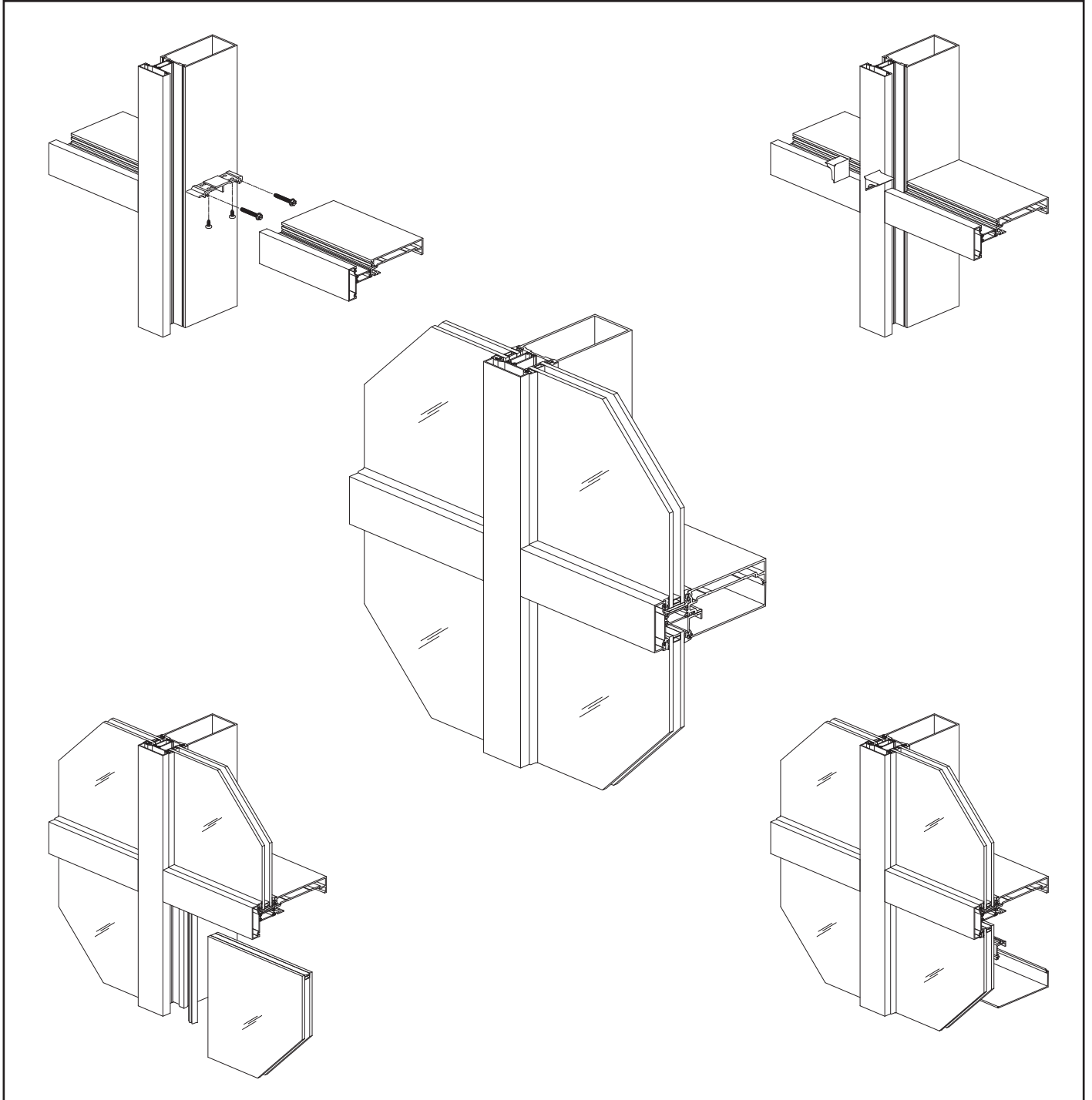


# YCW 750 XT IG Inside Glazed Curtain Wall System



## Installation Manual




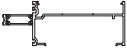
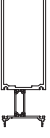

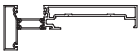

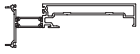



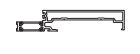









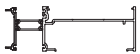

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
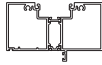





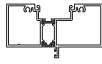









**Installation Notes**

1. Do not drop, roll or drag boxes of aluminum framing. Move and stack boxes with proper support to prevent distortion. If fork lifts are used be especially careful about striking the boxes when lifting or moving.
2. Store in a dry, out of the way area. If rain exposure, condensation or any water contact is likely, then all packaging material should be removed. Wet packaging materials will discolor and may stain aluminum finishes and paints.
3. All materials should be checked for quality and quantity upon receipt, YKK AP must be notified immediately of any discrepancies in shipment. Check to make sure that you have the required shims, sealants, supplies and tools necessary for the installation.
4. Carefully check the openings and surrounding conditions that will receive your material. Remember, if the construction is not per the construction documents, it is your responsibility to notify the general contractor in writing. Any discrepancies must be brought to the general contractor's attention before you proceed with the installation.
5. Gather your shop drawings, materials, packing list, and this installation manual. Carefully review parts location, the sequence it goes therein, when you glaze it and how you seal it. Installation instructions are of a general nature and may not cover every condition you will encounter. The shop drawings and/or installation manuals were prepared specifically for the product.
6. Any material substitutions must be of equal or greater quality.
7. Make certain that material samples have been sent for compatibility testing for all manufacturer's sealants involved. Make certain sealants have been installed in strict accordance with the manufacturer's recommendations and specifications.
8. Remember to isolate, in an approved manner, all aluminum from uncured masonry or other incompatible materials.
9. System-to-structure fasteners are not supplied by YKK AP. Fasteners called out on shop drawings are to indicate minimum sizes for design loading.
10. Entrances are to be installed plumb, square, level and true.
11. If any questions arise concerning YKK AP products or their installation, contact YKK AP for clarification before proceeding.
12. YKK AP storefront and/or curtain wall framing is typically completed before drywall, flooring and other products which may still be in process. Take the extra time to wrap and protect the work produced.
13. Cutting tolerances are plus zero (0"), minus one thirty second (-1/32") unless otherwise noted.
14. Check our website, [www.ykkap.com](http://www.ykkap.com), for the latest installation manual update prior to commencing work.



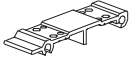

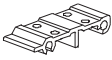

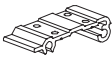
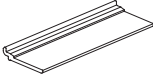










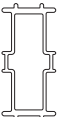

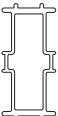
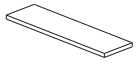


## FRAMING MEMBERS

	<b>Vertical Mullion</b> with Integral Cover 2-1/2" x 5-1/4"	<b>BE9-3970</b>		<b>Sill (OG)</b> 2-1/2" x 5-1/4"	<b>BE9-3984</b>
	<b>Vertical Mullion</b> 2-1/2" x 5-1/4"	<b>BE9-3981</b>		<b>Flush Filler</b> Use With BE9-3978, BE9-3983, & BE9-3984	<b>E9-3162</b>
	<b>Horizontal</b> with Integral Cover 2-1/2" x 5-1/4"	<b>BE9-3972</b>		<b>Interior Cover</b> For Head & Horizontal, 5-1/4" Back Depth Only	<b>E9-3334</b>
	<b>Horizontal</b> 2-1/2" x 5-1/4"	<b>BE9-3982</b>		<b>Interior Glass Stop</b> For Head & Horizontal, 5-1/4" Back Depth Only	<b>E9-3957</b>
	<b>Horizontal (OG)</b> 2-1/2" x 5-1/4"	<b>BE9-3976</b>		<b>Vertical Mullion</b> with Integral Cover 2-1/2" x 3-3/4"	<b>BE9-3360</b>
	<b>Horizontal (OG)</b> 2-1/2" x 5-1/4"	<b>BE9-3986</b>		<b>Vertical Mullion</b> 2-1/2" x 3-3/4"	<b>BE9-3362</b>
	<b>Head</b> with Integral Cover 2-1/2" x 5-1/4"	<b>BE9-3977</b>		<b>Horizontal</b> with Integral Cover 2-1/2" x 3-3/4"	<b>BE9-3357</b>
	<b>Head</b> 2-1/2" x 5-1/4"	<b>BE9-3980</b>		<b>Horizontal</b> 2-1/2" x 3-3/4"	<b>BE9-3358</b>
	<b>Head (OG)</b> 2-1/2" x 5-1/4"	<b>BE9-3975</b>		<b>Horizontal (OG)</b> 2-1/2" x 3-3/4"	<b>BE9-3359</b>
	<b>Sill</b> with Integral Cover 2-1/2" x 5-1/4"	<b>BE9-3978</b>		<b>Horizontal (OG)</b> 2-1/2" x 3-3/4"	<b>BE9-3366</b>
	<b>Sill</b> 2-1/2" x 5-1/4"	<b>BE9-3983</b>		<b>Head</b> with Integral Cover 2-1/2" x 3-3/4"	<b>BE9-3355</b>

## FRAMING MEMBERS

	<b>Head</b> 2-1/2" x 3-3/4"	<b>BE9-3356</b>		<b>Pressure Plate</b> For OG Option	<b>AS-3958</b>
	<b>Head (OG)</b> 2-1/2" x 3-3/4"	<b>BE9-3354</b>		<b>PVC Perimeter Filler</b> For 1" Glazing	<b>E3-3665</b>
	<b>Sill</b> with Integral Cover 2-1/2" x 3-3/4"	<b>BE9-3364</b>		<b>Single Acting Transom Bar</b> For 35XT/50XT Doors E2-0051 Not Included	<b>BE9-1532</b>
	<b>Sill</b> 2-1/2" x 3-3/4"	<b>BE9-3363</b>		<b>Door Jamb</b> Use with BE9-1533	<b>BE9-1540</b>
	<b>Sill (OG)</b> with Integral Cover 2-1/2" x 3-3/4"	<b>BE9-3365</b>		<b>Door Stop</b> For 35XT/50XT Doors E2-0051 Not Included Use with BE9-1540	<b>BE9-1533</b>
	<b>Flush Filler</b> Use With BE9-3978, BE9-3363, BE9-3364, & BE9-3365	<b>E9-3336</b>		<b>Single Acting Transom Bar</b> For 25T/35T/50T Doors E2-0051 Not Included	<b>BE9-2582</b>
	<b>Interior Cover</b> For Head & Horizontal, 3-3/4" Back Depth Only	<b>E9-3335</b>		<b>Door Jamb Flat Subframe</b> For 25T/35T/50T Doors Use with AS-1539	<b>BE9-1526</b>
	<b>Interior Glass Stop</b> For Head & Horizontal, 3-3/4" Back Depth Only	<b>E9-3996</b>		<b>Door Stop</b> For 25T/35T/50T Doors E2-0051 Included Use with BE9-1527	<b>AS-1539</b>
	<b>Glass Stop</b> For 1" Glazing	<b>E9-3968</b>		<b>1" x 1" x 1/8" Angle</b>	<b>E9-9302</b>
	<b>Glazing Adaptor</b> For 1/4" Glazing	<b>E9-7650</b>		<b>1-1/2" x 1-1/2" x 1/8" Angle</b>	<b>E9-9303</b>
	<b>Face Cover</b> 2-1/2" x 3/4"	<b>E9-1206</b>			


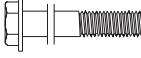

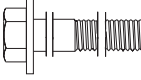






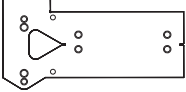


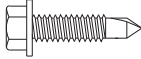





## ACCESSORIES

	<b>Steel Reinf. Tube</b> 2" x 4" x 1/8"	<b>E1-0187</b>		<b>Mullion Reinf. Sleeve</b> For 3-3/4" Back Depth Vertical, 29" Long	<b>E1-1355</b>
	<b>Shear Clip</b> For 5-1/4" Back Depth Head, Horizontal & Sill	<b>E1-3019</b>		<b>Splice Sleeve</b> For Face Cover	<b>E1-1202</b>
	<b>Shear Clip</b> For 3-3/4" Back Depth Horizontal	<b>E1-1350</b>		<b>Mullion End Cap</b> For 1" Glazing	<b>E1-1359</b>
	<b>Shear Clip</b> For 3-3/4" Back Depth Head & Sill	<b>E1-1351</b>		<b>Setting Block Chair</b> For 1" Glazing	<b>E1-3619</b>
	<b>Intermediate Mullion "T" Anchor</b> For 5-1/4" Back Depth	<b>E1-1208</b>		<b>Windload Anchor</b> Refer to Shop Drawings for Anchor Dimensions *	<b>E1-1204</b>
	<b>SSG Mullion "T" Anchor</b> For 5-1/4" Back Depth	<b>E1-1222</b>		<b>Deadload Anchor</b> Refer to Shop Drawings for Anchor Dimensions *	<b>E1-1205</b>
	<b>Jamb Mullion "F" Anchor</b> For 5-1/4" Back Depth	<b>E1-1233</b>		<b>Jamb Anchor Plate</b> For 1" Glass	<b>E1-3536</b>
	<b>Jamb Mullion "F" Anchor</b> For 3-3/4" Back Depth	<b>E1-1230</b>		<b>Nylon Slip Pad</b> For Windload / Deadload Anchor	<b>E3-0103</b>
	<b>Jamb Mullion "T" Anchor</b> For 3-3/4" Back Depth	<b>E1-1229</b>		<b>Side Block</b> For 1" Glazing	<b>E2-0177</b>
	<b>Mullion Splice Sleeve</b> For 5-1/4" Back Depth Vertical, 6" Long	<b>E1-1352</b>		<b>Isolator Tape</b>	<b>E2-0356</b>
	<b>Mullion Reinf. Sleeve</b> For 5-1/4" Back Depth Vertical, 29" Long	<b>E1-1353</b>		<b>Setting Block</b> For 1" Glazing	<b>E2-0513</b>
	<b>Mullion Splice Sleeve</b> For 3-3/4" Back Depth Vertical, 6" Long	<b>E1-1354</b>		<b>Setting Block</b> For 1/4" Glazing	<b>E2-9902</b>

\* Note: Project specific part number.

Exact size of anchors should be determined from loads calculated on each individual curtain wall frame.

## ACCESSORIES

	<b>Anti-Walk Block</b> For Deep Pocket	<b>E2-0546</b>		<b>1/2"-13 x 2" HHMS</b> Zinc Plated Steel For Attachment of Mid-Anchors @ Jamb	<b>HM-5032</b>
	<b>Joint Plug</b> For 1" Glazing	<b>E2-3663</b>		<b>1/2"-13 x 4-1/2" HHMS</b> Zinc Plated Steel For Attachment of Mid-Anchors	<b>HM-5072</b>
	<b>Push-In Glazing Gasket</b> 1/4" Face Clearance	<b>E2-0801</b>		<b>#10 x 5/8" PHSMS</b> Type AB, Zinc Plated Steel	<b>PC-1010</b>
	<b>Push-In Glazing Gasket (IG)</b> 1/4" Face Clearance	<b>E2-0802</b>		<b>#12 x 1/2" PHSMS</b> Type AB, Zinc Plated Steel	<b>PC-1208</b>
	<b>Elastomer Weathering</b> Used with BE9-1532 & BE9-1533	<b>E2-0051</b>		<b>#12 x 5/8" PHSMS</b> Type AB, Zinc Plated Steel	<b>FC-1210</b>
	<b>Drill Fixture</b>	<b>H-7216</b>		<b>#12 x 1/2" PHSMS</b> Type F, Stainless Steel	<b>PF-0808 -SS</b>
	<b>#10 x 3/4" FHSMS</b> Type AB, Zinc Plated Steel, For attachment of face cover splice	<b>FC-1012</b>		<b>#14-20 x 1" TEK HWHS</b> , Zinc Plated Steel For Attachment of Press. Plate	<b>TEK-1416</b>
	<b>#12 x 3/4" FHSMS</b> Type AB, Zinc Plated Steel, For attachment of Corner Shear Clip	<b>FC-1212</b>		<b>1/2" Lock Washer</b> Zinc Plated Steel For Attachment of Mid-Anchors	<b>WS-5000</b>
	<b>1/4"-20x1-3/4" HWHS</b> Type F, Zinc Plated Steel, For Attachment of Shear Block	<b>HF-2528 -W1</b>		<b>1/2" Flat Washer</b> Zinc Plated Steel For Attachment of Mid-Anchors	<b>WW-5000</b>
	<b>1/2"-13 Nut HHMS</b> Zinc Plated Steel For Attachment of Mid-Anchors	<b>HM-5000</b>			



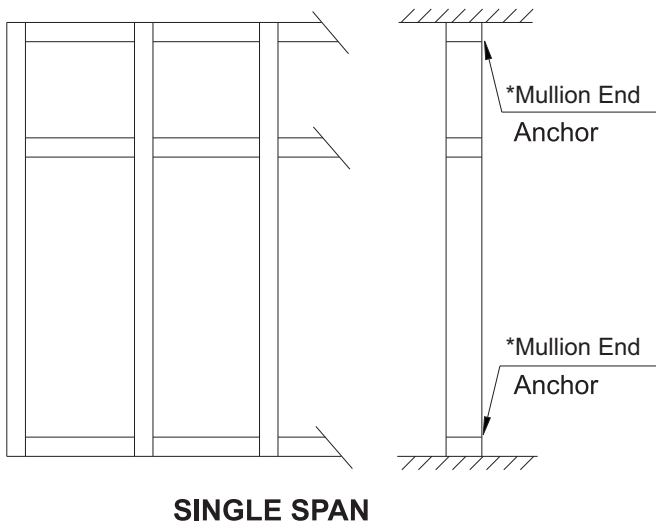
## FRAME FABRICATION

### FRAME TYPES / ANCHORING METHODS:

**Note:** The following is a guideline for types of frames. Refer to the shop drawings or consult YKK AP for exact layout of frames.

These installation instructions are to be used in conjunction with approved shop drawings. Consult shop drawings for anchorage of mullions to structure.

Larger units require being stick assembled in place.



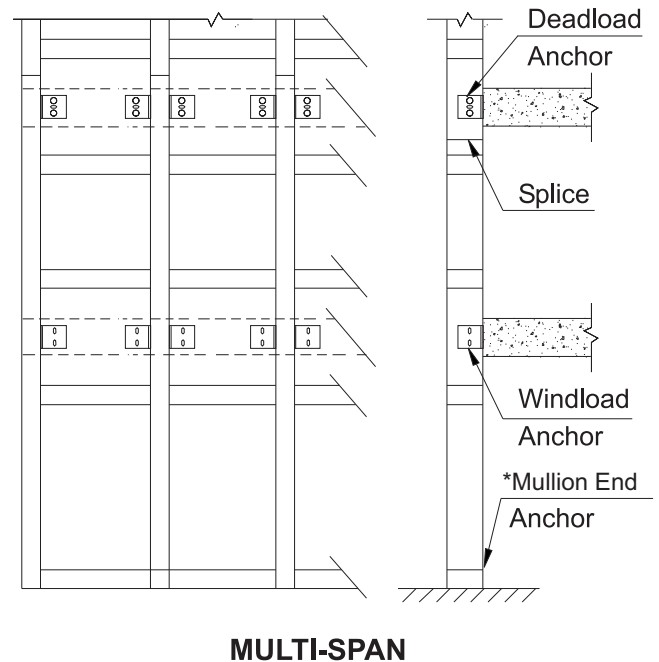
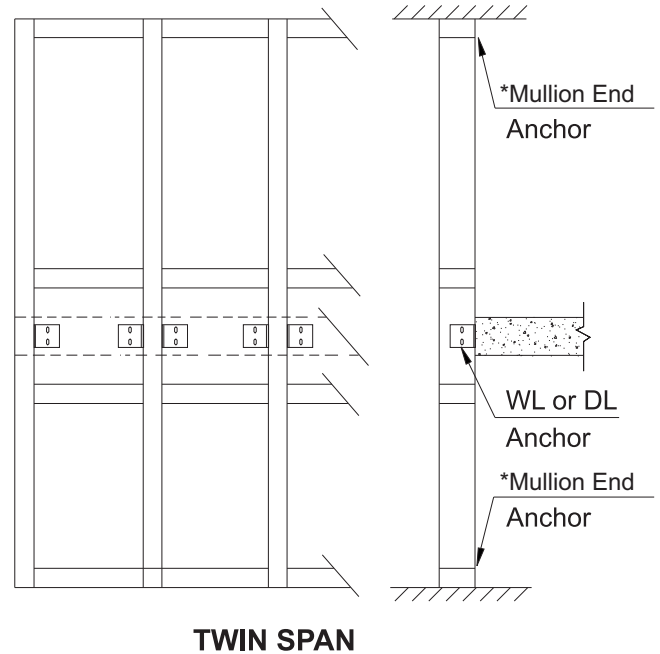
Smaller units may be assembled on the ground and tipped in place.

**Note:** If YKK does not prepare the shop drawings for the project, a qualified engineer must approve all anchors and mullions for wind load and dead load.

\*Mullion end attachment will be “F” and/or “T” anchors. Refer to shop drawings or consult YKK AP.

**Note:** Structure must be capable of resisting all loads imposed by anchor reactions.

Fabrication of YCW 750 IG varies depending on which anchors are required for a given project.



## FRAME FABRICATION

### Using mullion end anchors:

YCW 750 IG XT has two possible end anchoring conditions: "T" for intermediate mullions and "F" for jamb mullions.

