D.L.O. minus 1/16"
- b. Drill (2) #11 - .191" holes and counter sink locate 3/4" from each end at "V" grooves
- c. Slide FG-5185 spacer gasket into reglet on all horizontal members cut to D.L.O. size as shown in **FIGURE 1.8b**.



Drill (2) #11 - .191" holes and counter sink. Locate .75" from each end of member.



PRESSURE PLATE FABRICATION

- 1.9 a. Cut WW-162 pressure plate to D.L.O. minus 1/4" for horizontal members.
- b. Drill (2) 5/16" weep holes at 1/4 points on "V" grooves of WW-162 pressure plate. See Figure 1.9a
- c. Cut WW-162 pressure plates vertical members to frame height minus 1/4".
- d. Cut GP-117 gasket to D.L.O. plus 1/4" for relaxation on horizontal members. Vertical members are cut to frame height plus 1/4". Crowd gasket into riglet. See **FIGURE 1.9b**

FIGURE 1.9a
Horizontal Pressure
Plate Fabrication

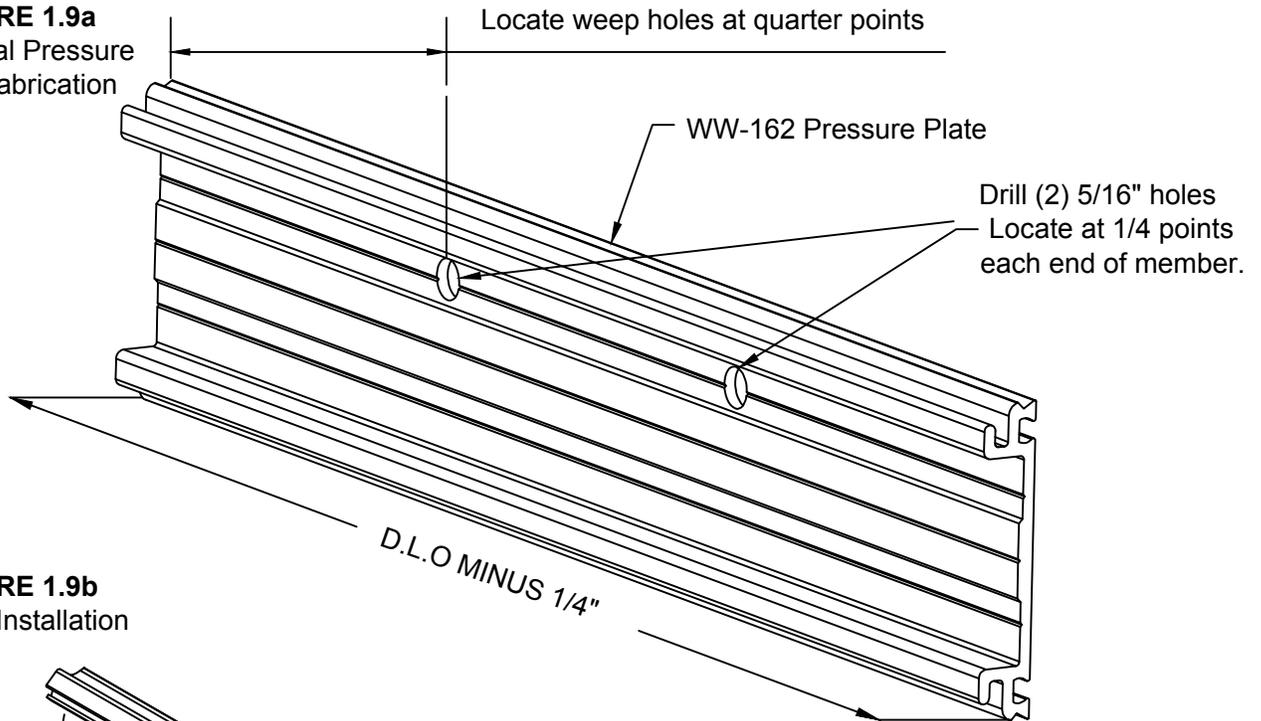
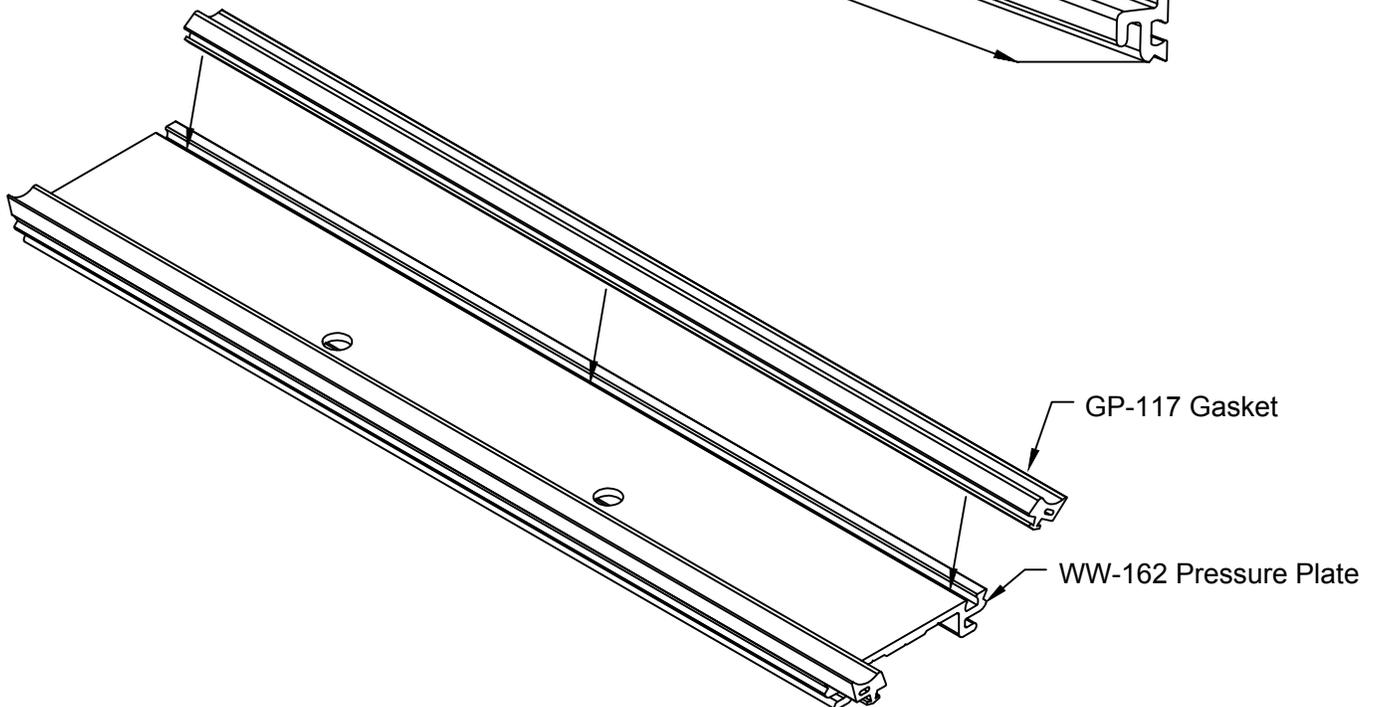


FIGURE 1.9b
Gasket Installation



JAMB AND MULLION INSTALLATION

- 2.0 a. Insert "F", "T" or "L" anchor into the top and bottom of the mullions before erecting them as shown in FIGURE 2.0a.
- b. Erect and locate jamb and vertical mullions and temporarily attach them to structure. (Install plumb & true)
- c. Field Drill holes in "F", "T" or "L" anchor for appropriate fastener according to approved shop drawings.
- d. Shim and anchor into opening.
- e. Apply Dow Corning 795 silicone sealant to face, top, bottom and screw tracks of shear block as shown in FIGURE 2.0b.

FIGURE 2.0a

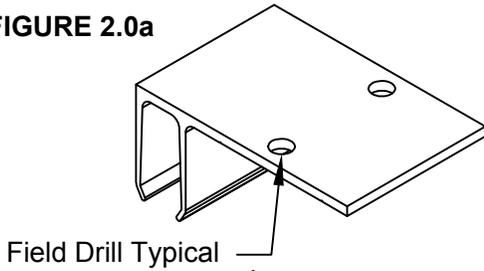
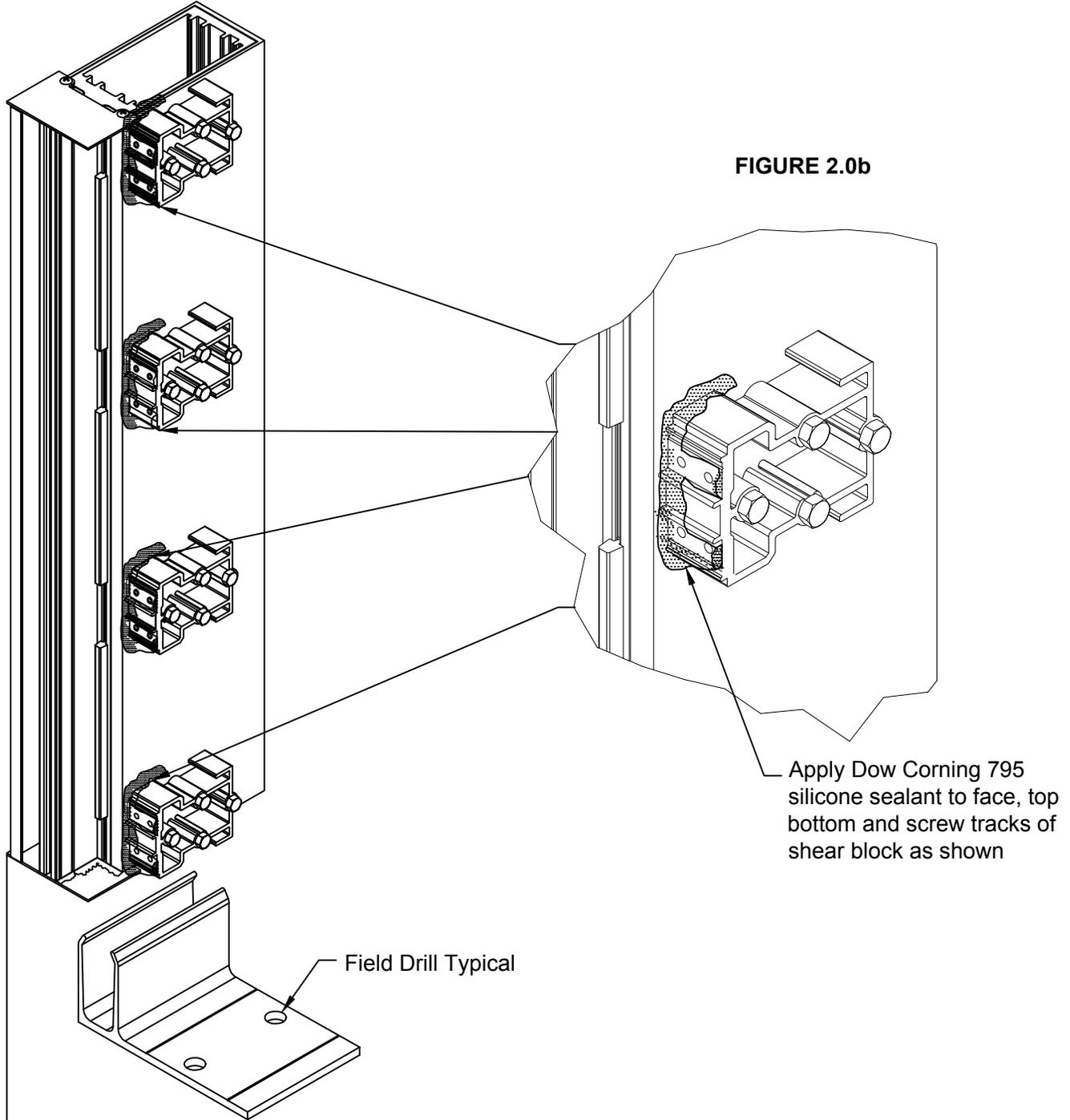
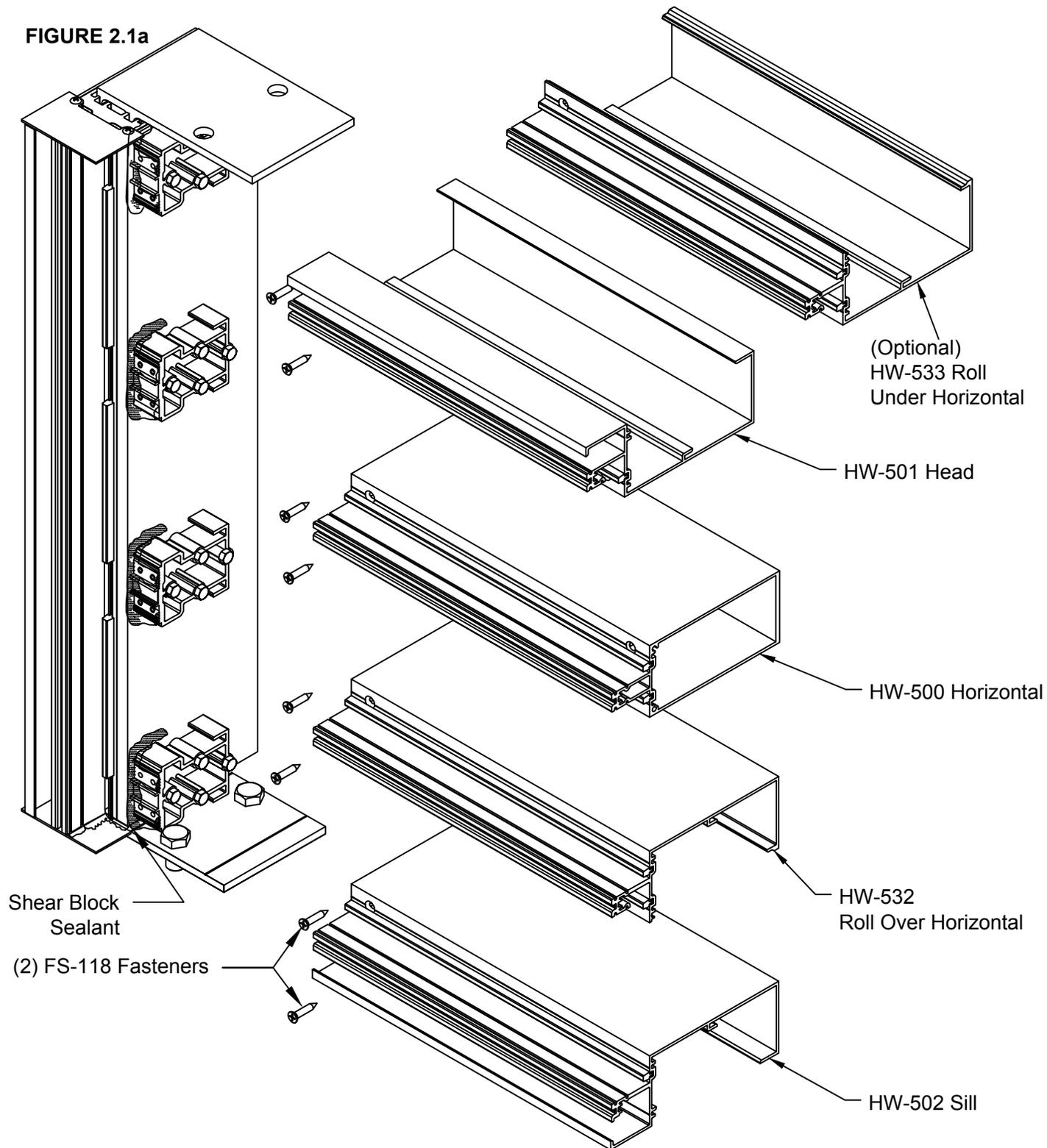


