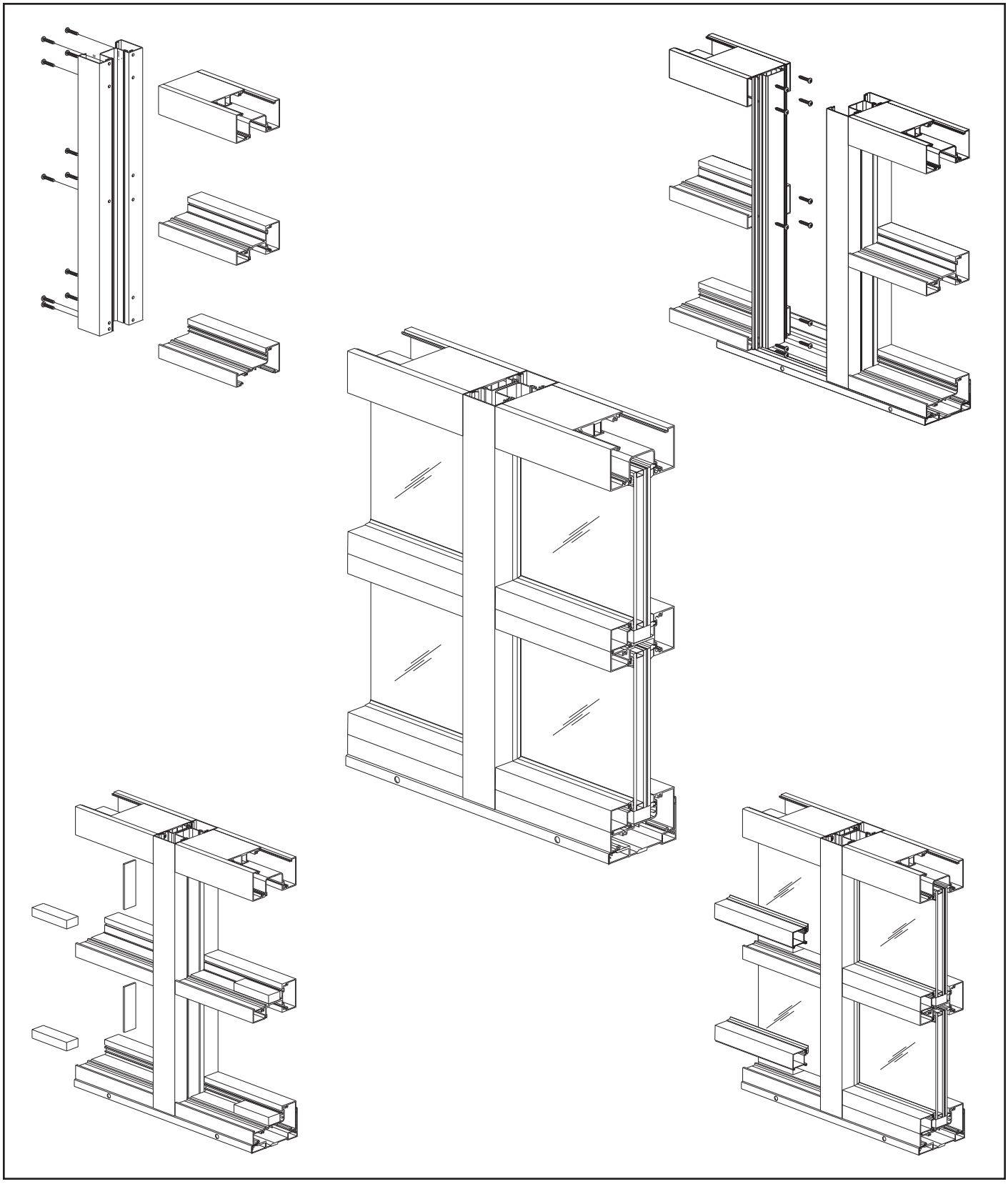
YHS 50 FI Storefront System



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:
   A. Specified metal to metal joints use Dow Corning® 795 or 995.
   B. All metal to glazing must use Dow Corning® 995.

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.

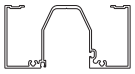
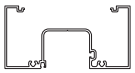
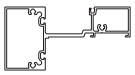
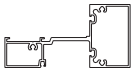
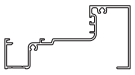
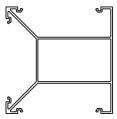
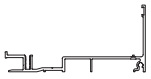
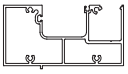
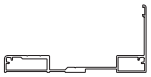
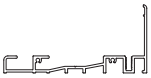
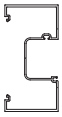
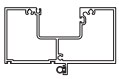
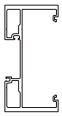
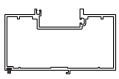
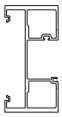
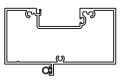
11. If any questions arise concerning YKK AP products or their installation, contact YKK AP for clarification before proceeding.

12. YKK AP storefront and/or curtain wall framing is typically completed before drywall, flooring and other products which may still be in process. Wrap and protect the material when stored at job site.

13. Cutting tolerances are plus zero (0"), minus one thirty second (-1/32") unless otherwise noted.

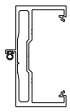
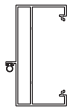
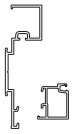
14. Check our website, www.ykkap.com, for the latest installation manual update prior to commencing work.

FRAMING MEMBERS

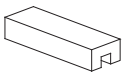
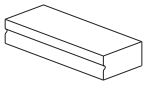
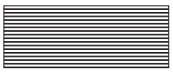
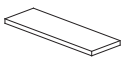
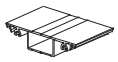
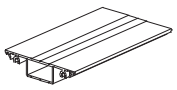
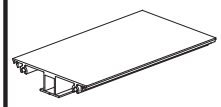
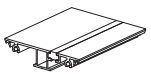
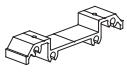
	**Head / Jamb** 2-1/2" x 5" For up to ±50 PSF	**E9-0662**		**Shallow Pocket Filler** Use with E9-0663	**E9-0655**
	**Head** 2-1/2" x 5" For up to +70/-90 PSF*	**E9-0651**		**Deep Pocket Filler** Use with E9-0665 & E9-0659	**E9-0656**
	**IG Head** 2-1/2" x 5"	**E9-7976**		**Expansion Mullion** (Female)	**E9-0688**
	IG Head Anchor	**E9-8650**		**Expansion Mullion** (Male)	**E9-0689**
	**Horizontal** 2-1/2" x 5"	**E9-0653**		**Flat Filler** Use with 90° Corner Mullion E9-0659	**E9-0657**
	**Sill** 2-1/2" x 5" For up to ±50 PSF	**E9-0664**		**90° Corner Mullion** Use with E9-0656 and E9-0657	**E9-0659**
	Sill 2-1/2" x 5" For up to +70/-90 PSF*	**E9-0652**		**Sill Flashing** For up to ±50 PSF	**E9-0625**
	**IG Sill** 2-1/2" x 5"	**E9-7977**		**Sill Flashing** For up to +70/-90 PSF*	**E9-0619**
	Snap Cover	**E9-8647**			
	Glass Stop	**E9-0658**		**IG Sill Flashing**	**E9-7993**
	**Jamb / Mullion** 2-1/2" x 5" For up to ±50 PSF	**E9-0663**		**Transom Bar** Elastomer weathering E2-0051 included	**AS-0517**
	**Heavy Duty Vertical** 2-1/2" x 5" For up to +70/-90 PSF*	**E9-0665**		**OHCC Transom Bar** Use with AS-0218 Pile Weathering included	**AS-0521**
	**Heavy Duty Vertical** 2-1/2" x 5" For up to ±70 PSF	**E9-0654**		**Transom Bar** Elastomer weathering E2-0051 included Use with 35HL/50HL Doors	**AS-0553**

* Per Florida Product Approvals as tested with steel reinforcing.

FRAMING MEMBERS

	Door Stop For OHCC Transom Bar Elastomer Weathering E2-0051 included	**AS-0218**		**Threshold Trim** Elastomer weathering E2-0051 included	**AS-0503**
	**Door Jamb** Elastomer weathering E2-0051 included	**AS-0504**		**Threshold Ramp**	**E9-0511**
	**Door Jamb** Elastomer weathering E2-0051 included Use with 35HL/50HL Doors	**AS-0551**		**Threshold Ramp**	**E9-0512**
	**Transom Glazing Pocket Filler (35H** **Transom Glass Stop**	**E9-0515** **E9-0506**		**Threshold Ramp**	**E9-0513**
	Transom Glazing Pocket Filler (35HL)	**E9-0555**		**Air Tight Threshold** Elastomer weathering E2-0051 included	**AS-0487**
	Water Resistant Threshold Gutter	**E9-0502**			

ACCESSORIES

	**Setting Block**	**E2-0095**		**End Dam** For Sill Flashing E9-0619	**E1-1050**
	Setting Block For Inside Glazing	**E2-0019**		**End Dam** For Sill Flashing E9-0625	**E1-1139**
	**OHCC Transom Bar Setting Block**	**E2-0737**		**End Dam** For Sill Flashing E9-7993	**E1-1140**
	Door Setting Block	**E2-0086**		**Splice Sleeve** For Sill Flashing	**E2-0070**
	**Side Block**	**E2-0096**		**Anti-Walk Block** For Dry Glazing Use with E9-0656 Pocket Filler	**E2-0546**
	Push-in Glazing Gasket (7/16” F.C.) Not Florida Approved	**E2-0081**		**Anti-Walk Block** For Dry Glazing Use with E9-0663 Jamb/ Mullion	**E2-0807**
	Exterior Glazing Gasket For 1-5/16” Glazing	**E2-0083**		**Anchor Filler** For Jamb at Anchor Locations, 2-1/2” Long	**E1-1068**
	Interior Glazing Gasket Use with 1-5/16” Laminated Glass for Dry Glazed Applications	**E2-0088**		**Anchor Filler** For Head & Sill at Anchor Locations, 11” Long	**E1-1071**
	Interior Silicone Spacer	**E2-0084**		**Anchor Filler** For Head & Sill at Anchor Locations, 9” Long	**E1-1073**
	Door & Reglaze Silicone Spacer	**E2-0085**		**Anchor Filler** For Jamb at Anchor Locations, 3-1/2” Long	**E1-1061**
	Weathering Gasket Use with E9-0688 Expansion Mullion	**K2-2441**		**Shear Block** For Use with AS-0520 OHCC Transom Bar	**E1-0370**
	Water Deflector For Intermediate Horizontals	**E2-0049**		**Steel Reinforcing**	**E1-1062**

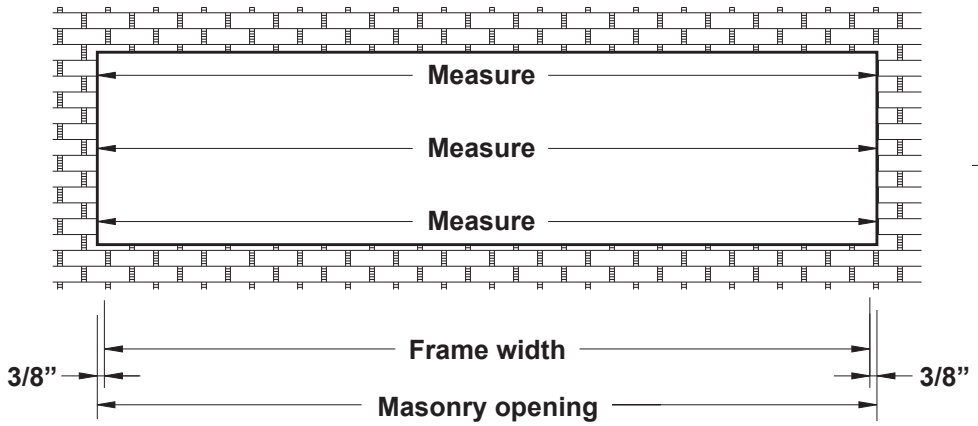
FASTENERS

	#10 x 1/4" FHSMS Zinc Plated Steel For attachment of Threshold Clip E1-1055	**FM-1004**		**#12 x 3/4" FHSMS** Type "AB", Zinc Plated Steel, For attachment of OHCC Transom Bar to E2-0370 Shear Block	**FC-1212**
	#10 x 3/8" FHMS For attachment of Glazing Pocket filler to E9-0663 Mullion	**FM-1006**		**#8 x 3/8" PHSMS** Zinc Plated Steel For End Dam for E1-1140 Sill Flashing (for I.G.)	**PC-0806**
	#10 x 1/2" FHSMS Type "AB", Zinc Plated Steel For attachment of Threshold Clip	**FC-1008**		**#12 x 3/4" UFHSMS Type A**, Zinc Plated Steel, For End Dam Attachment	**UA-1212**
	#10 x 1/2" FHSMS Type "AB", Zinc Plated Steel For attachment of AS-0503 Threshold Trim	**PC-1008**		**#12 x 1-1/4" PHSMS** Type "AB", Zinc Plated Steel For Screw Spline Attachment	**PC-1220**
	#10 – 24 x 1/2" FPHMS Type "F", Stainless Steel, For attachment of Glazing Pocket Filler to Steel Reinforcing	**FF-1008 -SS**		**#14 x 1/2" PHSMS** Type "AB", Zinc Plated Steel For Threshold Gutter Attachment	**PC-1408**
	#10 x 5/8" PPHSMS Type "B", Zinc Plated Steel, For attachment of Transom Glazing Pocket Filler	**PB-1010**		**#14 x 1-1/2" PHSMS** Type "AB", Zinc Plated Steel For Sill Gutter Attachment	**PC-1424**
	#10 x 1/2" PHMS Stainless Steel, For Attachment of E9-0664 Sill to E9-0625 Sill Flashing	**PM-1008 -SS**		**#1/4-20 x 1-1/2" PHMS** Stainless Steel, For IG Sill Gutter Attachment	**PM-2524 -SS**
	#10 x 1-3/4" PHSMS Type "AB", Zinc Plated Steel, For Attachment of E2-0370 Shear Block	**PC-1028**		**1/4" – 20 x 3/4" HWHMS** Type "F", Zinc Plated Steel For attachment of Steel Reinforcing to Verticals	**HF-2512 -W1**

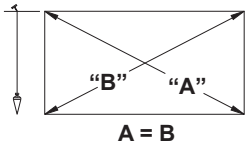
FRAME FABRICATION

STEP 1
DETERMINE FRAME DIMENSIONS

Determine Frame Width:



Note: Check the opening for squareness and plumb at both ends; unit must be installed in a true rectangle.

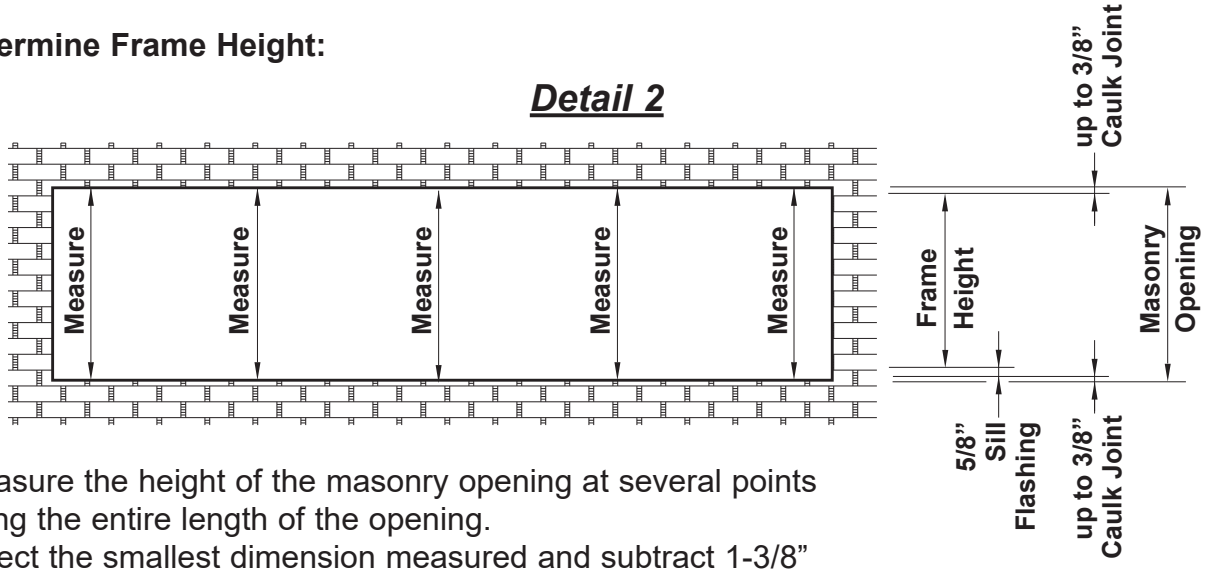


Detail 1

-Measure the width of the masonry opening at the top, middle and bottom.
-Select the smallest dimension measured and subtract 3/4” to determine the frame width size to be used.
See **Detail 1**.
NOTE: Frame widths over 24’-0” require expansion mullions every 12 to 15 feet.

Determine Frame Height:

Detail 2



-Measure the height of the masonry opening at several points along the entire length of the opening.
-Select the smallest dimension measured and subtract 1-3/8” to determine the frame height:
up to 3/8” for the caulk joint at the head.
5/8” for the sill flashing E9-0619.
up to 3/8” for the caulk joint under the sill flashing (excluding FPA-HVHZ applications).
See **Detail 2**.

Note: Refer to current FPA-HVHZ for anchoring guidelines.