Jamb and intermediate mullions should be pre-assembled with shear clips, end anchors, and steel or aluminum reinforcing if necessary.

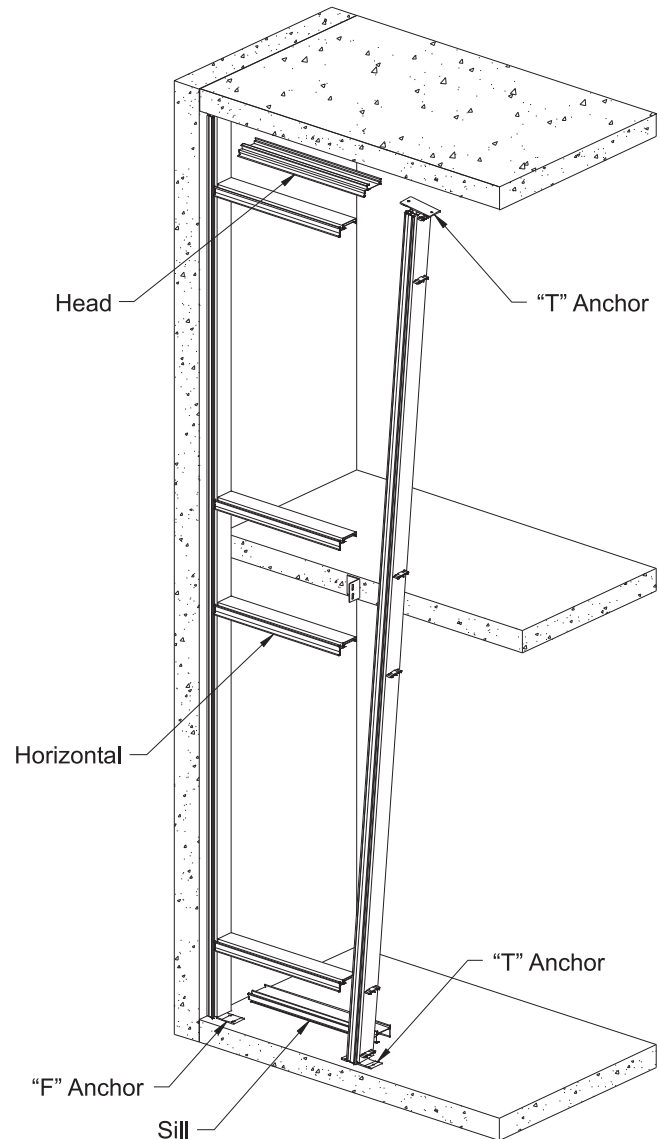
### Framing members:

-Open back members are used for all head, horizontal and sill members to slide over the shear clips.

Head Members (1" Glazing):  
 BE9-3355, BE9-3356, & BE9-3354  
 for 3-3/4" back depth  
 BE9-3977, BE9-3980, & BE9-3975  
 for 5-1/4" back depth

Horizontal Members (1" Glazing):  
 BE9-3357, BE9-3358, BE9-3359,  
 & BE9-3366 for 3-3/4" back depth  
 BE9-3972, BE9-3982, BE9-3976,  
 & BE9-3986 for 5-1/4" back depth

Sill Members (1" Glazing):  
 BE9-3364, BE9-3363, & BE9-3365  
 for 3-3/4" back depth  
 BE9-3978, BE9-3983, & BE9-3984  
 for 5-1/4" back depth



**Note:** When using stick built construction, check for plumb, level, and overall frame width every fifth mullion. This helps to avoid the build up of cumulative tolerance errors. Also check that all anchors are secure and firmly attached to the building.

## FRAME FABRICATION

### FABRICATE MULLIONS FOR 3-3/4" BACK DEPTH

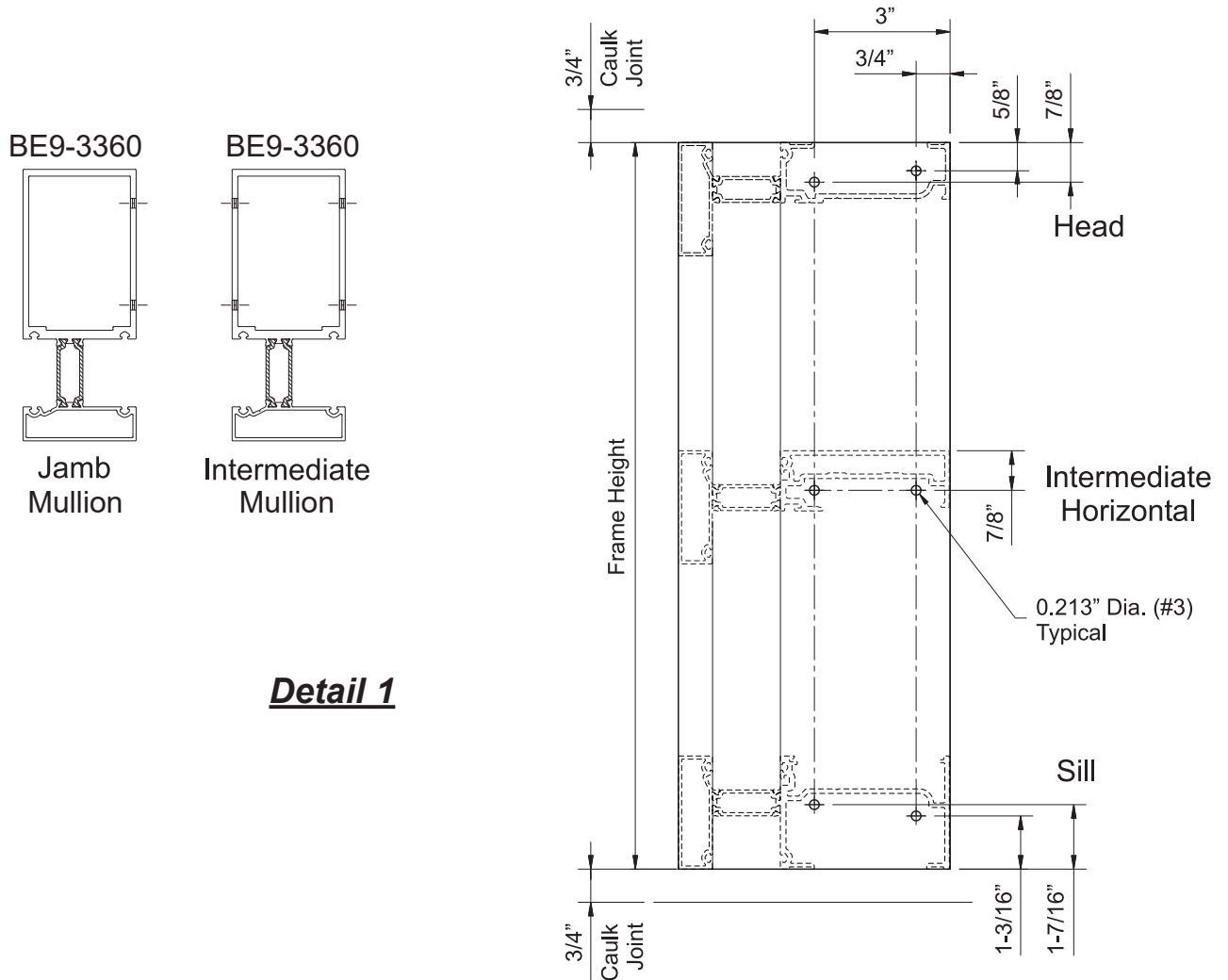
#### STEP 1

-Cut all intermediate and jamb mullions to dimensions as shown on shop drawings.  
Allow 1/2" for splices and 3/4" caulk joint around the perimeter of the frame.

#### STEP 2

-Mullion hole locations for attachment of shear clips, E1-1350 & E1-1351, are shown below:  
E1-1351 for head & sill and E1-1350 for intermediate horizontals.  
-Locate and drill 0.213" diameter (#3 drill bit) holes in the locations indicated in **Detail 1**, or use a short piece of head, horizontal and sill with shear clip attached as a template.

**Note:** Hole locations for shear clips vary for head, horizontal and sill conditions.  
Also note that the holes for the head and sill shear clips **do not** line up.



**Detail 1**

## FRAME FABRICATION

### FABRICATE MULLIONS FOR 5-1/4" BACK DEPTH

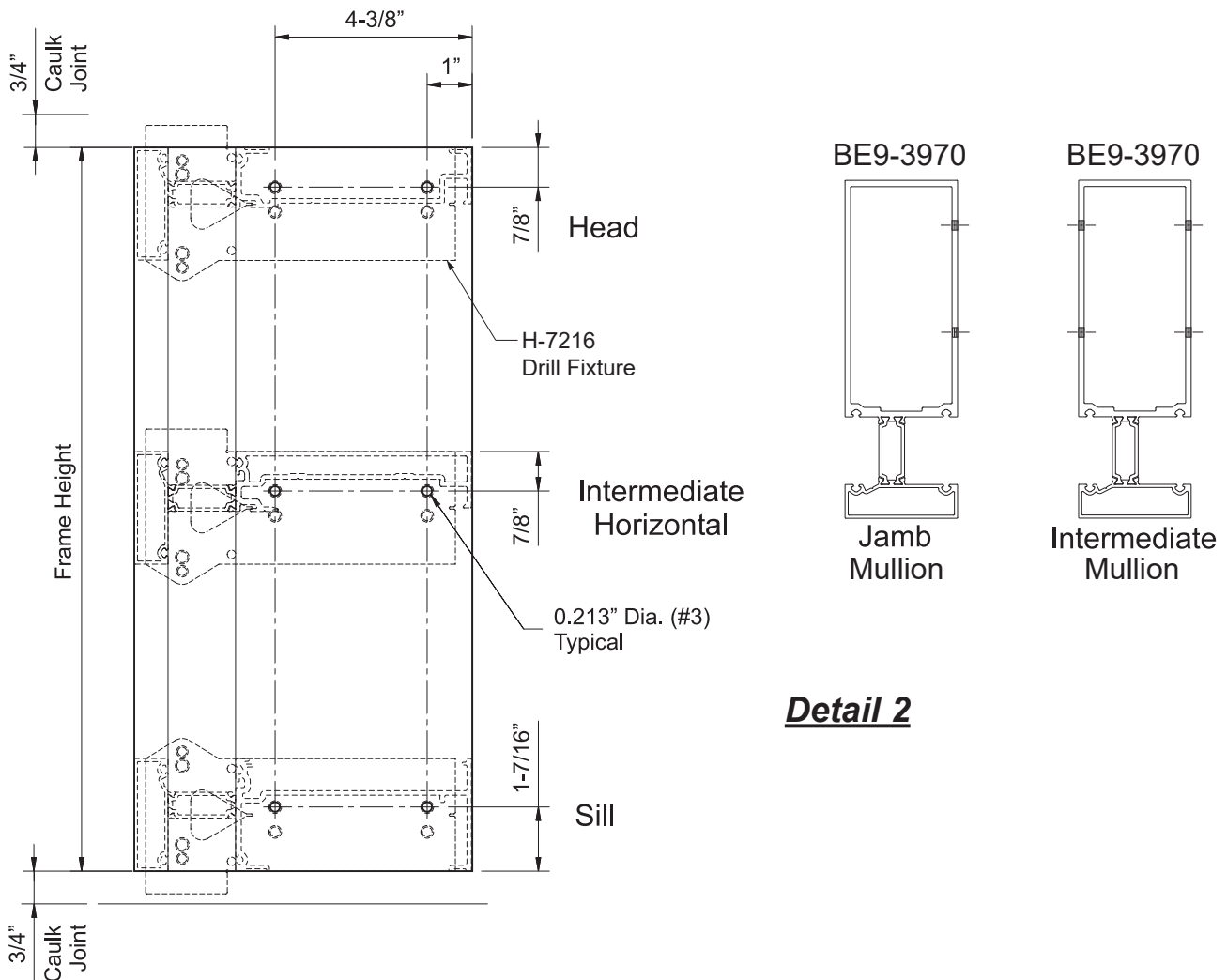
#### STEP 1

-Cut all intermediate and jamb mullions to dimensions as shown on shop drawings.  
Allow 1/2" for splices and 3/4" caulk joint around the perimeter of the frame.

#### STEP 2

-Mullion hole locations for shear clips, E1-3019, are shown below:  
-Locate and drill 0.213" (#3) dia. holes for HF-2528-W1 screws in the locations indicated in **Detail 2**, or by using the drill fixture.

**Note:** Hole locations for shear clips vary for head, horizontal and sill conditions.



## FRAME FABRICATION

### FABRICATE MULLIONS FOR DOOR JAMB APPLICATION

#### STEP 1

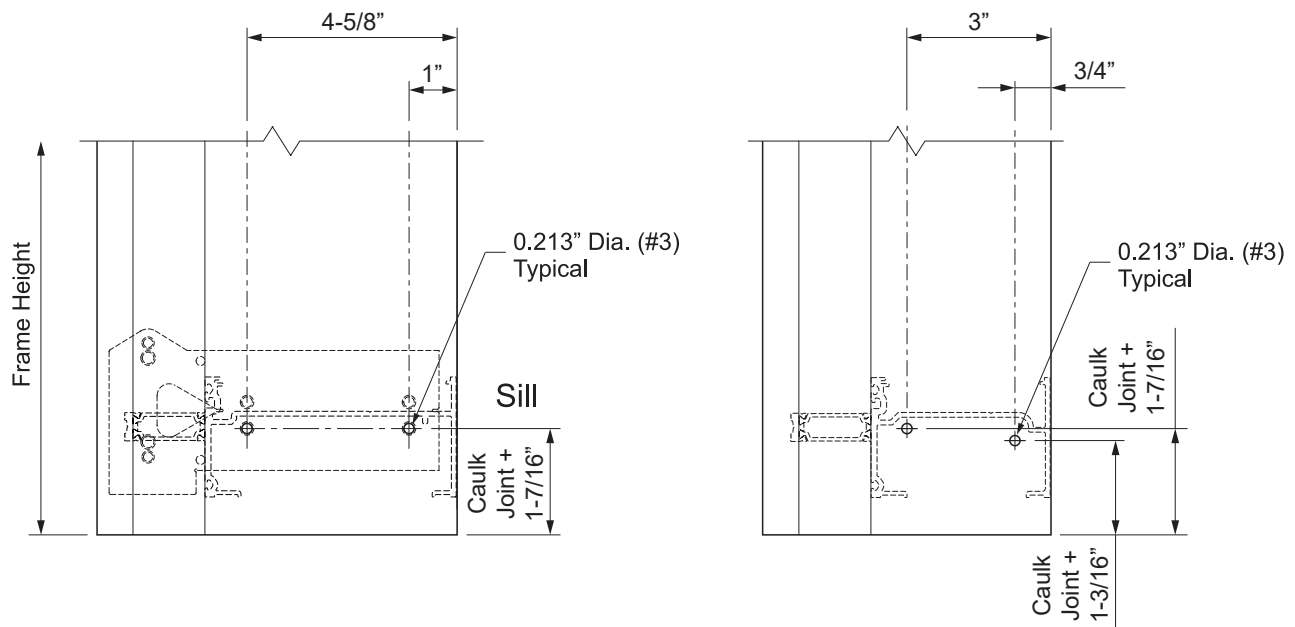
-Cut all intermediate and jamb mullions to dimensions as shown on shop drawings.  
Allow 1/2" for splices and 3/4" caulk joint at the top of the frame.

#### STEP 2

-Mullion hole locations for attachment of shear clips are shown below:  
E1-1351 for head & sill and E1-1350 for intermediate horizontals.

-Locate and drill 0.213" (#3) dia. holes for HF-2528-W1 screws in the locations indicated in **Detail 3**, or by using the drill fixture.

**Note:** Hole locations for shear clips vary for head, horizontal and sill conditions.  
Also note that the holes for the head and sill shear clips **do not** line up.



**Detail 3**

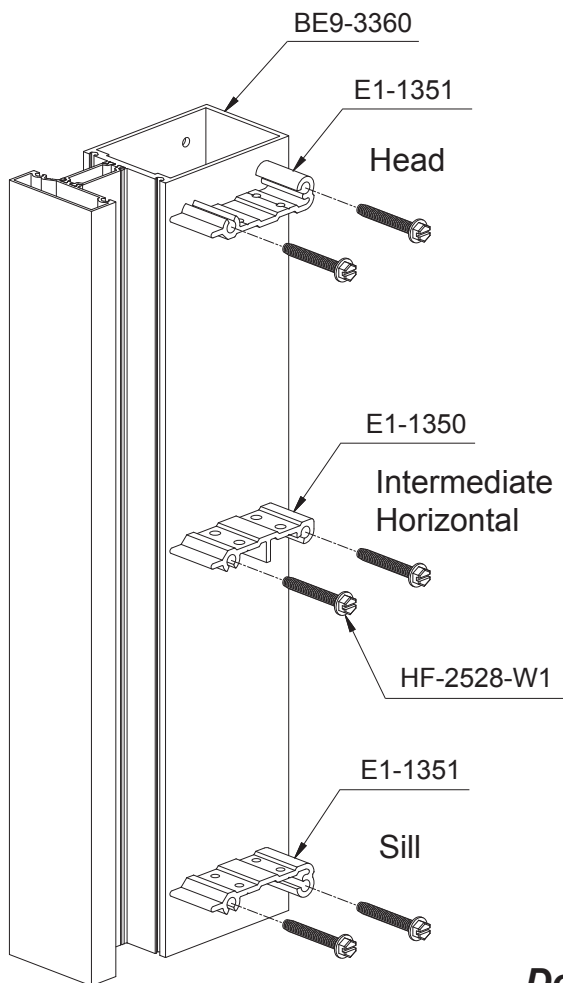
**FRAME FABRICATION**

**STEP 3  
SHEAR CLIPS FOR HORIZONTALS**

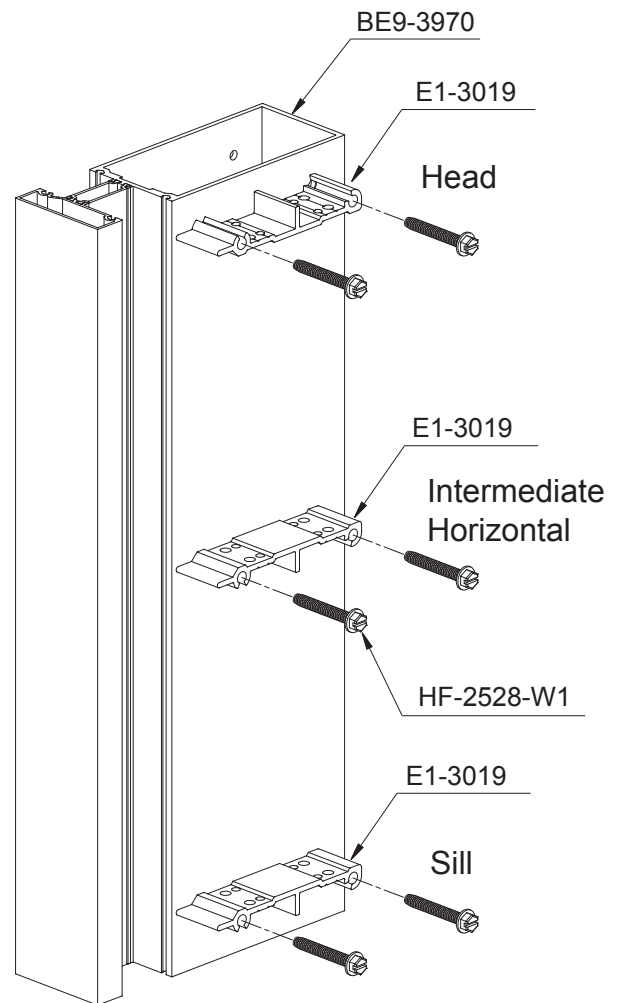
- Attach shear clips to the mullions using two HF-2528-W1 screws for each clip:
  - E1-1350 for 3-3/4" back depth intermediate horizontals.
  - E1-1351 for 3-3/4" back depth head and sill members.
  - E1-3019 for all 5-1/4" back depth horizontal members.

See **Detail 3**.