FIGURE 2.0b



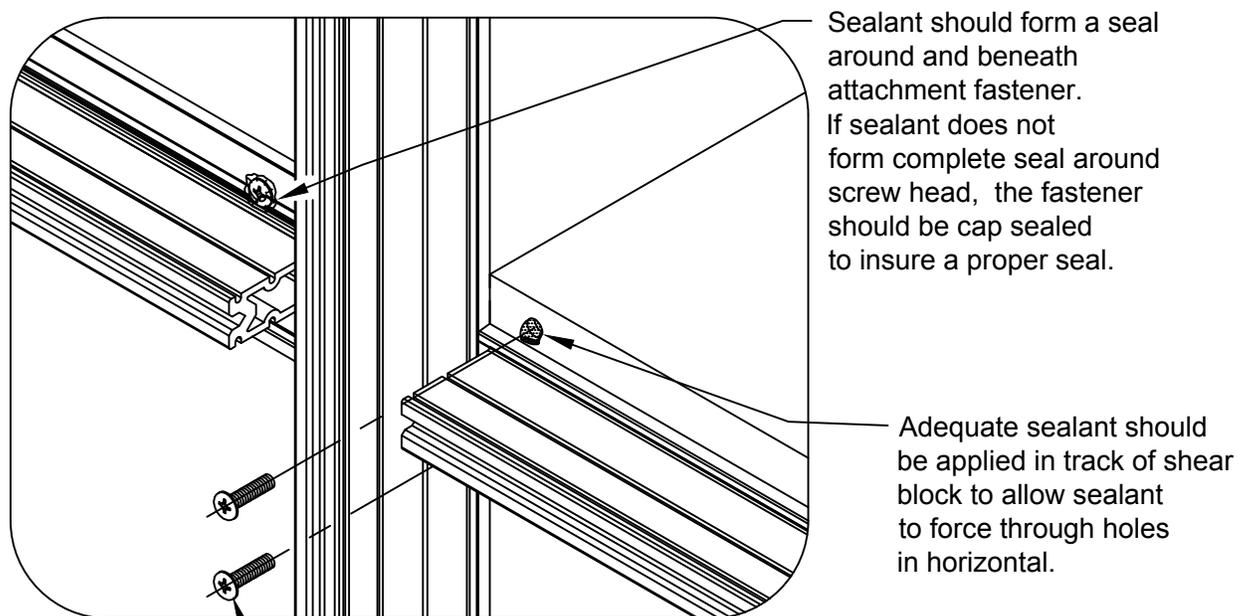
HORIZONTAL MEMBER INSTALLATION

- 2.1 a. Prior to attaching horizontal members follow sealant instructions given in Detail 2.0b.
- b. Slide horizontal member into opening from back to front. This will force sealant through the attachment holes on horizontal member as shown in **FIGURE 2.1a**
- c. Install (2) FS-118 Fasteners on each side of horizontal through the horizontal member face.



HORIZONTAL MEMBER INSTALLATION CONTINUED

FIGURE 2.1b
Shear Block Sealing



Sealant should form a seal around and beneath attachment fastener. If sealant does not form complete seal around screw head, the fastener should be cap sealed to insure a proper seal.

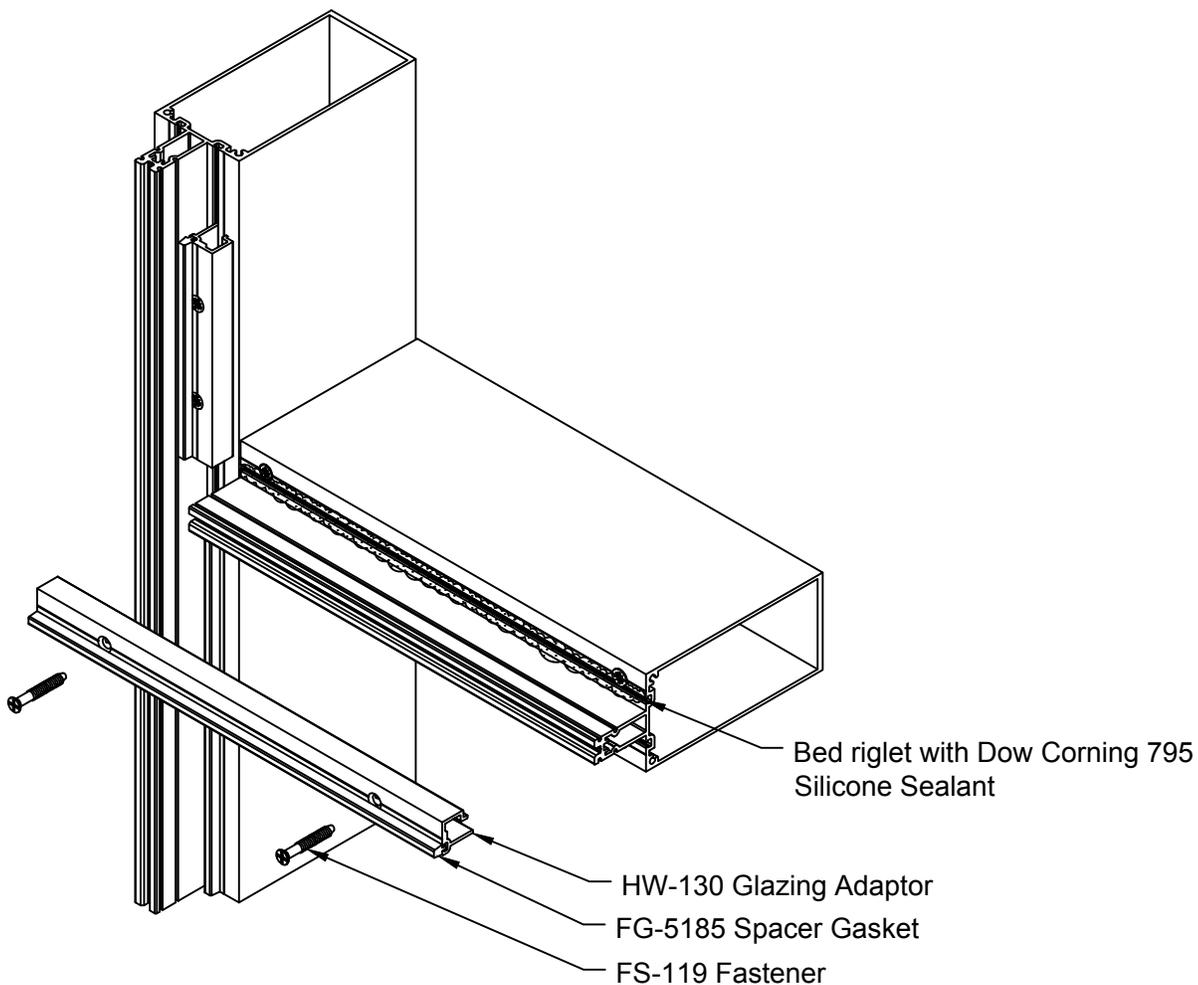
Adequate sealant should be applied in track of shear block to allow sealant to force through holes in horizontal.

FS-118 (2) per Shear Block

9/16" GLAZING ADAPTOR INSTALLATION (OPTIONAL)

- 2.2 a. Attach horizontal members as shown in 2.1.
- b. Cut HW-130 glazing adaptor to same size as horizontal member as shown in 1.8.
- c. Drill #9 (.1960") fastener holes 12" OC and 1" off ends and counter sink at "V" grooves.
- d. Drill a hole and dry fit HW-130 glazing adaptor to horizontal member.
- e. Install FG-5185 interior spacer gasket cut to same length as HW-130 glazing adaptor.
- f. Bed reglet with Dow Corning 795 silicone sealant.
- g. Fasten HW-130 with FS-119 fastener. Seal screw head with 795 silicone sealant

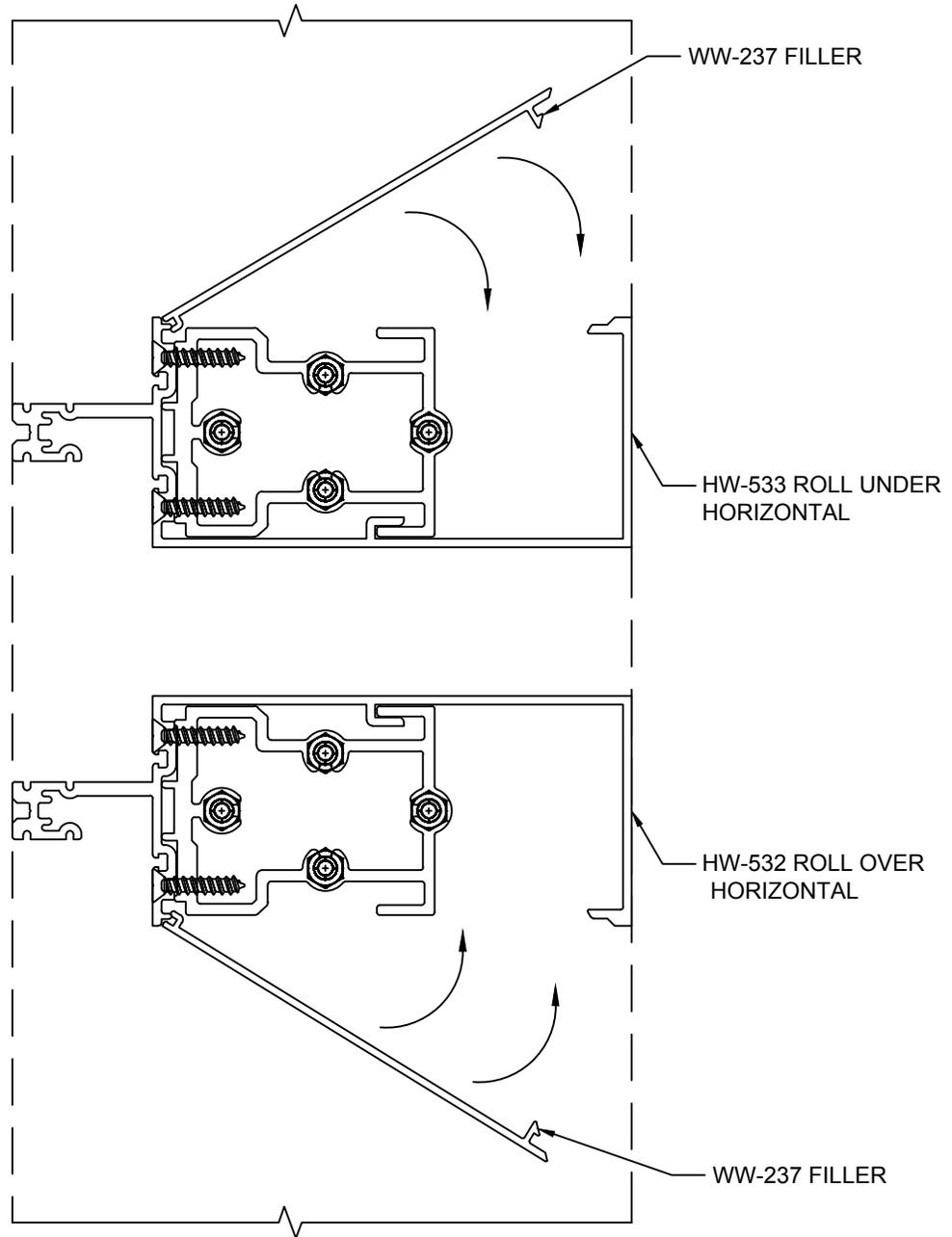
FIGURE 2.2



HORIZONTAL FILLER INSTALLATION

- 2.3 a. Insert WW-237 filler front leg into receptor leg of HW-532 or HW-533 horizontal.
- b. Rotate WW-237 filler until it engages into rear snap.
- c. Use a rubber mallet to fully engage WW-237 Filler.