FRAME FABRICATION

STEP 2
FABRICATE SILL FLASHING

-Cut sill flashing, E9-0619, to the Frame Width Dimension as determined in Step 1 plus(+) 3/16” at each jamb. When using air tight threshold, E9-0487, sill flashing terminates at the door jamb.
-For openings longer than 24’-0”, the sill flashing must be spliced every twelve to fifteen feet. Allow a 3/8” splice joint between members; see **Detail 20 on Page-22.** Splice is to be located at the center of the daylight opening between verticals.
-Locate and mark the centerline of each vertical on the sill flashing.
See **Detail 3**.

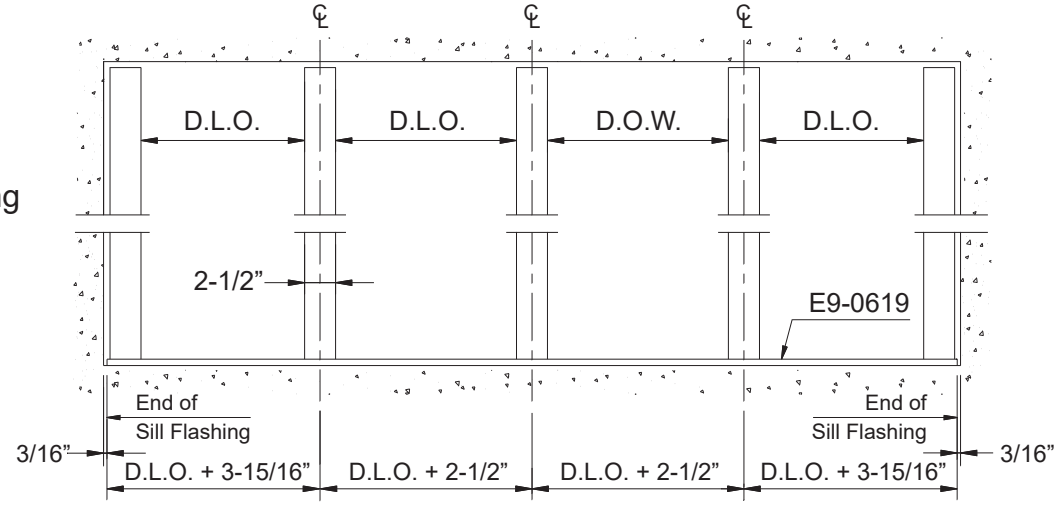
D.L.O. = Day Light Opening

D.O.W. = Door Opening Width

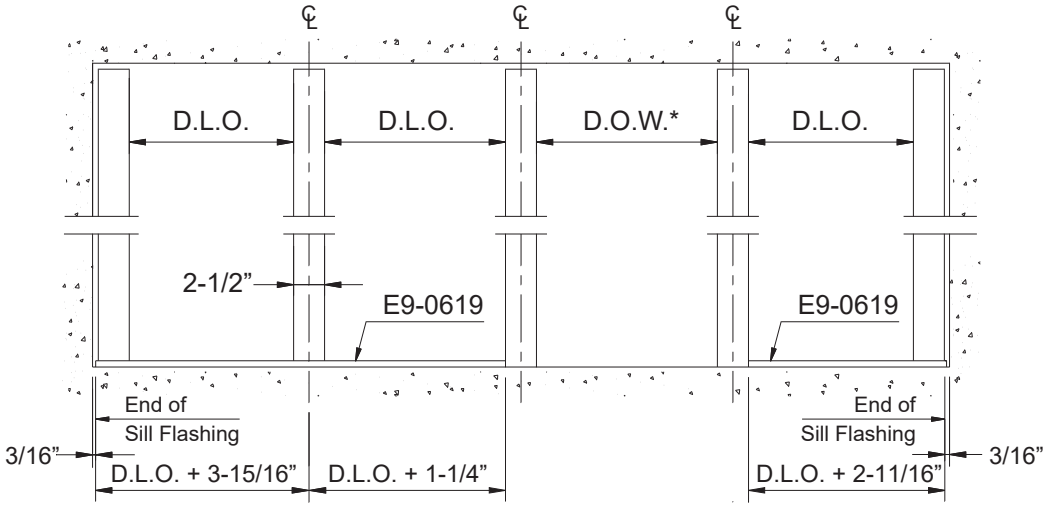
S.F. = Frame Width + 3/16” @ Each Jamb

Detail 3

Entrance Door with Water Resistant Threshold, E9-0502



Entrance Door with Air Tight Threshold, E9-0487



***Note:** The sill flashing, E9-0619, does not run underneath the door frame when the air tight threshold, E9-0487, is used.

FRAME FABRICATION

STEP 2
FABRICATE SILL FLASHING (Continued)

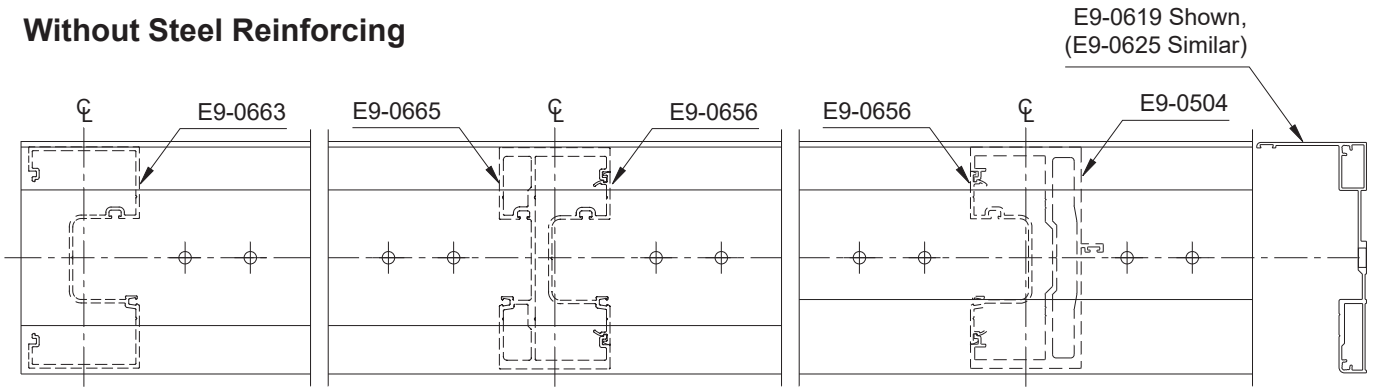
-Locate and drill clearance holes in sill flashing for perimeter anchors. Refer to Florida Product Approval drawings or shop drawings for appropriate fastener and hole locations as determined by a qualified engineer or contact YKK AP.

For Dade County Applications:

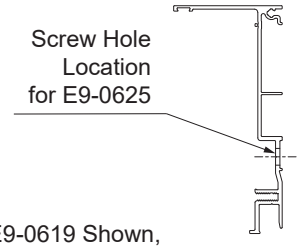
-Refer to FPA-HVHZ.

See **Detail 4** for anchor hole locations.

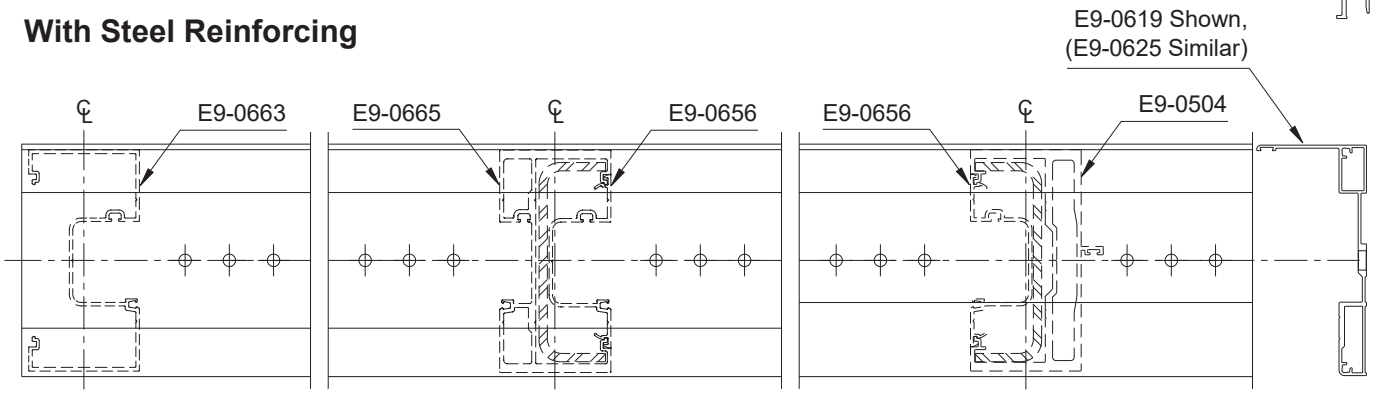
Without Steel Reinforcing



Detail 4



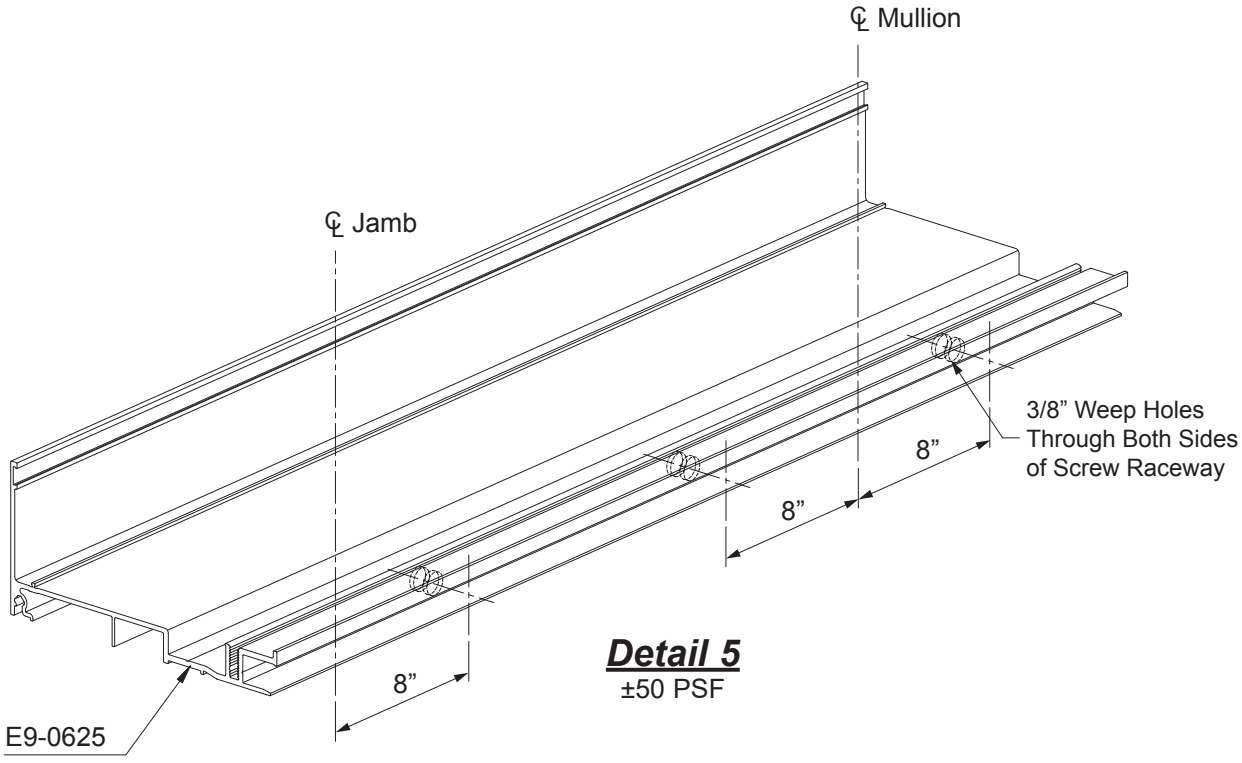
With Steel Reinforcing



FRAME FABRICATION

STEP 2
FABRICATE SILL FLASHING (Continued)

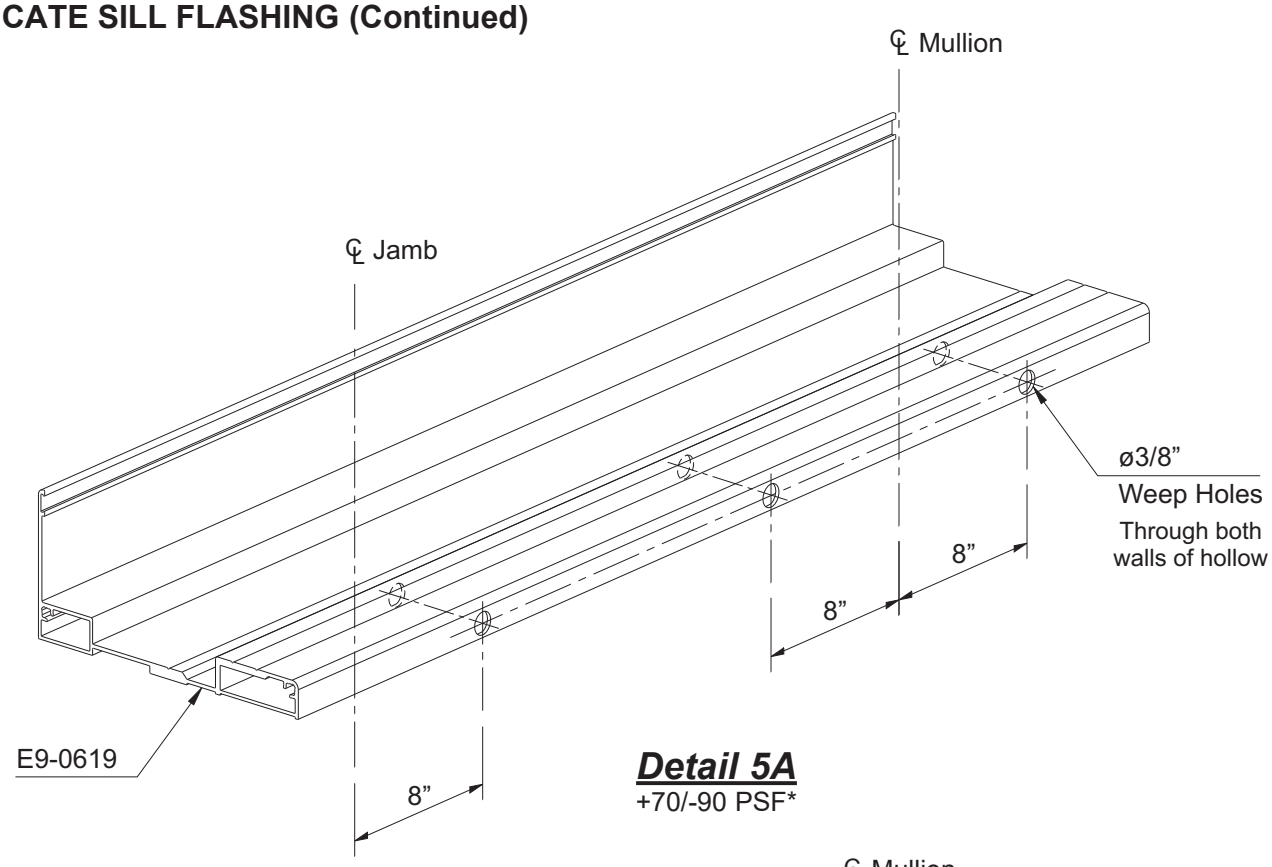
Fabricate weep holes in the sill flashing:
-Measure 8” in each direction of the mullion centerline and mark on the front face of the sill flashing the location for the weep holes.
-Drill a 3/8” diameter (#V drill bit) hole through both walls of the hollow in the sill flashing at each location marked.
See **Detail 5** for 50 psf, **Detail 5A** on **page 9** for 70 & 90 psf, and **Detail 5B** on **Page 9** for inside glazing.