**3-3/4" BACK DEPTH**



**5-1/4" BACK DEPTH**



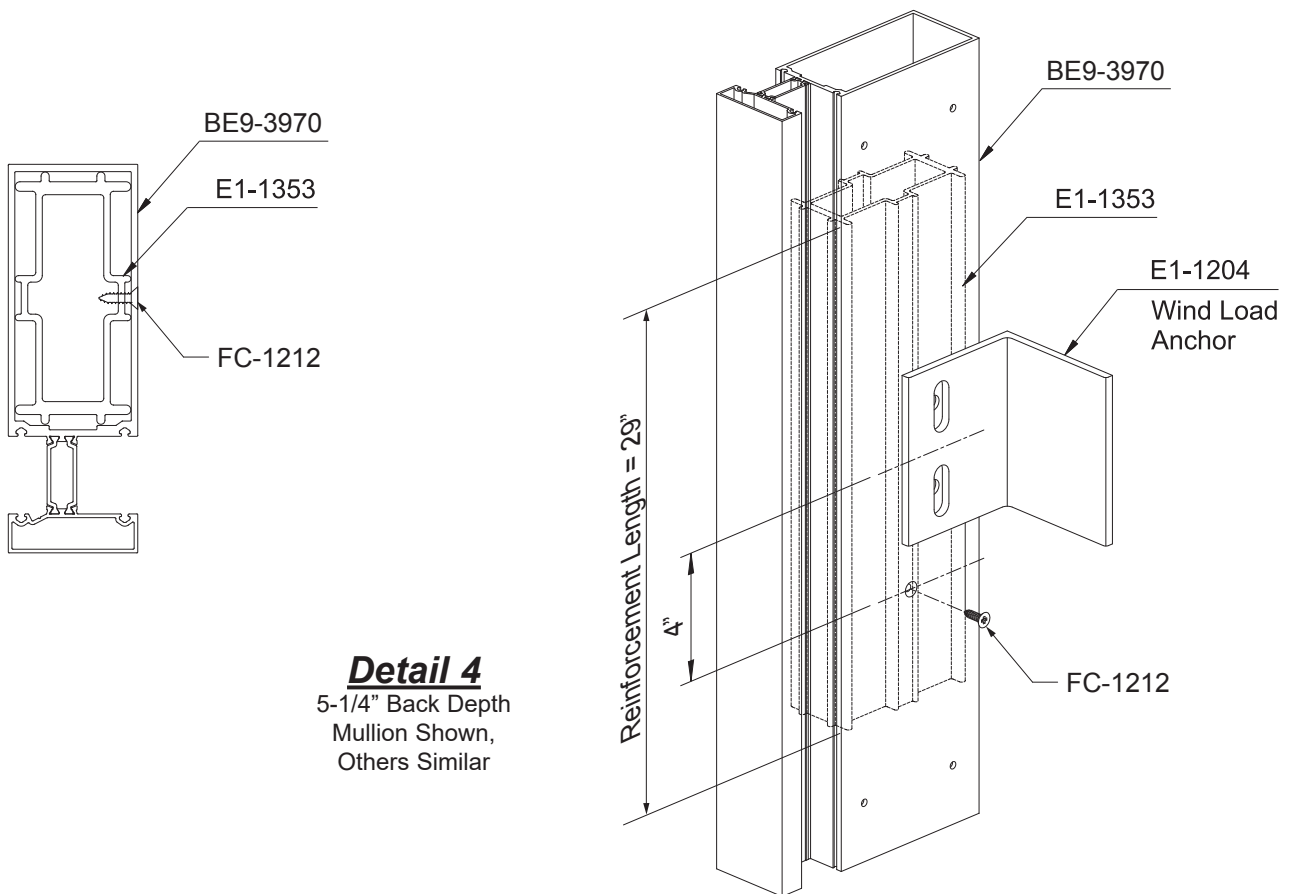
**Detail 3**

## FRAME FABRICATION

### STEP 4 USING OPTIONAL REINFORCEMENT SLEEVE

If engineering calculations require the mullions to be reinforced with additional aluminum, reinforcement sleeve, E1-1355 for 3-3/4" back depth or E1-1353 for 5-1/4" back depth, may be used at wind load / dead load points.

Checking stress levels at point load areas will require different anchors or possibly steel reinforcing. A qualified engineer, should do these calculations.



***Detail 4***  
5-1/4" Back Depth  
Mullion Shown,  
Others Similar

- Reference your shop drawings for the exact location of the centerline of the wind load or dead load anchors. From the centerline measure down 14-5/8" along the outside face of the mullion and mark the location centered across the mullion.
  - Drill a 0.161" diameter (#20 drill bit) hole through the outside and inside face of the mullion.
  - Drill a 0.500" diameter clearance hole through the outside face of the mullion only.
  - Install a FC-1212 fastener into the inside face to properly locate the reinforcement sleeve.
- See **Detail 4**.

## FRAME FABRICATION

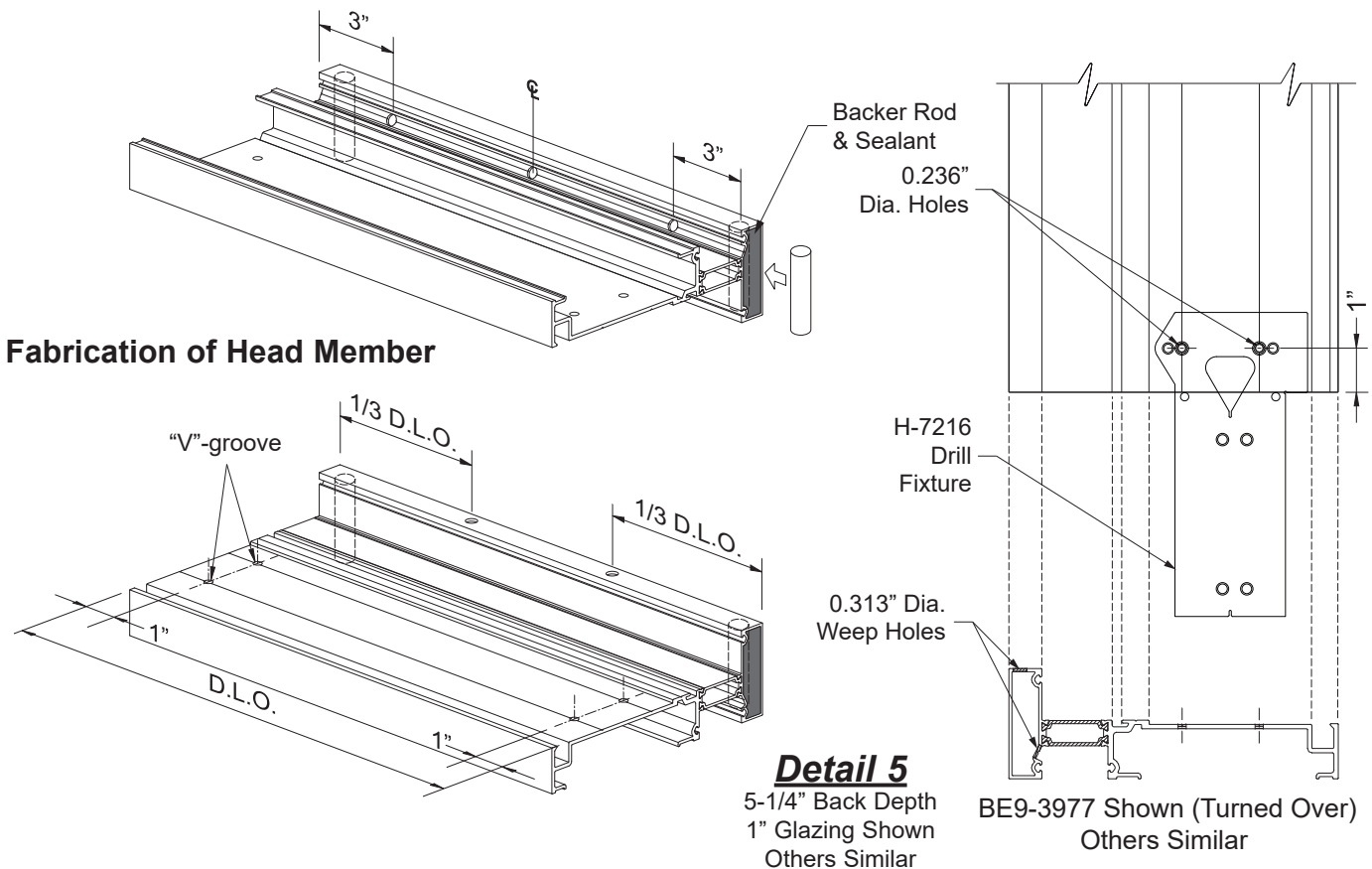
### STEP 5 FABRICATE OF HEAD & SILL MEMBERS

- Cut head and sill members to the daylight opening between verticals.
- Cut all glass stops, flush fillers and interior covers to the daylight opening minus(-) 1/32". Interior covers, E9-3334 & E9-3335, and flush fillers, E9-3162, are only required in vision areas.
- Drill 0.236" diameter (#B drill bit) holes 1" from each end of the head and sill members along the "V"-grooves.
- Weep holes must be drilled for head and sill members:
- Drill 0.313" diameter (#O drill bit) weep holes 3" from each end and one in the middle of the mullion along the "V"-groove on the inside face of the sill member\*, and at 1/3 points on the underside of the integral face cover.

**Notes:** The head member must be turned over so that the "V"-grooves are facing up. Drill appropriate size clearance holes at each end of the mullion according to shop drawings or engineering calculations to clear anchor bolts and nuts.

\* If the space between the weep holes at the glazing pocket exceeds 3', additional weep holes should be drilled to ensure that there is no more than 3' between the weep holes.

See **Detail 5** and **Detail 5A** on **Page 12**.

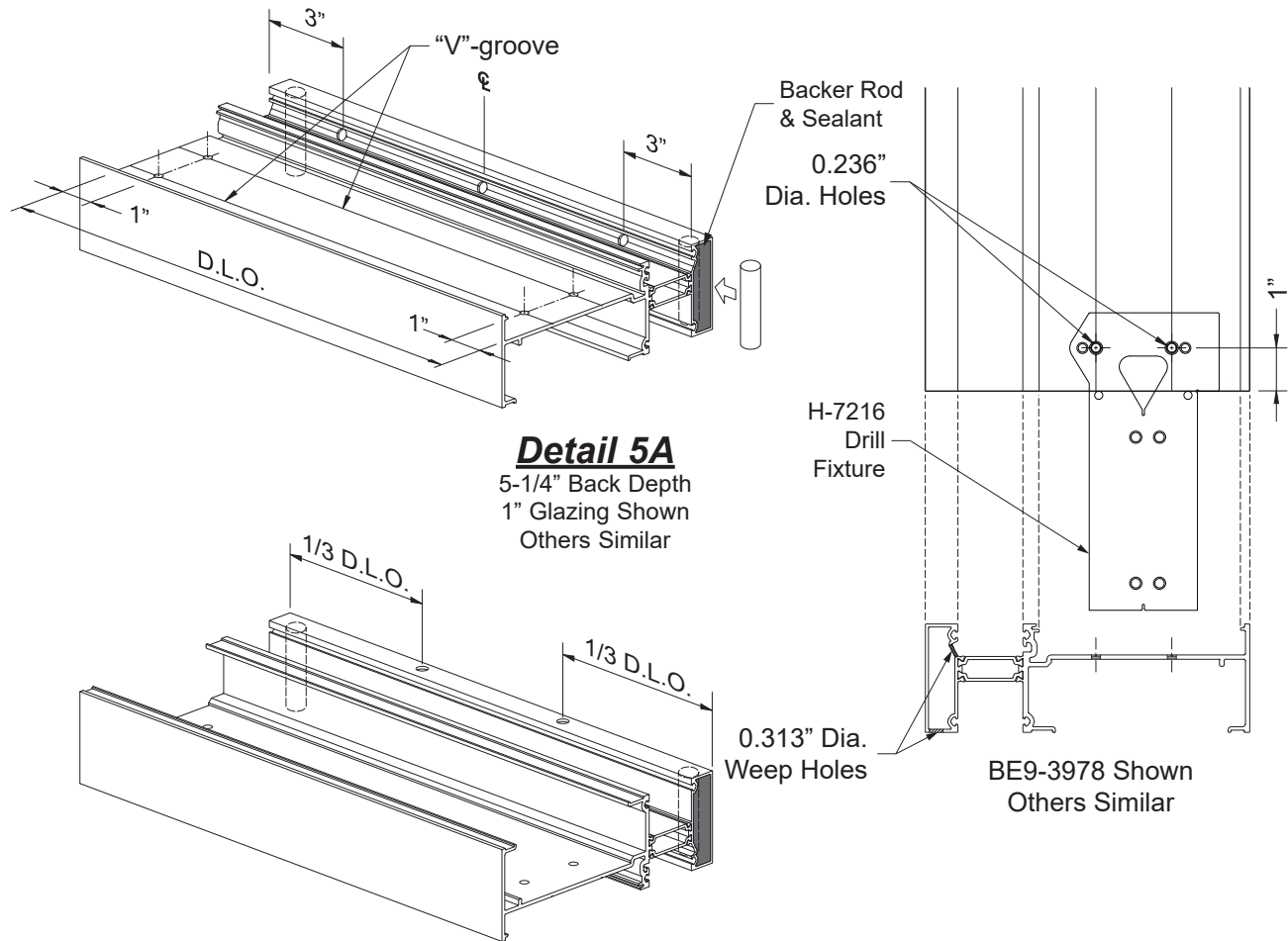




FRAME FABRICATION

STEP 5  
FABRICATE OF HEAD & SILL MEMBERS (Continued)

Fabrication of Sill Member



## FRAME FABRICATION

### STEP 6 FABRICATE OF INTERMEDIATE HORIZONTALS

- Cut horizontal members to the daylight opening between verticals.
- Cut all glass stops, flush fillers and interior covers to the daylight opening minus(-) 1/32". Interior covers, E9-3334 & E9-3335, are required only in vision areas.
- Drill 0.189" diameter (#12 drill bit) holes 1" from each end of the horizontal members along the "V"-grooves.

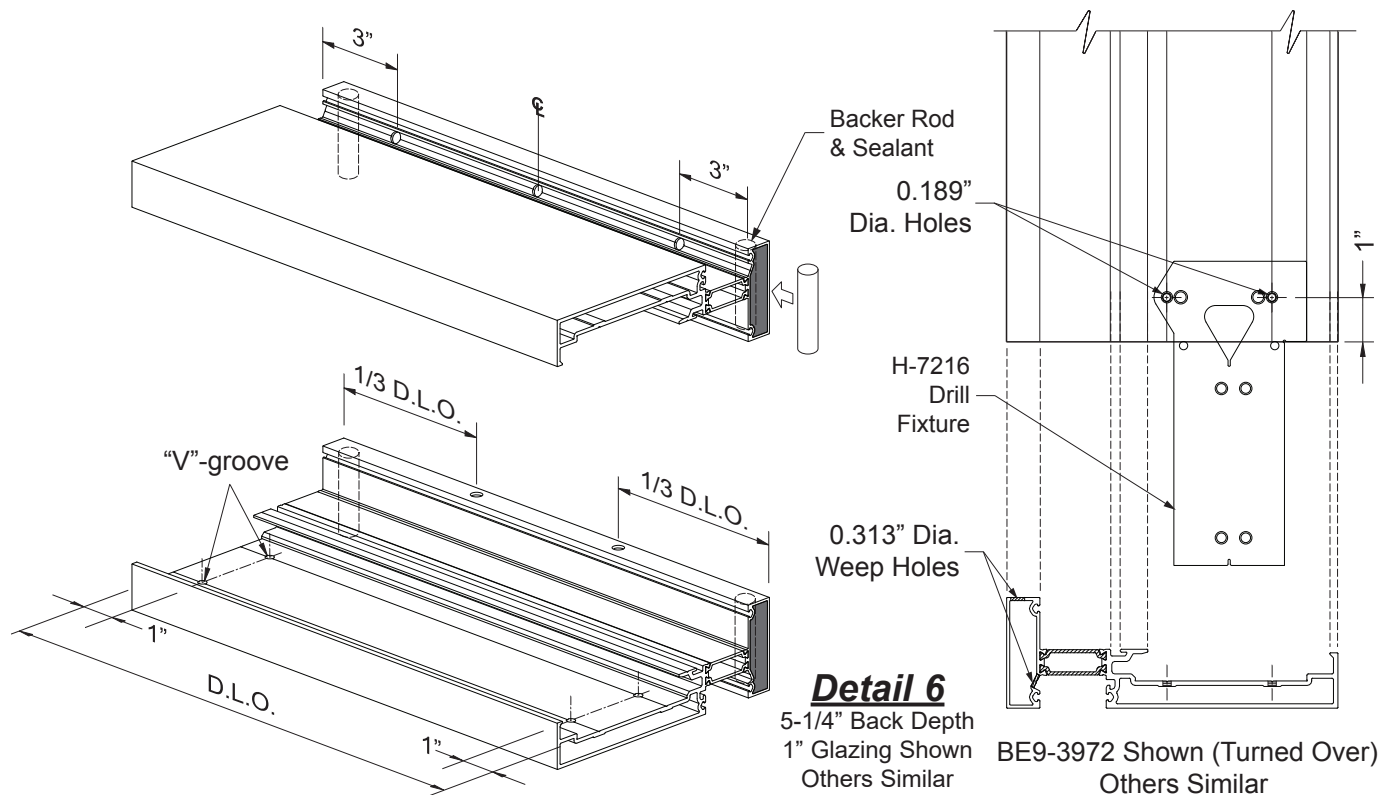
**Caution:** Holes drilled to attach intermediate horizontals are smaller than those drilled to attach head & sill members.

**Note:** The horizontal member must be turned over so that the "V"-grooves are facing up.

- Weep holes must be drilled for the intermediate horizontal members:
- Drill 0.313" diameter (#0 drill bit) weep holes 3" from each end and one in the middle of the mullion along the "V"-groove on the inside face of the horizontal member\*, and at 1/3 points on the underside of the integral face cover.
- For integral face covers, insert a backer rod on each side of the face covers, and fill the ends with sealant.

\* **Note:** If the space between the weep holes at the glazing pocket exceeds 3', additional weep holes should be drilled to ensure that there is no more than 3' between the weep holes. See **Detail 6**.

### Fabrication of Horizontal Member

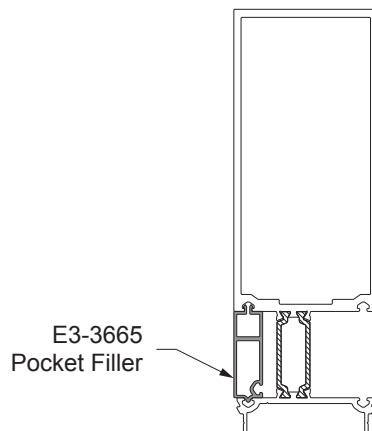


## FRAME FABRICATION

### STEP 7 INSTALL PERIMETER POCKET FILLERS

-Slide in perimeter pocket fillers, E3-3665 cut to mullion length minus 1/16", into the heads, sills, and jambs.

See **Detail 7**.



### **Detail 7**

5-1/4" Back Depth  
Mullion Shown,  
Others Similar

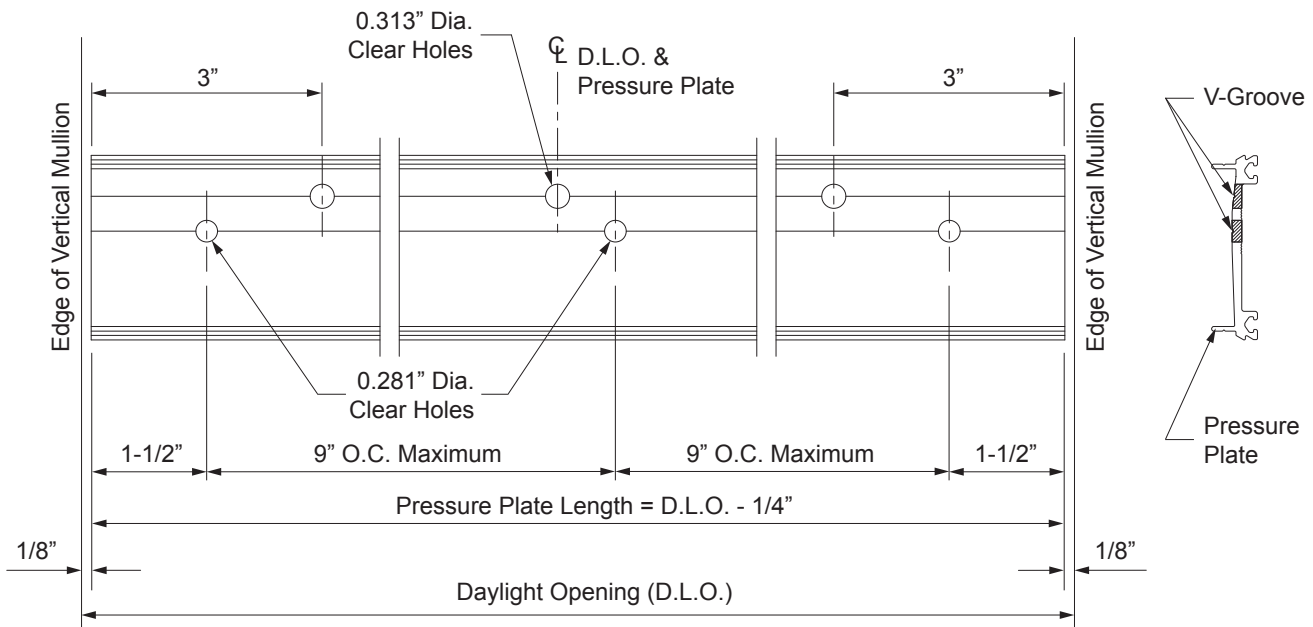
## FRAME FABRICATION

### STEP 8

### FABRICATE OPTIONAL HORIZONTAL PRESSURE PLATES

- Cut horizontal pressure plates to the daylight opening between verticals minus(-) 1/4".
- Pressure plate stock lengths have 0.281" diameter holes drilled every 9" O.C.
- After cutting, drill additional additional holes if required to ensure that end holes are 1-1/2" from each end.
- If factory drilled holes are less than 1-1/2" from the ends, they must be sealed and not used.
- Drill two 0.313" (5/16") diameter weep holes 3" from each end and one at the centerline of the pressure plate. If the space between the weep holes exceeds 3', additional weep holes should be drilled to ensure that there is no more than 3' between the weep holes.