FIGURE 2.3



PERIMETER SEALANT APPLICATION

- 2.4 a. Position backer rod around the perimeter of the frame.
- b. Clean gap area on frames with isopropyl alcohol (50%) and wipe clean.
- c. Apply Dow Corning 795 silicone sealant to the perimeter of the frame.
(Interior seal is optional)

FIGURE 2.4a
Jamb Condition

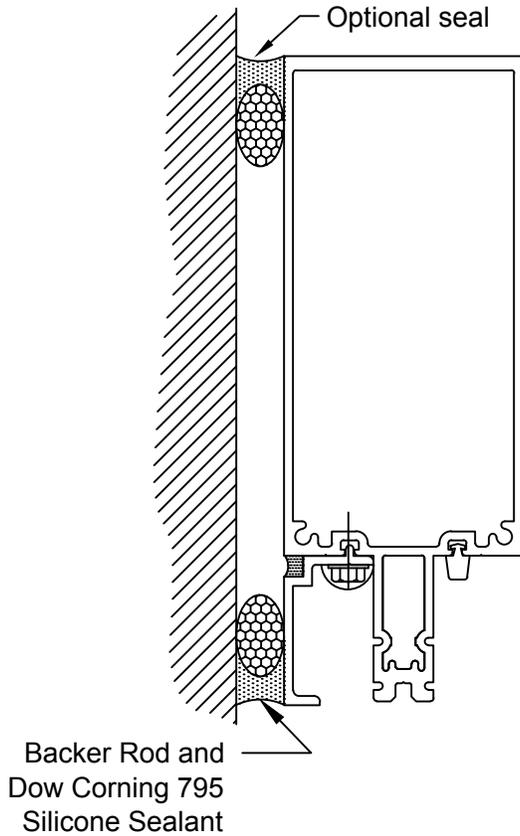
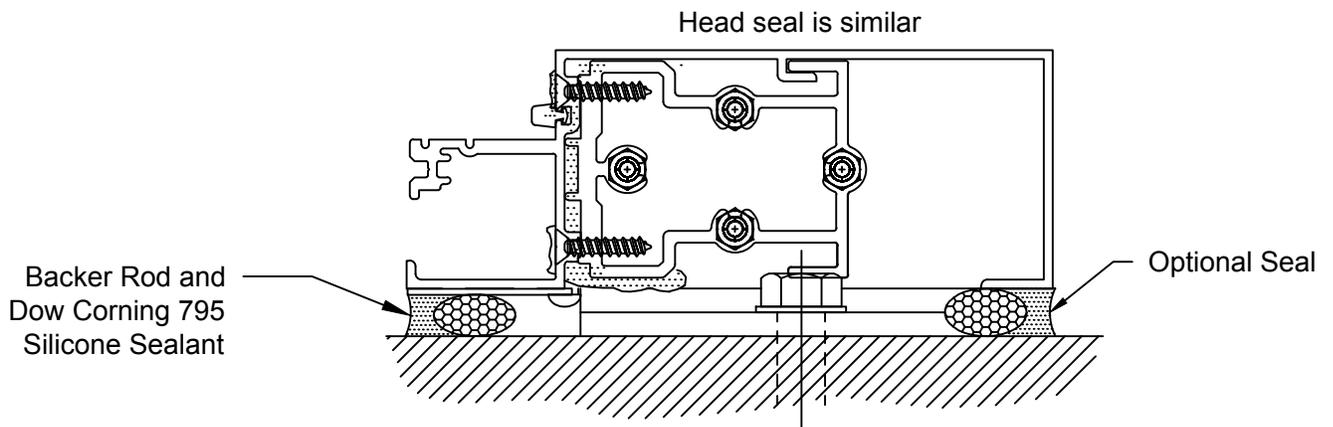


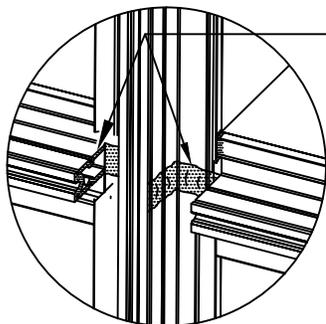
FIGURE 2.4b
Sill Condition



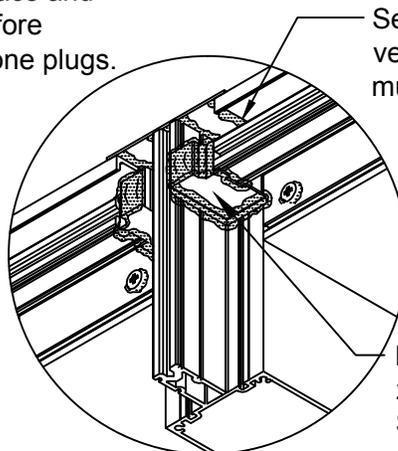
ZONE PLUG INSTALLATION

FIGURE 2.5

STEP 1



Seal along tongue of horizontal & across face and tongue of mullion before installing WW-352 zone plugs.

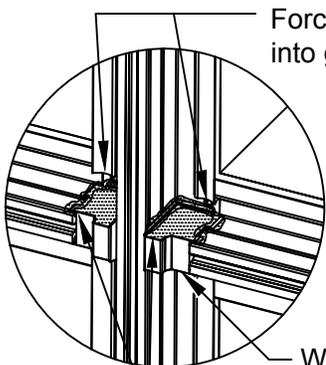


Seal between head, vertical mullion and mullion cap

Bottom side of zone plug shown. Seal top side similar.

ZONE PLUG AT HEAD

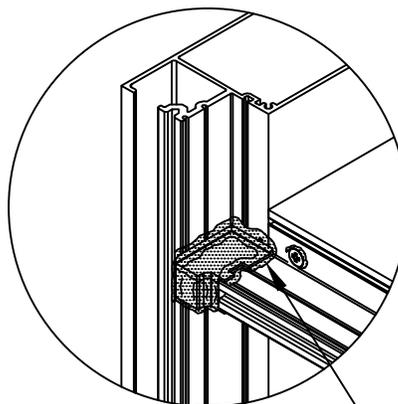
STEP 2



Force sealant into gasket race

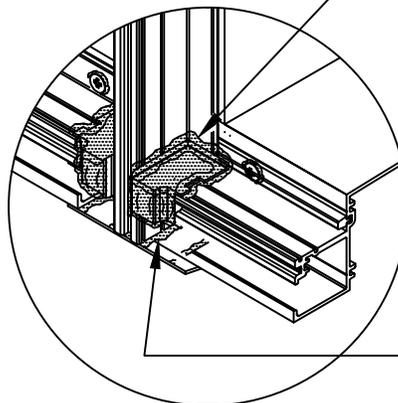
WW-352 zone plug

Tool sealant along top of zone plug to form a water tight seal.



ZONE PLUG AT JAMB

Seal jamb & sill zone plugs same as shown at left

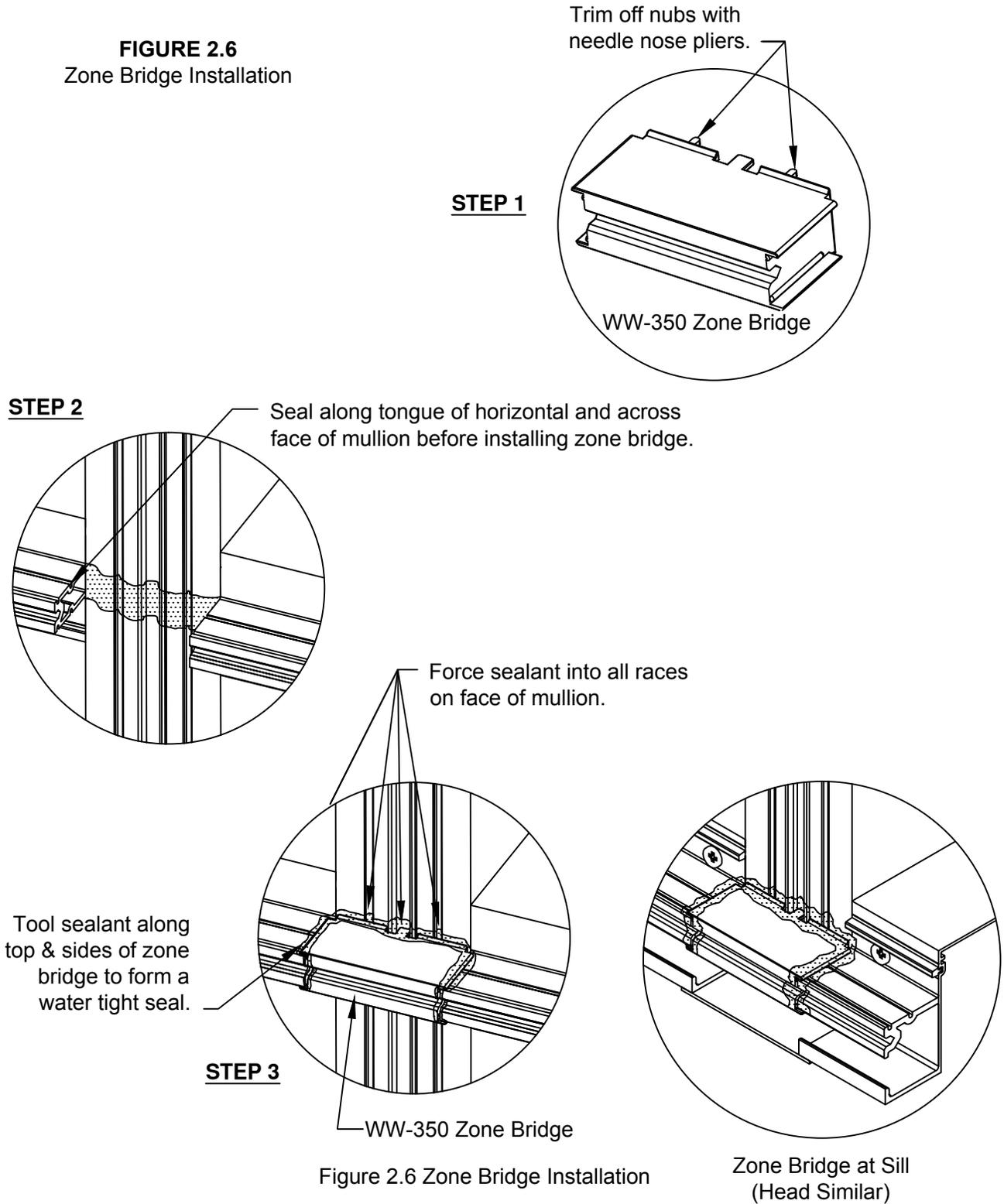


ZONE PLUG AT SILL

Seal between sill, vertical & mullion cap

ZONE BRIDGE INSTALLATION
FOR SSG MULLIONS

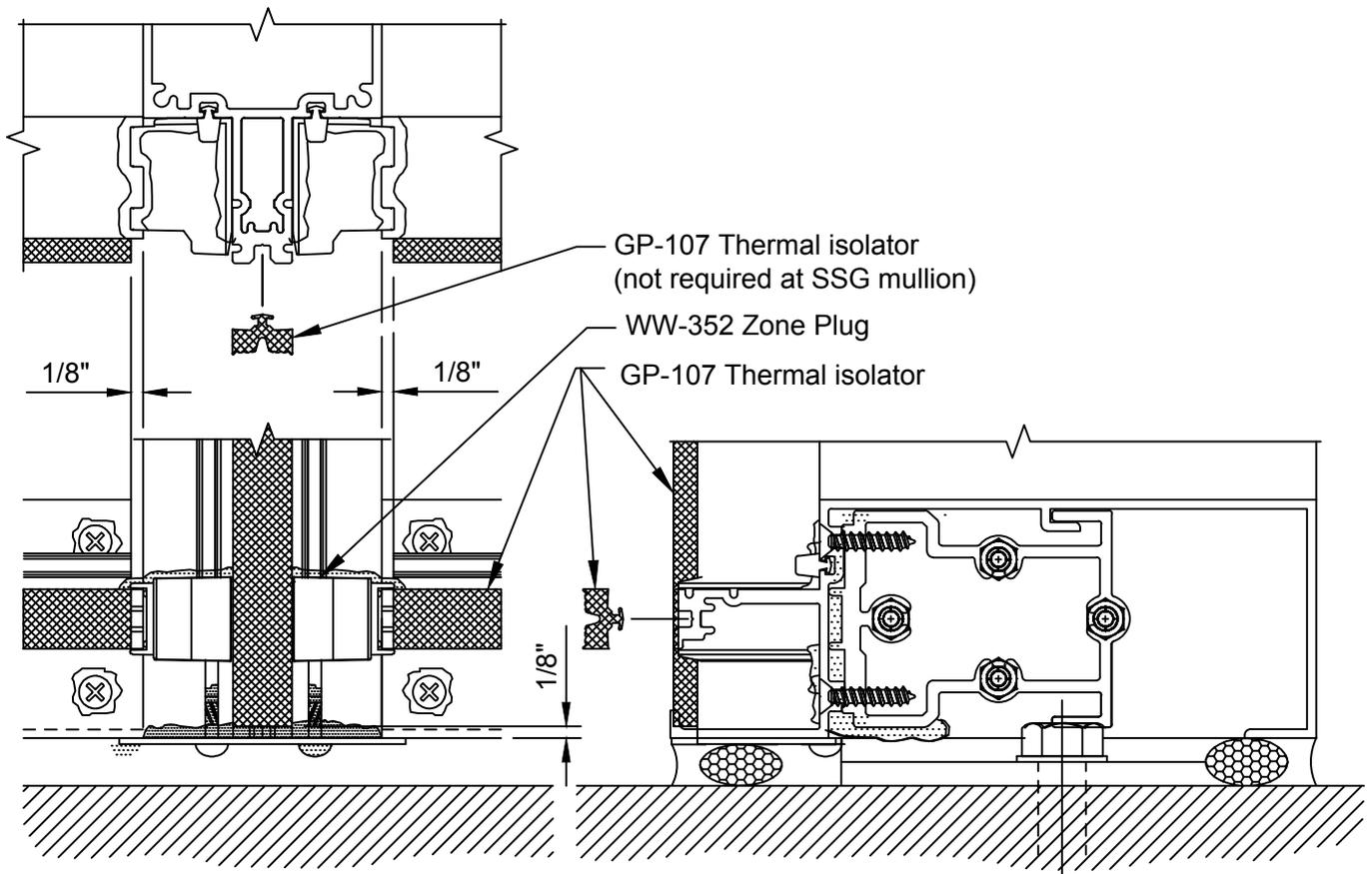
FIGURE 2.6
Zone Bridge Installation



ISOLATOR GASKET INSTALLATION

- 3.0 a. Install face gaskets into all pressure plates. Crowd all gaskets into members to avoid gaps caused by relaxation of gasket material.
- b. Install thermal spacer into groove on face of mullion tongues. Cut short 1/8" from each end of the mullion. See **FIGURE 3.0**
- c. Position setting blocks at correct location (two per lite). Refer to approved shop drawings. Lubricating the top of setting blocks will help insure proper setting of glass. Note: Consult glass manufacturer for correct setting block location and length for glass sizes.