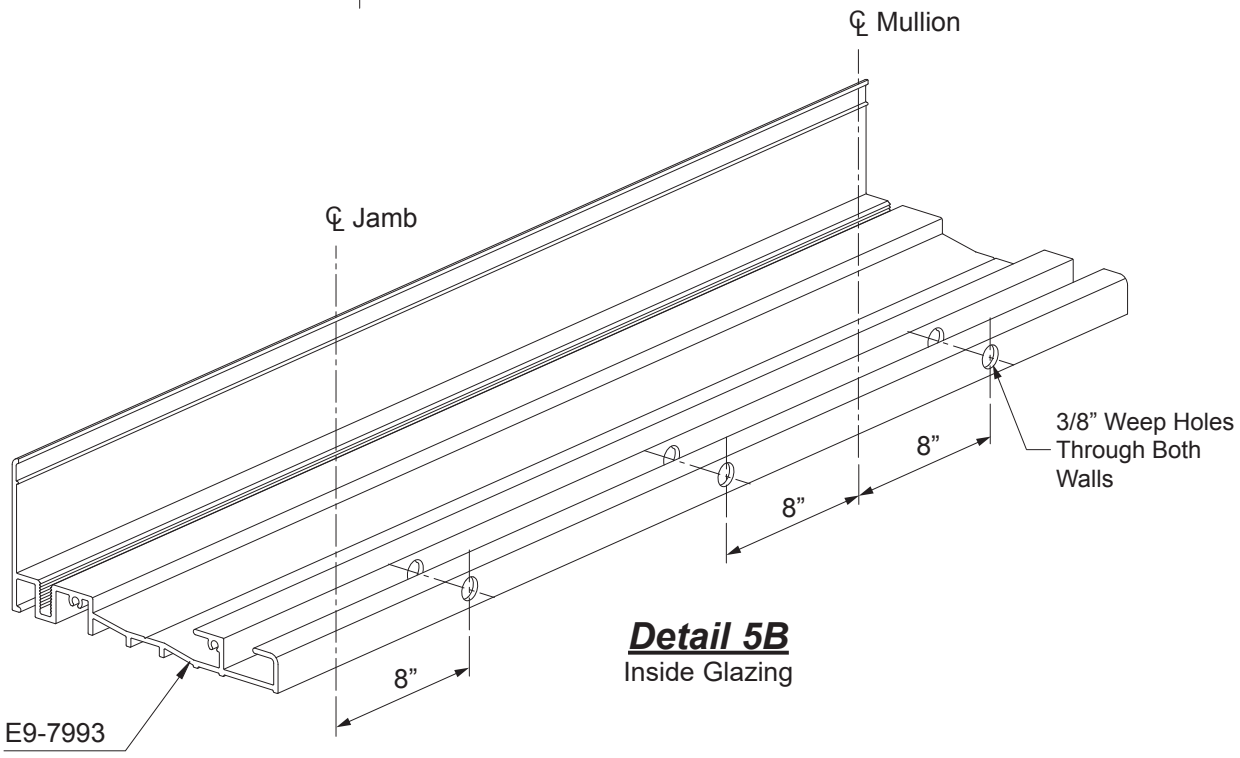
Detail 5
±50 PSF

FRAME FABRICATION

STEP 2
FABRICATE SILL FLASHING (Continued)



Detail 5A
+70/-90 PSF*



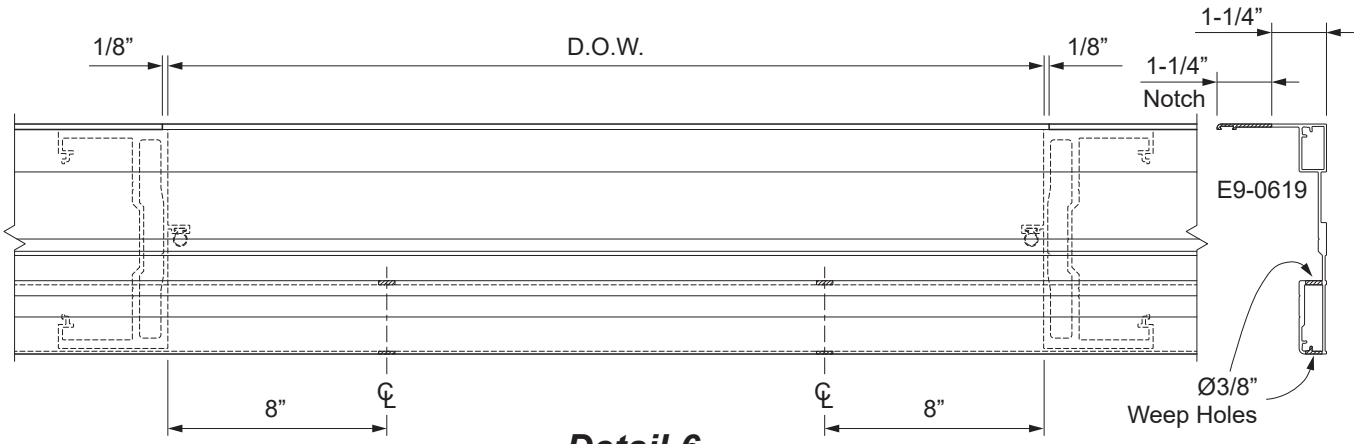
Detail 5B
Inside Glazing

* Per Florida Product Approvals as tested with steel reinforcing.

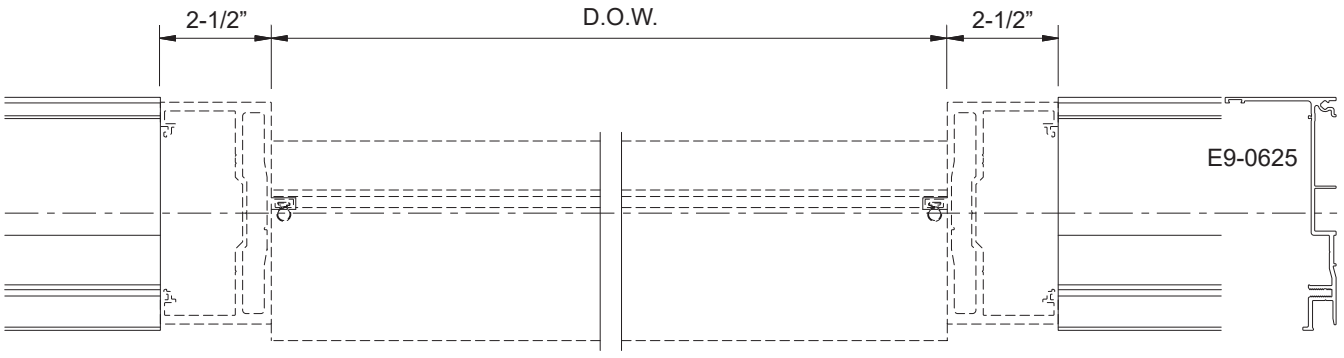
FRAME FABRICATION

STEP 2
FABRICATE SILL FLASHING (Continued)

Note: Only the standard E9-0619 sill flashing (shown on **Detail 6**) and the inside glazed flashing E9-7993 are notched at the door jambs. The light duty E9-0625 sill flashing (shown on **Detail 6A**) is used only with the air-resistant threshold and does not run under the door.



Detail 6
+70/-90 PSF



Detail 6A
±50 PSF

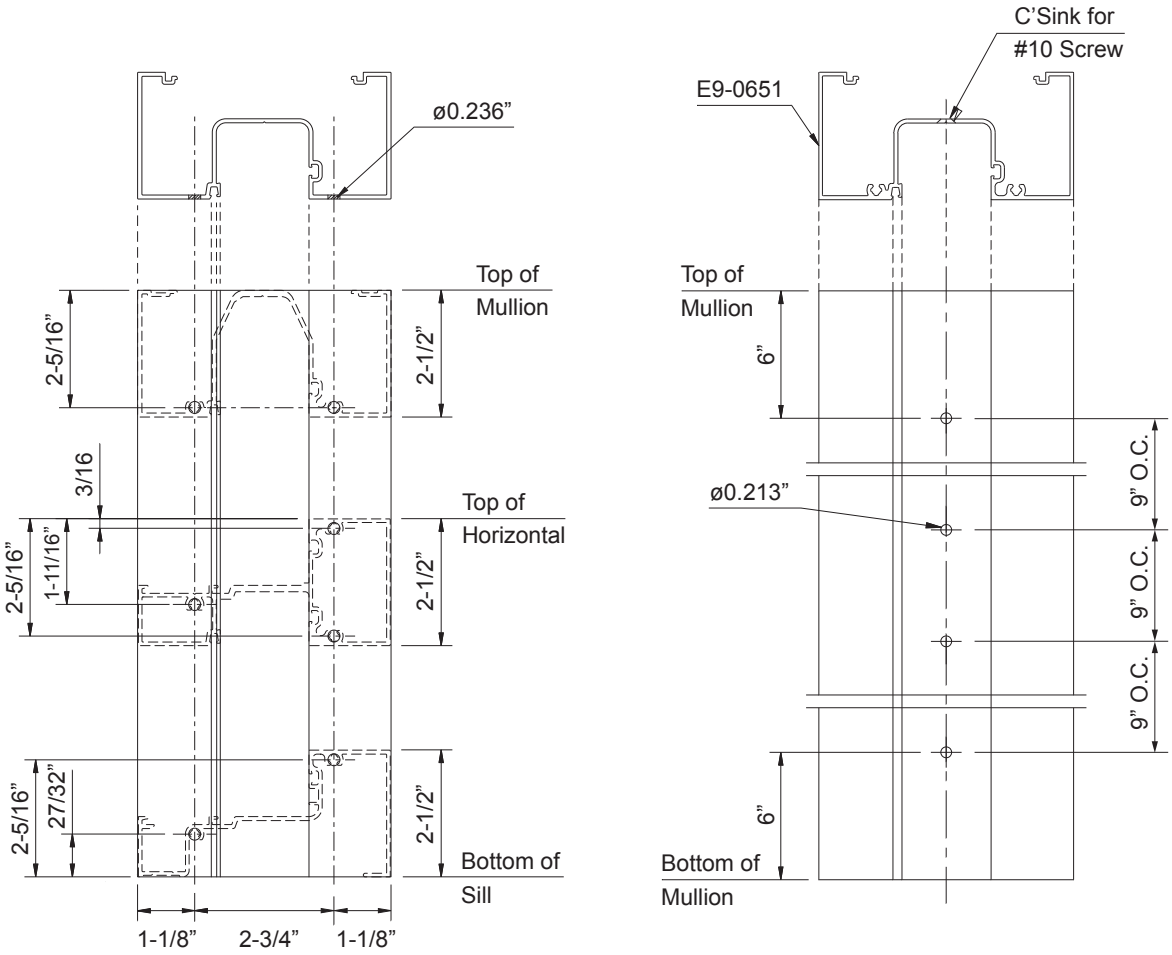
FRAME FABRICATION

STEP 3
FABRICATE VERTICAL MULLIONS AND POCKET FILLERS

-Cut all vertical members and pocket fillers to the frame height determined in **Step 1**.

Prepare verticals and pocket fillers for attachment of horizontal members and anchor fillers:
-Using a short piece of each horizontal member as a template, center horizontal members on the face of verticals and mark each hole location.
-Hole locations may also be determined by laying out locations along the face of verticals as shown below in **Detail 7**.
-Drill 0.236” diameter (#B drill bit) holes at each location marked.

Note: For vertical members, E9-0654 & E9-0504, drill through both the front face and web of the mullion. It is also necessary to turn the mullion over and drill 1/2” dia. holes through the mullion web only, centered on the first holes drilled, to allow the screw heads to pass through.

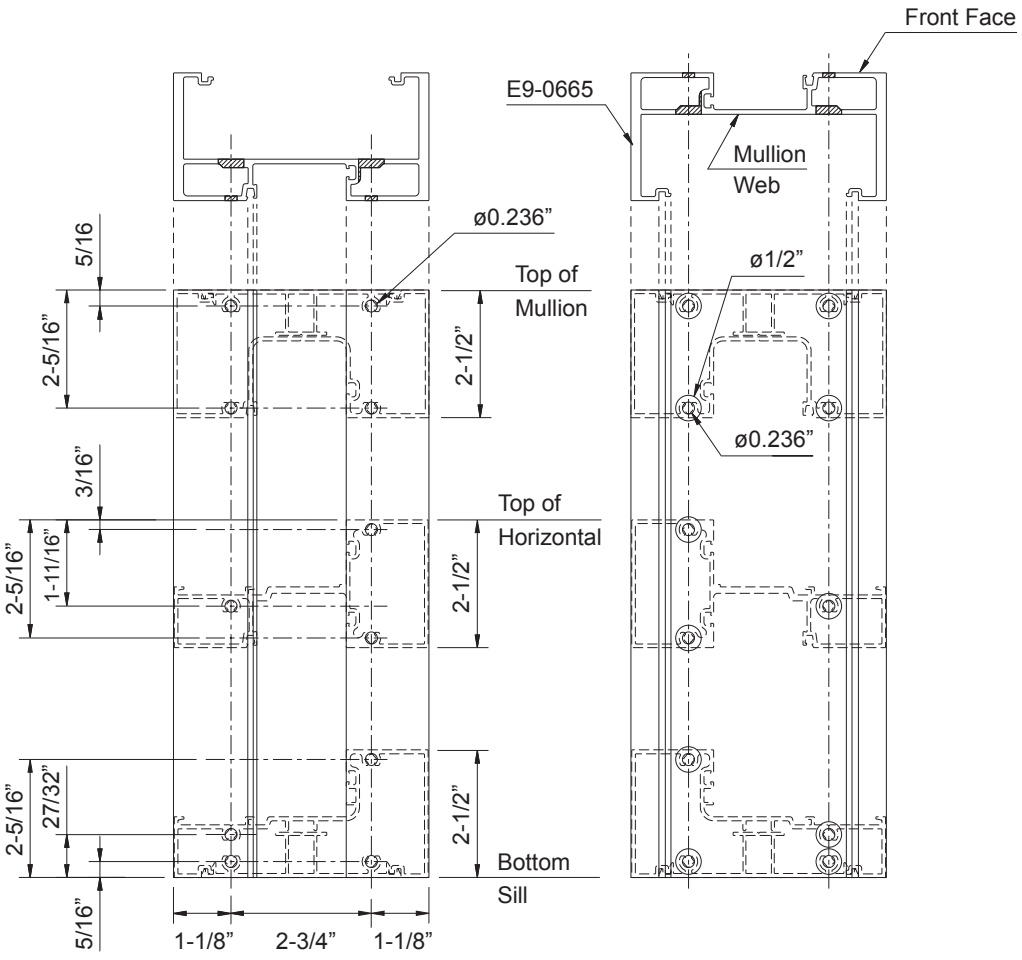


Detail 7
±50 PSF

FRAME FABRICATION

STEP 3
FABRICATE VERTICAL MULLIONS AND POCKET FILLERS (Continued)

Note: When using E9-0651 as a vertical, the vertical must be fastened to the pocket filler E9-0655. It is necessary to drill 0.213" diameter (#3 drill bit) holes countersunk for #10 flat fasteners (FM-1006) along the "V-Groove" of the glazing pocket as shown in **Detail 7** on **Page 11**.

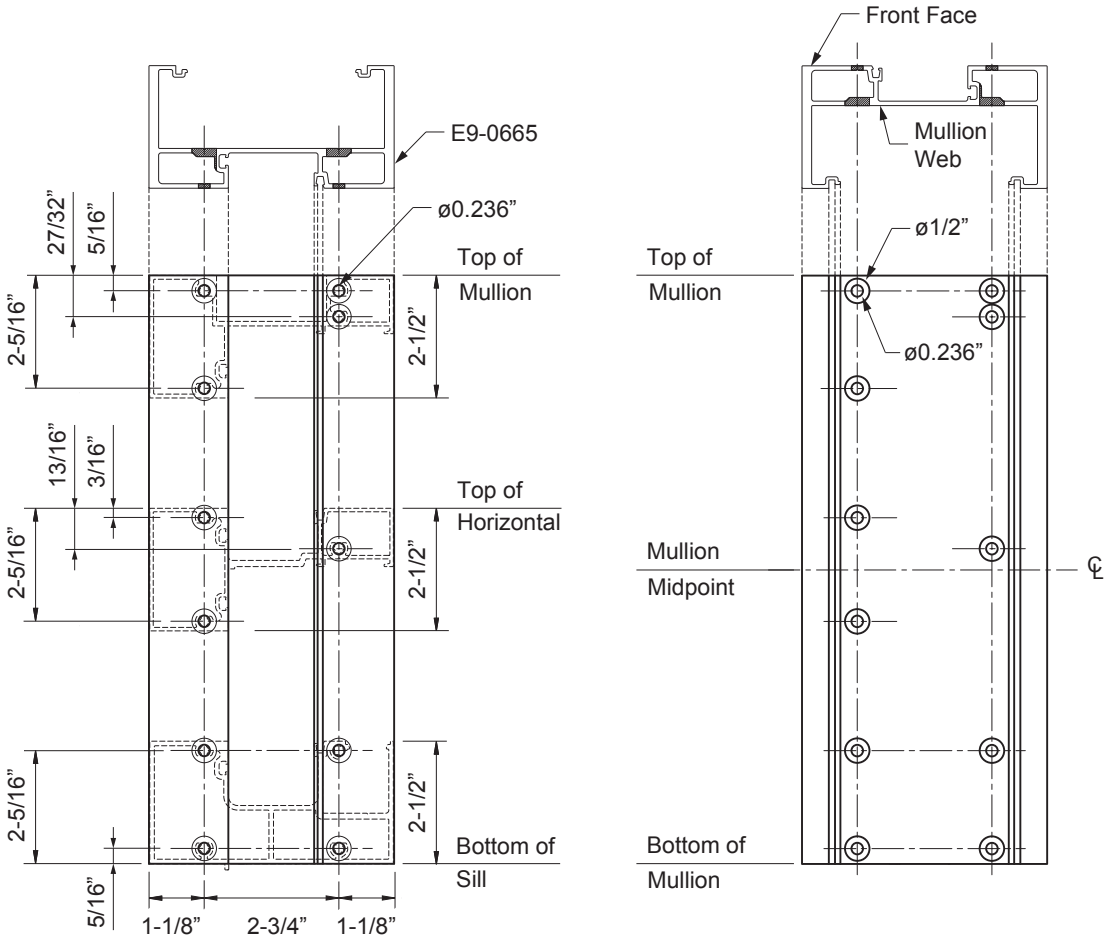


Detail 7A
+70/-90 PSF*

* Per Florida Product Approvals as tested with steel reinforcing.

FRAME FABRICATION

STEP 3
FABRICATE VERTICAL MULLIONS AND POCKET FILLERS (Continued)



Detail 7B
Inside Glazing

FRAME FABRICATION

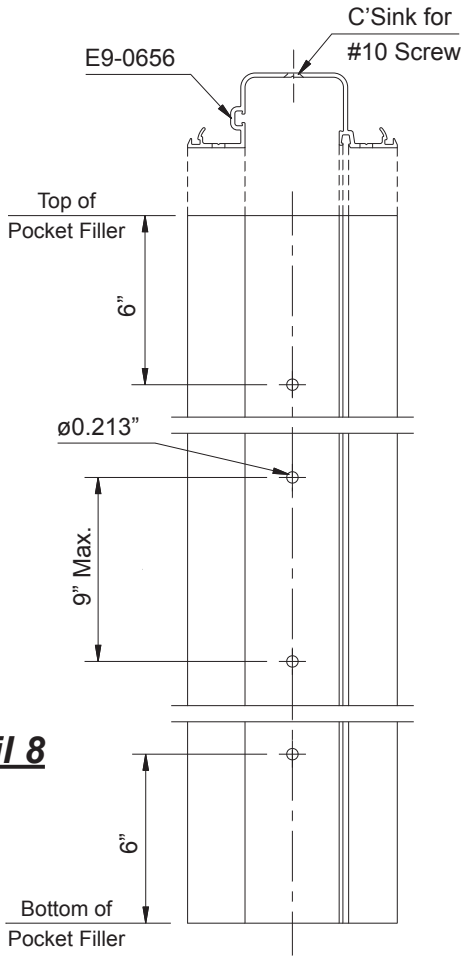
STEP 4 (OPTIONAL)
FABRICATE VERTICAL MULLIONS AND POCKET FILLERS FOR STEEL REINFORCING

-Measure in 6” from each end of the pocket filler and mark locations on the “V”-Groove.
-Measure 9” on center thereafter and mark the locations on the “V”-Groove.