See **Detail 8**.

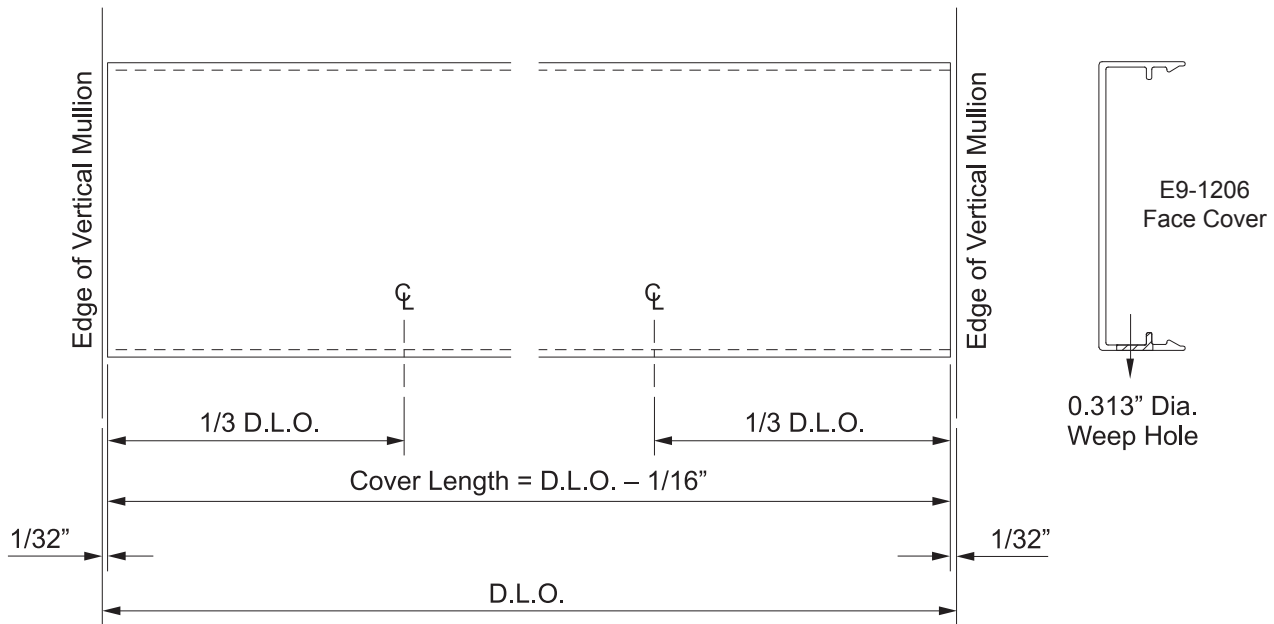


**Detail 8**

## FRAME FABRICATION

### STEP 9 FABRICATE HORIZONTAL FACE COVERS

- Cut all horizontal covers to daylight opening between verticals minus(-) 1/16".
- Drill two 0.313" diameter (#0 drill bit) weep holes at 1/3 points of cover.
- See **Detail 9**.



**Detail 9**

### STEP 10 FABRICATE VERTICAL FACE COVERS

- Cut vertical covers to the same length as the mullions **unless the mullions are spliced**.
- If the mullions are spliced, cut covers to accommodate for expansion joint or butt splice.
- See Typical Vertical Splice, **Detail 11** on **Page-18**.

## FRAME FABRICATION

### STEP 11

#### FABRICATE MULLION FOR SPLICES (INTEGRAL FACE COVER)

Drill holes for splice attachment:

- From the top of the vertical measure down and draw a line from 1" and 2" from the top of the mullion.
- For 5-1/4" deep mullions mark a location along this line 2-9/16" from the back of the mullion.
- For 3-3/4" deep mullions mark a location along this line 11/16" from the back of the mullion; mark a second location along this line 3" from the back of the mullion.
- Drill a 0.236" dia. (#B drill bit) hole at each location and countersink for a #12 flathead fastener.
- Repeat the previous steps on the other side of the vertical.
- At the integral face cover, mark a location at 1/2" from the top of the mullion, and 9/32" from the face of the face cover.

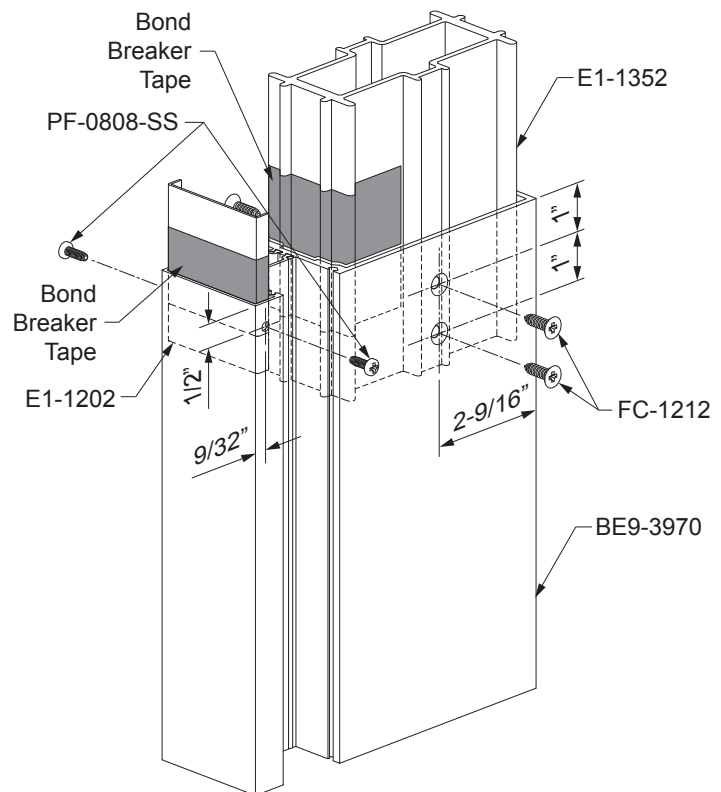
Install splice sleeve:

- Apply and center bond breaker tape across the face of the splice.
- Carefully slide the splice sleeve, E1-1202, down into the end of the mullion.
- Using the holes previously drilled in the mullion, drill 0.189" dia. (#12 drill bit) holes in the splice sleeve.
- Attach the splice sleeve with two FC-1212 fasteners on each side of the mullion.

Install face cover splice:

- Apply sealant to lower half of cover splice sleeve and slide it down into the lower integral face cover.
- Attach the splice sleeve to the integral face cover with a FF-0808 fastener countersunk on each side.

See **Detail 10**.



### ***Detail 10***

5-1/4" Back Depth  
Mullion Shown,  
Others Similar

## FRAME FABRICATION

### STEP 11 (Continued)

### FABRICATE / INSTALL MULLION SPLICES (APPLIED FACE COVER)

Drill holes for splice attachment:

- From the top of the vertical measure down and draw a line from 1" and 2" from the top of the mullion.
- For 5-1/4" deep mullions mark a location along this line 2-9/16" from the back of the mullion.
- For 3-3/4" deep mullions mark a location along this line 11/16" from the back of the mullion; mark a second location along this line 3" from the back of the mullion.
- Drill a 0.236" dia. (#B drill bit) hole at each location and countersink for a #12 flathead fastener.
- Repeat the previous steps on the other side of the vertical.
- At the face cover, mark a location at 1/2" from the top of the mullion, and 9/32" from the face of the face cover.

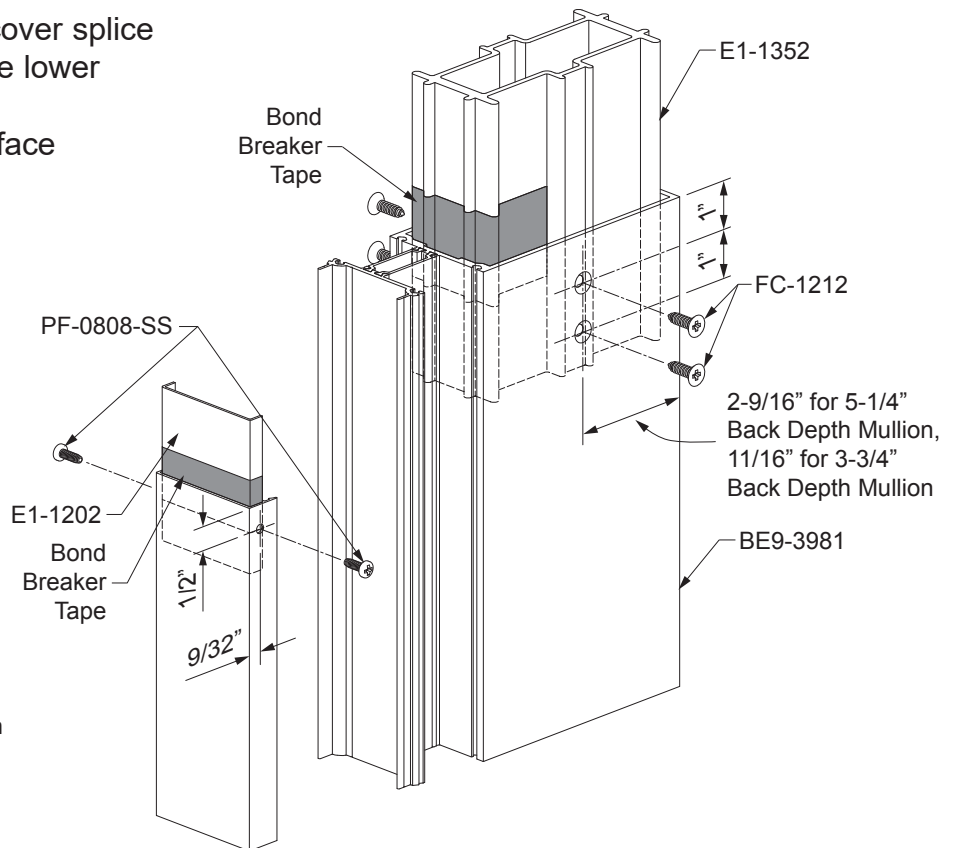
Install splice sleeve:

- Apply bond breaker tape to splice sleeve.
- Carefully slide the splice sleeve, E1-1202, down into the end of the mullion.
- Using the holes previously drilled in the mullion, drill 0.189" dia. (#12 drill bit) holes in the splice sleeve.
- Attach the splice sleeve with two FC-1212 fasteners on each side of the mullion.

Assemble face cover splice:

- Apply sealant to lower half of cover splice sleeve and slide it down into the lower face cover.
- Attach the splice sleeve to the face cover with a FF-0808 fastener countersunk on each side.

See **Detail 11**.



**Detail 11**  
5-1/4" Back Depth Mullion Shown, Others Similar

## FRAME INSTALLATION

### STEP 11 (Continued)

### FABRICATE / INSTALL MULLION SPLICES (INTEGRAL FACE COVER)

- Clean all surfaces as recommended by the sealant manufacturer.
- Apply bond breaker tape to the faces of the splice sleeves.

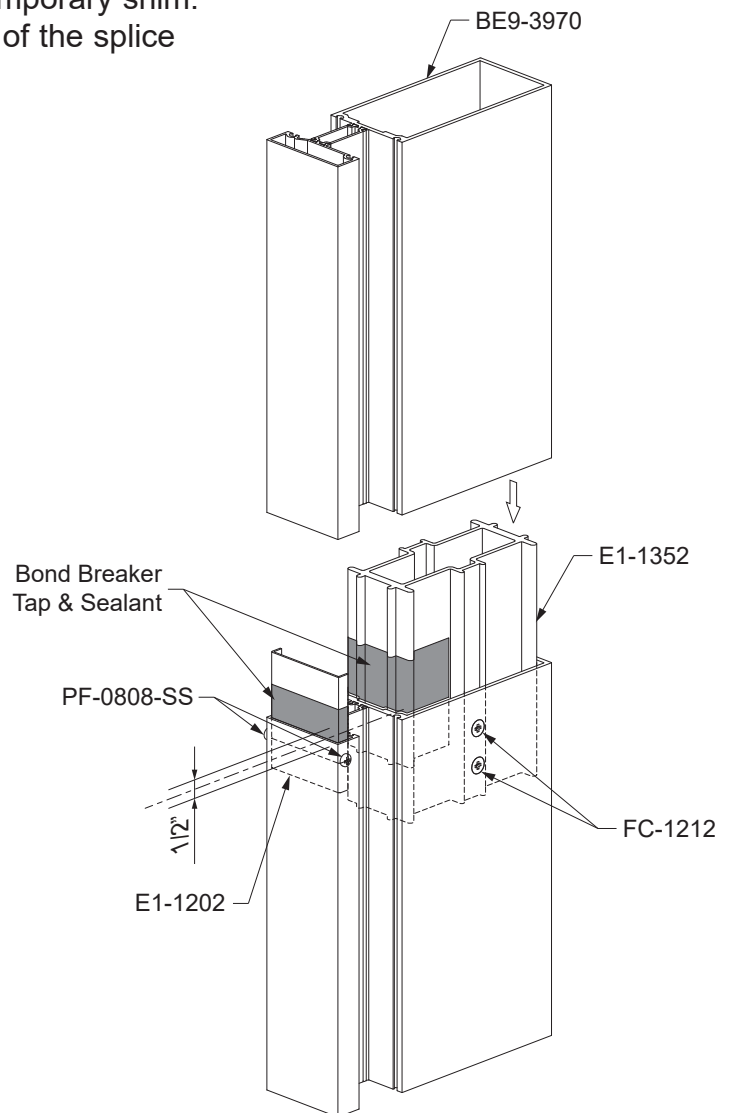
#### Assemble Mullion Splice:

- Apply sealant to the projected portion of the splice sleeve.
- Carefully slide the next mullion down onto the splice sleeve.
- Use a 1/2" temporary shim to properly locate the upper mullion.
- Secure upper mullion to anchor and remove temporary shim.
- Apply and tool sealant onto the face and sides of the splice sleeve to create a water tight joint.

#### Install Cover Splice:

- Apply bond breaker tape to upper portion of cover splice sleeve only.
- After installing upper cover, apply and tool sealant onto the face and sides of the splice sleeve.

See **Detail 12**.



### ***Detail 12***

5-1/4" Back Depth  
Mullion Shown,  
Others Similar



## FRAME INSTALLATION

### STEP 11 (Continued)

### FABRICATE / INSTALL MULLION SPLICES (APPLIED FACE COVER)

- Clean all surfaces as recommended by the sealant manufacturer.
- Apply bond breaker tape to the faces of the splice sleeves.

#### Assemble Mullion Splice:

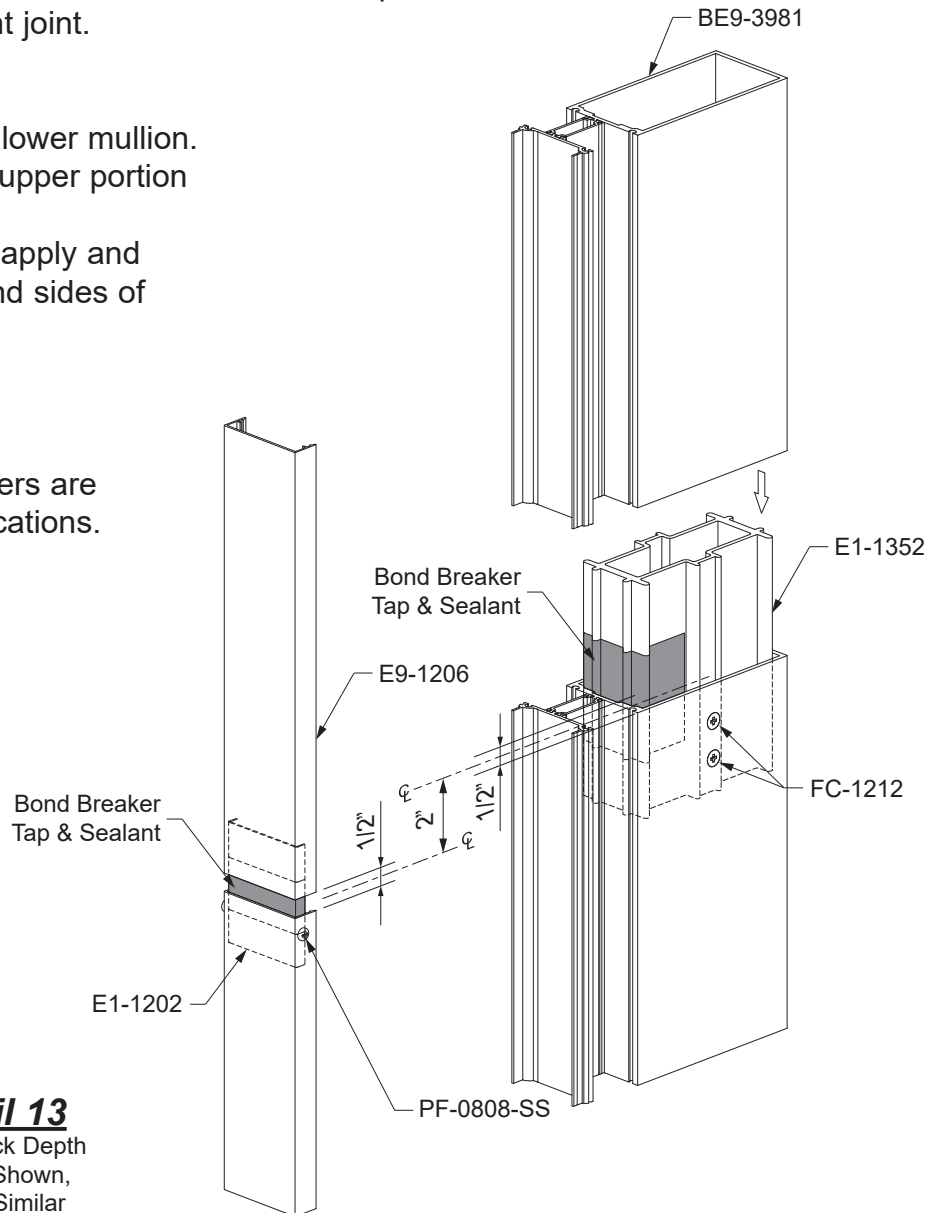
- Apply sealant to the projected portion of the splice sleeve.
- Carefully slide the next mullion down onto the splice sleeve.
- Use a 1/2" temporary shim to properly locate the upper mullion.
- Secure upper mullion to anchor and remove temporary shim.
- Apply and tool sealant onto the face and sides of the splice sleeve to create a water tight joint.

#### Install Lower Face Cover:

- Snap lower face cover onto lower mullion.
- Apply bond breaker tape to upper portion of cover splice sleeve only.
- After installing upper cover, apply and tool sealant onto the face and sides of the splice sleeve.

See **Detail 13**.

**Note:** Mullions and face covers are staggered at splice locations.



**Detail 13**  
5-1/4" Back Depth  
Mullion Shown,  
Others Similar

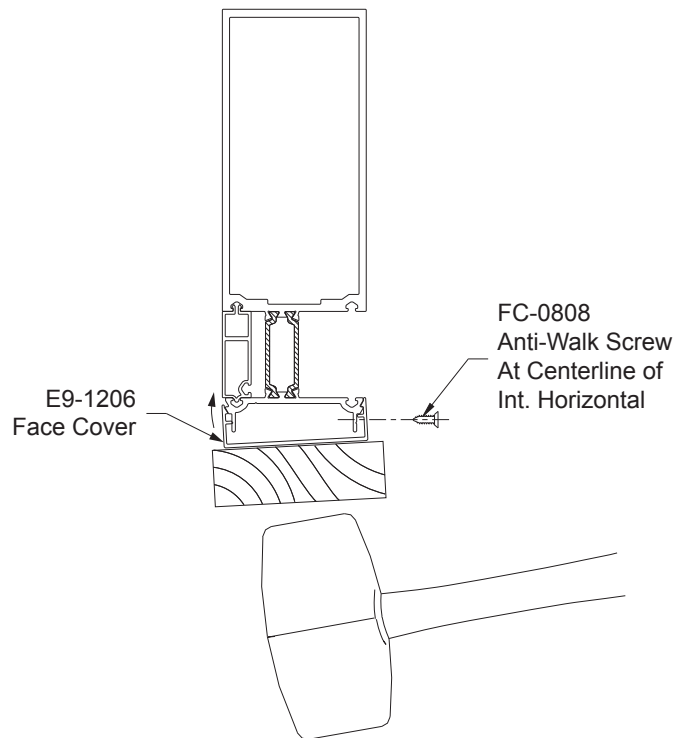
**FRAME INSTALLATION****STEP 12****INSTALL VERTICAL FACE COVERS**

-Snap on exterior vertical covers, E9-1206, using a mallet and a clean scrap piece of lumber. Start at one end and carefully tap in the vertical cover working down to the other end.

-To prevent vertical face covers from walking due to thermal expansion and contraction, an anti-walk screw must be installed for each vertical face cover installed.

-Drill a 0.141" dia. hole through the cover and mullion and install a FC-0808 fastener at the center of the intermediate horizontal closest to the midpoint of the vertical face cover.

See **Detail 14**.