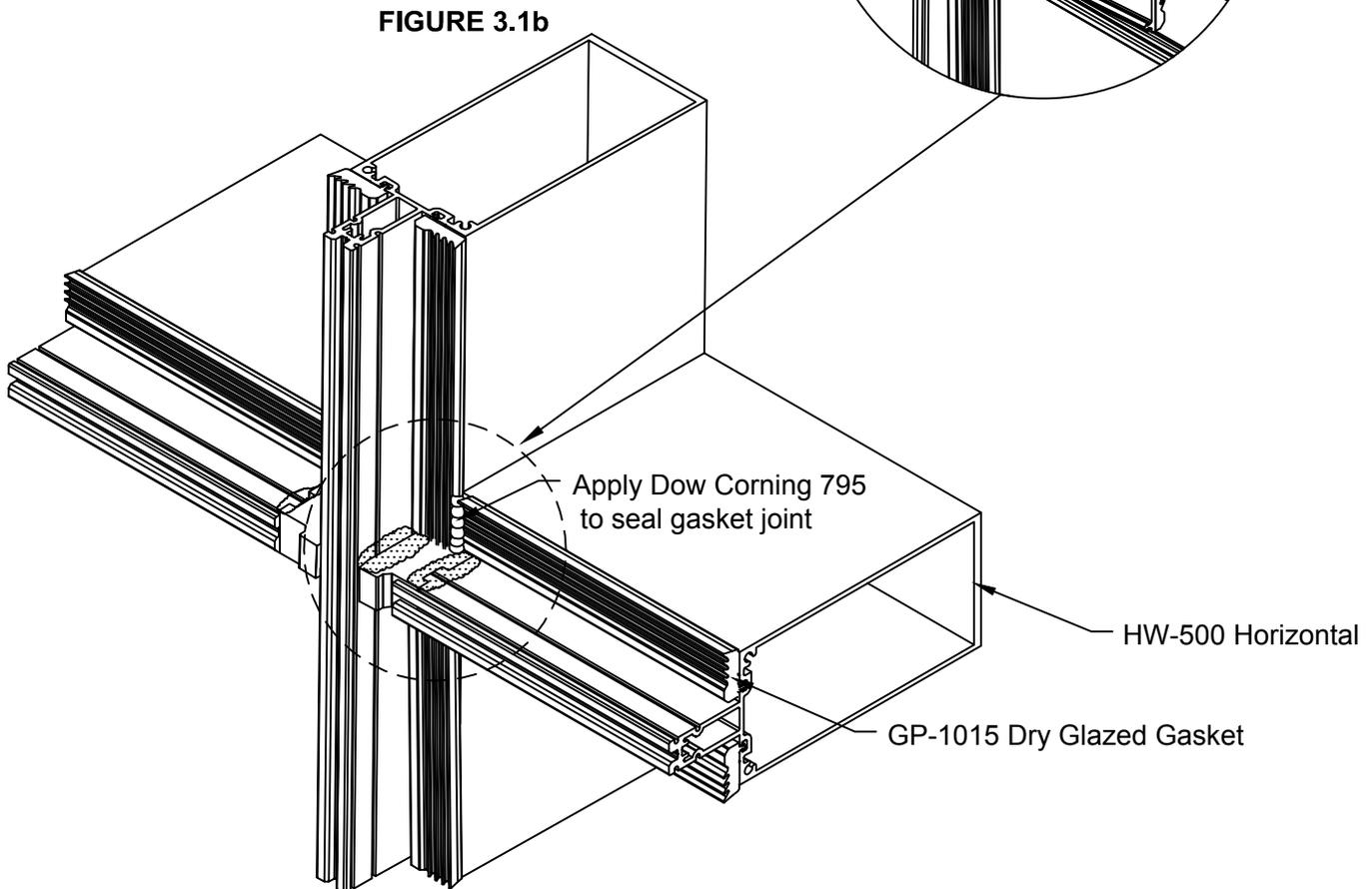
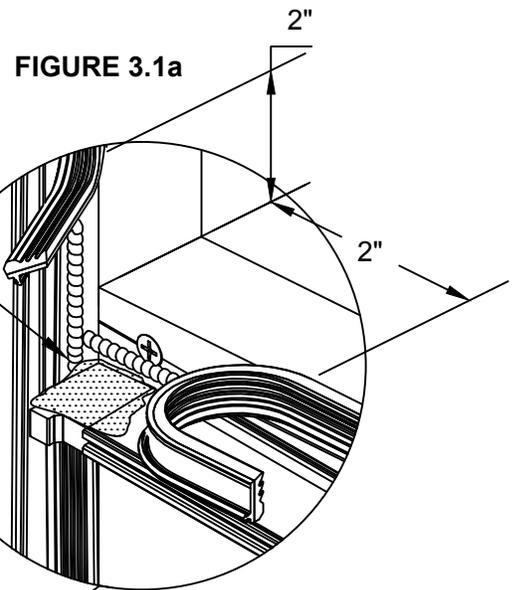
FIGURE 3.0
Thermal Isolator Installation



DRY GLAZED GASKET INSTALLATION (OPTIONAL)

- 3.1 a. Cut vertical GP-1015 gasket to D.L.O. plus 1 1/2".
- b. Cut the horizontal GP-1015 gasket to D.L.O. plus 3/16".
- c. Bed 2" at horizontal vertical intersections including the gasket reglet with Dow Corning 795 sealant.
- d. Install vertical GP-1015 gasket into reglet using a vinyl roller. Begin at center work towards ends.
- e. Install horizontal GP-1015 gasket next. Apply silicone on ends. Begin at center of horizontal. Use a vinyl roller to ensure proper engagement.

Apply Dow Corning 795 sealant and push gasket in to reglet then use roller to properly engage the gasket



GLASS SIZING AND INSTALLATION

GLASS SIZE CALCULATION

CAPTURED = D.L.O. PLUS 1.50" WIDTH & HEIGHT

SSG MULLION = D.L.O PLUS 2.00" (WIDTH ONLY)

SSG MULLION + CAPTURED JAMB = D.L.O PLUS 1.75"(WIDTH ONLY)

3.2 a. Set glass in opening. Ensure that glass bite is equal on all sides. **CAUTION:** Be certain that glass is placed firmly against interior spacer gasket to ensure a proper seal and to avoid binding of the glass on the setting block.

b. Temporarily hold glass in the opening with WW-333 temporary glazing retainers & FS-325 screw. Torque the FS-325 screw to 90 in-lbs.

-WW-333 temporary glazing retainers must be applied at each glass edge 3" from the corner (minimum of 8 per lite). Glass edges greater than 4' in length but less than 8' require an additional retainer at the glass mid-span.

-Retainers are intended for short term use only. Additional retainers may be required to withstand full design wind load pressures.

-Full length pressure plates must be installed if severe weather or high wind loads are anticipated.

See Figure 3.2a & 3.2b

FIGURE 3.2a
Glazing Instructions

WW-333-01 temporary glazing retainer. Locate at 3" from edge of glass. Additional clips may be required based on field conditions and glass size.

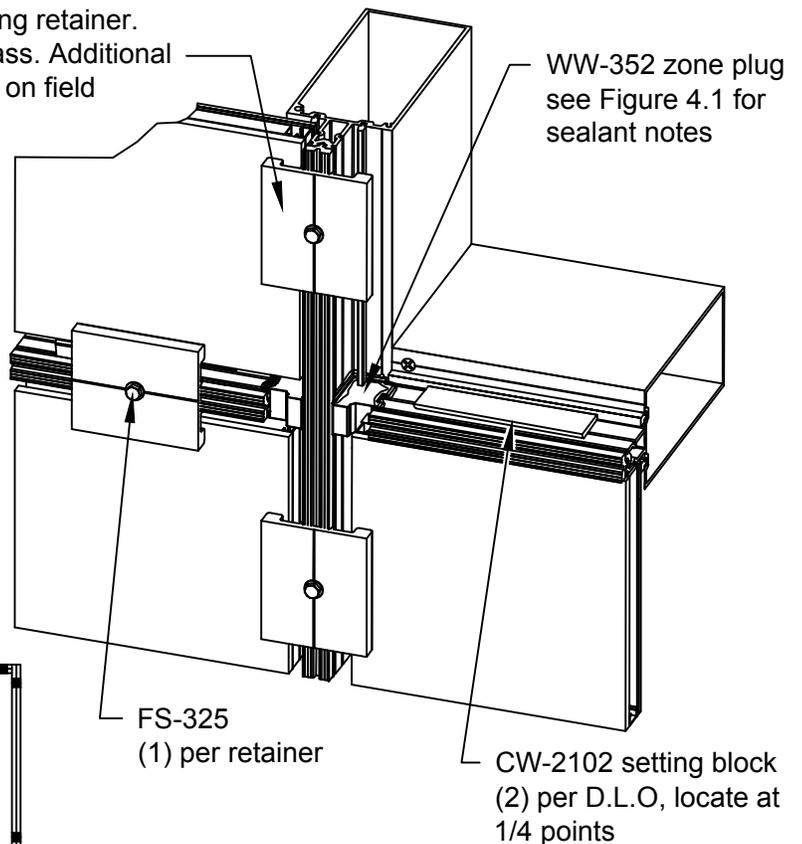
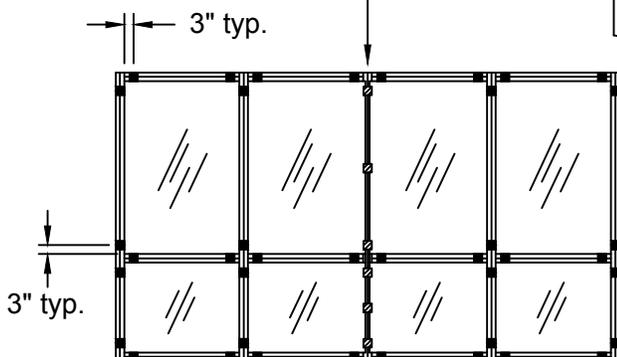


FIGURE 3.2b
Typical Location of Temporary
Glazing Retainers
SSG MULLION

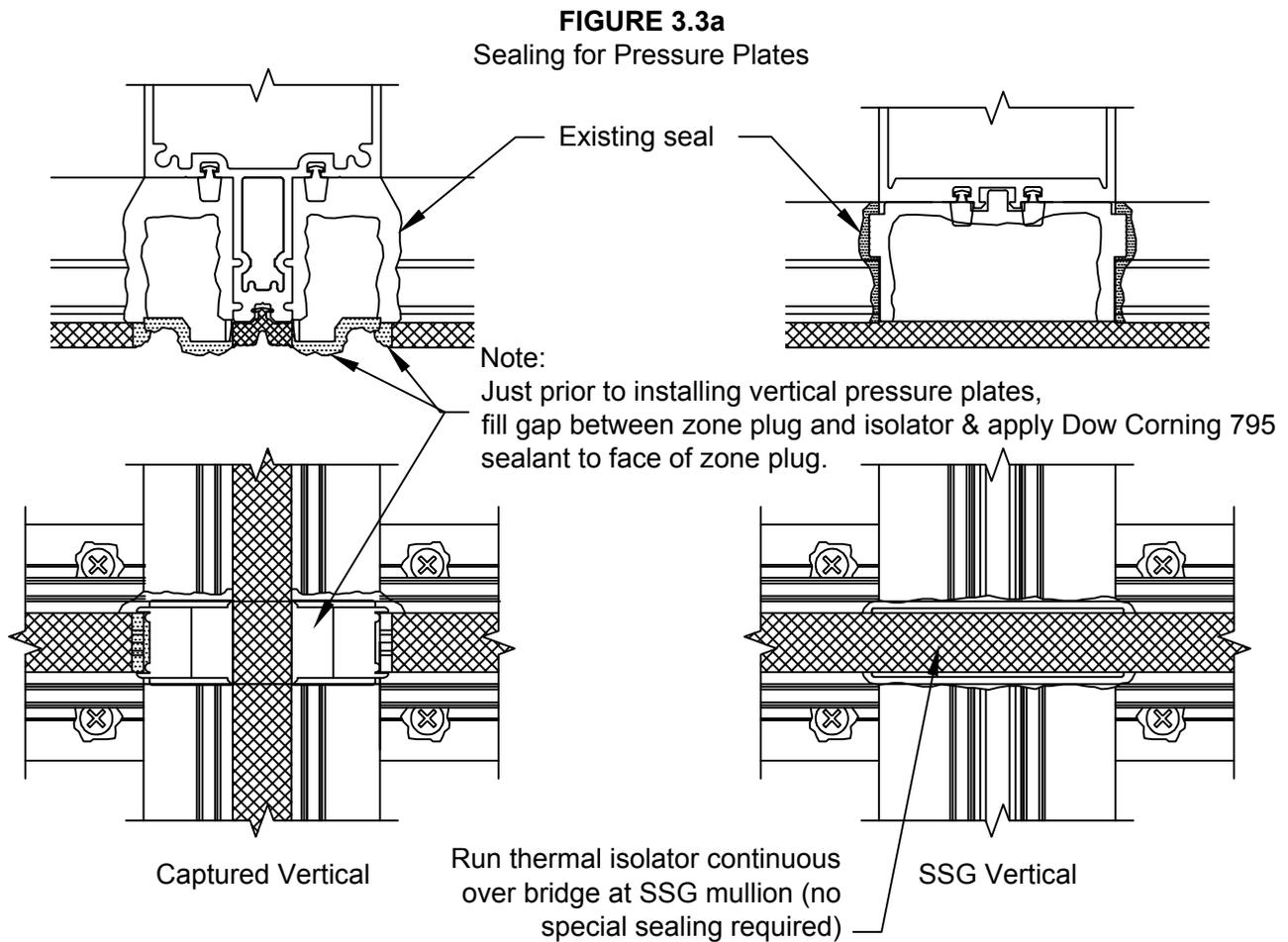


PRESSURE PLATE SEALING

3.3 Repeat steps 3.2 until all glass is set, working row by row up the elevation.

a. Prior to installing vertical pressure plates, apply sealant to the face of each horizontal zone plug. See Figure 3.3a. Vertical pressure plates must be installed before the horizontal pressure plates are applied.

b. FS-325 pressure plate fasteners must be located 1 1/2" from horizontal/vertical mullion intersections in order to maintain proper compression on the glass. Drill 7/32" holes in pressure plates as required.



c. After removing vertical temporary retainers, install vertical pressure plates with FS-325 screws, holding back 1/8" from the ends of the vertical mullion.

d. After removing horizontal temporary retainers, center horizontal pressure plates in opening, leaving 1/8" gap on each end. Make sure that weep holes are on the top side of the pressure plate. **NOTE:** Horizontal pressure plates and face covers run continuous over SSG mullions, not to exceed 3 lites in length. See Figure 3.4 for splicing and sealing instructions.