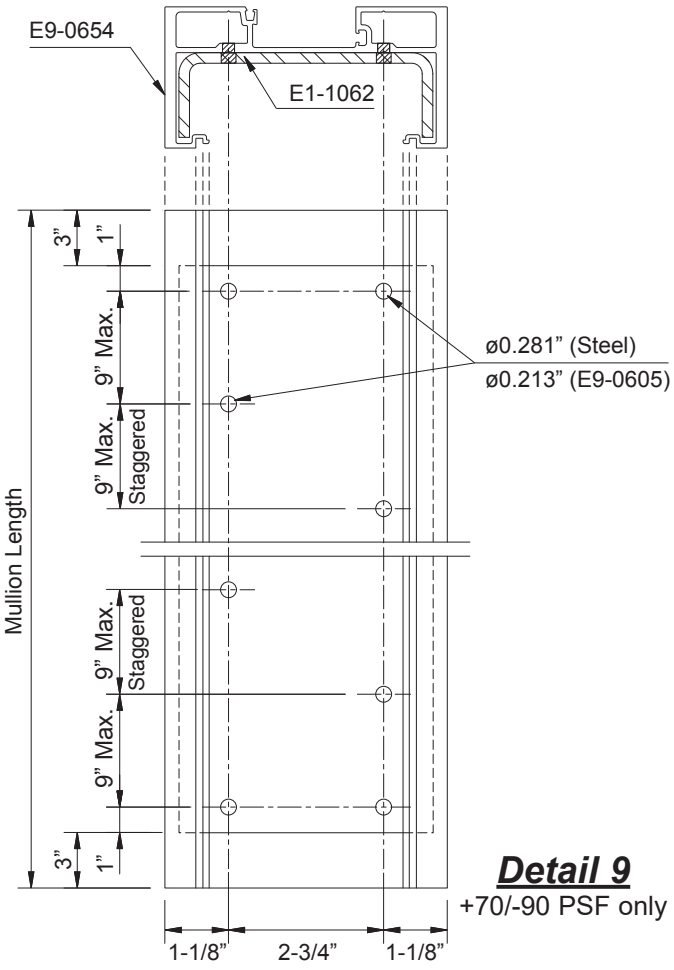
Note: Coordinate with the location of horizontals so that the horizontals do not block these holes.

-Drill 0.213” dia. (#3) holes at each location marked.
-Countersink for #10 flat head fastener (FF-1008-SS). See **Detail 8**.

These four holes will later be used to attach glazing pocket filler, E9-0655, to the steel reinforcing, E1-1062, during frame installation.



Detail 8



Detail 9
+70/-90 PSF only

-Cut steel reinforcing, E1-1062, 6” shorter than mullion length.
-Layout and drill 0.281” diameter (#K drill bit) clearance holes in steel only, if not already fabricated.
-Align steel reinforcing, E1-1062, with E9-0654 as shown in **Detail 9** and transfer hole locations to the vertical.
-Drill 0.213” dia. (#3) tap holes in the vertical.

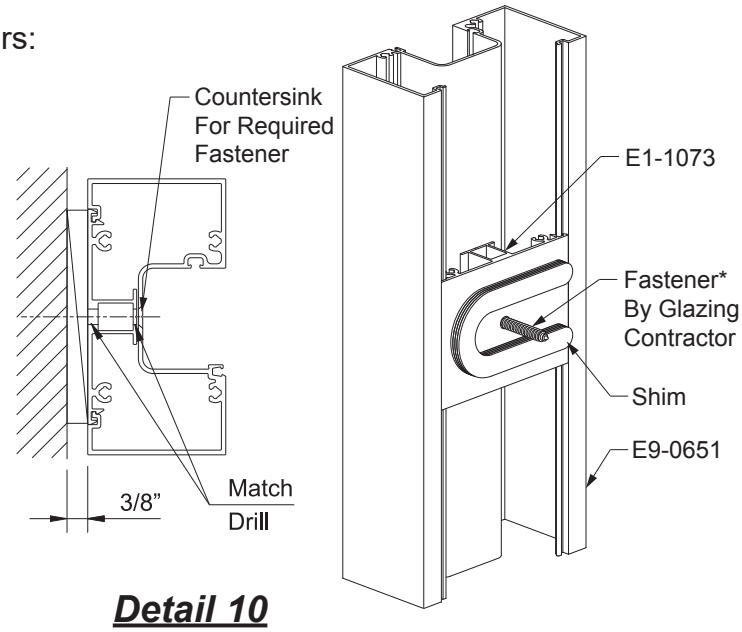
Do not attach steel reinforcing at this time. Steel reinforcing is attached to the vertical just prior to snapping the frame portions together. See **Step 17** on **Page-26**.

FRAME FABRICATION

STEP 5
FABRICATE JAMB MULLONS

Prepare jamb members for perimeter fasteners:
-Drill and countersink jamb member, E9-0651, for required fastener. (Countersinking not required for E9-0662.)
-Install anchor filler, E1-1073, at each anchor location and crimp the snap legs at the ends to hold it in place.
-Match drill a clearance hole through anchor filler, E1-1068, at each anchor location for appropriate fastener.
See **Detail 10**.

*Refer to FPA drawings or shop drawings for appropriate fastener and hole locations as determined by a qualified engineer or contact YKK AP. (Flat Head Fasteners Only)



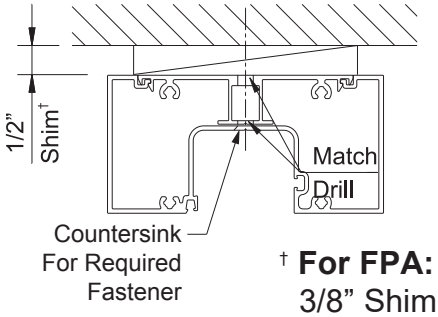
Detail 10

STEP 6
FABRICATE HEAD & HORIZONTAL MEMBERS

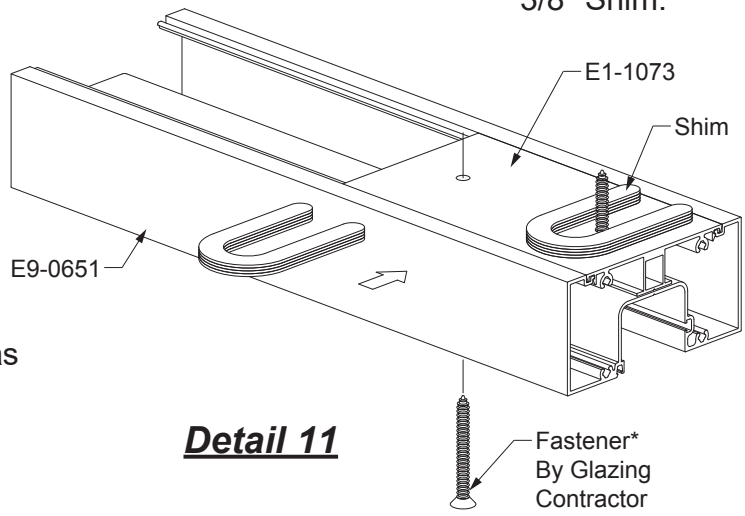
-Cut head and horizontal members to daylight opening between verticals.

Fabricate the ends of head members for perimeter anchor fasteners:
-Drill and countersink head member, E9-0651, for required fastener.
-Install anchor filler, E1-1073, at each end of the head member and crimp the snap legs at the ends to hold it in place.
-Match drill a clearance hole through anchor fillers, E1-1073, at each anchor location for appropriate fastener.
See **Detail 11**.

*Refer to FPA drawings or shop drawings for appropriate fastener and hole locations as determined by a qualified engineer or contact YKK AP.
(Flat Head Fasteners Only)



† **For FPA:** 3/8” Shim.



Detail 11

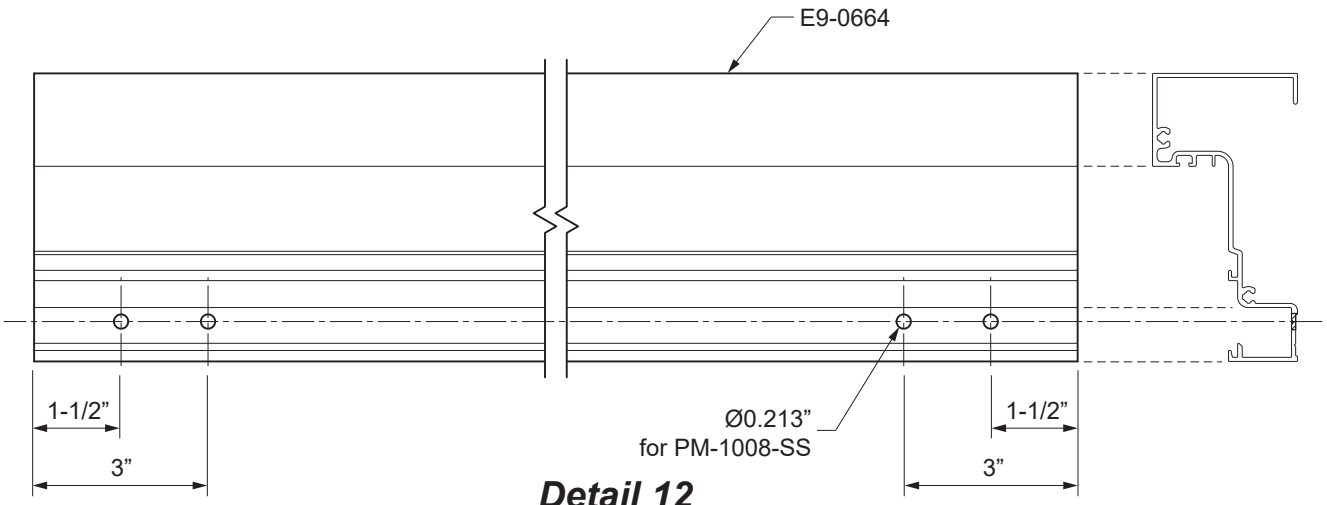
FRAME FABRICATION

STEP 7A
FABRICATE SILL MEMBERS (±50 PSF)

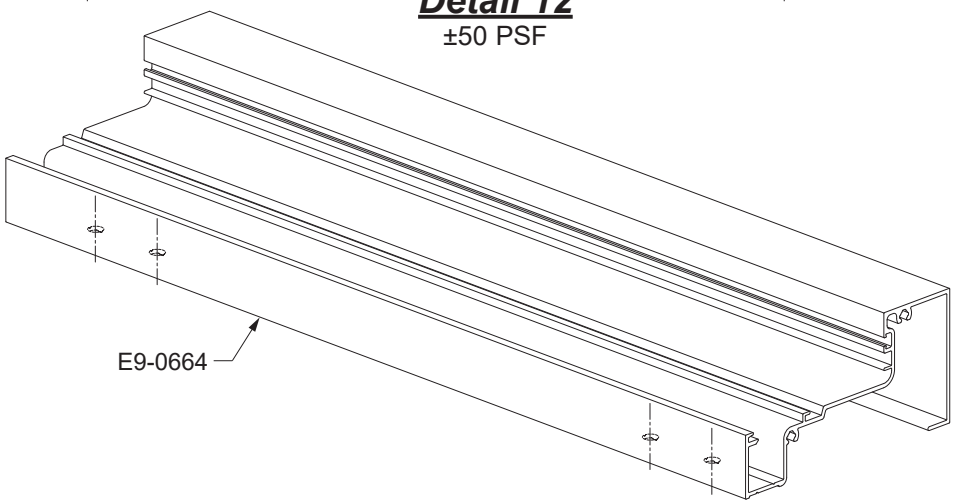
-Cut sill members to daylight opening between mullions.

Fabricate the ends of head members for anchor fasteners:
-Fabricate sill member for sill gutter anchors
-Measure in 1-1/2” and 3” from both ends of sill members and mark locations along “V”-Groove.
-Drill 0.213” diameter (#3 drill bit) holes at each location marked for sill gutter anchor fasteners.

See **Detail 12**.



Detail 12
±50 PSF



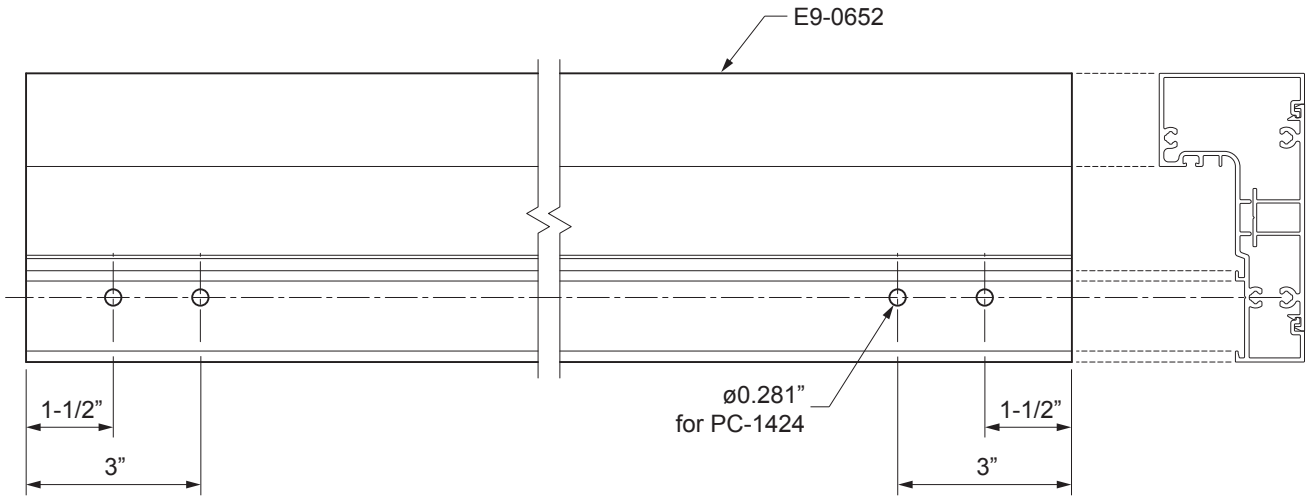
FRAME FABRICATION

STEP 7B
FABRICATE SILL MEMBERS (+70/-90 PSF*)

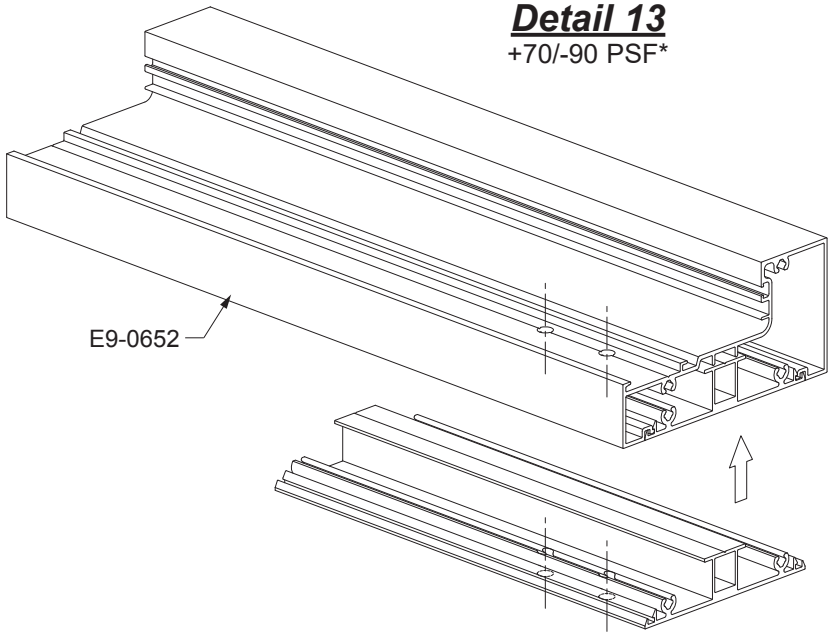
-Cut sill members to daylight opening between mullions.

Fabricate sill member for sill gutter anchors:
-Measure in 1-1/2” and 3” from both ends of sill members and mark locations along “V”-Groove.
-Drill 0.281” diameter (#K drill bit) holes at each location marked for sill gutter anchor fasteners.
-Install anchor filler, E1-1073, at each end of the sill member and crimp the snap legs at the ends to hold it in place.
-Match drill 0.281” diameter (#K) holes through anchor fillers, E1-1073, at each anchor location.

See **Detail 13**.



Detail 13
+70/-90 PSF*



* Per Florida Product Approvals as tested with steel reinforcing.