***Detail 14***  
5-1/4" Back Depth  
Mullion Shown,  
Others Similar

## FRAME INSTALLATION

### STEP 13 INSTALL MULLION END CAPS

-Apply sealant at the top and bottom of mullions and jambs along the back face from reglet to reglet and along the mullion web prior to installing the mullion end caps:

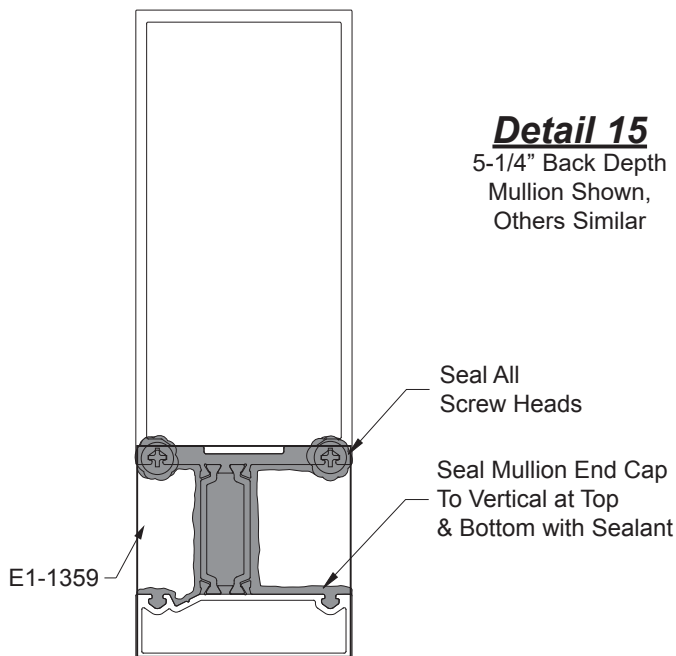
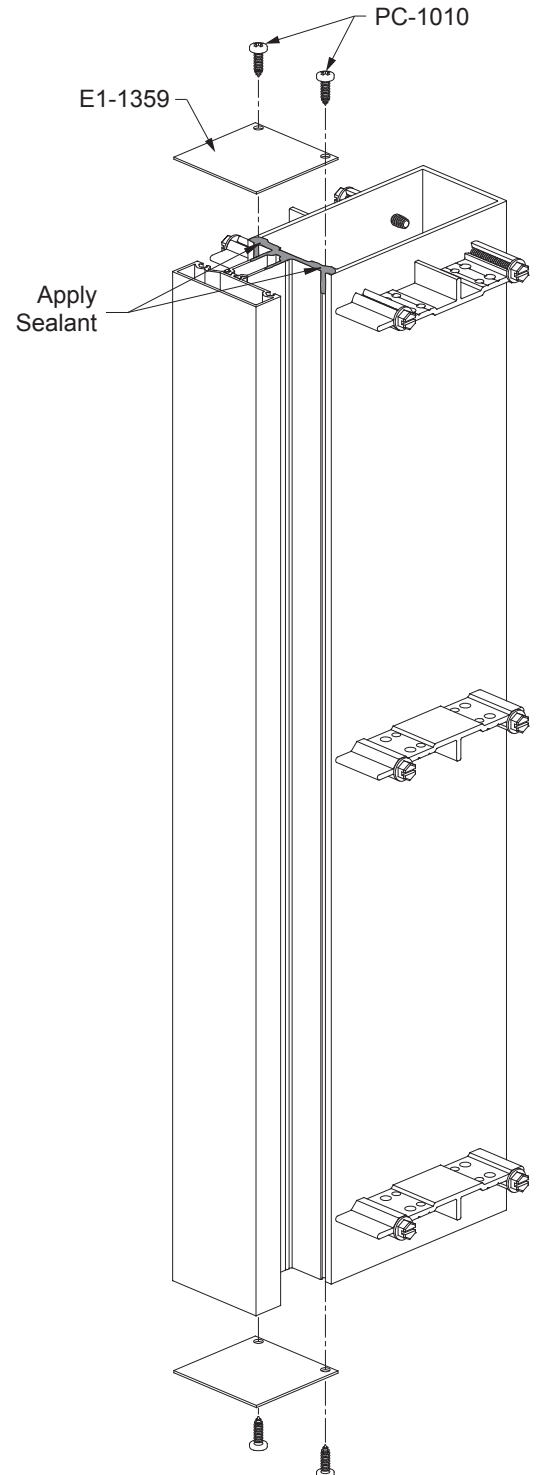
E1-1359 for 1" glazing.

-Install the mullion end caps onto the mullion at the top and bottom using two PC-1010 fasteners prior to erecting the verticals.

-Seal all screw heads.

-Apply and tool sealant along the intersection of the end cap and vertical at the top and bottom of the mullion.

See **Detail 15**.

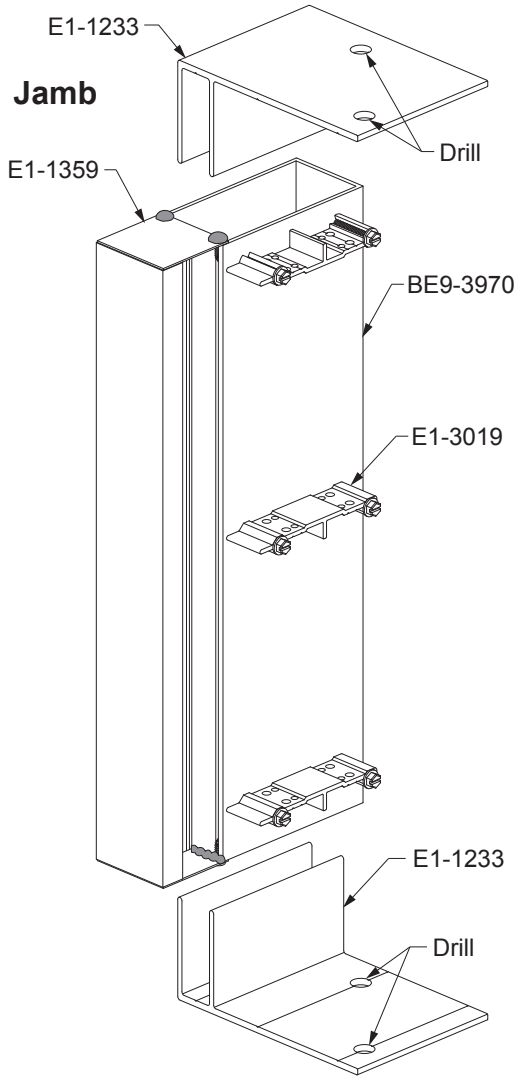


**Detail 15**  
5-1/4" Back Depth  
Mullion Shown,  
Others Similar

## FRAME INSTALLATION

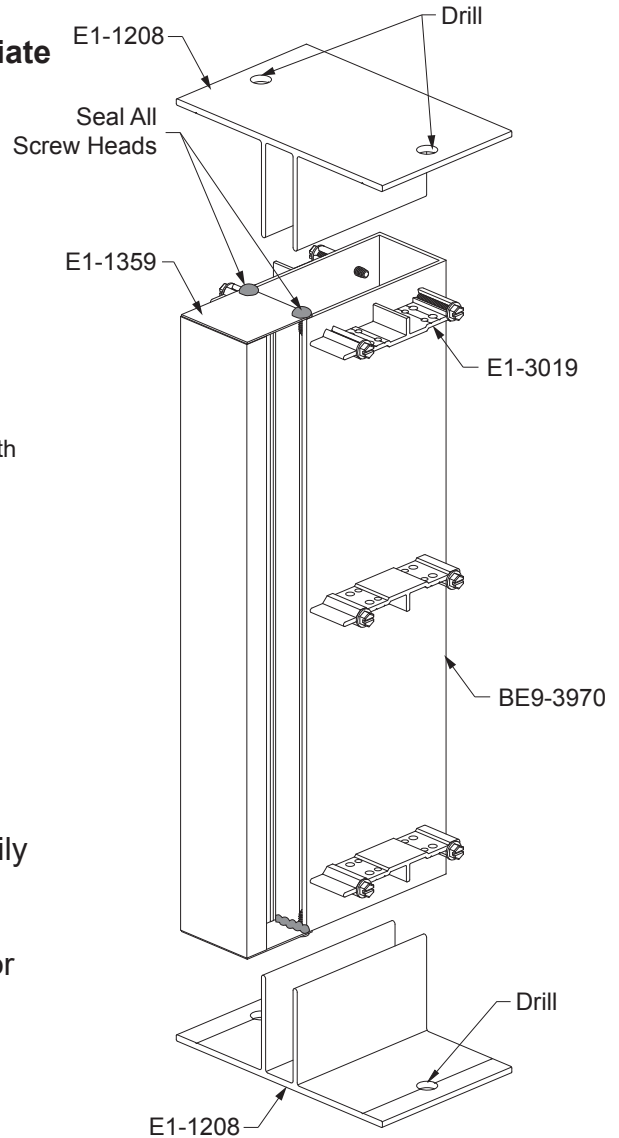
### STEP 14 INSTALL JAMB & VERTICAL MULLIONS

**Note:** Mullions are not symmetrical. Take care to avoid creating a condition with two (2) short glazing pockets in one D.L.O.



-Insert mullion "T" anchors, E1-1208 (5-1/4" back) or E1-1229 (3-3/4" back), and "F" anchors, E1-1233 (5-1/4" back) or E1-1230 (3-3/4" back), into the top and bottom of intermediate and jamb mullions before erecting the mullion into the opening.

### Intermediate Vertical



### ***Detail 16***

5-1/4" Back Depth  
Mullion Shown,  
Others Similar

-Erect and locate the jambs and verticals and temporarily attach them to the structure.

**Note:** All mullions must be installed plumb and true.

-Drill holes in "T" and "F" anchors for appropriate anchor fasteners according to engineering calculations.

Consult YKK AP if load requirements are in question.

-Install anchor fasteners per job requirements.

**Note:** Anchor fasteners are not supplied by YKK AP.

See **Detail 16**.

## FRAME INSTALLATION

### STEP 14A VERTICAL INSTALLATION AT DOOR JAMB END ANCHORS

The mullions at the door jambs are set directly upon the sill substrate without any shims and are sealed against the substrate. The anchors to be used at this location are specified by the approved shop drawings and or P.E. calculations.

-Locate the mullion anchor for the door jamb and install it to the substrate according to the approved shop drawings and P.E. calculations.

-Clean all contact surfaces as recommended by sealant manufacturer.

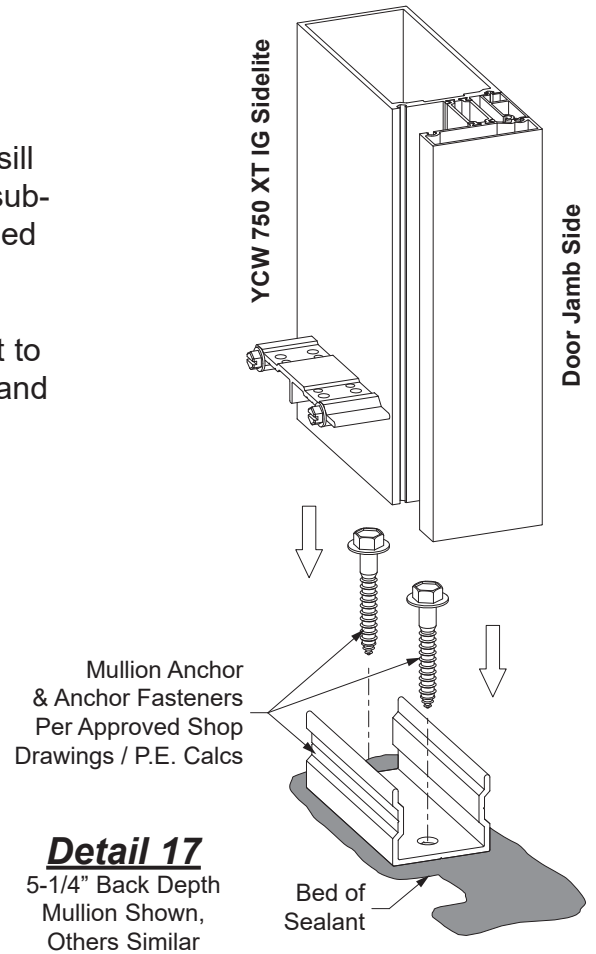
-Set the mullion on the anchor, directly onto the sill substrate in a bed of sealant. Avoid using shims at this location.

See **Detail 17**.

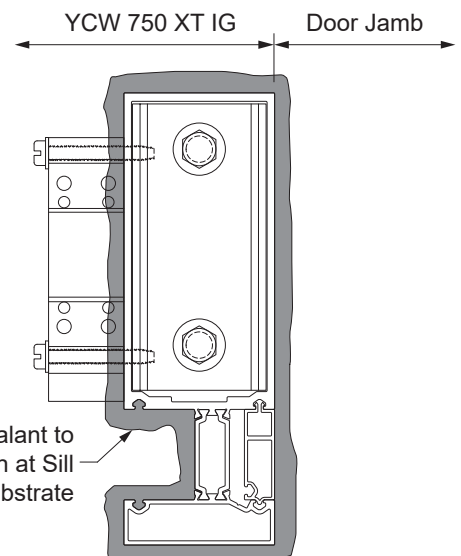
-Refer to the approved shop drawings for any additional fasteners required.

-Tool sealant at the bottom of the mullion at the sill substrate around the perimeter of the mullion.

See **Detail 18**.



**Detail 17**  
5-1/4" Back Depth Mullion Shown, Others Similar



**Detail 18**  
5-1/4" Back Depth Mullion Shown, Others Similar

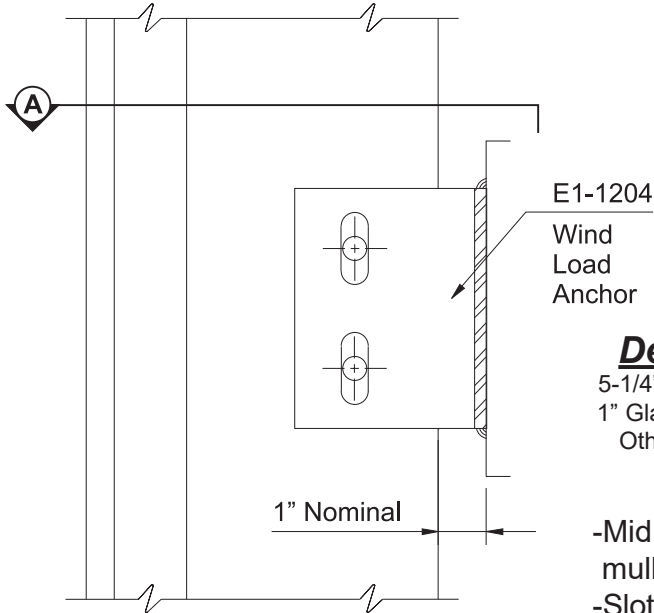
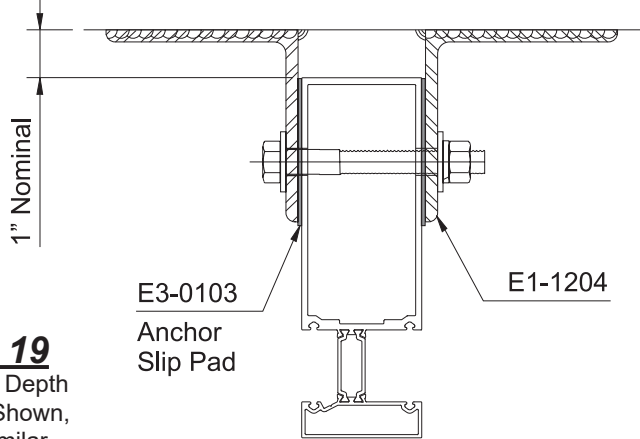
## FRAME INSTALLATION

### STEP 15 INSTALL WIND LOAD / DEAD LOAD ANCHORS

- Install steel mullion mid anchors:
  - Wind load anchor, E1-1204. See **Detail 19**.
  - Dead load anchor, E1-1205. See **Detail 20**.

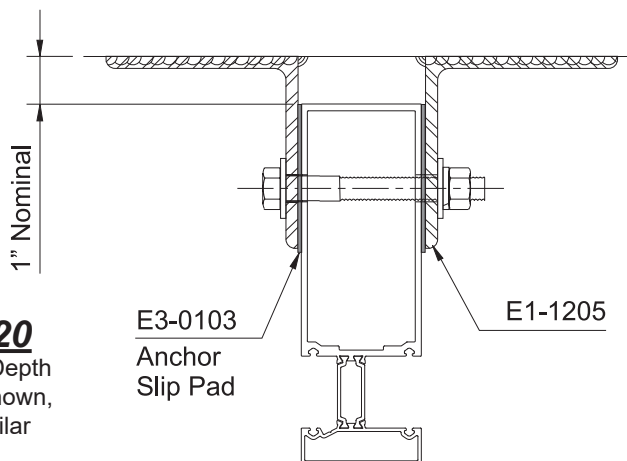
**Note:** Required anchors and bolt size will vary based on project requirements. Consult a qualified engineer or YKK AP.

#### SECTION A - Wind Load Anchor

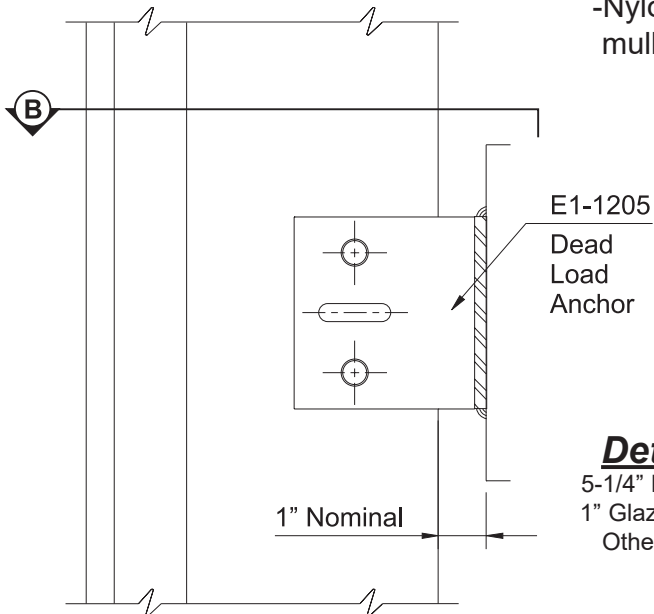


**Detail 19**  
5-1/4" Back Depth  
1" Glazing Shown,  
Others Similar

- Mid anchors are normally template or line set before mullions are hung.
- Slotted or drilled leg of clip must be set at 90° to offset leg. See shop drawings for details of mid anchor attachment.
- Install plumb and align vertical mullions, drill appropriate size holes for anchor bolts as shown in shop drawings.
- Anchor bolts are fastened **after** horizontals are attached.
- Nylon slip pads, E3-0103, **must** be installed between mullion and mid anchors.