PRESSURE PLATE SPICE INSTRUCTIONS

FIGURE 3.4a

Pressure Plate Splice

SEALING NOTES:

1. Prior to attaching face covers, seal between pressure plates.
2. Attach face covers and seal joint (a foam backer rod can be used to aid in sealing)

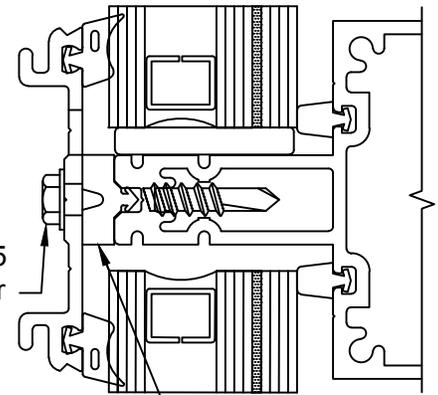
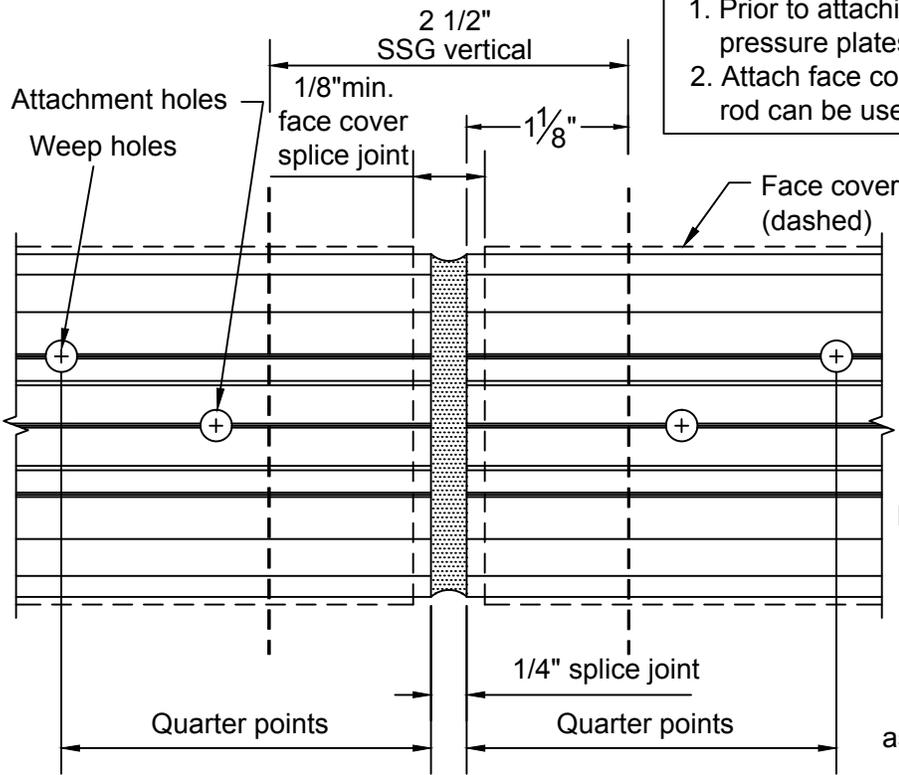
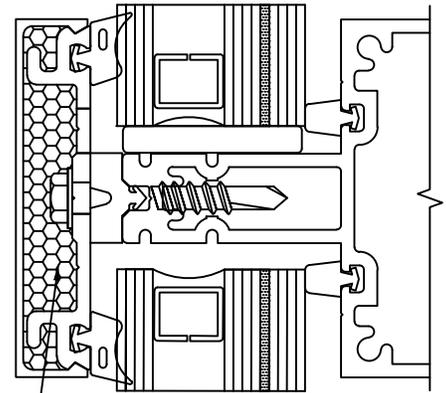
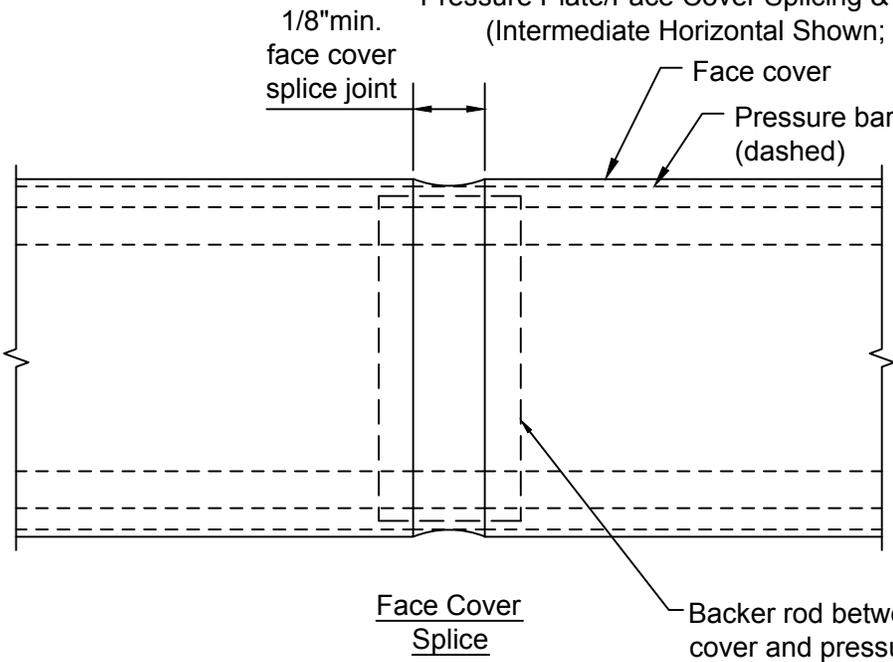


FIGURE 3.4b

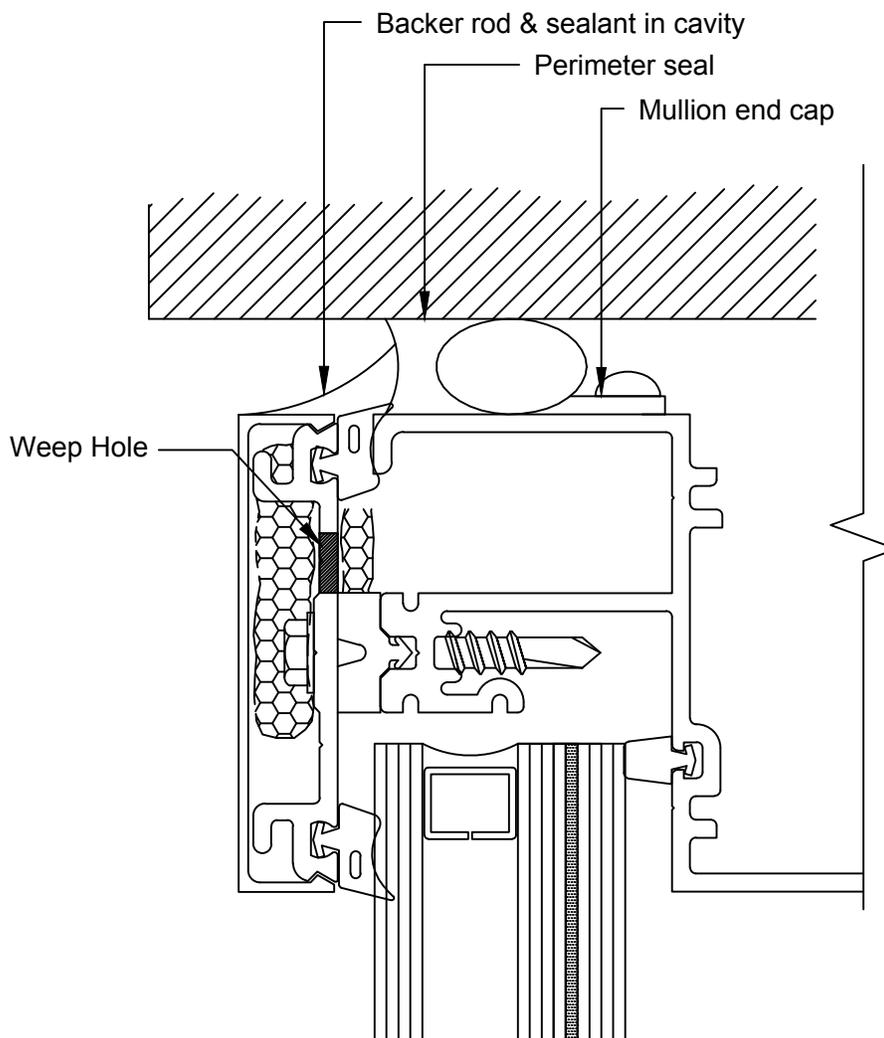
Pressure Plate/Face Cover Splicing & Sealing at SSG Mullions
(Intermediate Horizontal Shown; Head & Sill Similar)



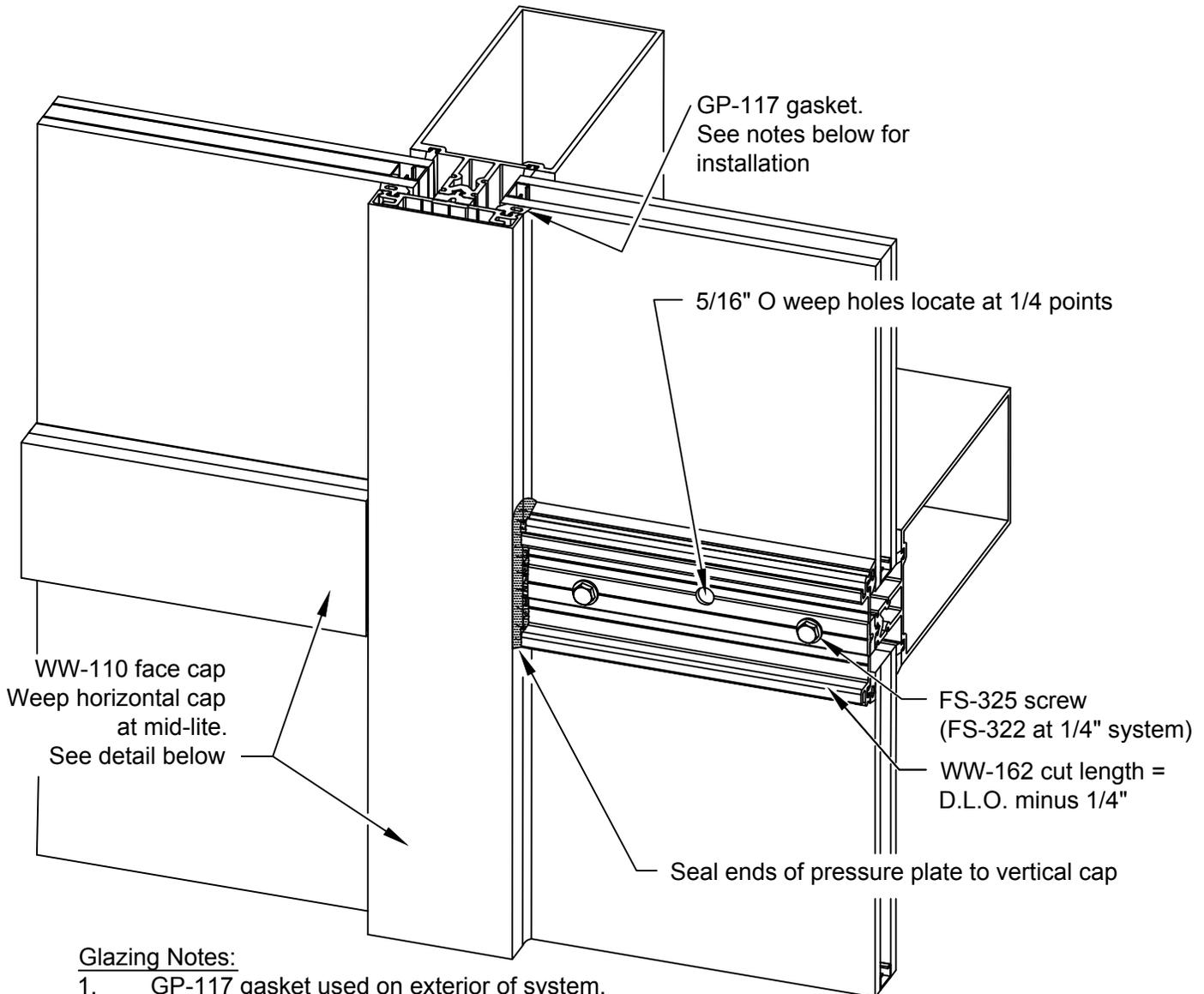
GLAZING INSTRUCTIONS

- 3.5 a. After all pressure plates are installed on the frame, torque FS-325 screws to 90 in-lbs. The use of either a drill motor with a torque limiter or torque wrench can be used. If using a cordless drill, check torque periodically since battery usage will affect the torque setting.
- b. Install vertical face covers. Using a wood block to protect the cover, apply with dead blow soft face hammer. Pin the vertical face covers once per length as required, concealing pin at a horizontal location.
- c. Insert backer rod into cavity at the top of each vertical mullion. Seal off end of vertical, sloping sealant back to marry with the perimeter seal. See **FIGURE 3.5a**
- d. Seal horizontal pressure plates against the vertical face covers. Tool sealant into the joint. See **FIGURE 3.5b**.
- e. Install horizontal face covers, leaving an equal gap at each end. Make sure that the weep hole in the face cover is on the top.

FIGURE 3.5a
Sealing Top of Captured Verticals



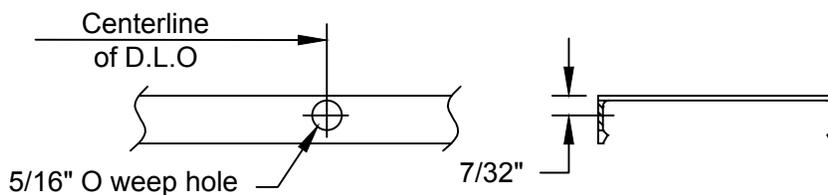
GLAZING INSTRUCTIONS



Glazing Notes:

1. GP-117 gasket used on exterior of system.
2. Remove gaskets from reels and allow to relax overnight before installing.
3. Cut gaskets to allow minimum 1/4" per foot for any relaxation of gasket that may occur after installation.
4. To ensure proper pressure on the glazing, 7/32" diameter holes may need to be drilled at the ends of each horizontal pressure plate as required. locate at 1 1/2" maximum from the ends.