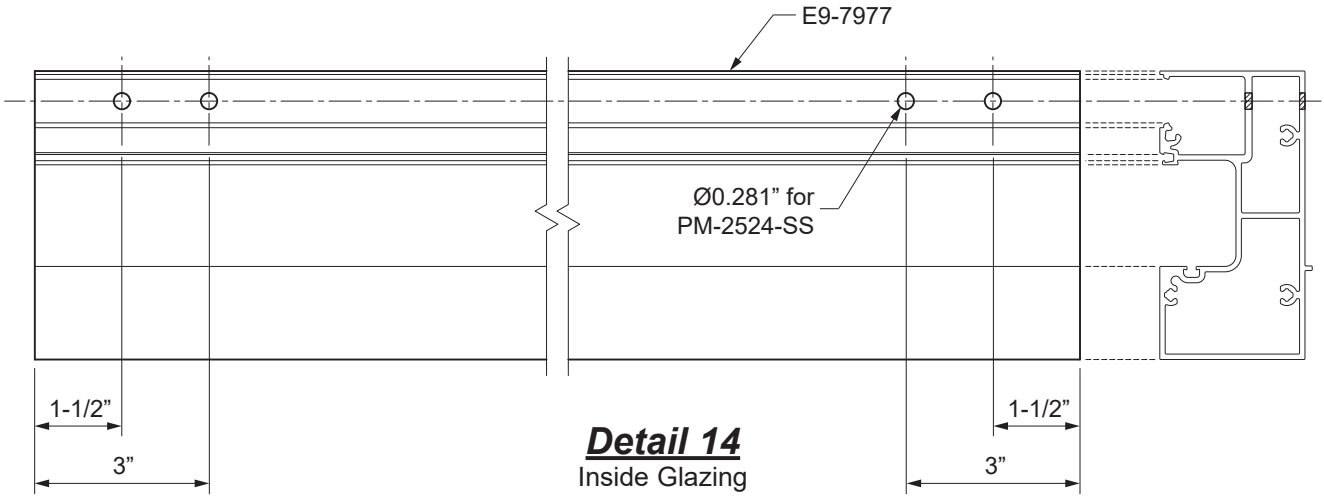
FRAME FABRICATION

STEP 7C
FABRICATE SILL MEMBERS (Inside Glazing)

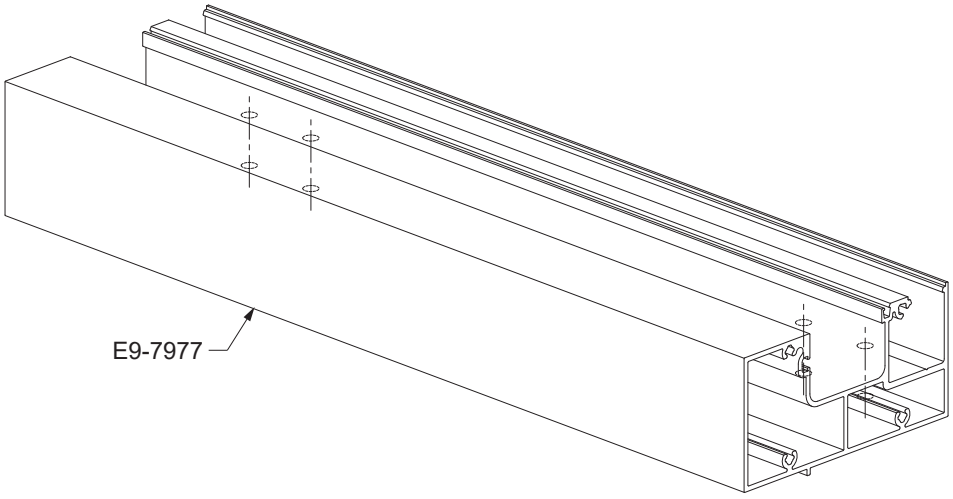
-Cut sill members to daylight opening between mullions.

Fabricate sill member for sill gutter anchors:
-Measure in 1-1/2” and 3” from both ends of sill members and mark locations along “V”-Groove.
-Drill 0.281” diameter (#K drill bit) holes at each location marked for sill gutter anchor fasteners.

See **Detail 14**.



Detail 14
Inside Glazing



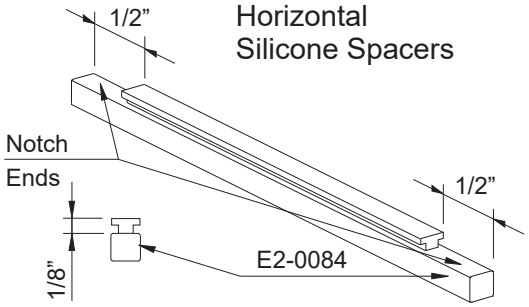
STEP 8
FABRICATE GLASS STOPS

-Cut glass stops and snap fillers (E9-8647) to daylight opening between verticals minus(–) 1/32”.

FRAME ASSEMBLY

STEP 9 (SKIP TO STEP 10 FOR DRY GLAZE APPLICATIONS)
STRUCTURAL SILICONE GLAZE (SSG) APPLICATIONS
INSTALL STRUCTURAL SILICONE SPACERS

-Install all structural silicone spacers, E2-0084, in all horizontals and verticals **prior** to frame assembly.
-Horizontal silicone spacers are to be cut to D.L.O. plus(+) 7/8" and must be notched as shown in **Detail 15**.
-Vertical silicone spacers are to be cut to the full length of the vertical mullion and are not notched.

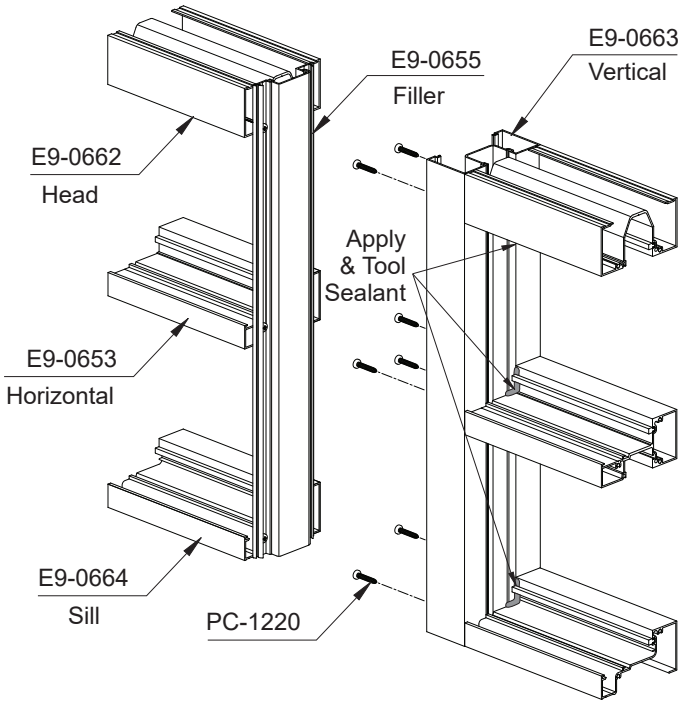


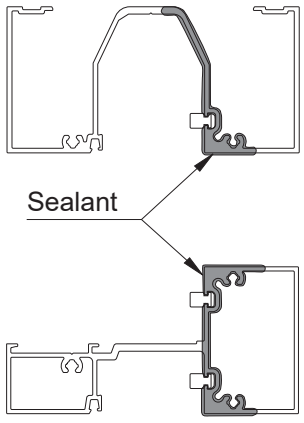
Detail 15

Caution: Be careful not to stretch silicone spacers when installing.

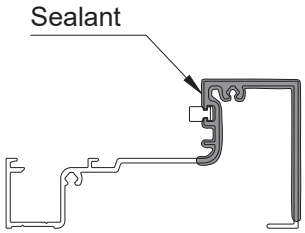
STEP 10
ASSEMBLE FRAMES

-Clean all joints with isopropyl alcohol (50%) and wipe clean with white lint free cotton cloth using the two cloth method.
-Apply sealant to each end of head, horizontal and sill members prior to attaching to vertical.
-Attach head, horizontal, sill members and anchor fillers, E1-1073 to verticals and pocket fillers with PC-1220 fasteners.
-Tool all sealant to ensure a water tight joint.
See **Details Details 16, 16A,** and **16B.**





Detail 16
±50 PSF

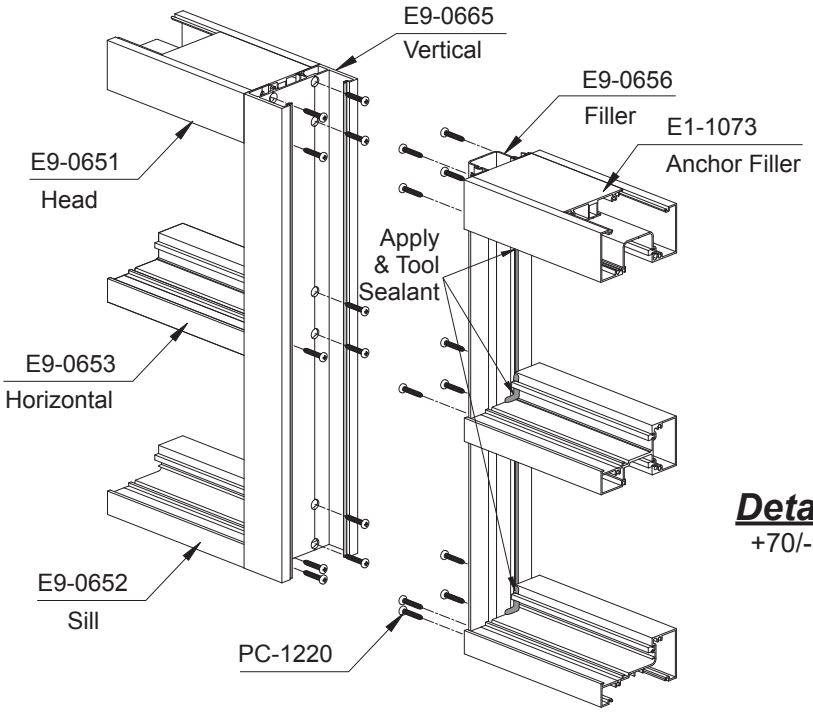


(SSG Application Shown, Dry Glaze Similar)

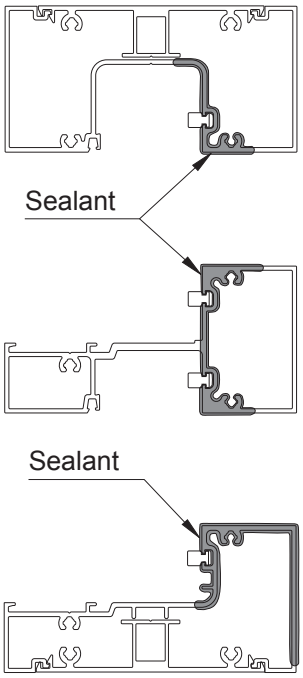
Note: In all metal to metal applications use Dow Corning® 795 or 995 or Tremco Spectrum 2

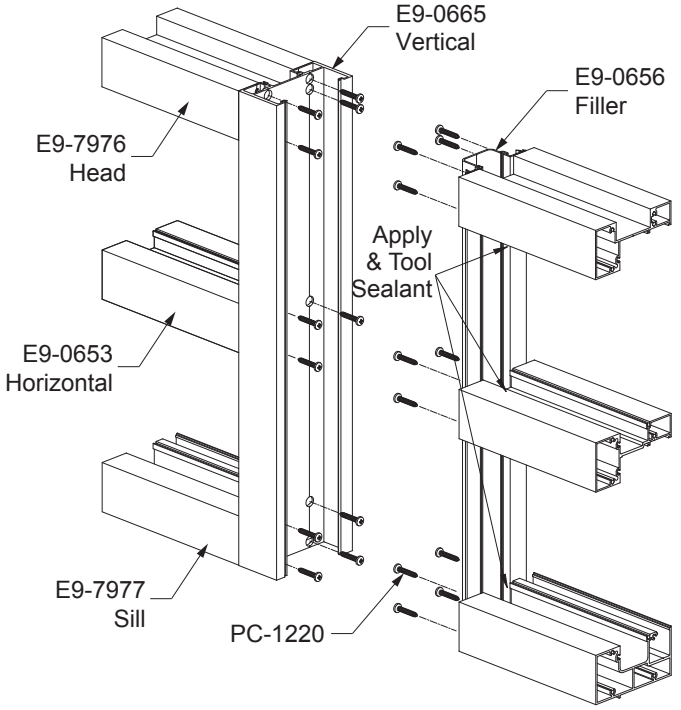
FRAME ASSEMBLY

STEP 10
ASSEMBLE FRAMES (Continued)

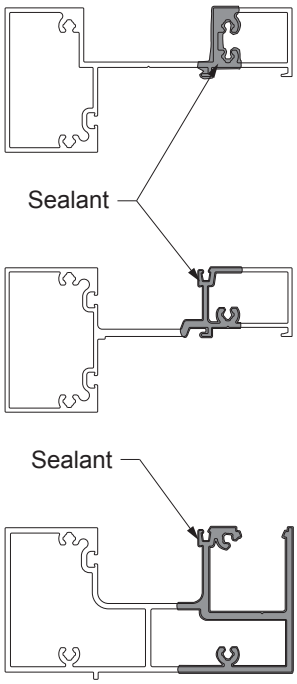


Detail 16A
+70/-90 PSF





Detail 16B
Inside Glazing



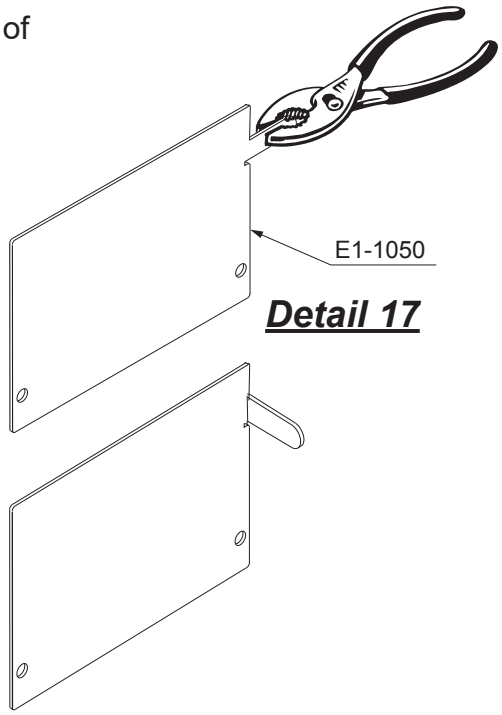
* Per Florida Product Approvals as tested with steel reinforcing.

FRAME INSTALLATION

STEP 11
INSTALL SILL FLASHING END DAMS

-Hold the end dam with one hand and grab the tab with a pair of pliers.
-Bend the end dam tab left or right 90 degrees in the proper direction.

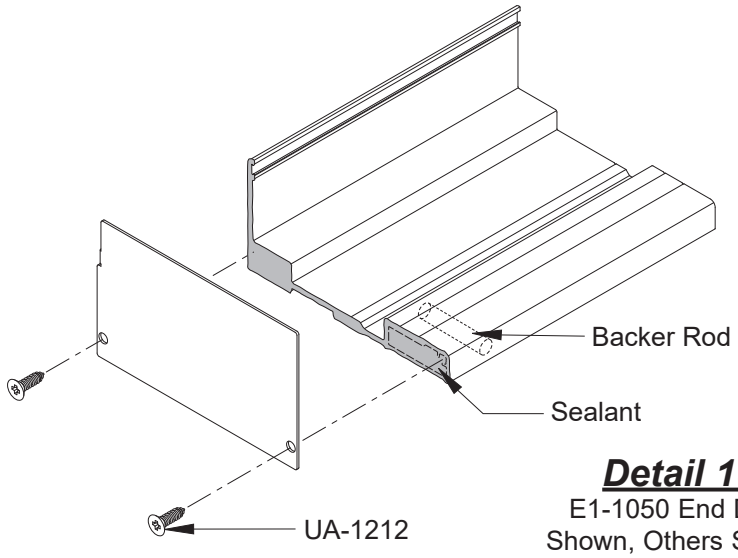
See **Detail 17.**



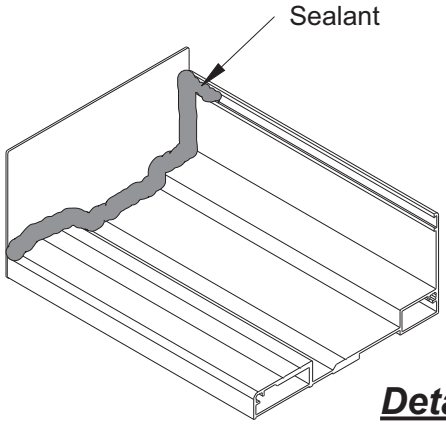
Detail 17

Note: The end dam tab for E1-1050 and E1-1139 must be bent in the correct position for the left or right end of the sill flashing.

-Clean all joint surfaces using Isopropyl Alcohol.
-Insert backer rod into the front cavity of the sill flashing. Fill the cavity flush with silicone sealant as shown in **Detail 18.**
-Apply sealant to the end of sill flashing.
-Slide the tab into the top portion of the sill flashing.
-Tap the tab into place with a small tool until the end dam is snug against the end cut of the flashing.
-Fasten the end dam to the sill flashing with two UA-1212 screws, starting at the back, followed by the front as shown in **Detail 18.**
(Use PC-0806 for E1-1140 end dam for I.G. sill flashing.)
-Tool sealant along the joint between the end dam and the sill flashing as shown in **Detail 19.**
-Seal over any exposed screw threads.