#### SECTION B - Dead Load Anchor

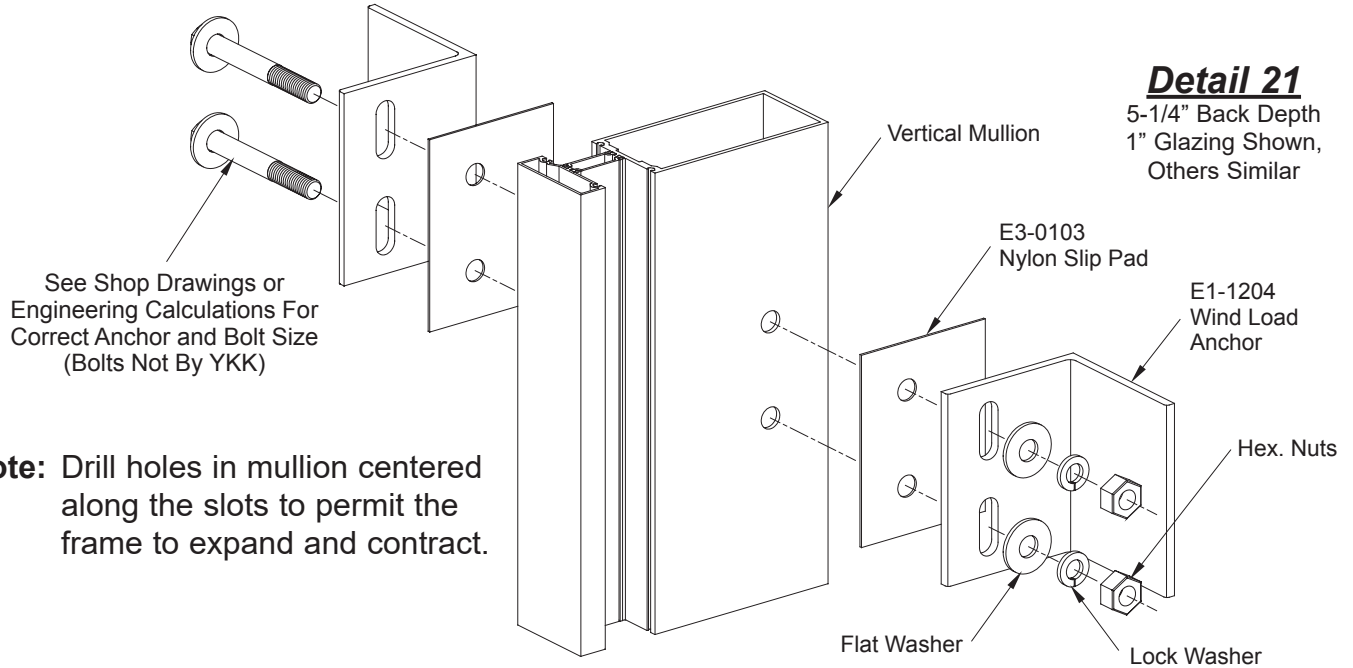


**Detail 20**  
5-1/4" Back Depth  
1" Glazing Shown,  
Others Similar

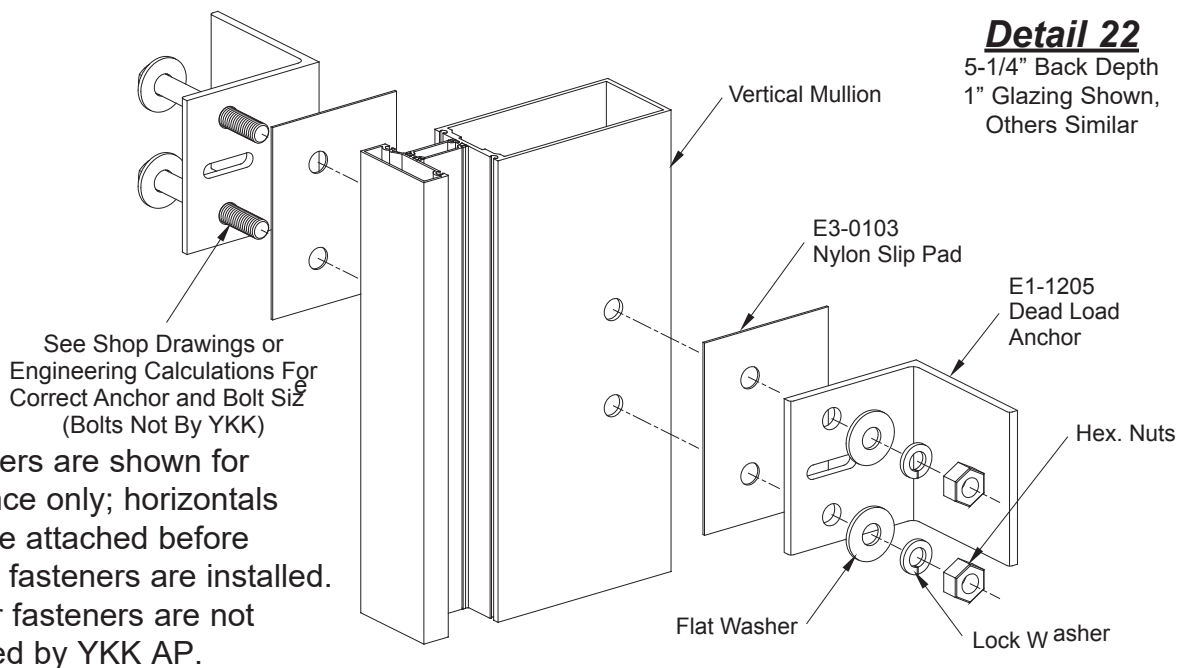
## FRAME INSTALLATION

### STEP 15 (Continued) INSTALL WIND LOAD / DEAD LOAD ANCHORS

#### TYPICAL WIND LOAD ANCHOR

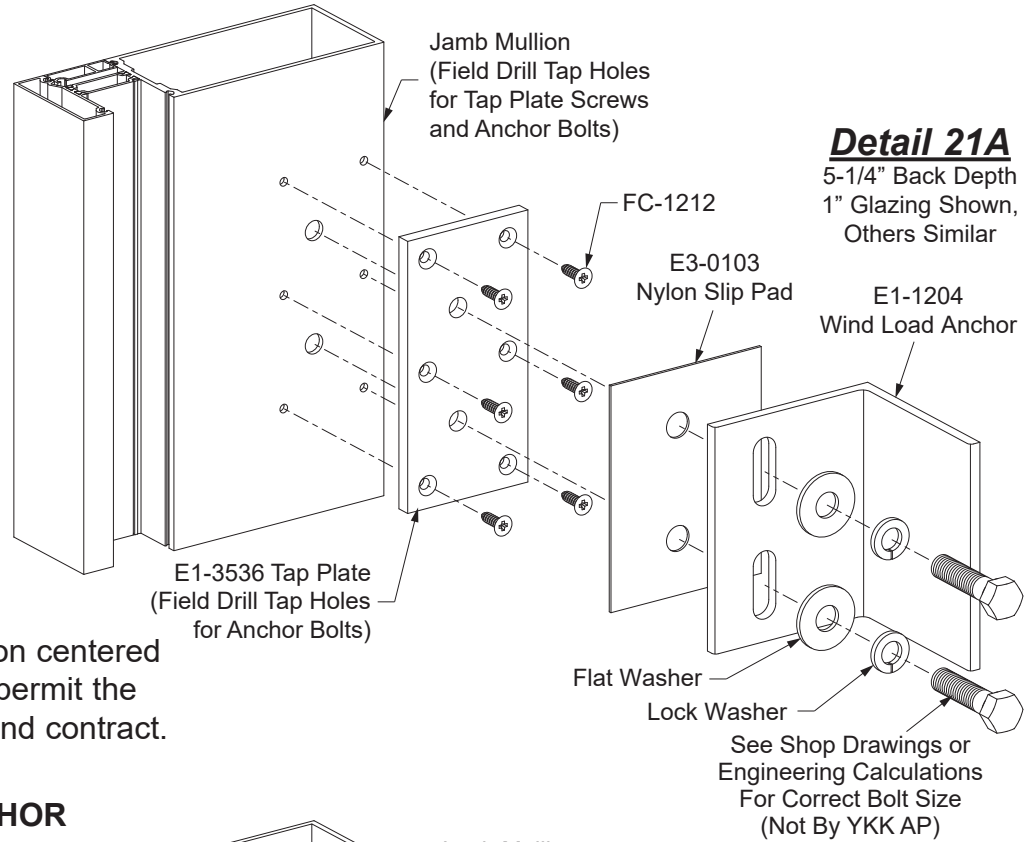


#### TYPICAL DEAD LOAD ANCHOR



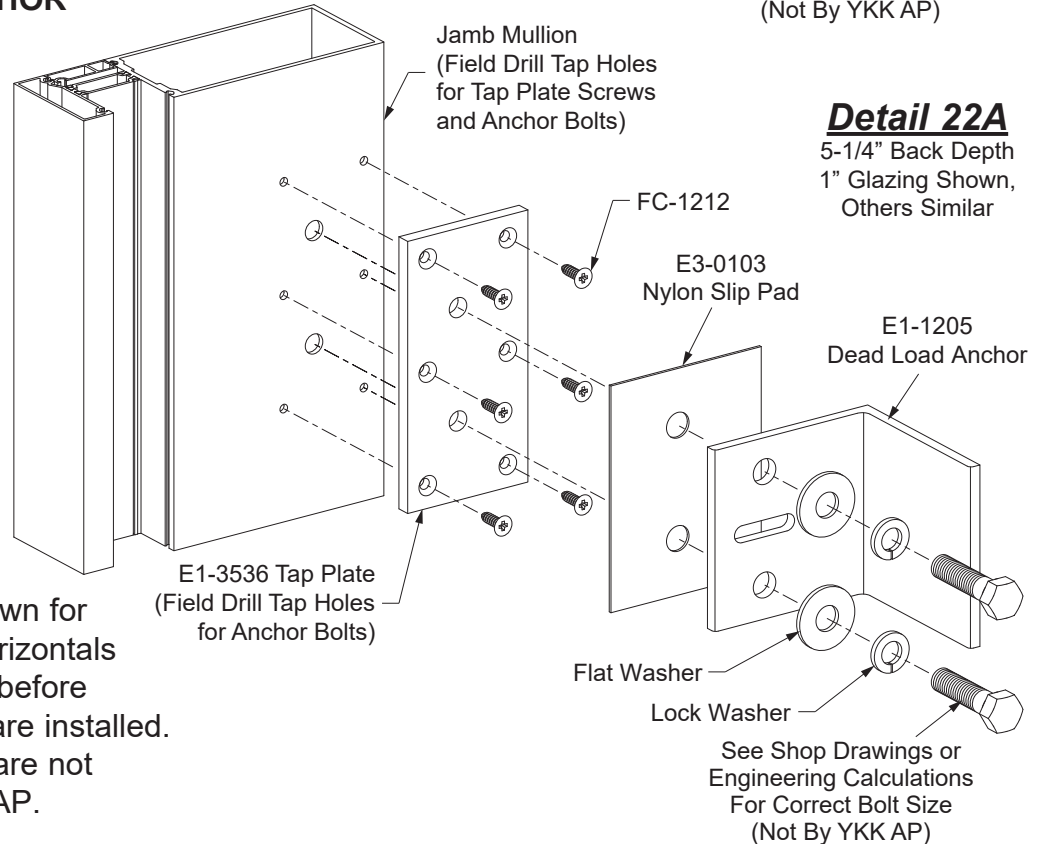
**FRAME INSTALLATION**

**JAMB WIND LOAD ANCHOR**



**Note:** Drill holes in mullion centered along the slots to permit the frame to expand and contract.

**JAMB DEAD LOAD ANCHOR**

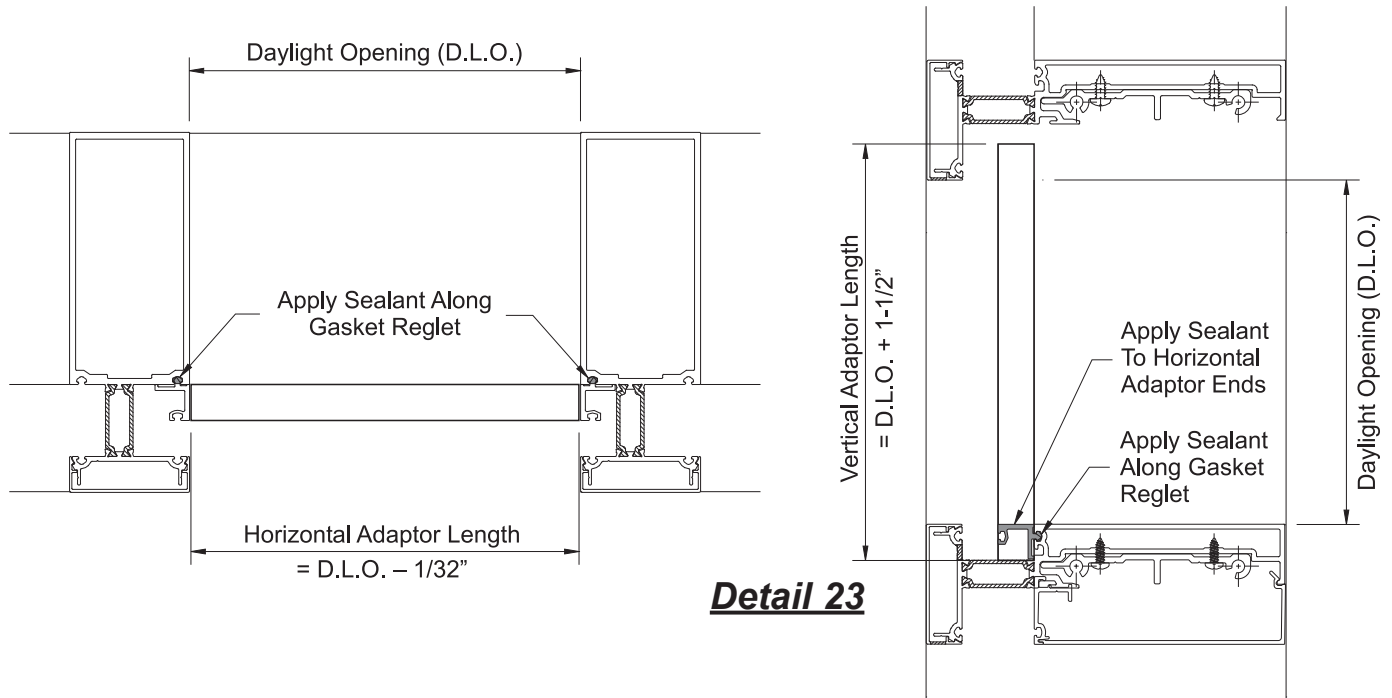


**Note:** Fasteners are shown for reference only; horizontals must be attached before anchor fasteners are installed. Anchor fasteners are not provided by YKK AP.



## FRAME INSTALLATION

### STEP 16 INSTALL 1/4" GLAZING ADAPTORS (When Required)



- Cut glazing adaptors for verticals:  
Cut Length = Daylight Opening plus(+) 1-1/2".
- Cut glazing adaptors for horizontals:  
Cut Length = Daylight Opening minus(-) 1/32".
- Run a bead of sealant along the interior gasket reglets.

Attach the vertical glazing adaptors first. Slide the vertical adaptors in the opening.

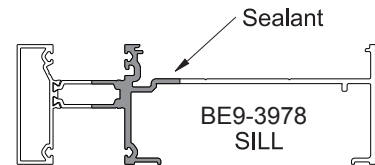
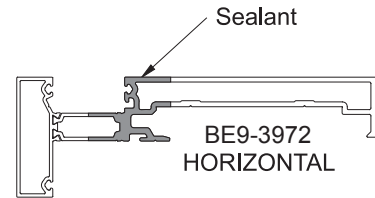
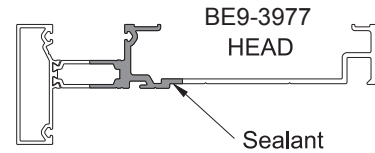
Slide the horizontal glazing adaptors prior to installation of the horizontals

See **Detail 23**.

**FRAME INSTALLATION**

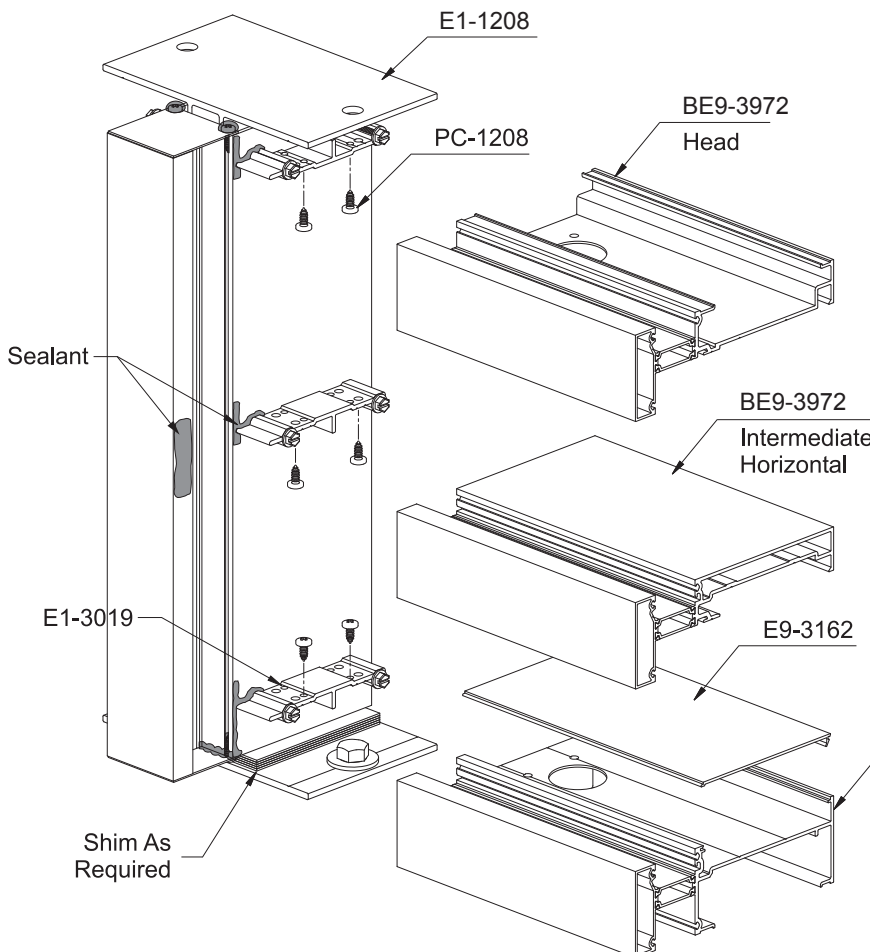
**STEP 17  
HEAD/HORIZONTAL/SILL ATTACHMENT**

- Clean all contact surfaces with cleaner and method approved by sealant manufacturer.
  - Apply silicone to the ends of the horizontals as shown in **Detail 24** before attaching to the shear clips.
  - Just prior to attaching the horizontals, apply sealant to the front of the shear clips and at the face cover where it meets the horizontal face cover as shown in **Detail 25**.
  - Attach the head, intermediate horizontal, and sill to the shear clips with two PC-1208 fasteners at each end.
  - Tool and wipe away any excess sealant, including at any applied glazing adaptors.
- See **Detail 25**.



**Detail 24**

5-1/4" Back Depth Mullion Shown, Others Similar



**Note:** Always shim underneath the mullion to transfer glazing dead loads to the foundation.

**Detail 25**

5-1/4" Back Depth Mullion Shown, Others Similar

## FRAME INSTALLATION

### STEP 18 INSTALL DOOR SUBFRAMES

Doors are shipped assembled, and door sub-frames will be fabricated and shipped knocked down. Refer to the **Entrances Installation Manual** for assembly of the door subframes. These subframes are installed into the curtain wall framing members and set directly upon the floor substrate. The subframe members are determined by the approved shop drawings.

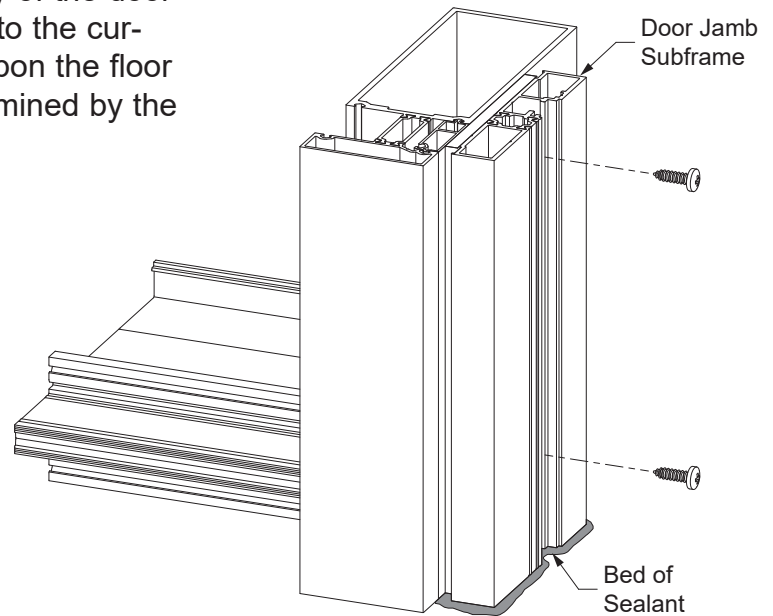
-Clean all sealant contact surfaces as recommended by the sealant manufacturer.

Do not fasten the transom bar into the curtain wall horizontal. The transom bar will be fastened into door jamb sub-frame with PC-1220 screws. See **Detail 27**.

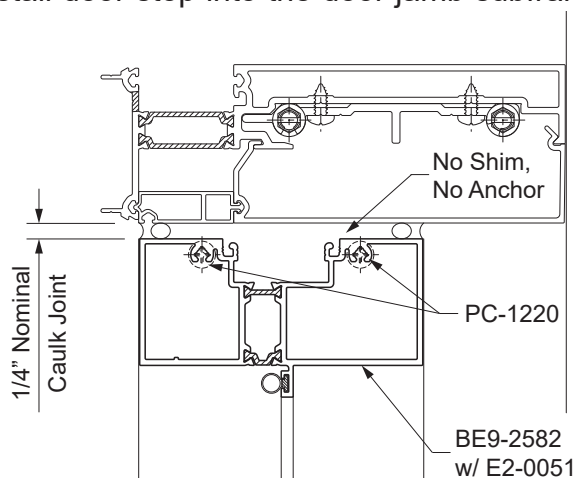
-Install the jamb subframe onto the mullion with fasteners according to the approved shop drawings and/or P.E. calculations, setting the subframe jambs in beds of sealant as shown in **Detail 26**.

-Apply and tool sealant to the bottom of the jamb subframe as shown in **Detail 28**.

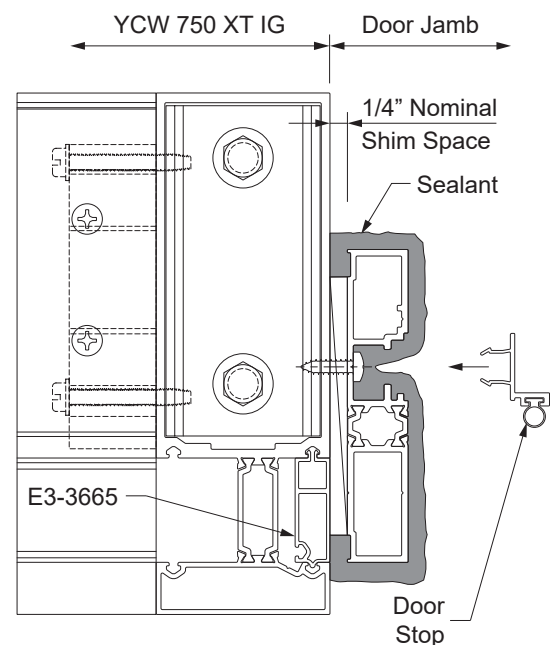
-Install door stop into the door jamb subframe.