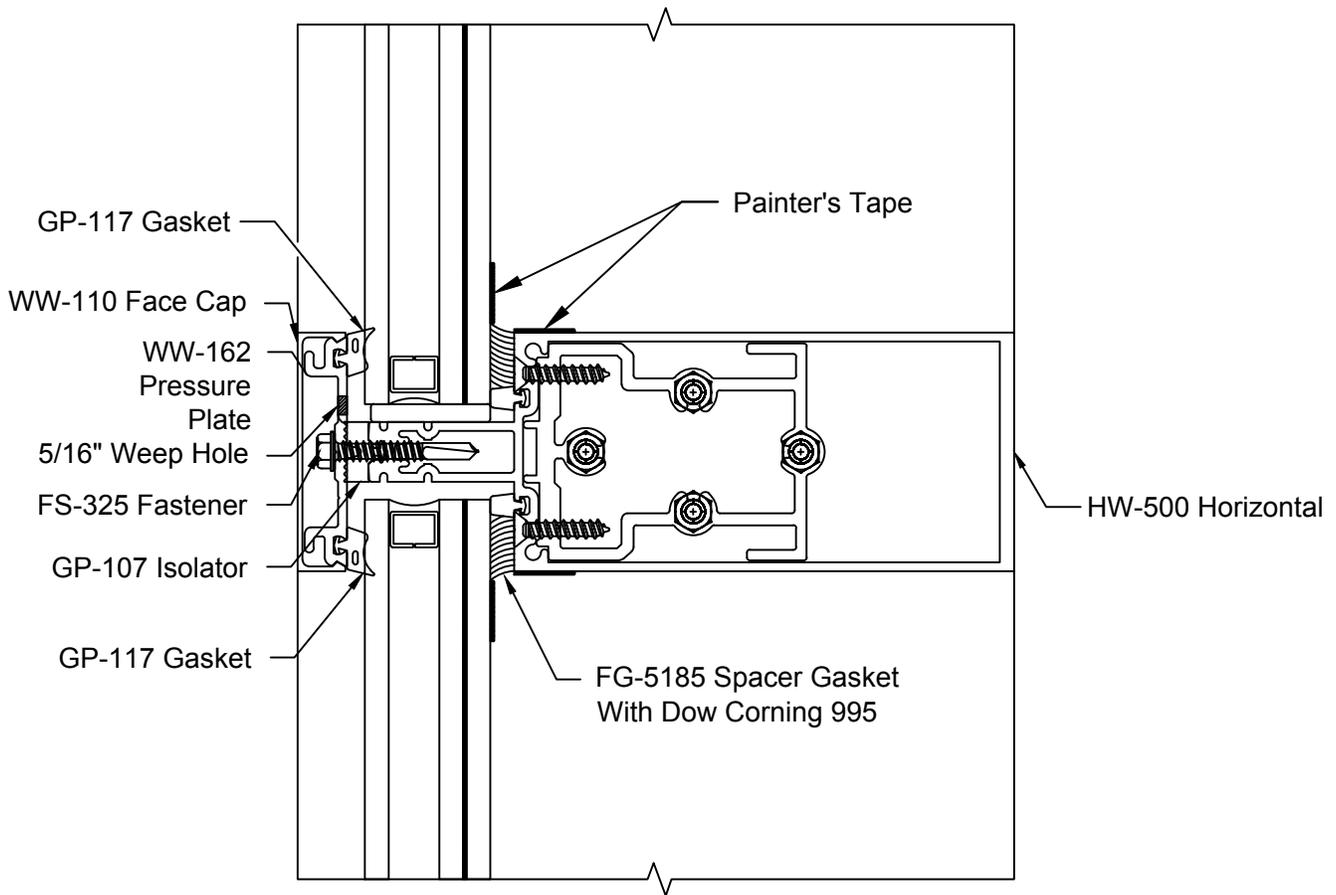
FIGURE 3.5b
Glazing Instructions
Horizontal Face Cap Fabrication



INTERIOR SEALING FOR WET GLAZED APPLICATIONS

- 3.6 a. Clean all silicone surfaces and joints with 50% isopropyl alcohol and wipe clean.
- b. Apply painter's tape to the mullion and glass as shown in **FIGURE 3.6**
- c. Apply Dow Corning 995 structural silicone sealant into pocket between the mullion and the glass starting from the bottom and work towards the top. Be sure to use positive pressure to completely fill the pocket and prevent voids in sealant.
- d. Use a proper implement to tool the silicone sealant smooth immediately after running the bead.
- e. Remove painter's tape after tooling and before silicone sealant skins over.

FIGURE 3.6
Glazing Instructions
9/16" Glazing Similar



ENTRANCE SUBFRAME INSTALLATION

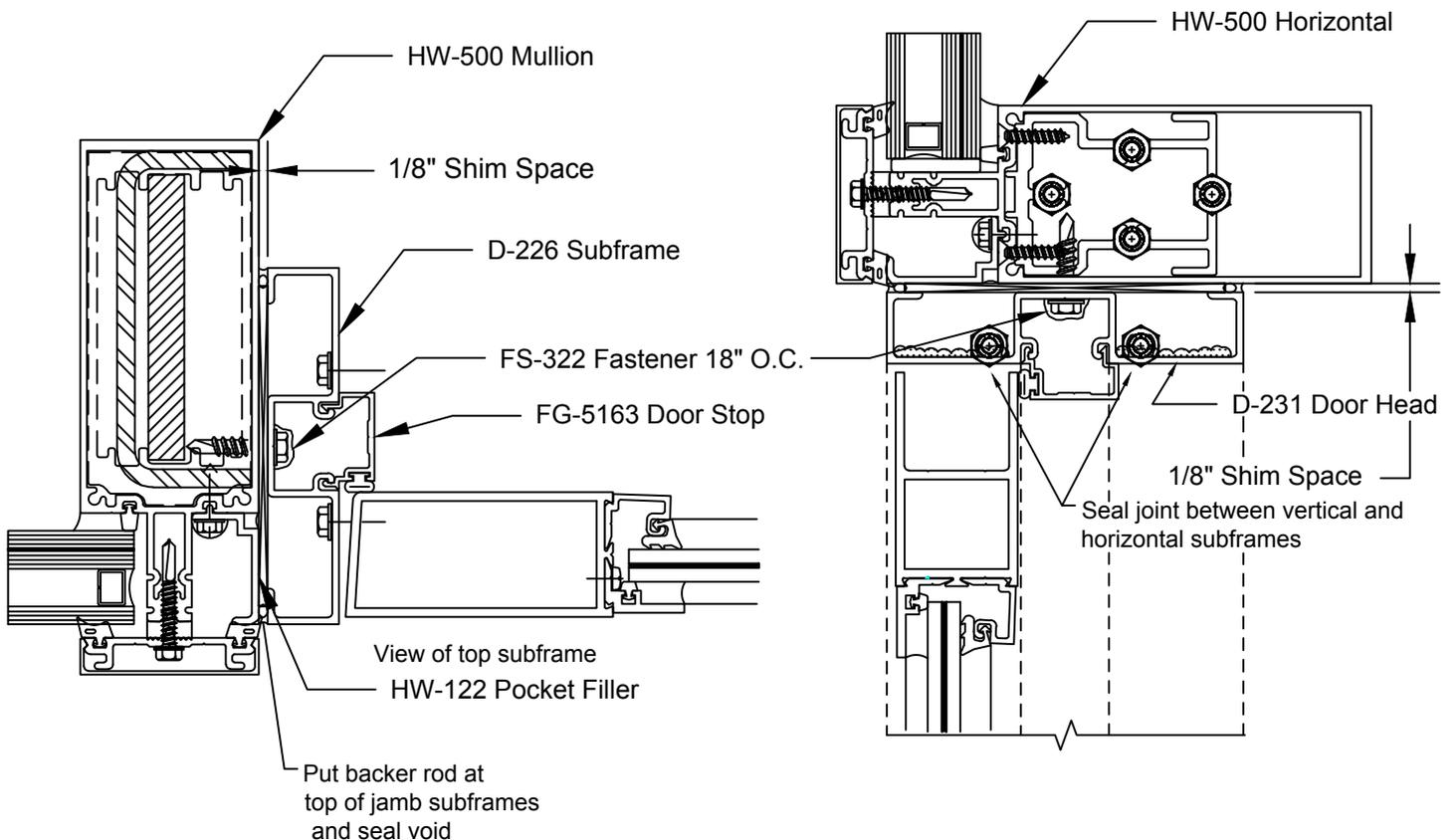
3.7 All door framing components are shipped fabricated from the factory. The main curtain wall framing can be erected prior to installing the doors. Refer to **FIGURE 3.7** for door header fabrication and installation instructions.

a. Curtain wall verticals and door subframes run through to finished floor. Bed adjacent curtain wall verticals in sealant and anchor to floor per approved shop drawings. See shop drawings for anchoring door jamb mullion.

b. SUBFRAME INSTALLATION:

- b.1 Assemble door subframe including TH-57 threshold.
- b.2 Install subframe into curtain wall frame. Shim plumb and true.
- b.3 Anchor subframe with FS-322 space 18" O.C. Anchor threshold per shop drawings
- b.4 Install door stops in subframe. The vertical stops run through.
- b.5 Mask off frame with painter's tape and clean & seal perimeter of frame on exterior & interior
- b.6 Install door per DOOR & FRAME INSTALLATION & GLAZING MANUAL.

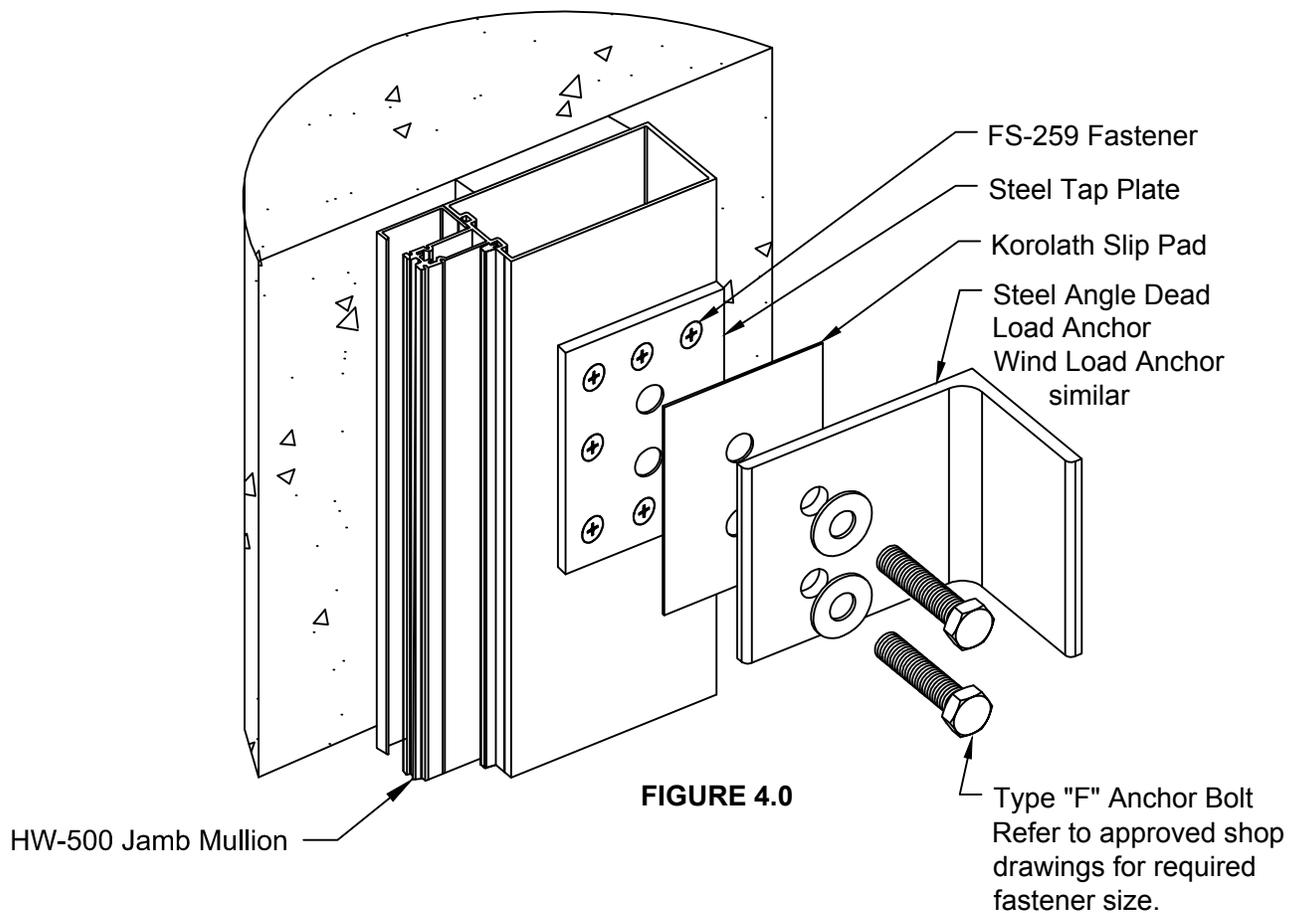
FIGURE 3.7
Attaching Subframes



MID POINT ANCHOR AT JAMB PANEL FRAME

- 4.0 a. Attach steel tap plate to HW-500 jamb mullion with FS-259 fastener see Figure 4.0.
- b. Install plumb and align vertical jamb mullion. Drill appropriate sized holes for anchor bolts as shown on approved shop drawings.
- c. Insert a (minimum) 1/16" Korolath slip pad between the anchor and the tap plate prior to inserting fasteners.

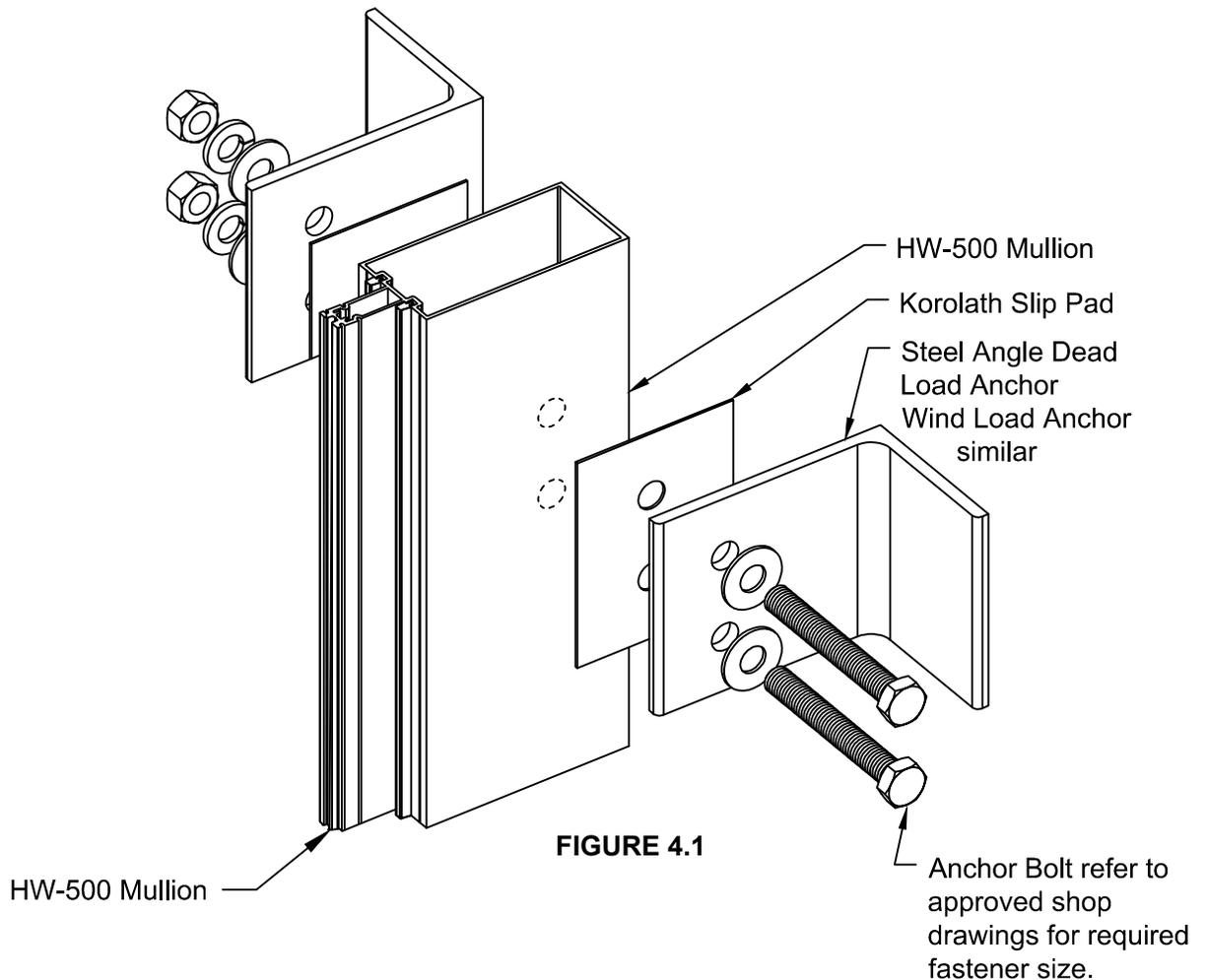
NOTE: Details shown are to used as a guide only. See approved shop drawings for actual conditions.