Detail 18
E1-1050 End Dam
Shown, Others Similar



Detail 19

FRAME INSTALLATION

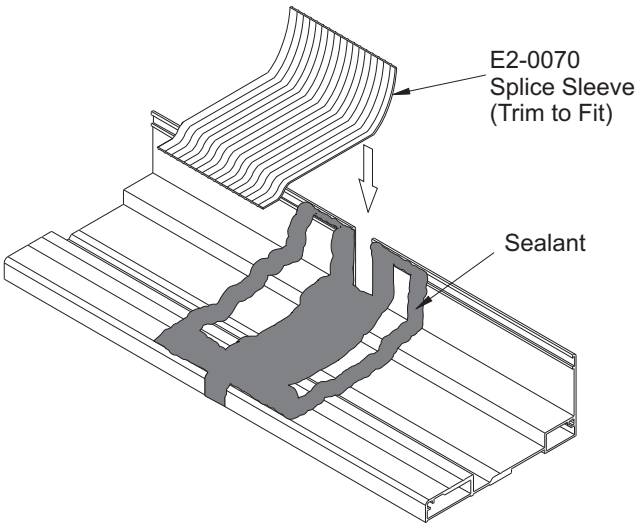
STEP 12
INSTALL SILL FLASHING

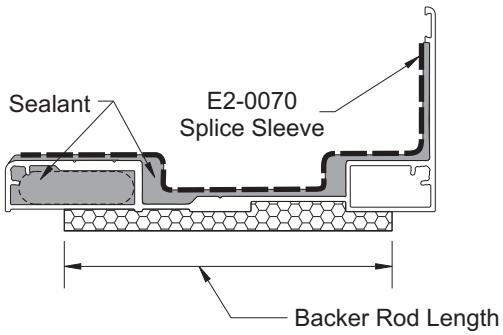
-Starting at the smallest opening height, install the sill flashing with a maximum of 3/8” shim underneath. Sill flashing must be installed level.
-Anchor the sill flashing to the structure a maximum of 4” from each end and then 18” to 24” on center.
-Apply and tool sealant to cover the heads of all fasteners.

STEP 13
INSTALL SILL FLASHING SPLICE SLEEVE

-After the sill flashing has been shimmed and installed to the building structure, apply a small backer rod under the sill flashing and inside the front cavities of the sill flashing as shown in **Detail 20**.
-Position the Silicone Splice Sleeve against the back wall below the groove.
-Bend the Silicone Splice Sleeve into the front on the channel as shown. Mark, and cut the sleeve at this position.
-Clean Sill Flashing and Silicone Splice Sleeve with iso-propyl alcohol at the splice location
-Seal the flashing at the splice location as shown in **Detail 20**, before positioning the flashing. Fill the two front cavities with silicone sealant prior to setting the silicone splice sleeve onto the silicone.
-Tool sealant tight as shown in **Detail 21** on **Page 23**, squeezing the sheet flat.
-Thoroughly seal the small joint directly in front of the Silicone Splice Sleeve as shown in **Detail 21**.

When using E2-0070, a compatible Silicone Sealant must be used at the splice. Compatible Silicone Sealants include Tremco Spectrum 2 and Dow Corning 795.



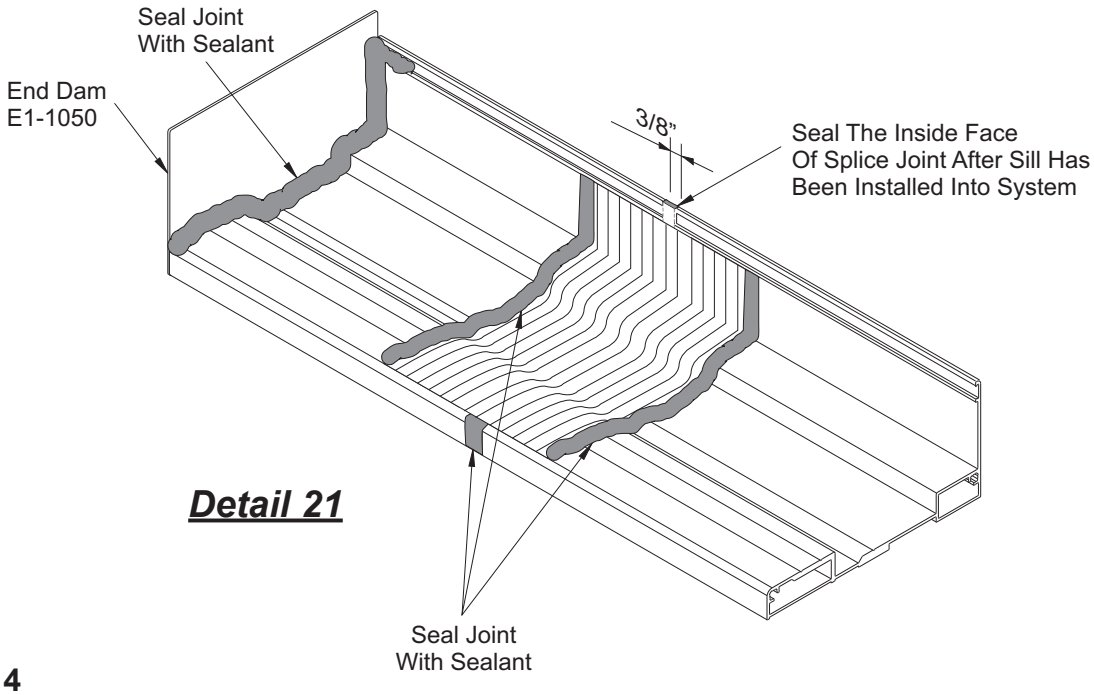


Detail 20

02-4007-26 | Effective Date: May 11, 2026

FRAME INSTALLATION

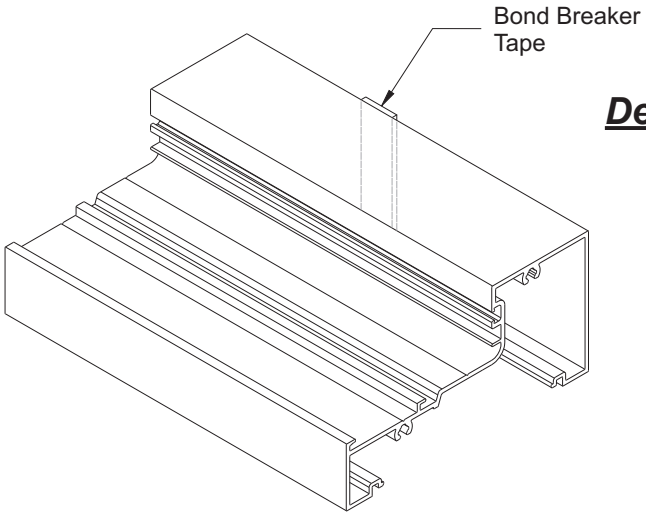
STEP 13
INSTALL SILL FLASHING SPLICE SLEEVE (Continued)



Detail 21

STEP 14
SILL PREPARATION

At every splice condition, apply bond breaker tape to the back of the sill member before it is placed into the sill flashing.
See **Detail 22.**



Detail 22

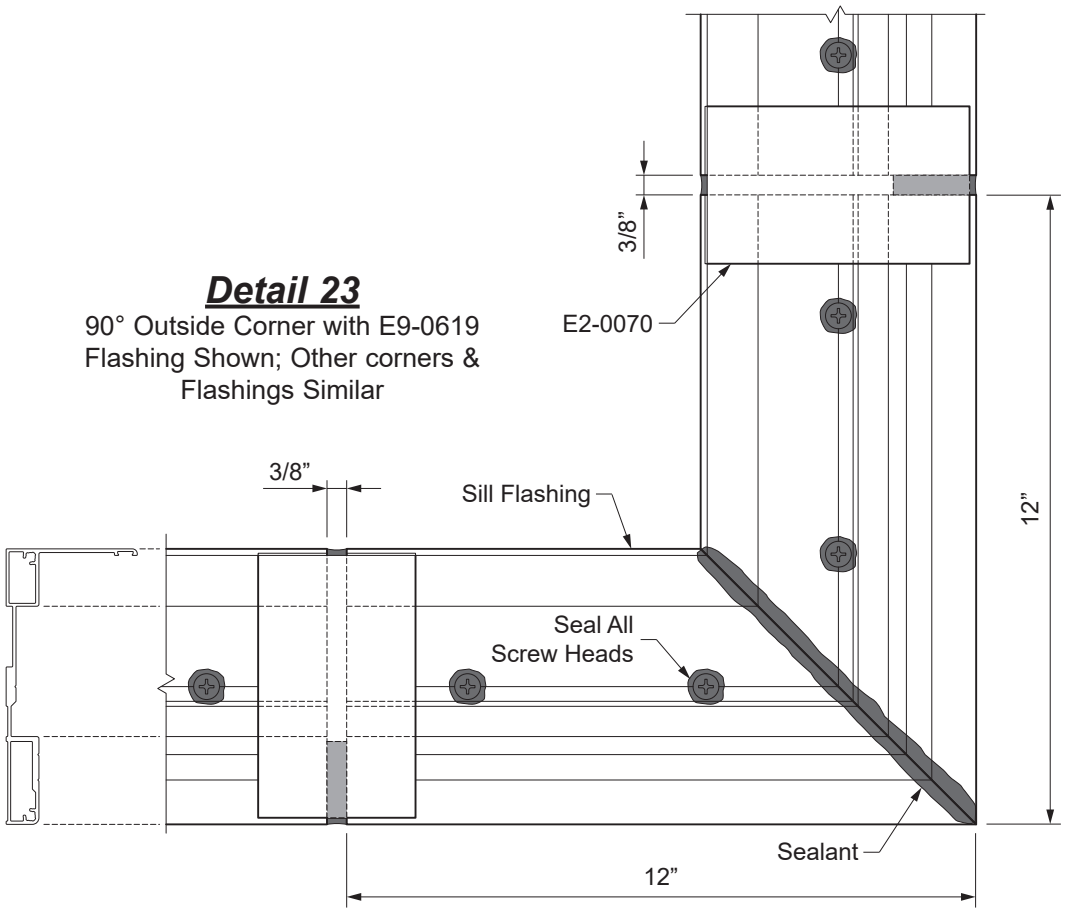
FRAME INSTALLATION

STEP 15
INSTALL SILL FLASHING AT CORNERS

-Cut two 12” long pieces of sill flashing and miter (45° for 90° corners and 67.5° for 135° corners.)
-Align the two pieces at the corner condition with the mitered ends pushed together tight and anchor the sill flashing as indicated on approved shop drawings.
-Apply and tool sealant to the mitered joint and anchor heads.

See **Detail 23**.

-Continue installing the rest of the sill flashing, providing a 3/8” expansion joint at splices shown in **Step 13** on **Page 22**.



Detail 23
90° Outside Corner with E9-0619 Flashing Shown; Other corners & Flashings Similar

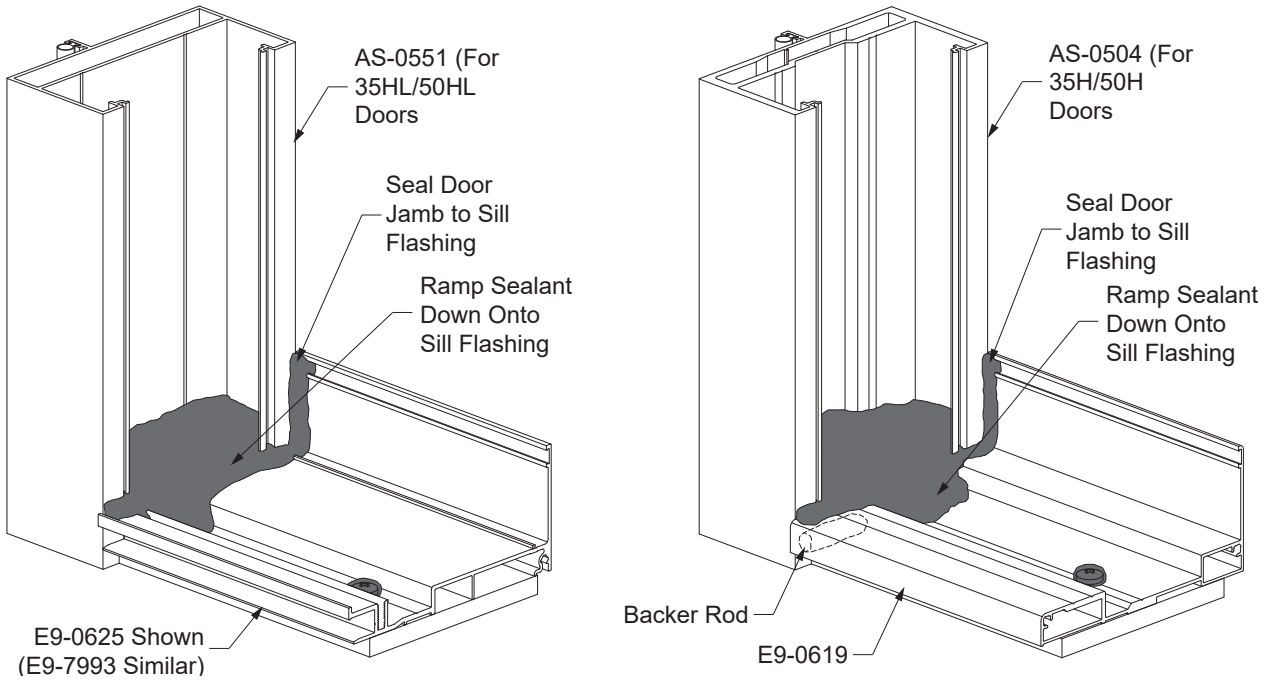
FRAME INSTALLATION

STEP 16
PREPARE DOOR JAMBS (AIR THRESHOLD ONLY)

-Prior to snapping the assembled frames into the door jamb, the end of the sill flashing needs to be sealed to the door jamb.

-Apply and tool sealant to all sill flashing to door jamb joints.
-Apply sealant to completely fill the door jamb cavity and ramp the sealant down onto the sill flashing.
See **Detail 24**.

Refer to the **35H/50H** or **35HL/50HL Entrances Installation Manual** for door installation instructions.



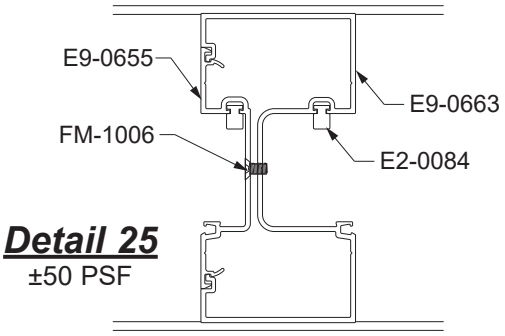
Detail 24

FRAME INSTALLATION

STEP 17
INSTALL STOREFRONT FRAMES

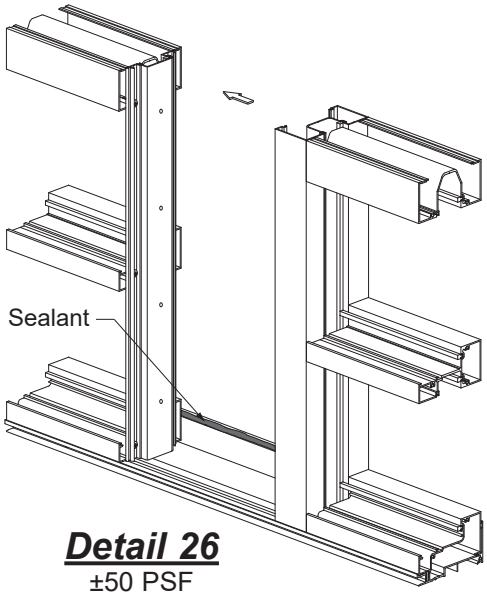
-Immediately before installing frames, apply sealant to face of back leg of sill flashing.
Note: Only apply sealant to areas being installed so that sealant does not cure.
See **Details 26, 26A, and 26B**.
-Snap the pocket filler framing portions to the vertical mullion framing portions to complete the frame.
Note: Mullions cannot be unsnapped once installed.

-When using steel reinforcing, attach steel to mullion with HF-2512 fasteners and attach pocket filler, to the steel with FF-1008-SS fasteners.
-For the E9-0663 mullion, secure the mullion to the pocket filler with FM-1006 fasteners.
See **Details 25, 25A, and 25B**.
Note: Steel reinforcing must be attached to mullions before framing portions are snapped together.



Detail 25
±50 PSF

-Set frame into place on the sill flashing.
-Always shim anchor locations at head, sill and jambs:
1/4” maximum at 1/4” shim.
3/8” maximum at 5/16” shim.
-Attach head and jamb members to the structure with flat head fasteners:
Wood: 5/16” or 1/4” Tapcons.
Steel: 1/4” or 5/16” Tapcons.
Concrete/Masonry: 5/16” or 1/4” Tapcons.
Refer to FPA drawings for other substrates.



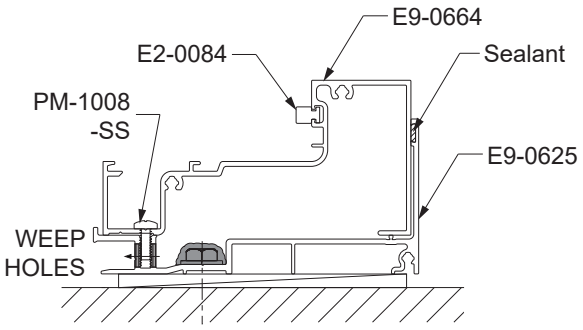
Detail 26
±50 PSF

Anchor sill member to sill flashing:
-Match drill sill flashing for sill gutter anchors using holes already drilled in the sill members from **Step 7** on **Pages 16, 17, & 18**.
-For 70 & 90 psf application, drill 0.201” diameter (#7 drill bit) holes in the sill flashing and attach sill member using PC-1424 fasteners. For 50 psf, use PM-1008-SS fasteners, and for Inside Glazing, use PM-2524-SS. (Seal the fastener head for inside glazing).