**Detail 26**



**Detail 27**



**Detail 28**

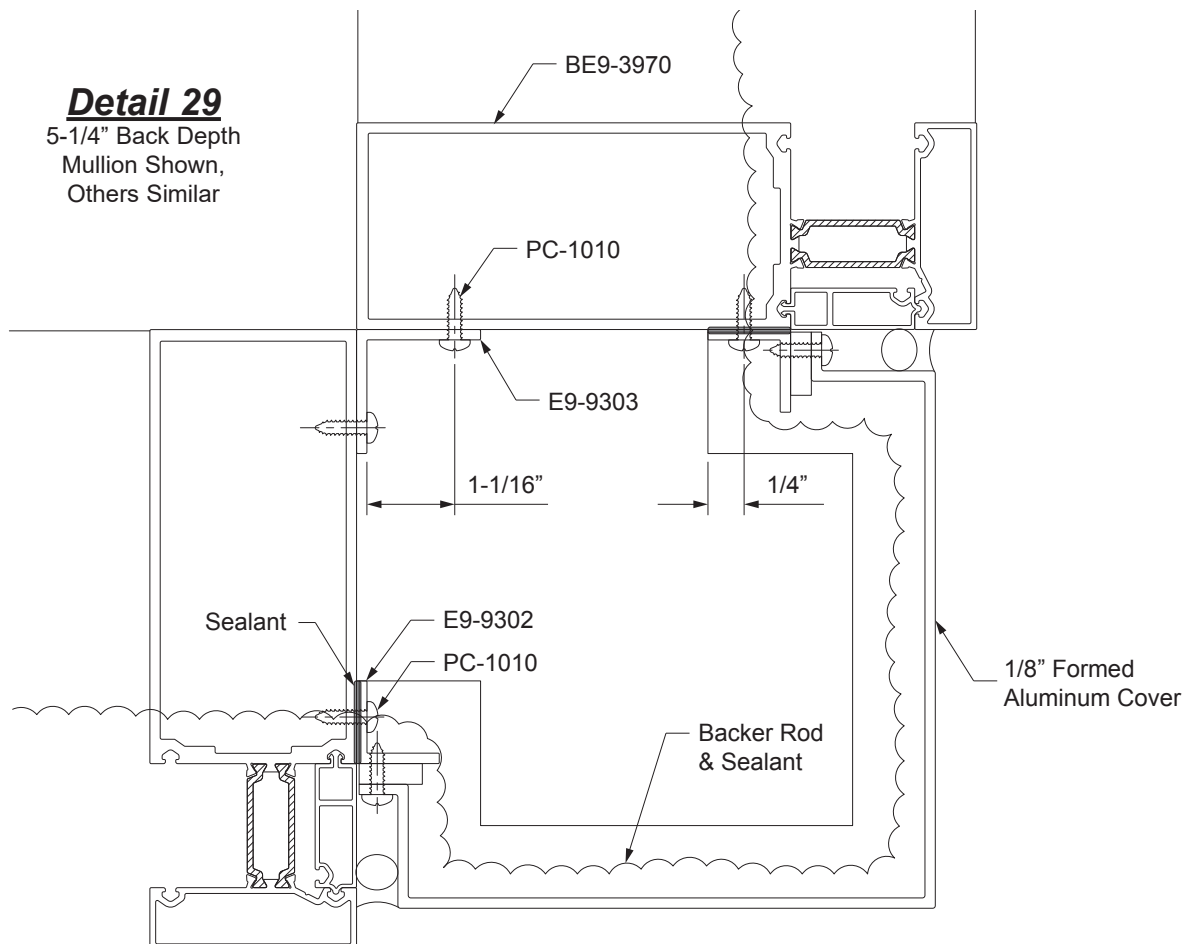
## FRAME INSTALLATION

### STEP 19

### 90° OUTSIDE CORNER ASSEMBLY

- Locate both mullions perpendicular to each other as shown in **Detail 28**.
- Anchor vertical ends with appropriate end anchors. Refer to shop drawings for mid anchors.
- Insert glazing pocket filler, E3-3665, into the shallow pocket of the corner mullions.
- Position angle E9-9303 into corner between the two mullions and fasten both legs every 18" O.C. and 3" from each end using PC-1010 fasteners.
- Apply a 3" bead of sealant to the inside leg of angle E9-9302 at each end and position angle E9-9302 flush with the face of the verticals and fasten to the verticals every 18" o.c. and 3" from each end using PC-1010 fasteners.
- Position the formed aluminum cover into place and fasten with PC-1010 fasteners every 18" O.C. and 3" from each end.
- Do not span formed aluminum cover more than 12'-6"; leave 1/2" joint between spans of 12'-6".
- Clean area around joint using cleaner and method approved by sealant manufacturer. Priming may be required for certain finishes.
- Compress backer rod into the 1/2" joint. Apply and tool sealant to the joint.

See **Detail 29**.

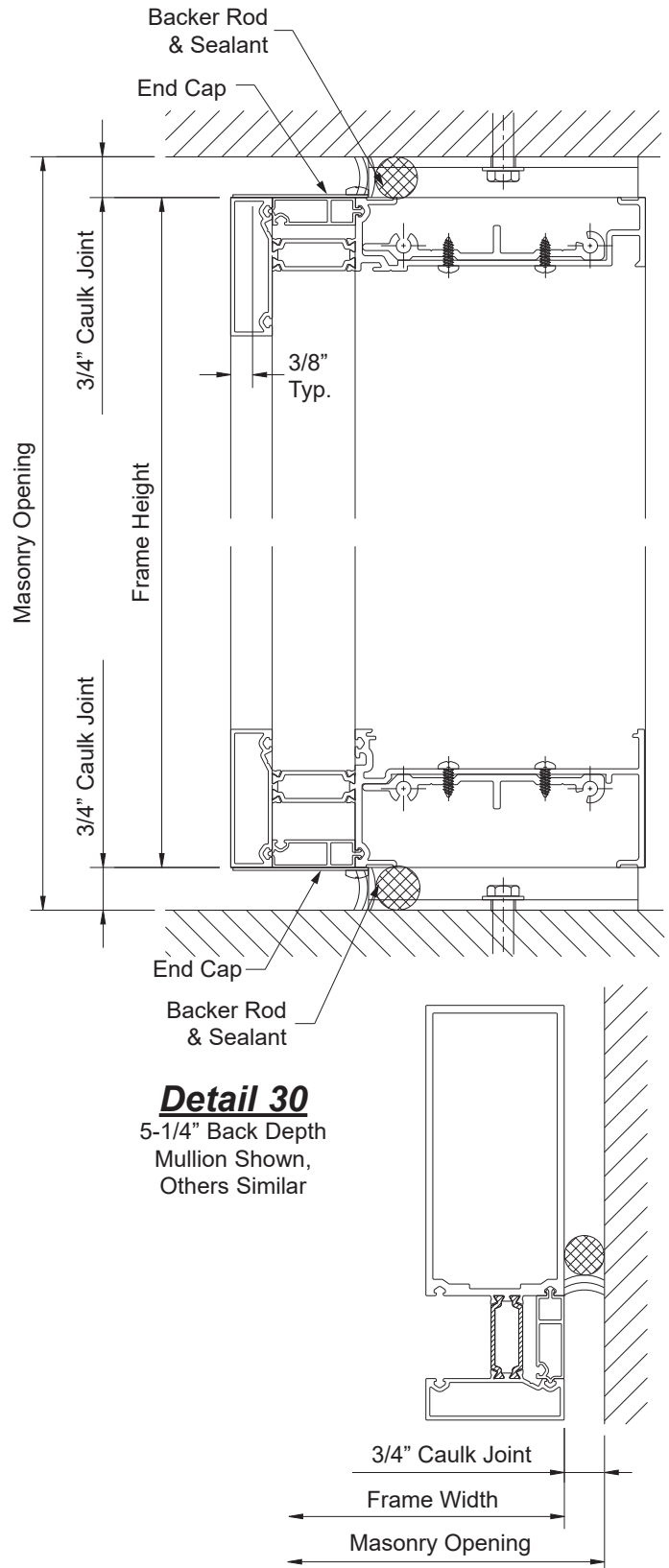


## FRAME INSTALLATION

### STEP 20 APPLY PERIMETER SEALANT

- Position backer rod around perimeter of frame.
- Clean around the perimeter of the frame with cleaner and method approved by sealant manufacturer.
- Apply and tool sealant to the perimeter of the frame. Make sure sealant does not contact the thermal isolator clips or extrusion leg.
- Wipe off any excess sealant immediately.

See **Detail 30**.



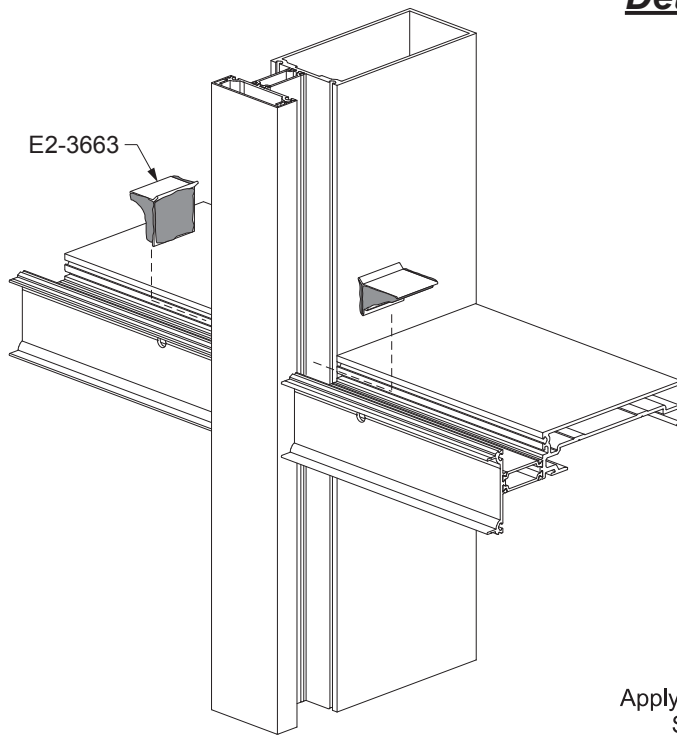
**GLAZING**

**STEP 21  
INSTALL JOINT PLUGS**

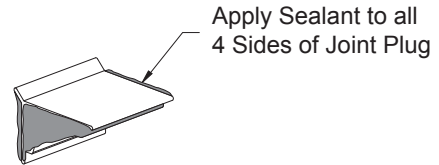
-The opening where the horizontal glazing pocket meets the vertical glazing pocket must be plugged and sealed with joint plugs, at all intersections including head and sill:  
E2-3663 for 1" glazing

**Note:** Clean all contact surfaces with cleaner and method approved by sealant manufacturer.

See **Detail 30**.



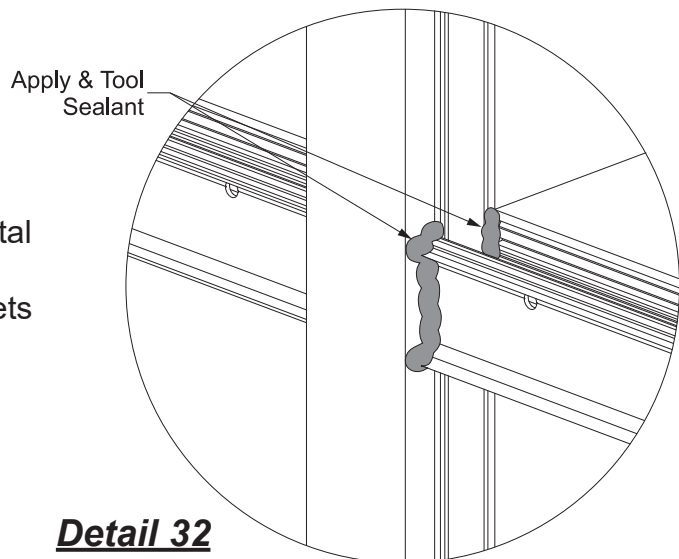
**Detail 31**



- Apply silicone sealant to all four contact sides of the joint plug.
- Install the joint plug into the cavity. Press down until the bottom lip of the joint plug touches the horizontal.
- Apply and tool sealant to completely cover the top of the joint plug.
- Tool the excess sealant along the edges of the joint plug to seal the cavity.

- Apply sealant to vertical and horizontal joints.
- Tool the sealant where the face of the horizontal meets the mullion down to the end dam.
- Tool the sealant where the pressure plate meets the mullion face cover to complete the seal at this joint.

See **Detail 32**.

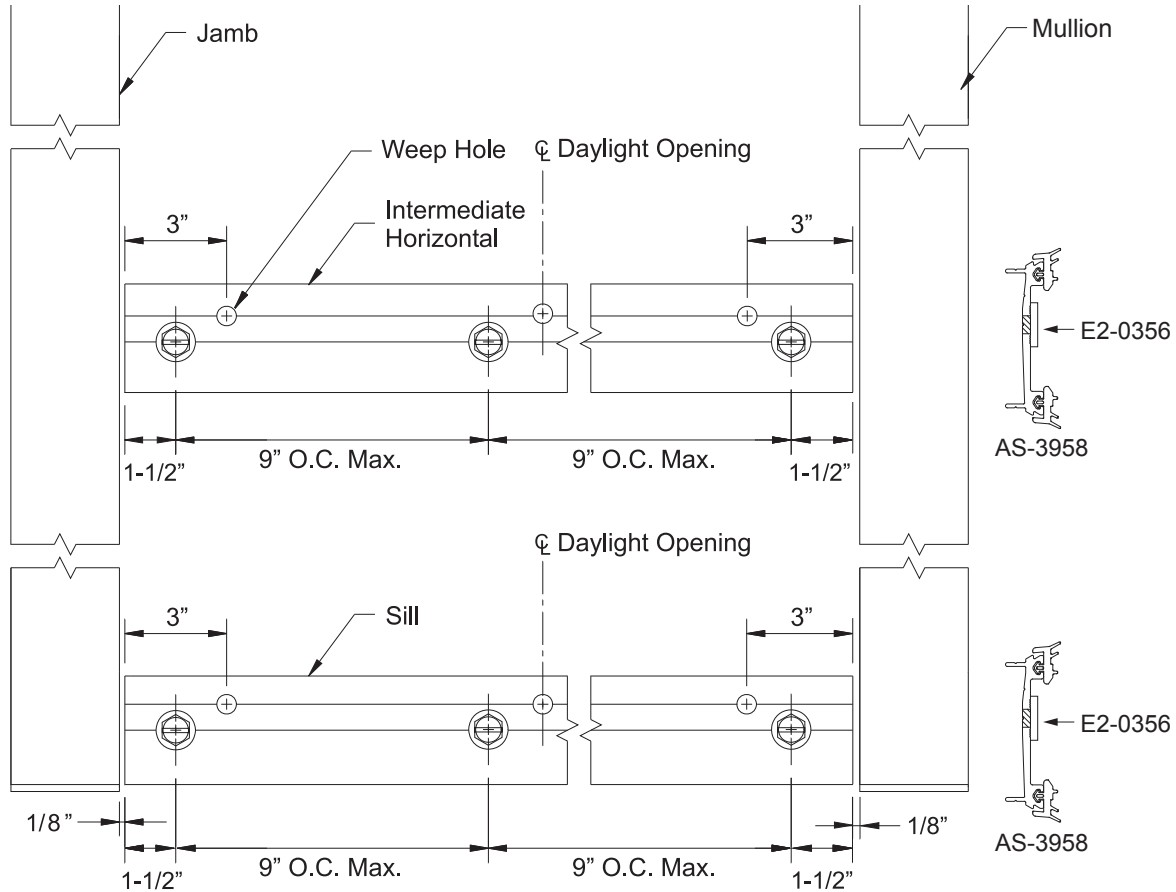


**Detail 32**

## GLAZING

### STEP 22

### OPTIONAL PRESSURE PLATE LAYOUT AND ASSEMBLY



**Detail 33**

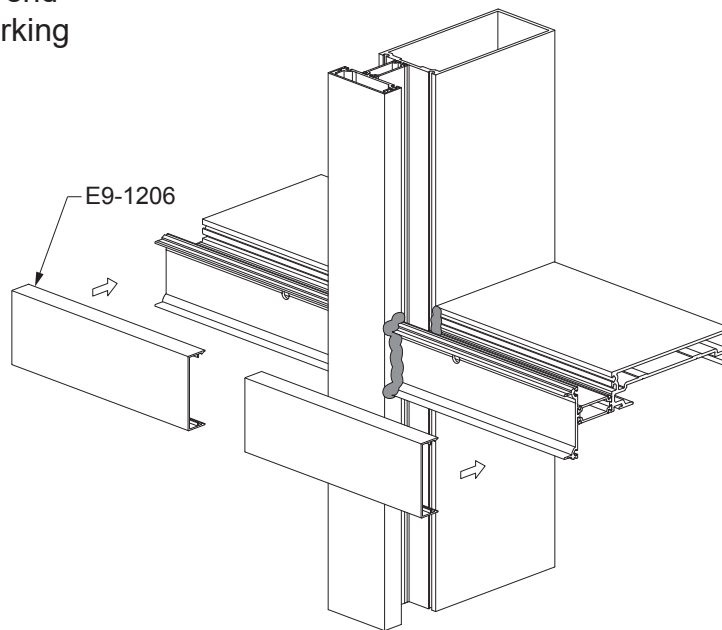
- Install isolator tape, E2-0356, onto the pressure plates as shown in **Detail 33**.
- Install pressure plates using TEK-1416 screws. Initially torque fasteners to 30 inch-pounds with a speed wrench or torque limiting screw gun. Work from the bottom up.
- Center and install horizontal pressure plates in opening, leaving gaps at the ends as shown.
- Starting at the center of each pressure plate, tighten each fastener to 50-inch pounds.
- Apply and tool sealant to completely seal gaps at the pressure plate ends.
- Torque all vertical pressure plate fasteners to 50-inch pounds.

See **Detail 33**.

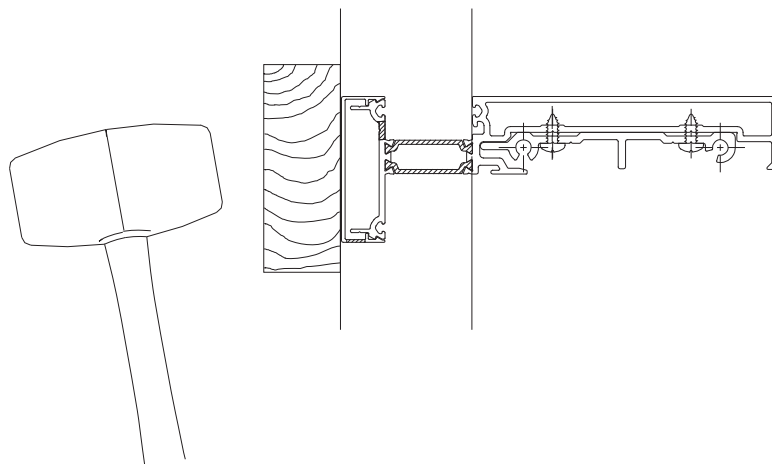
**GLAZING****STEP 23  
INSTALL HORIZONTAL FACE COVERS****For Intermediate Horizontal Covers:**

-Snap on exterior horizontal covers, E9-1206, using a mallet and a clean scrap piece of lumber. Start at one end and carefully snap on the cover working down to the other end.

See **Detail 34**.