MID POINT ANCHOR AT MULLION

- 4.1 a. Install plumb and align vertical mullion. Drill appropriate sized holes for anchor bolts as shown on approved shop drawings.
- b. Insert a (minimum) 1/16" Korolath slip pad between the anchor and the tap plate prior to inserting fasteners.
- c. Insert anchor bolts through the mullion and install lock washers and nuts as required.

NOTE: Details shown are to used as a guide only. See approved shop drawings for actual conditions.



STACKED HORIZONTAL INSTALLATION

- 5.0 a. Apply bond breaker tape to HW-194-01 splice
- b. Insert HW-194-01 splice into bottom half of HW-500 mullion.
- c. Attach splice to bottom half of HW-500 mullion with FS-8 fastener (2) per side.
- d. Insert top half of HW-500 mullion on to splice. Insert anchors on both ends and install into opening. Corner mullion has similar assembly.

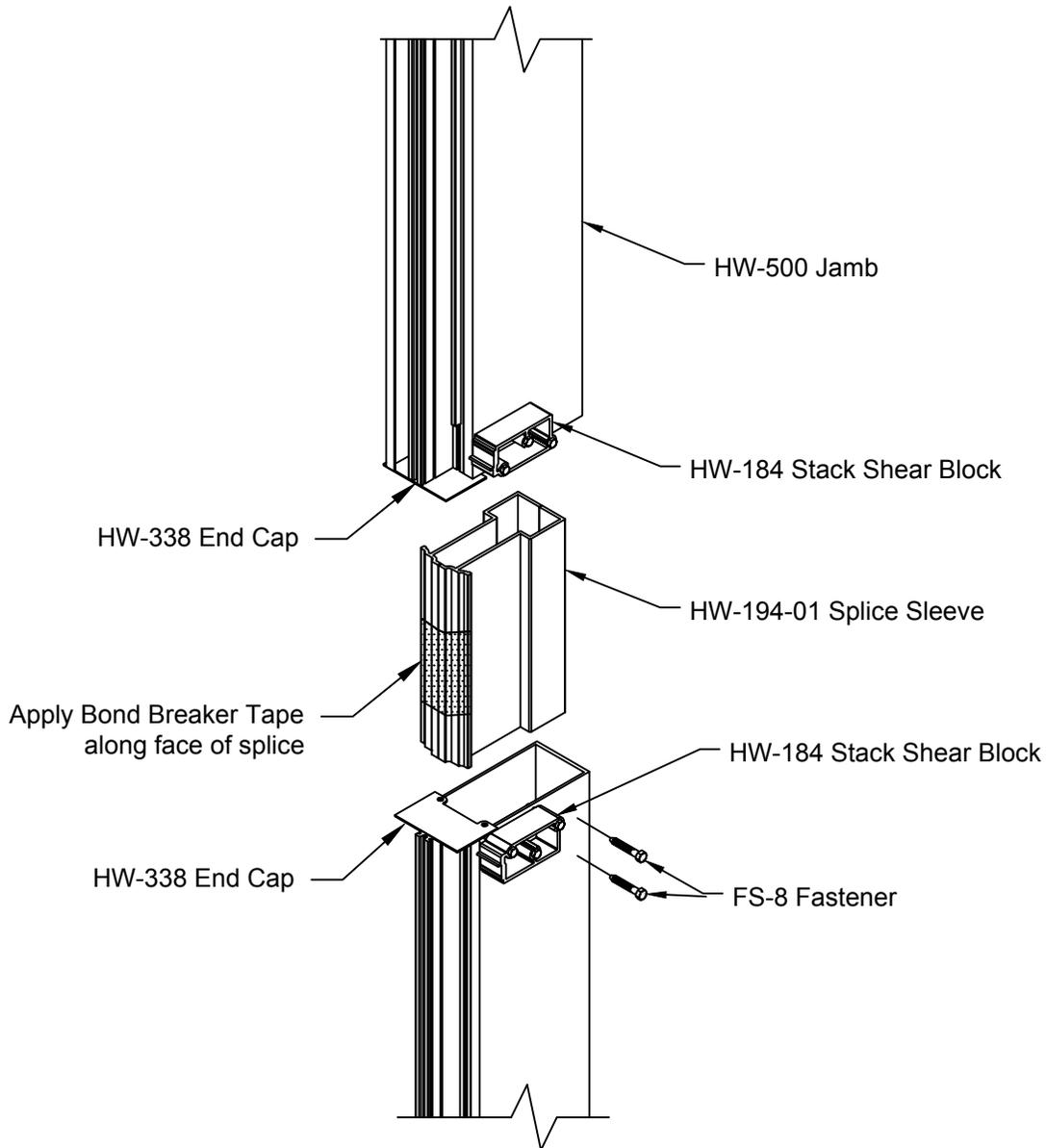


FIGURE 5.0

STACKED HORIZONTAL INSTALLATION

- 5.2 a. Once all bays have been installed, anchored and zone plugs have been installed then begin to install backer rod and sealant as shown in FIGURE 5.2
- b. At Jamb condition marry silicone sealant with perimeter sealant.
- c. Remove splice stop fastener and seal hole.

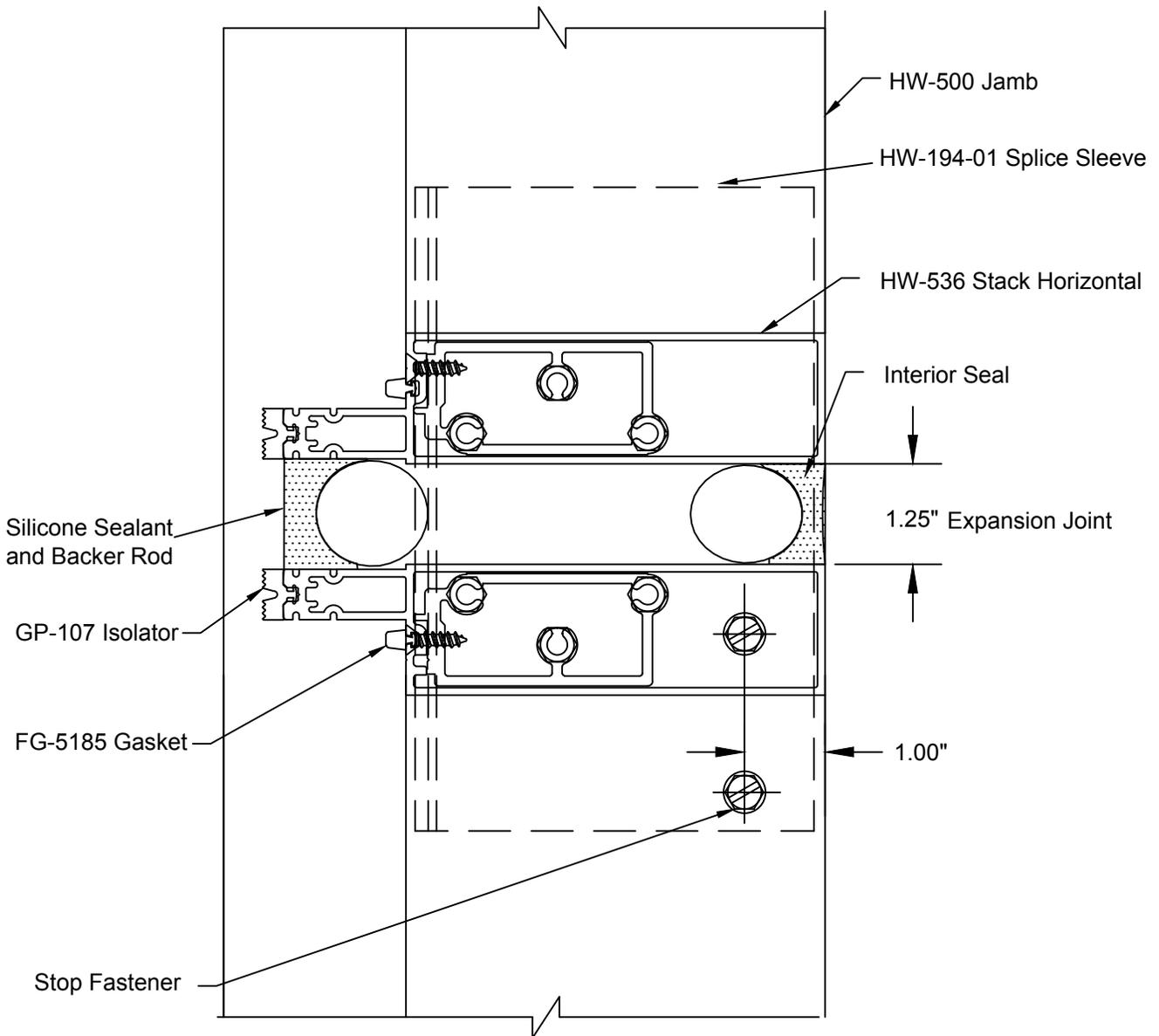
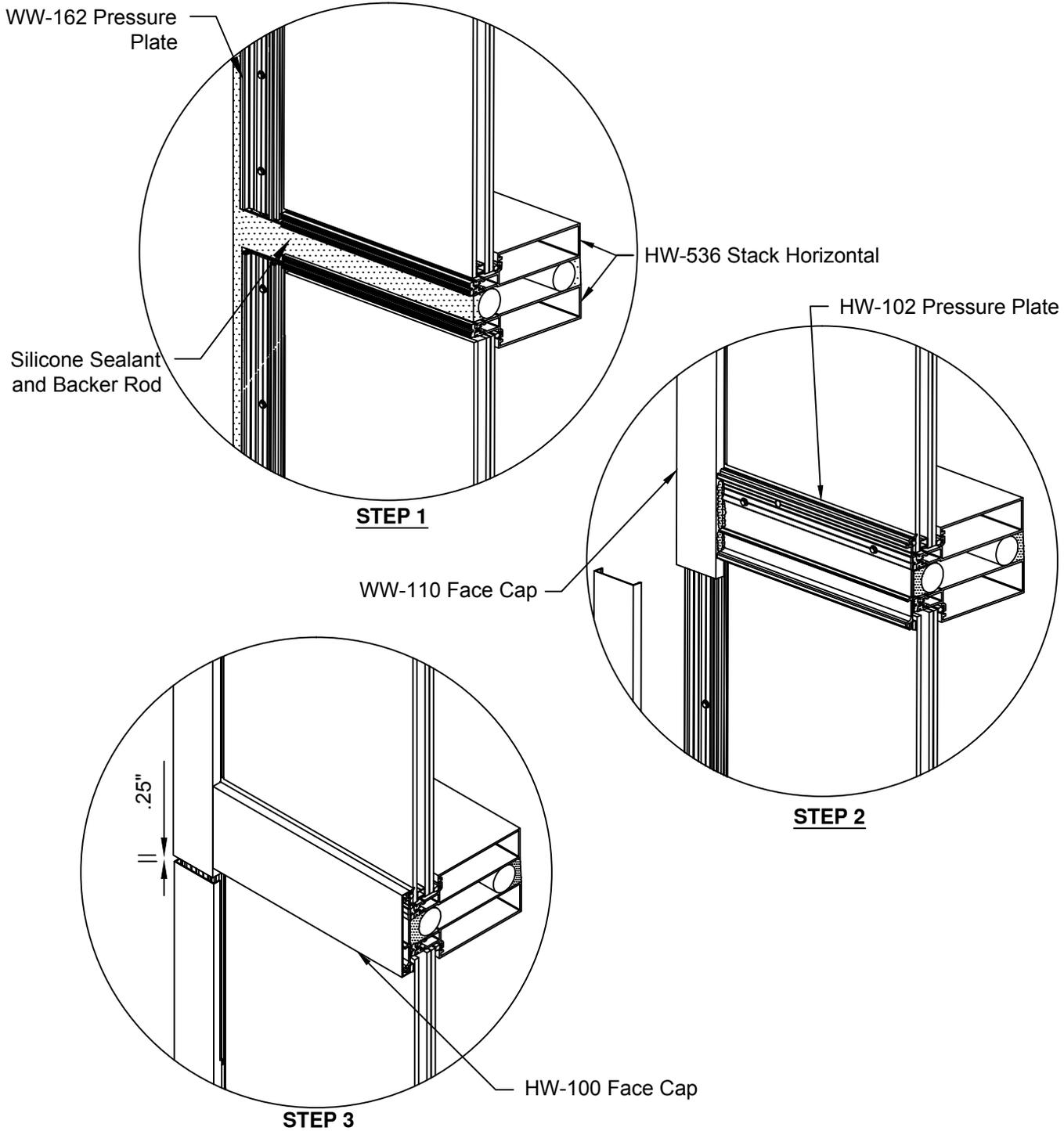


FIGURE 5.2

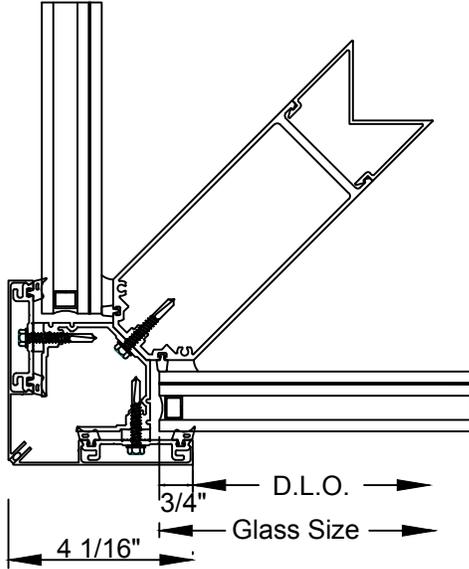
STACKED HORIZONTAL VERTICAL PRESSURE PLATE INSTALLATION

- 5.3 a. Step 1 - After glazing has been temped in, install WW-162 vertical pressure plates.
- b. Step 2 - Install WW-110 face cap and seal HW-102 pressure plate to WW-110 face cap.
- c. Step 3 - Install vertical HW-100 face cap.