Table 1 - Minimum Embedment into Structure

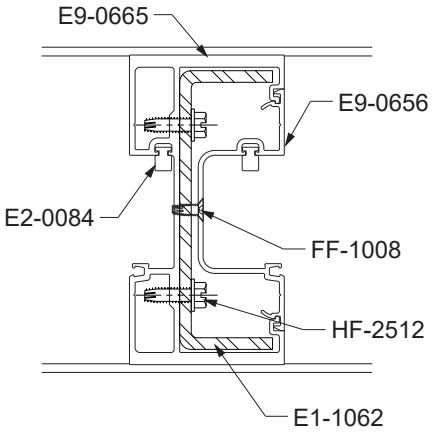
Condition*	Minimum Embedment	
	Wood	Concrete/ Masonry
At Jamb & Head	1-3/8”	1-1/4”
At Sill Flashing	1-3/8”	1-1/4”

*Use specified fasteners in Florida Product Approvals. Structure must be capable of resisting all loads imposed by fasteners and anchors.

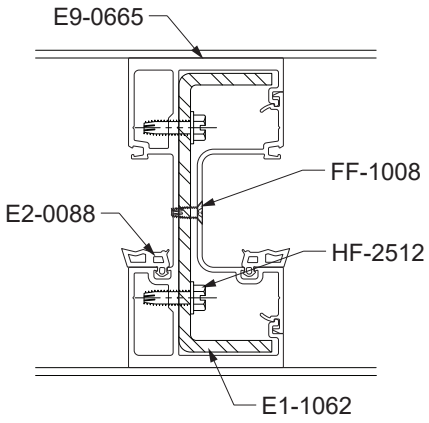


FRAME INSTALLATION

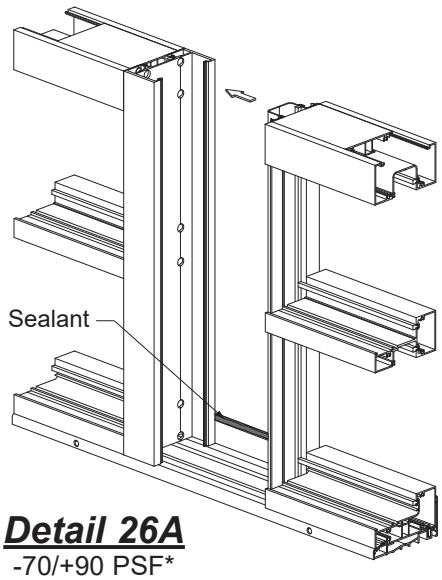
STEP 17 (Continued)
INSTALL STOREFRONT FRAMES



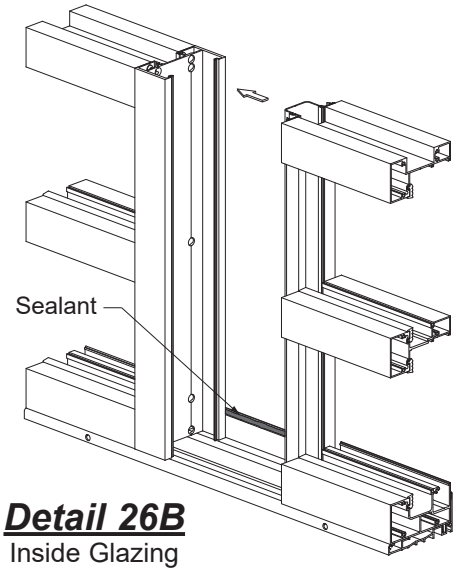
Detail 25A
-70/+90 PSF*



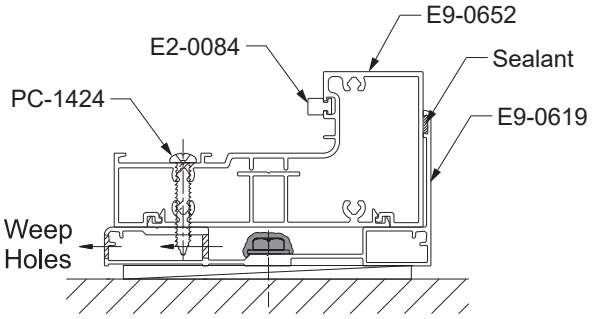
Detail 25B
Inside Glazing

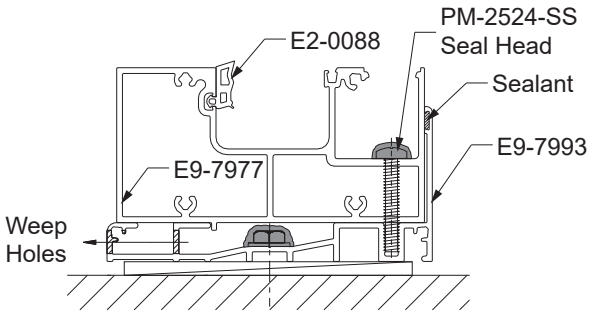


Detail 26A
-70/+90 PSF*



Detail 26B
Inside Glazing

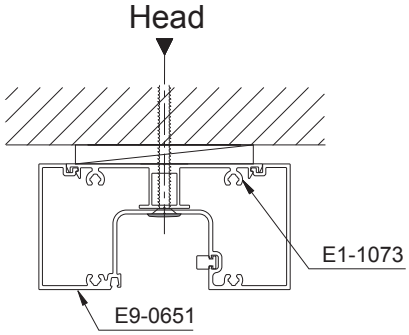




* Per Florida Product Approvals as tested with steel reinforcing.

FRAME & DOOR INSTALLATION

STEP 17 (Continued)
INSTALL STOREFRONT FRAMES



Recommended Anchoring As Tested:

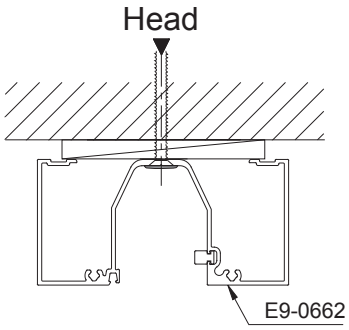
-The door frame must be installed plumb, square, level and true.
-Shim as required (3/8” caulk joint at head and jambs).
-Anchor the frame to the structure according to **Details 27 & 28** or refer approved shop drawings:

△ = Sill Flashing Anchor:
Concrete: 5/16” x 2” HH Tapcon masonry fastener
Wood: 5/16” x 3” HH Tapcon masonry fastener

▼ = Head Anchor:
Concrete: 5/16” x 3” FPH Tapcon masonry fastener
Wood: 5/16” x 3” FPH Tapcon masonry fastener

● = Sill Gutter Anchor:
#14 x 1-1/2” PHSMS Type AB

□ = Jamb Condition:
No anchor for frames 9’-0” and under up to 70 psf.
Contact YKK AP for frames over 9’-0” or for design loads greater than 70 psf.



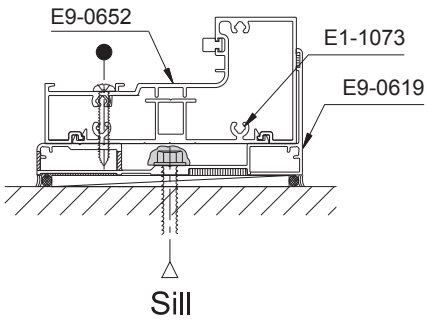
Refer to FPA Drawings for locations and other substrates.

Detail 27

Table 1 - Minimum Embedment into Structure

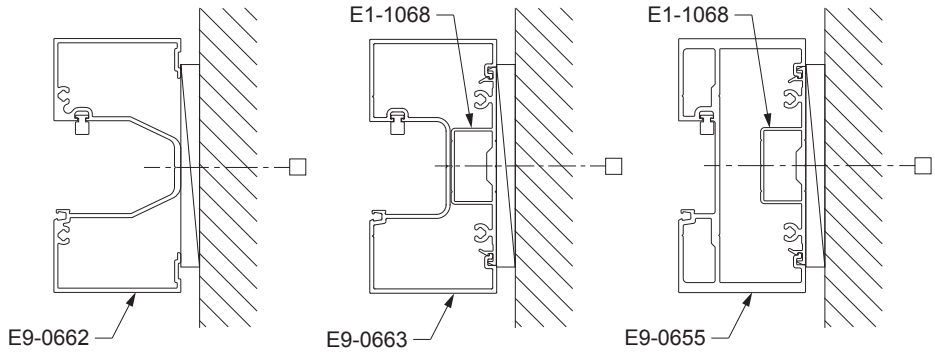
Condition*	Minimum Embedment	
	Wood	Masonry
At Head (w/o Reinforcing)	3”	1-1/2”
At Sill Flashing (w/o Reinforcing)	3”	1-1/2”
At Head (w/ Reinforcing)	3”	1-3/4”
At Sill Flashing (w/ Reinforcing)	3”	1-3/4”

* Structure must be capable of resisting all loads imposed by fasteners and anchors.



FRAME & DOOR INSTALLATION

STEP 17 (Continued)
INSTALL STOREFRONT FRAMES



Jamb	Jamb	Jamb
± 50 PSF	+70/-90 PSF*	+70/-90 PSF*

Detail 28

* Per Florida Product Approvals as tested with steel reinforcing.

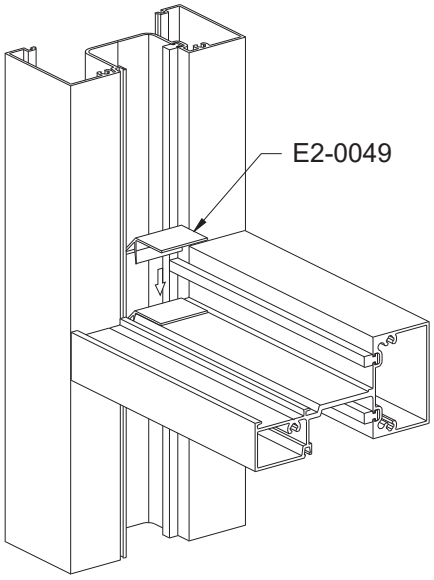
FRAME INSTALLATION

STEP 18
INSTALL WATER DEFLECTORS

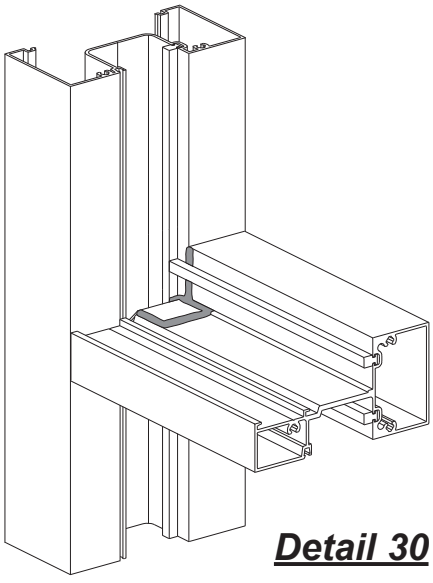
YHS 50 FI requires the installation of a water deflector, E2-0049, at the ends of every intermediate horizontal to keep water off of the insulated units. For best adhesion, make sure that the horizontal is clean and dry.

-Peel away the protective paper from the bottom of the water deflector, E2-0049, and install the water deflector at the ends of each horizontal. Position the vertical leg of the water deflector against the end of the horizontal. See **Detail 29**.

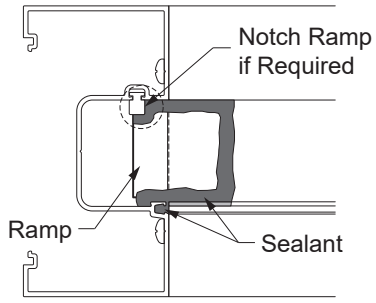
Note: For Wet Glazing applications, it may be necessary to notch ramp of the water deflector around the vertical spacer. Ensure the water deflector is sealed to the spacer.



Detail 29



Detail 30



Detail 31

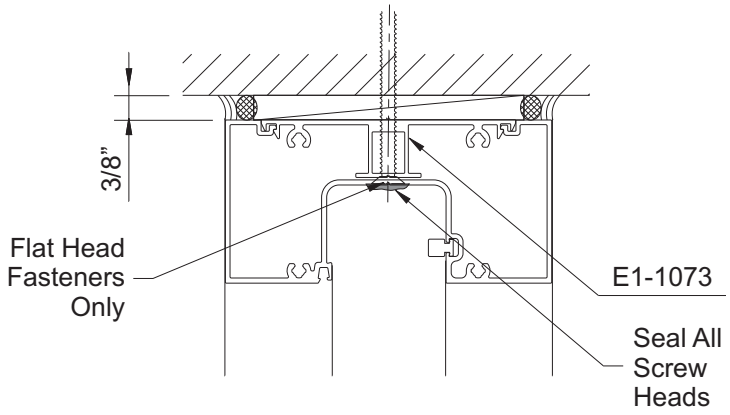
-Apply and tool sealant along the edges of the water deflector and down onto the horizontal. See **Detail 30**.

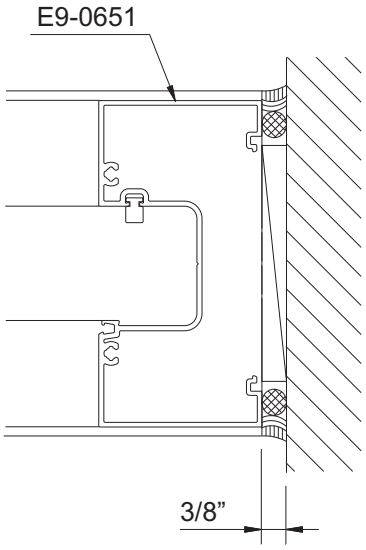
-Seal the ramp of the water deflector to the interior side of the glazing pocket. See **Detail 31**.

FRAME INSTALLATION

STEP 19
PERIMETER SEALANT

-Position backer rod around perimeter of frame.
-Apply sealant to the joint between frame and masonry (Dow Corning 795 or equal).
-Make sure all screw heads are sealed.
See **Detail 32**.





Detail 32

GLAZING

STEP 20
GLAZING: DRY GLAZING APPLICATIONS ONLY

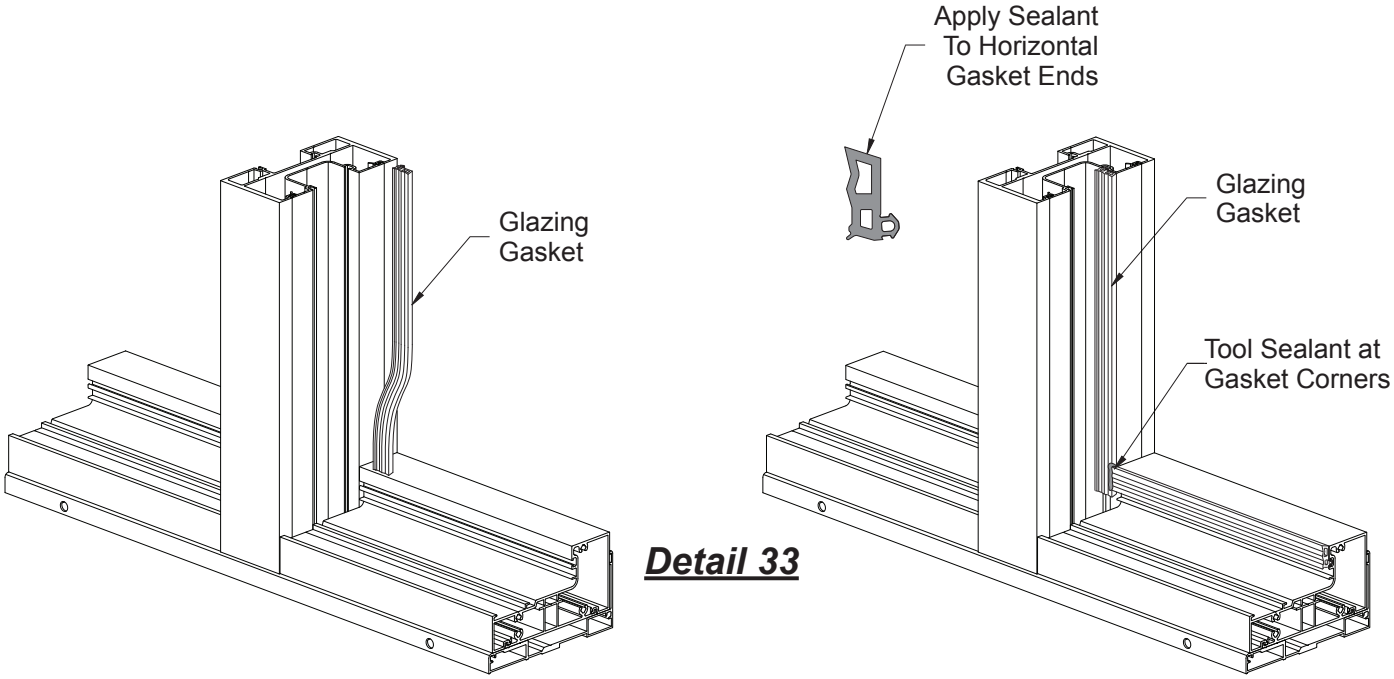
Note: Inside glazed applications are dry glazed only.
The interior glazing gaskets must be installed prior to the glazing process.

-Using a small brush clean out any dirt that may have accumulated in the gasket reglets.

Vertical glazing gaskets must be installed first:

-Cut vertical glazing gaskets to Daylight Opening plus(+) 1-1/4” plus(+) 3/16” for each foot of length.
-Insert the gasket into the reglet at each end first, and then insert the gasket at the midpoint of the opening.
-Push the gasket into the reglet starting at the midpoint and work towards each end.

See **Detail 33**.



Detail 33

Install horizontal glazing gaskets next:

-Cut horizontal glazing gaskets to Daylight Opening plus(+) 3/16” for each foot of length.
-Apply sealant to each end of the horizontal glazing gasket prior to inserting into the reglet.
-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 excess sealant at the gasket corners to ensure a watertight seal.

See **Detail 33**.