***Detail 34***

5-1/4" Back Depth  
Mullion Shown,  
Others Similar



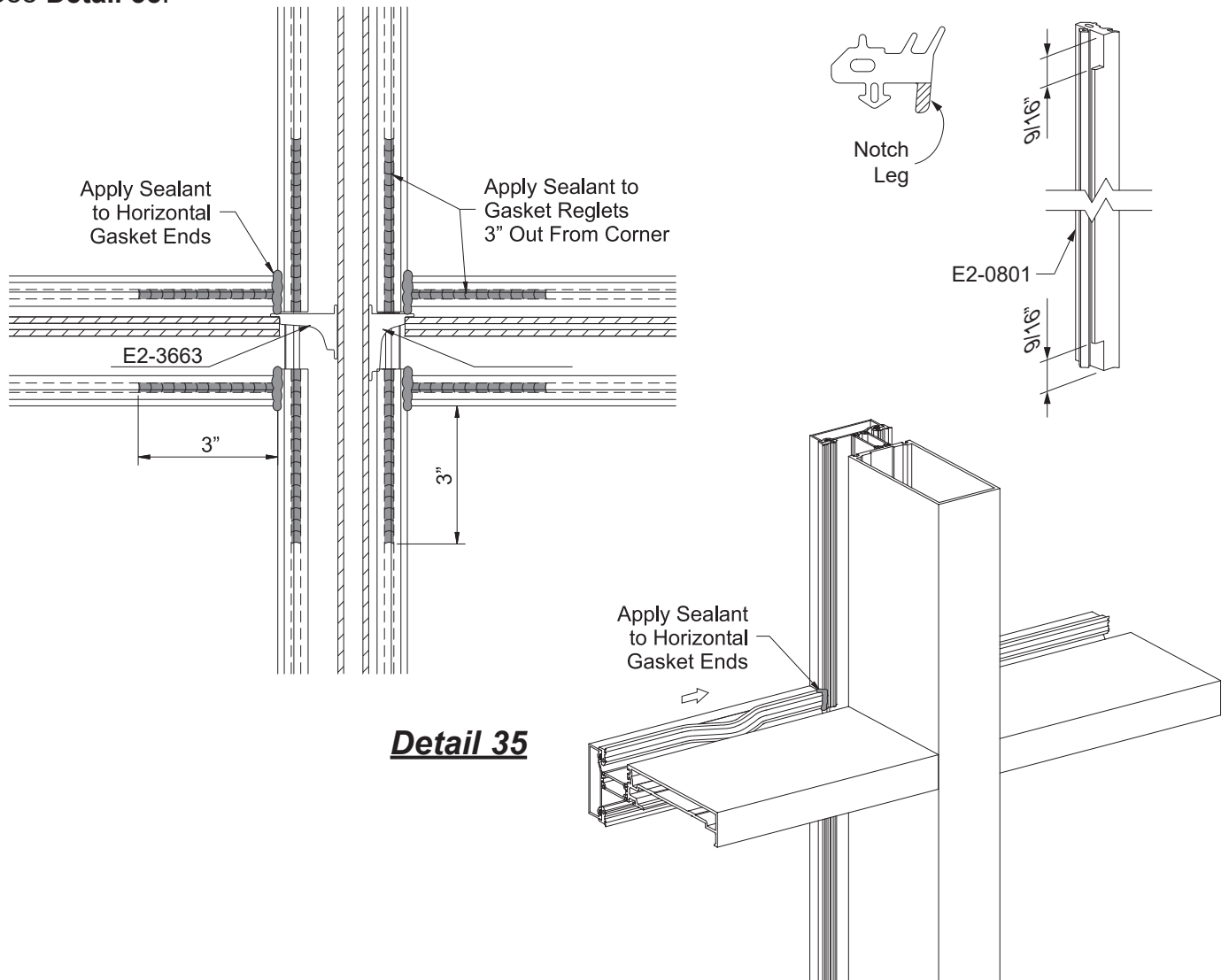


## GLAZING

### STEP 24 INSTALL EXTERIOR GLAZING GASKETS

- Cut vertical exterior gaskets to daylight opening plus (+) 1-1/2".
- Notch 9/16" off the leg at each end of the vertical exterior gaskets.
- Cut horizontal exterior gaskets to daylight opening plus (+) 1/4" for each foot of horizontal.
- Apply sealant in gasket reglets from the gasket corner 3" out in both directions.
- Install the vertical exterior gaskets first, centered along the vertical daylight opening.
- Install the horizontal exterior gaskets.
  - Apply sealant to each end of the horizontal gasket.
  - Insert the gasket into the reglet at each end first and push each end tight against the vertical gasket. Then insert the gasket at the midpoint of the opening and push the gasket into the reglet starting at the midpoint and work towards each end.
- Tool the sealant where the end of the horizontal gasket meets the vertical gasket.

See **Detail 35**.



***Detail 35***

## GLAZING

### STEP 25 INSTALL SETTING BLOCKS & SIDE BLOCKS

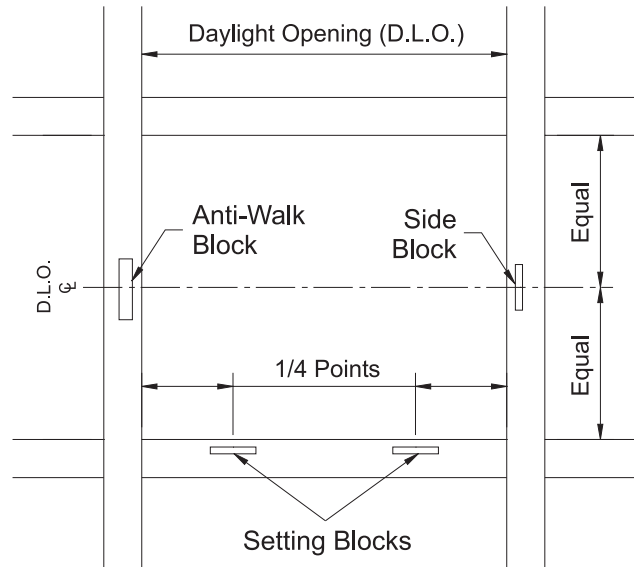
- Install setting blocks, E2-0513, and setting block chairs, E1-3619, at 1/4 points of the horizontal D.L.O. or according to engineering calculations.
- Install side blocks, E2-0177, into the shallow glazing pockets of the verticals centered along the vertical daylight opening.

See **Detail 36**.

### STEP 26 INSTALL GLASS

- Clean all glazing surfaces and joints of foreign matter and contaminants such as grease, oil, dust, frost, and dirt. Do not use water or soap to clean surfaces or to tool sealant.
- Carefully install glass into the frame. Insert the lite into the deep pocket first, and then swing it to pass the vertical into the glazing pocket. Push the glass against the side block making sure setting and side blocks are properly aligned with the glass.

See **Detail 37**.

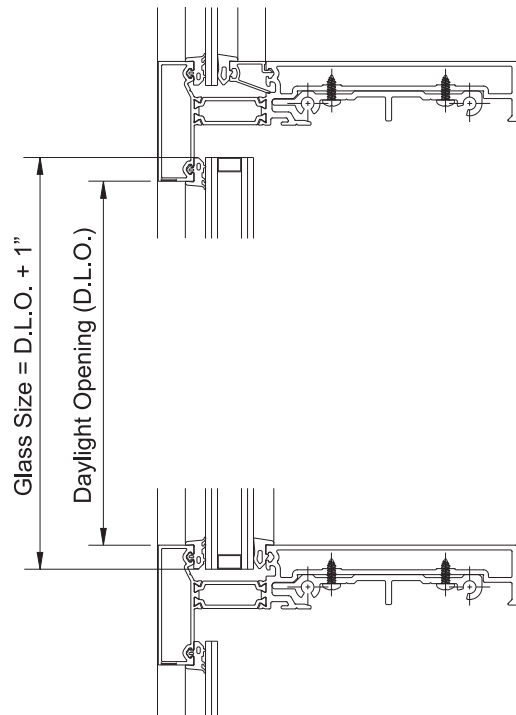
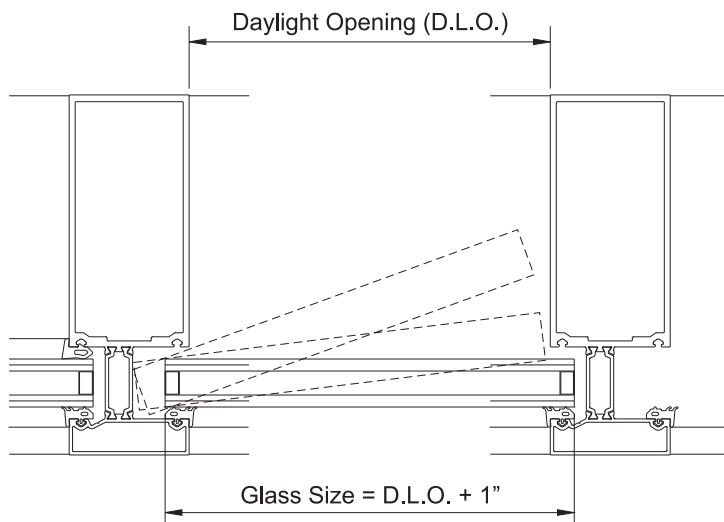


**Detail 36**

**GLASS SIZE =  
DAYLIGHT OPENING (D.L.O.) + 1"**

**Note:** For SSG Option see YCW 750 XT IG SSG Option installation manual

**Detail 37**



## GLAZING

### STEP 26 (Continued) INSTALL GLASS

-Push the glass against the exterior gaskets, and install small pieces of E2-0802 (cut down 2 to 3 inches) along the vertical to temporarily hold the glass in place.

See **Detail 38**.

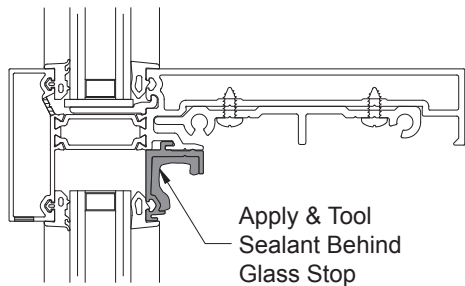
-Apply sealant to the vertical / horizontal area that the glass stop will contact.

-Install the horizontal glass stops.

-Apply and tool sealant behind the glass stop to create a watertight seal.

See **Detail 39**.

**Detail 39**  
5-1/4" Back Depth  
Mullion Shown,  
Others Similar

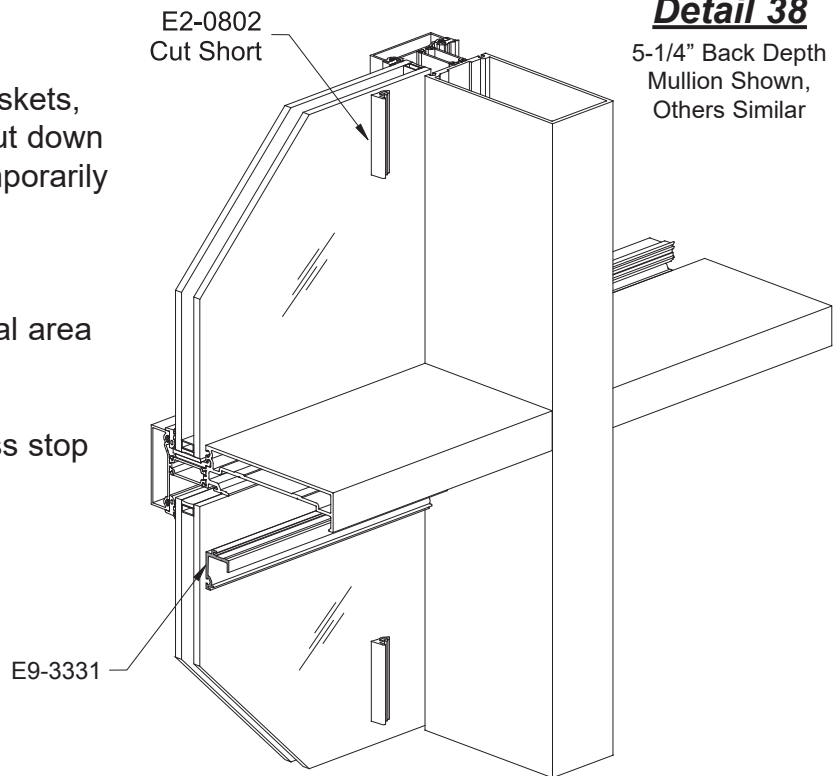


-Install one anti-walk block, E2-0546, in the deep glazing pocket of each mullion, centered along the vertical daylight opening.

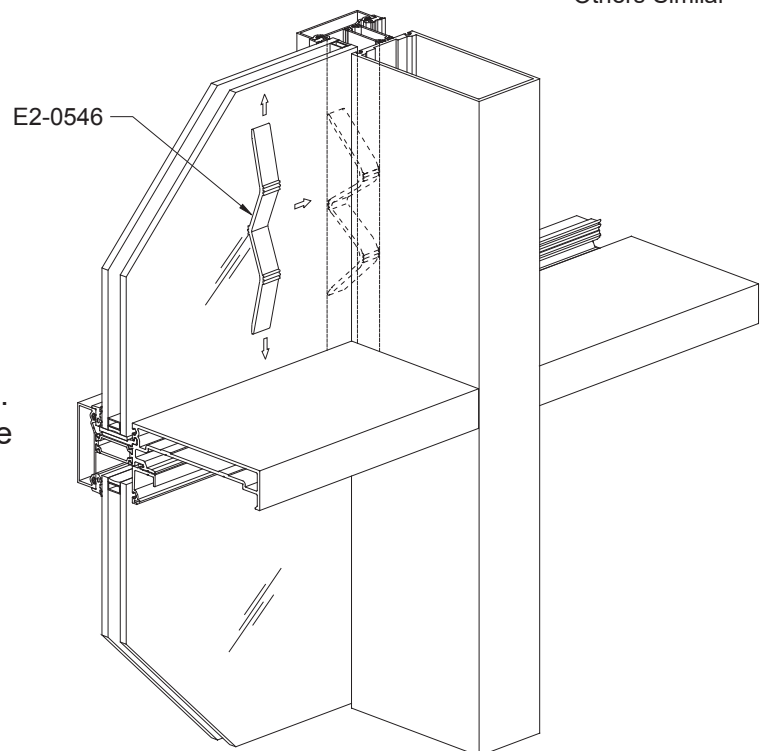
-Flatten the anti-walk block against the inside surface of the glass and push it into the opening between the glass and the mullion until it is released into the glazing pocket.

See **Detail 40**.

**Detail 38**  
5-1/4" Back Depth  
Mullion Shown,  
Others Similar



**Detail 40**  
5-1/4" Back Depth  
Mullion Shown,  
Others Similar

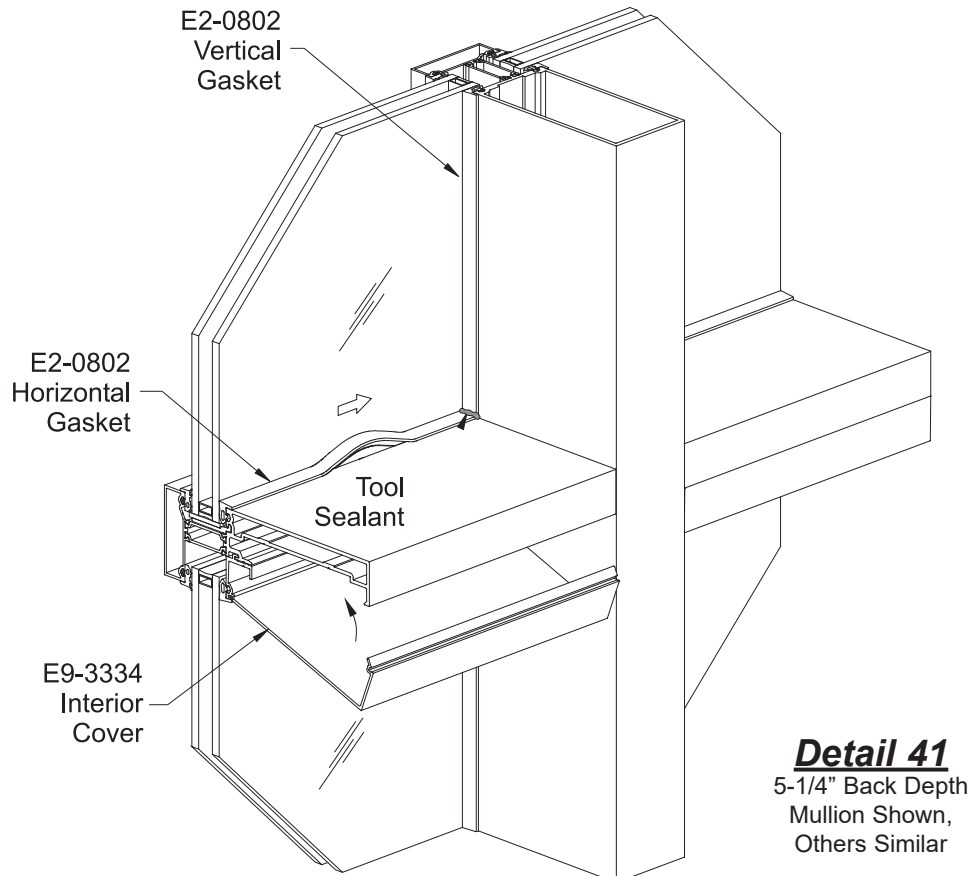


## GLAZING

### STEP 27 INSTALL INTERIOR GASKETS & COVER

- Cut horizontal & vertical interior gaskets to daylight opening plus(+) 1/4" for each foot of length.
  - Install the vertical interior gaskets first.
    - Insert each end and the midpoint of the gasket into the reglet.
    - Push in the remainder of the gasket working from the midpoint to the ends.
  - Install the horizontal interior gaskets next.
    - Apply sealant to the each end of the horizontal gasket.
    - Insert the gasket into the reglet at each end first and push each end tight against the vertical gasket. Then insert the gasket at the midpoint of the opening and push the remainder of gasket in working from the midpoint to the ends.
  - Tool the sealant where the end of the horizontal gasket meets the vertical gasket.
- Install the horizontal interior cover when necessary by inserting the front edge of the cover into the recess at the bottom of the glass stop and rolling it up to snap onto the back of the head or horizontal.

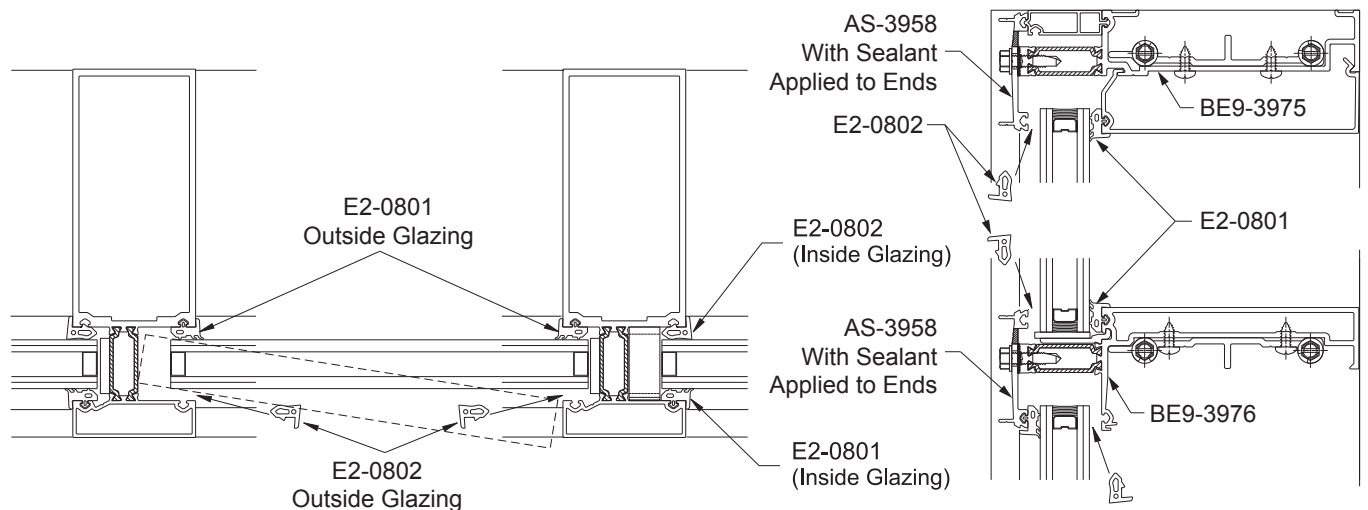
See **Detail 41**.



## GLAZING

### STEP 28 OPTIONAL OUTSIDE GLAZING INSTRUCTIONS

YCW 750 XT IG is primarily an inside glazed curtain wall system. However, there are some conditions where glazing from the inside may not be possible due to interference from intermediate mullion anchors or structural posts. For these conditions, optional head, sill, and horizontal members that allow for outside glazing are available. Install the pressure plates as shown in **Step 22** on **Page 35**.



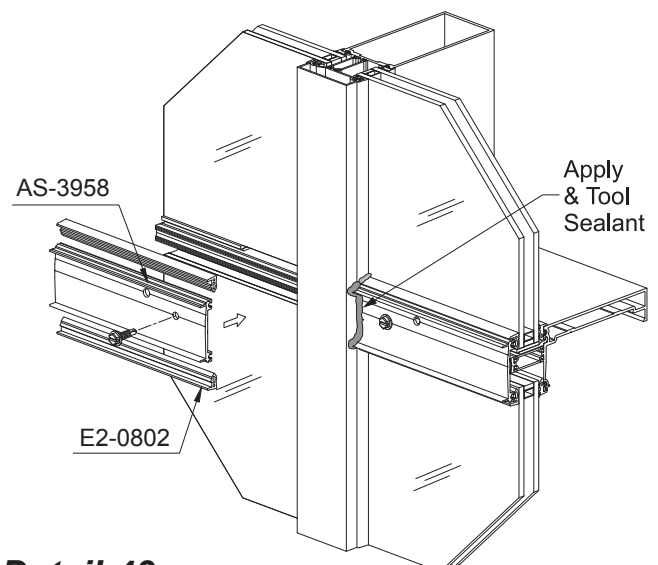
### **Detail 42**

5-1/4" Back Depth  
Mullion Shown,  
Others Similar

- Install the interior glazing gaskets, E2-0801, which is used on the exterior for inside glazing. Always install the vertical gaskets first.
  - Install setting & side blocks, glass, and anti-walk blocks as previously discussed in **Step 25 & 26**; however, the glass is now being installed from the outside.
  - Apply sealant to the ends of the exterior glass stop, E9-3957, and attach to the head and horizontal.
  - Install exterior glazing gaskets, E2-0802.
- See **Detail 42**.

-Once all the gaskets are in place, apply and tool sealant to the front of the horizontal and exterior glass stop where they meet the vertical face cover. See **Detail 43**.

-Attach the horizontal face covers as previously discussed in **Step 23**.



### **Detail 43**



101 Marietta Street NW  
Suite 2700  
Atlanta, Georgia 30303  
[www.ykkap.com](http://www.ykkap.com)