OS 90 DEGREE CORNER GLASS SIZE CALCULATION

6.0 **FIGURE 6.0a** shows the 90 degree captured corner dimensions. **FIGURE 6.0b** shows the 90 Degree SSG corner dimensions. These details are for general reference and do not necessarily reflect all conditions. For specific assembly, sealing and anchoring notes, refer to approved shop drawings.



CAPTURED CORNER GLASS SIZE CALCULATION
D.L.O. PLUS 1.50" WIDTH & HEIGHT

FIGURE 6.0a
OS 90 Captured Corner glass sizing

SSG CORNER GLASS SIZE CALCULATION
D.L.O. PLUS 1.50" WIDTH & HEIGHT

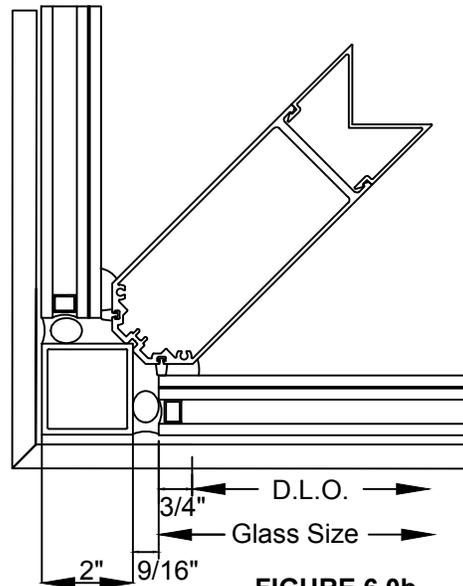


FIGURE 6.0b
OS 90 SSG Corner glass sizing

OS 90 DEGREE CAPTURED CORNER ASSEMBLY

6.1 FIGURE 6.1 shows the basic layout of the standard one-piece corner mullion assemblies. These details are for general reference and do not necessarily reflect all conditions. For specific assembly, sealing and anchoring notes, refer to approved shop drawings.

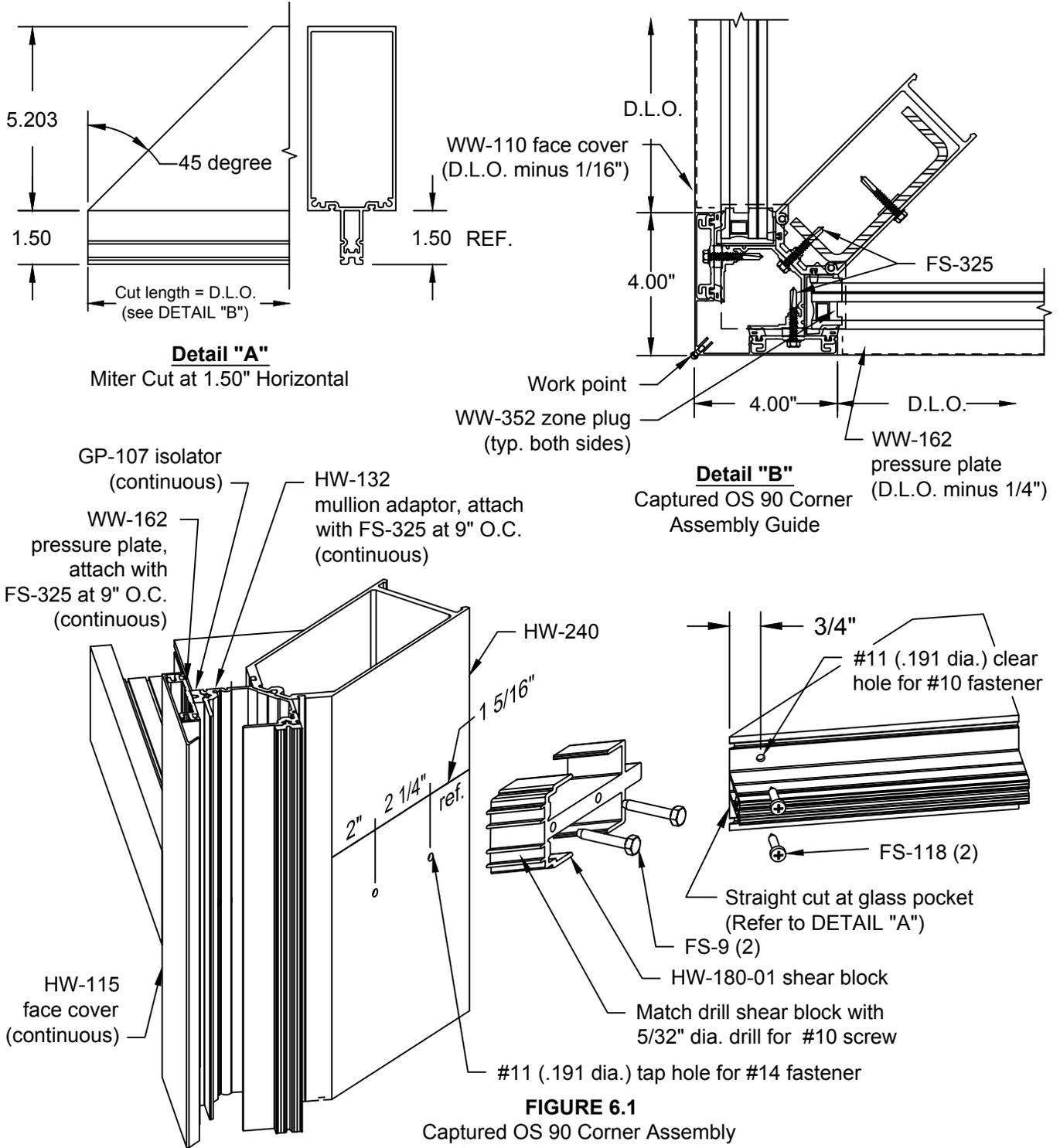
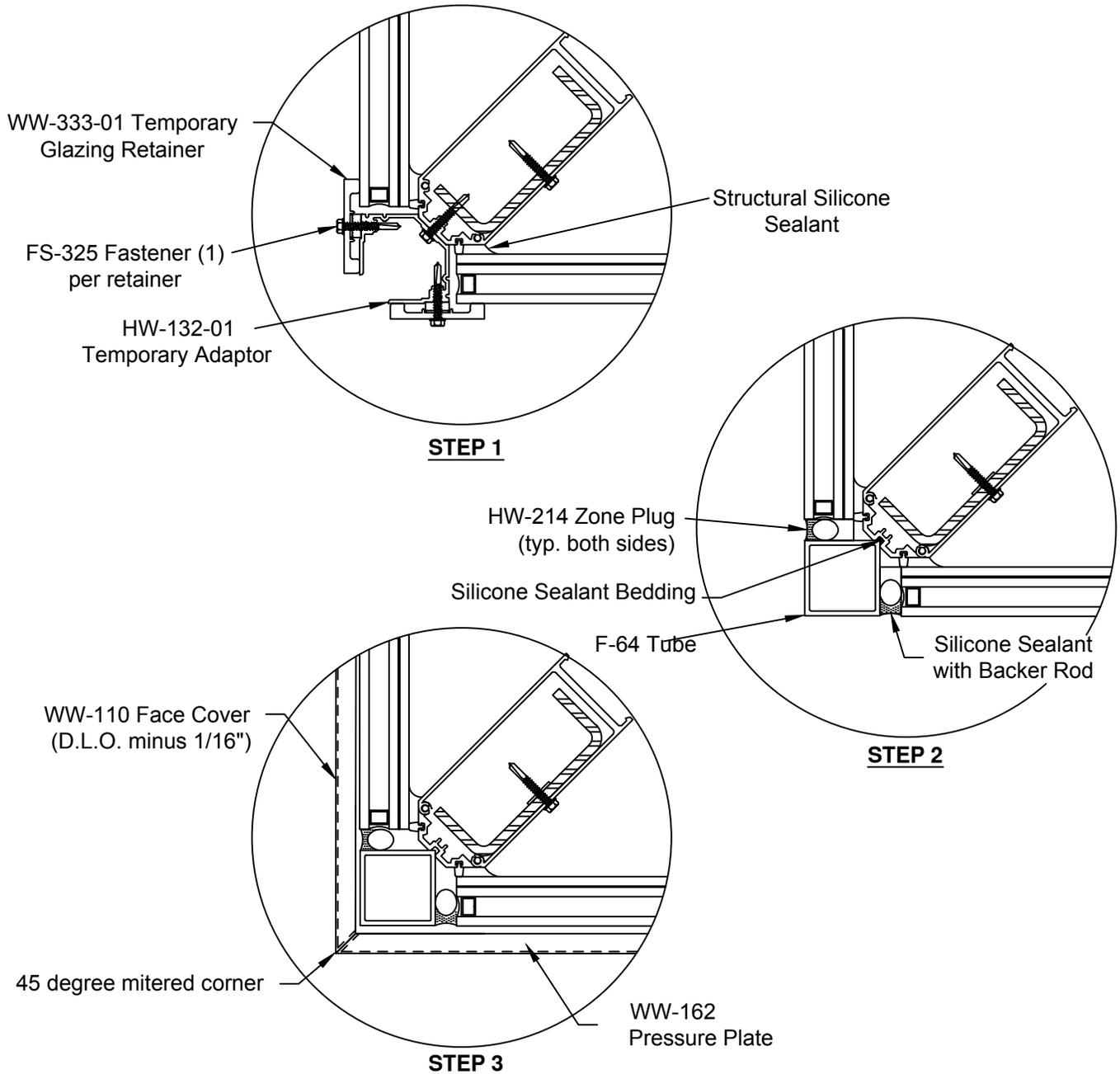


FIGURE 6.1
Captured OS 90 Corner Assembly
(Cut lengths in parentheses)

OS 90 DEGREE SSG CORNER ASSEMBLY

- 6.2 a. Step 1 - Install glazing and temp in using WW-333-01 temporary glazing retainer and HW-132-01 qdaptor. (spaced at 36") Apply interior bead of structural silicone in glazing pocket. Allow for a full cure of structural silicone before removing temporary retainer.
- b. Step 2 - Remove temporary retainer and apply a bead of silicone in vertical race. Install F-64 SSG corner tube. Install and seal HW-214 zone plugs at horizontal members. Apply painter's tape to the edge of glazing and F-64 tube and apply silicone sealant. Remove tape once silicone skins over.
- c. Step 3 - Install WW-162 pressure plates and WW-110 face cap at horizontal members. Dimensions are to be in accordance with approved shop drawings.



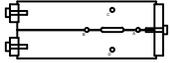
Mullions / Horizontals / Fillers

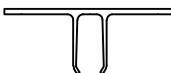
ITEM	DESCRIPTION
 HW-500	Mullion
 HW-501	Head
 HW-502	Sill
 HW-504	SSG Mullion
 HW-510	Heavy Mullion
 HW-532	Roll Over Horizontal
 HW-533	Roll Under Horizontal
 WW-237	Filler

Miscellaneous Parts List

ITEM	DESCRIPTION
 F-64	SSG Corner
 HW-100	4.50" Face Cap
 HW-102	4.50" Pressure Plate
 HW-115	Corner Face Cap
 HW-122	Pocket Filler (Use with Exterior Gasket)
 HW-130	Adaptor for 9/16" Glazing
 HW-132	Corner Pressure Plate
 HW-240	Corner Mullion
 HW-536	Stack Horizontal
 WW-110	Typical Face Cap
 WW-162	Typical Pressure Plate
 WW-224	Corner Cover

Accessories List

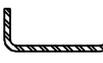
ITEM	DESCRIPTION
 DJ-112	Typical Drill Jig for Mullions (Non-Corners)
 CW-2101	4" Setting Block
 CW-2102	4" Setting Block
 FG-5185	Spacer Gasket
 GP-107	Thermal Isolator
 GP-117	Exterior Gasket
 GP-160	Exterior Gasket Stacked Horizontal
 GP-1015	Dry Glazed Gasket
 HW-74-01	Splice for HW-504 & HW-510
 HW-103-01	"F" Anchor for sleeve
 HW-103-02	"F" Anchor
 HW-105-01	"T" Anchor for sleeve
 HW-105-02	"T" Anchor

ITEM	DESCRIPTION
 HW-105-03	Corner "T" Anchor
 HW-174-01	"L" Anchor for Wood Substrates
 HW-180-01	Corner Shear Block
 HW-180-02	Shear Block for Stacked Horizontal Corner
 HW-180-03	Shear Block for Stacked Horizontal Corner
 HW-183-01	Shear Block
 HW-184-01	Shear Block for Stacked Horizontal
 HW-191-01	Splice for HW-240 Corner Mullion
 HW-194-01	Splice for HW-500 Mullion
 HW-200-01	Anchor Sleeve for HW-500
 HW-201-01	Anchor Sleeve for HW-510 & HW-504
 HW-312	Corner Mullion Bridge
 HW-314	OS90 SSG Zone Plug

Fastener List

ITEM	DESCRIPTION
 FS-9	#14 x 1 1/2" Hex Shear Block Screw
 FS-118	#10 x 1" Phillips Flat Head at Horizontal Members
 FS-119	#10 x 1 1/2" Phillips Flat Head at 9/16" Glazing Adaptor
 FS-259	1/4-20 Phillips Flat Head Type "F"
 FS-320	#10 x 1/2" U-Drive, at End Caps
 FS-322	#12-14 x 1" Hex Washer Head Drill Flex Jamb Filler
 FS-325	#12-14 x 1 1/2" Hex Washer Head Drill Flex at Pressure Plates

Misc. Parts

ITEM	DESCRIPTION
 HW-323	OS 90 Corner Mullion Cap
 HW-325	Mullion Cap
 HW-338	Jamb Cap
 HW-358	SSG Mullion Cap
 RS-15	1/2" x 4 " Steel Bar 150"
 RS-25	4 9/16" x 1 1/4 " Steel Channel 120"
 WW-350	SSG Mullion Bridge
 WW-352	Zone Plug at Captured Mullion & O.S. 90 degree capt