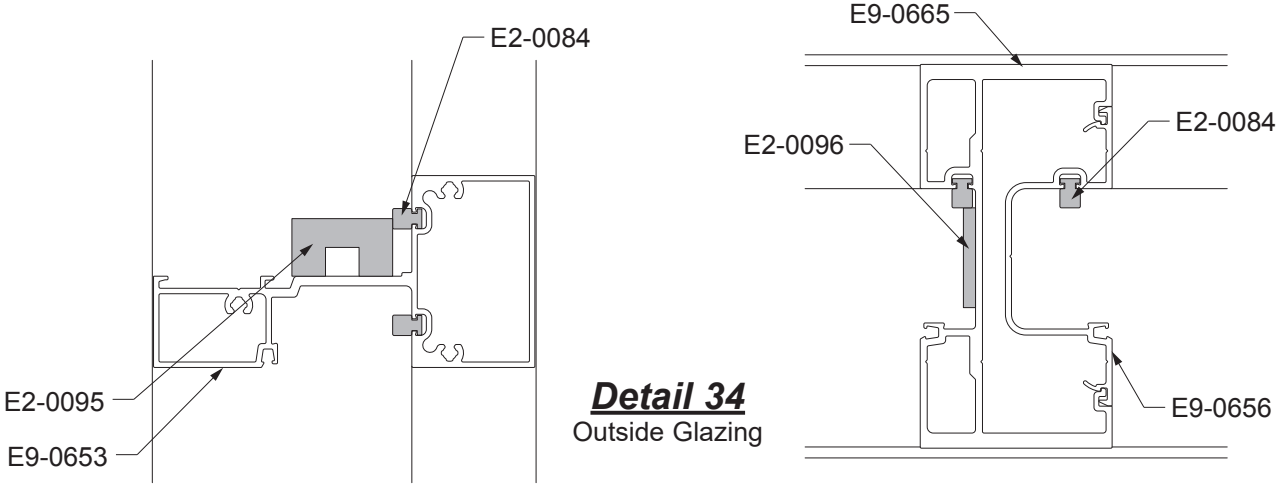
GLAZING

STEP 21
DETERMINE GLASS SIZE

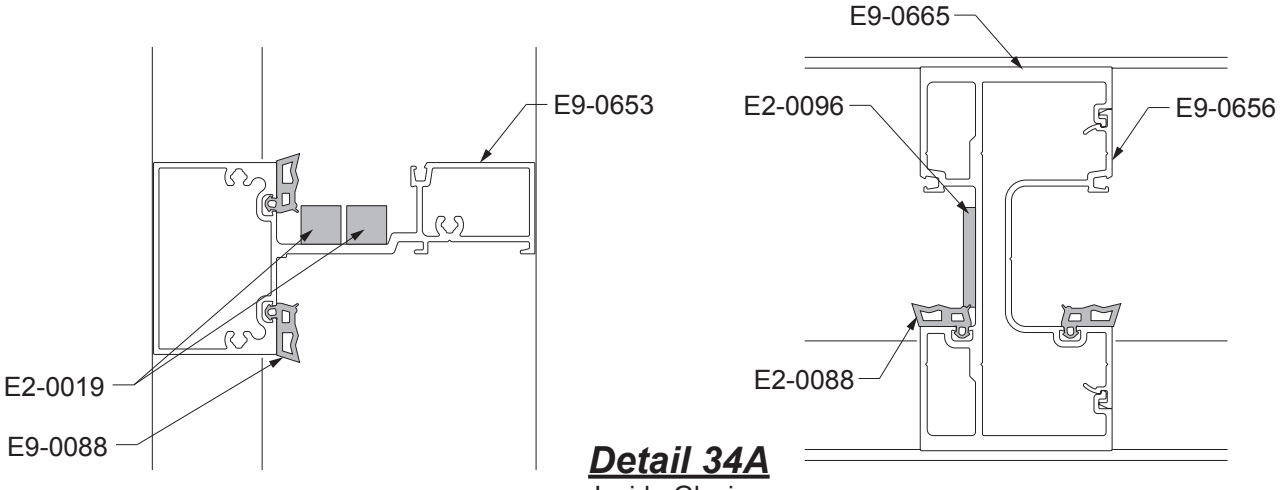
Typical Framing: **Glass Width = Daylight Opening plus(+) 1-1/8”**
Glass Height = Daylight Opening plus(+) 1-1/8”

STEP 22
GLAZING

-Install side blocks, E2-0096, centered along the vertical opening of the shallow pocket.
-Cut horizontal & vertical exterior gaskets to daylight opening plus(+) 1/4” for each foot of length.
-Clean all glazing surfaces and joints of foreign matter a\nd contaminants such as grease, oil, dust, frost, and surface dirt. **Do not** use water or soap solutions to clean surfaces or tool sealant. See **Details 34 & 34A**.



Detail 34
Outside Glazing



Detail 34A
Inside Glazing

GLAZING

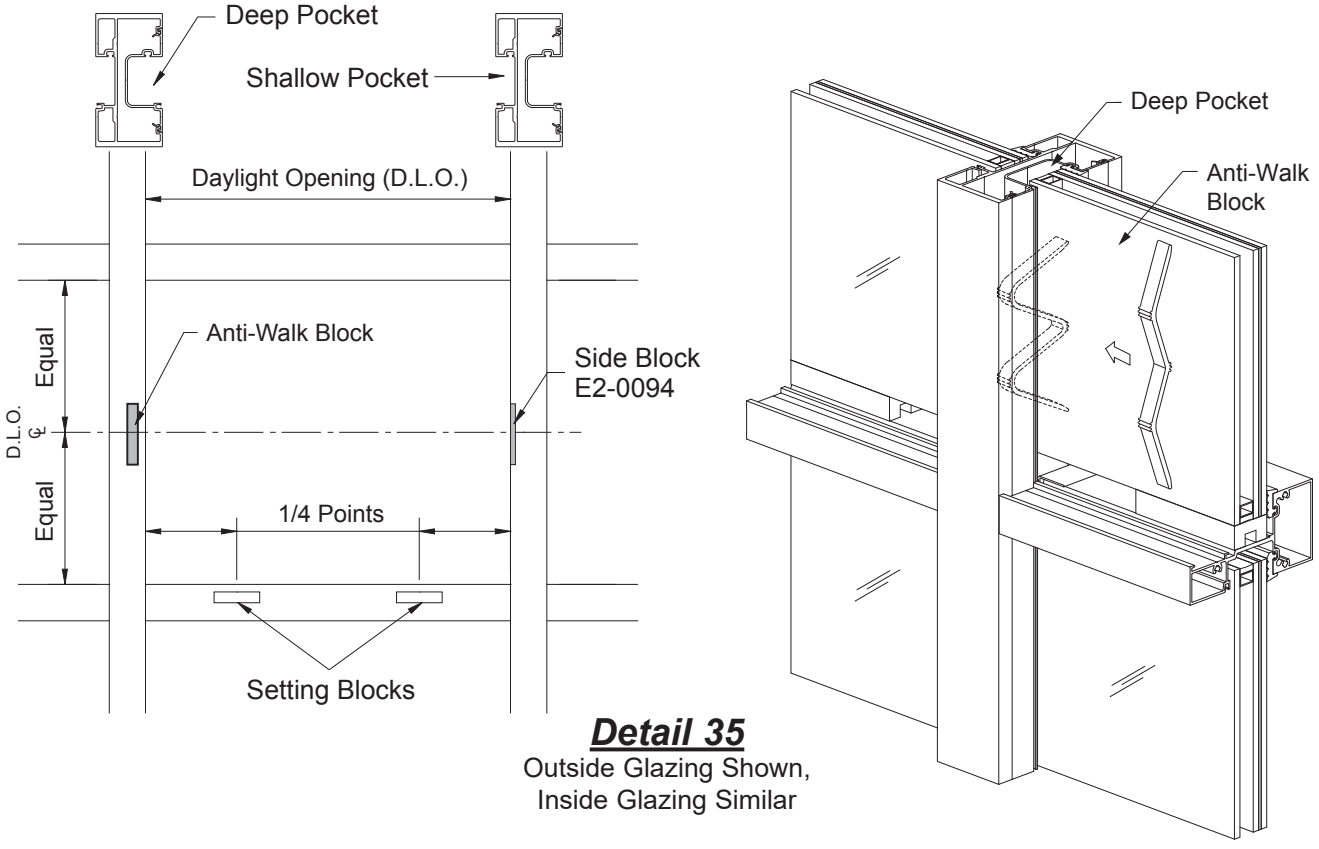
STEP 22 (Continued)
GLAZING

-Carefully install glass into the frame making sure that the side blocks are properly aligned with the glass. Impact resistant glass is **always** to the interior.
-Slide the glass into the deep vertical pocket and then slide over until contact is made with the side block in the shallow glazing pocket. This will ensure proper location of the glass.
-Lift the glass and place setting blocks at 1/4 points or according to the engineering calculations.

YHS 50 Dry Glaze applications require the installation of an anti-walk block into each jamb and vertical deep glazing pocket of each lite centered along the daylight opening.

Use E2-0807 at E9-0663 jambs and mullions.
Use E2-0546 at E9-0656 deep pocket fillers for heavy duty mullions.

-Flatten the anti-walk block against the exterior 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 35**.



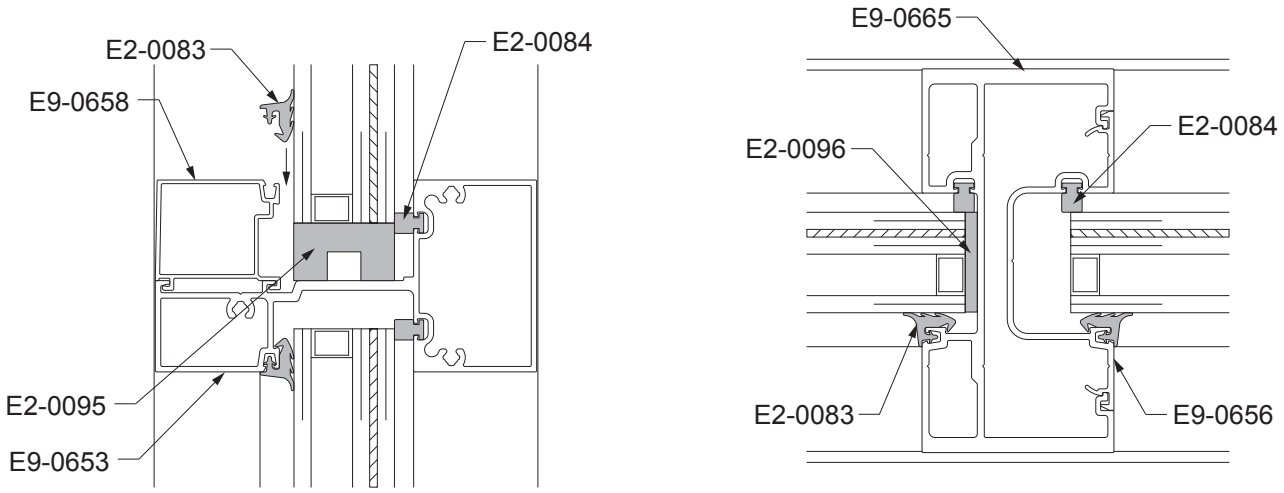
Detail 35
Outside Glazing Shown,
Inside Glazing Similar

GLAZING

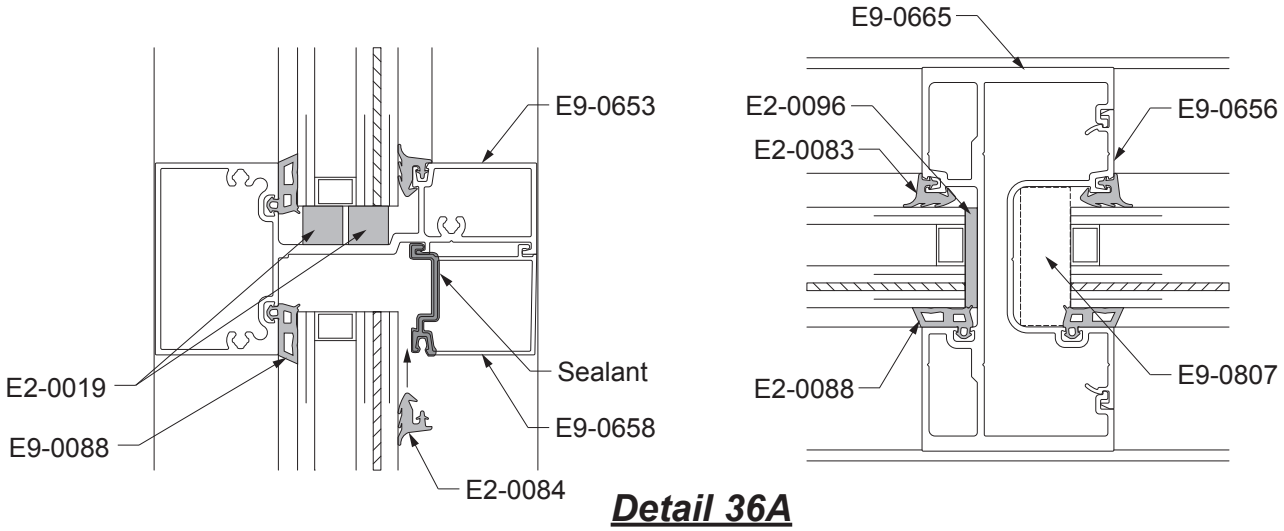
STEP 22 (Continued)
GLAZING

-Install glass stop, E9-0658.
-For Inside Glazing applications, apply sealant to the ends of the glass stop E9-0658 as shown in **Detail 35A**.
-Install the vertical exterior gaskets first. Roll the gasket in working from the center towards each end.
-Then install the horizontal exterior gaskets. Install each end and the center of the gasket into the reglet and roll in the remainder of gasket working from the center towards each end.

See **Detail 36 & 36A**.



Detail 36
Outside Glazing



Detail 36A
Inside Glazing

GLAZING

STEP 22 (Continued)
GLAZING

The following steps are for applications where structural silicone is required on the interior.

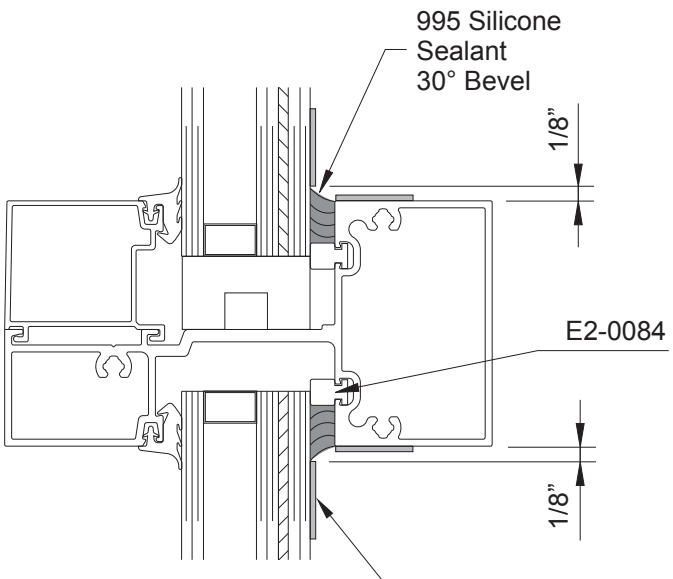
-Clean all sealant contact surfaces on metal and glass using method approved by sealant manufacturer.
-Apply masking tape to the aluminum and glass according to **Detail 37**.

Note: Apply tape to the glass 1/8” away from the aluminum to provide a 30º bevel.

-Apply approved structural silicone sealant from the bottom to the top of joint.
-Use positive pressure so that sealant completely fills the cavity between glass and aluminum.
-Using a 30º nylon beveled spatula, or other non-scratching implement, tool the structural silicone sealant immediately after running the joint. Exert positive pressure while tooling sealant to ensure that the silicone makes complete contact with all surfaces.

Note: Be careful not to remove too much silicone. The finished joint should be 30º beveled around the glass.

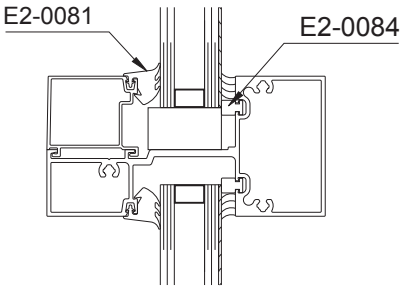
-Immediately remove masking tape while wet; do not allow silicone to skin. Masking tape must be removed within 10 minutes of tooling.



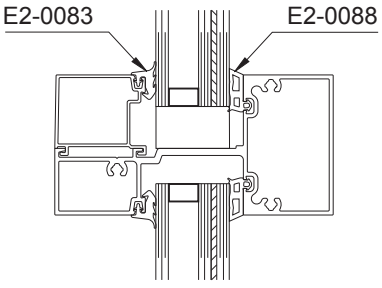
1-5/16” Glass
(SSG Applications)

Detail 37

Glazing Options



1-1/16” Glass
(SSG Applications)

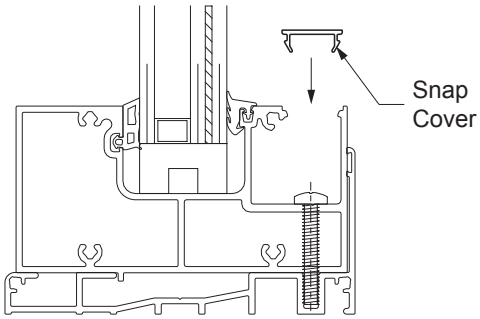


1-5/16” Glass
(Dry Glaze Applications)

GLAZING

STEP 23
INSTALL INTERIOR SNAP COVER

-For Inside Glazing applications, snap the E9-8647 snap cover into the sill as shown in **Detail 38**.



Detail 38
Inside Glazing

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